

The Cultural Context of Geophagy among Pregnant and Lactating Ngwa Women of Southeastern Nigeria

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ABSTRACT

Currently, geophagy qualifies as one of the least understood human nutritional practices. This is certainly due to the tendency among scholars to view or treat geophagy as an aberration or a perversion of appetite, disregarding the cultural context within which it occurs. This paper examines the cultural context of geophagy among lactating and pregnant women, focusing primarily on the Ngwa of southeastern Nigeria. Evidence has emerged from the study is that Ngwa women eat soil to deal with, and draw attention to the precarious nature of pregnancy following the period of and after birthing. The study concludes that focusing on the cultural context of geophagy may well offer scope for a more critical understanding of the practice and its dynamics across human societies and populations.

Introduction

Geophagy, the deliberate and frequent ingestion of soil, commonly regarded as a form of pica – an appetite for non-food substances – is a widely reported practice, especially among peoples in the tropics (Vermeer, 1971; Parry-Jones and Parry-Jones, 1992; Ziegler, 1997; Abrahams, 1997; Geissler, Nwaniki, Thiongo and Frills, 1997). Although widely reported, the practice remains one of the least understood human nutritional

behaviours by those in the health research enterprise (Abrahams, 1997; 1996, 1997; Reid, 1992). From the abundant literature on geophagy, it is evident that this practice has largely been viewed as an aberration, a pervasion of appetite, or and an atavistic tendency – a mere vestige of palaeonutritional necessity (Wong, *et al*, 1998; Ziegler, 1997). Two things - the commonsensical association of soil with dirt and the fact that geophagy is also practised by animal-ungulates, elephants, cattle, and poultry – are largely responsible for this biased view that people have about geophagy (Bowell, *et al* 1996; Geissler, *et al*, 1997; Ziegler, 1997). Owing largely to this misconception, geophagy has rarely been studied *in situ*. Consequently, a number of critical questions and issues surrounding geophagy in many cultures remain largely unanswered.

One of the more recent trends in the discourse on geophagy is the tendency among scholars to recognize and analyse the practice as an ordinary and normal nutritional habit (Vemeer, 1971; Ziegler, 1997; Lacey, 1990; Horner, Laskey and Kolasa, 1991). Following this trend, studies have been conducted focusing on the dynamics of the practice among specific groups of persons in some societies; children, boys, girls, school-age children, teenage mothers, women, etc. Such studies, however, have only succeeded in tracking the incidence of geophagy, the type and quality of soil eaten, and the nutritional implications of geophagy for specific populations (Stanek and Calabrese, 1995; Wong and Simeon, 1993, Vermeer & Frate, 1979). Few studies have attempted to address the socio-cultural context of geophagy. Yet, a critical focus on the socio-cultural context of the practice has the potential to strengthen research, inform debate, and above all, improve policy. The present study attempts an examination of the cultural context of geophagous behaviour among pregnant and lactating Ngwa women in southeastern Nigeria. Before the findings of the study are presented, a review of the literature on geophagy is considered important at this juncture.

Human Geophagy: A Review of the Literature

If you look at ethnographic accounts of peoples and societies, about every population, at some time in their history, engaged in geophagy, Hunter cited in Spencer (2002)

Although frequently observed among animals, geophagy, the voluntary and frequent ingestion of clay, soils, or other pieces of the lithosphere is common among humans all around the world (Parry-Jones & Parry-Jones, 1992). But the recorded history of human geophagy is far from encyclopedic. We know very little about the origin of human geophagy, except perhaps that *Homo Habilis*, one of humankind's recent ancestors liberally indulged in the practice while living at Kalambo Falls, Africa (New Page I, not dated). And that Plato did observe the practice among women in classical Greek. Evolutionists have explained geophagy in terms of the Darwinian theory of survival of the fittest. They see it as a form of paleoweapon; an ancient tool of competition between plants and animals. It is depicted as an animal weapon in the struggle between plant reproduction strategy and the animals' desire for food. This is the background against which it was recently noted that "a way of understanding geophagy is to consider the strategies involved... Many plants use animals mobility to spread seeds by enticing animals with tasty fruits... plants fend off the animals by discouraging consumption until the seeds are ready to sprout by making the pulp bad tasting or even poisonous. Plants manipulate us by making us wait until the pulp of fruit is suitable to eat and the seeds are ready for dispersal. Bad tastes or poisons are added to the seeds or unripe fruit to fend off animals. How do animals overcome them? Parrots will eat soils containing minerals that bind plant toxins effectively. In fact they are quite selective in choosing the most effective soils for their purpose. North American wild-hoofed animals visit licks, as do bears and many small animals. Antler-growing deer eat soils rich in calcium and magnesium. Some animals seek sodium. So, with animals (and humans), in some cases a particular element is sought. The most compelling need however, seems to be the need to

detoxify plant products in the diet. Humans use geophagy to protect themselves against plant toxins" (Dirtasfood, 1998).

Medico-psychological research portrays geophagy as a form of pica; an appetite for non-food substances (Spencer, 2002; Diamond, 1998). A dominant construction of this behaviour is that it is a psychological disorder, a definite medical condition (just like anorexia nervosa and bulimia). In medico-psychological literature, persons at risk of becoming geophagous are listed to include pregnant women, abused people and children, the impoverished, mentally retarded, poorly nourished and vitamin deficient persons, and people from families with pica history (New page, not dated; Reid, 1992).

There is also the view that geophagy is a vestige of paleonutrition, an atavistic nutritional tendency, rooted in paleonutritional appetites. Scholars such as Damond, 1992; Anonymous, 1998; Geissler, 1997; *Bowell et al*, 1996) have noted that humans appear to have acquired the behaviour from their forebears during the evolutionary process. Ziegler (1997) thus writes, "Why do humans eat soils? Animals are known to ingest non-food substances. Cattle crave bone fragments in response to ... phosphorous deficiency. Ungulates migrate to salt licks. Perhaps the most dramatic example of geophagy in mammals is the craving of elephants for the zeolite minerals that form in caves and the observation that they will travel long distances to mine these delicacies ... such behaviour (in humans) has its roots in paleonutritional appetites ...".

Abrahams (1997) notes that geophagy tends to have the widest distribution amongst the world's poorest or most tribe-oriented societies. The connection between poverty and geophagy is however very unclear and under-explored. The critical pathway through which poverty stimulates geophagous habits is at best unknown and the assumption that (poor) people may become geophagous to assuage hunger and the craving for good food is not empirically grounded. Wong and Simeon (1988) studied soil ingestion practices (among institutionalized Jamaican orphans) and posited that poverty and deprivation were major explanatory variables for geophagy. Spencer (2003) also supports the poverty theory of geophagia. Explaining the

origin of geophagy in the U.S., he contends: "poor Africans sold to slavery bought the practice across the Atlantic. Sooner however, poor whites picked up the habit, earning them the nickname 'dirt eaters' or 'clay eaters'". The view however does not explain how poverty induces the behaviour.

Vemeer's (1971) call on researchers to accept geophagy as an ordinary and normal human food habit was only recently heeded. Geophagy only began to be acknowledged as a normal human activity in the 1980s. Studies focusing on geophagy as a normal human habit have sought to explain it as a socio-cultural practice which takes pace during pregnancy, religious ceremonies, or as remedy for disease (Geophagy; Eating Dirt, 1997). Vemeer (1971) observes that geophagy is common among Ewe adults, especially pregnant women. Kilbride & Kilbride (1990) also found the practice to be common among Ugandan women, who reported the taste and smell of clay as major attractions and who often cooked clay over fire to improve its flavour. Geissler *et al* (1997) surveyed 285 Kenyan school children, ages 8-18, and report that an astonishing 207 (73%) consumed soil, all but 4 on a daily basis. They found girls to be more geophageous than boys. Termite mounds, clay from roadsides, yellowish soft stone from the bottoms of dried streams, clay from the walls of huts and even classroom chalks were the commonly reported items ingested by geophagists in the Geissler *et al* study.

Geophagy has critical biochemical effects. Studies (by John & Duquette, 19997; Abraham, 1997; Vemeer & Farrel, 1985) have shown that soil eating helps to supplement the daily human minerals requirements. Clayey soil has useful detoxicating effects. Clays absorb tannis, reducing the bitter taste of certain foods. Literature on the subject also indicates a strong association between geophagy and the supply of iron, zinc, and copper to the human body. Hunter (1973) who argues that geophagy spread from Africa to the United States with slavery, has observed that African peoples satisfy various nutritional needs of the body by eating earth. He writes that the cravings during pregnancy for a varied nutritional intake are assuaged by geophagy. He reveals further that "there are good sites for nutritional clay in

United States, and sometimes, Americans send care packages of good earth as gifts to expectant and lactating mothers". The medicinal value of geophagy has received attention in the literature. Abrahams (1997) writes that in Kampala, the capital of Uganda, different soils are readily available for purchase from street vendors. Usually the soils are purchased along with information detailing the curative powers. Occasionally, most soil is mixed with herbal additives, prior to being moulded. The Tiv of Central Nigeria and Ewe of Ghana also eat clay to settle gastronomical disorders (Vemeer, 1985, 1997). Earth-bone Koapectate is also marketed widely as an anti-diarrhoeal remedy.

Some scientific geochemical studies also condemn geophagy, associating it with iron deficiency, helminthiasis, and lead poisoning (Mills, 1996; Fuge, 1996; Mokhobo, 1986; Halstead, 1968). Godeuk (1992), Reid (1993), Ziegler (1997), and Abrahams (1997) however contend that these studies are not conclusive yet.

A close look at the abundant literature available shows that one aspect of geophagy that remains under-explored is its cultural functions and context. Do geophagists also rely on the practice to negotiate reality? What socio-cultural functions does the practice perform for geophagists? The present study attempts to probe the practice of geophagy by local pregnant and lactating women to negotiate the reality of pregnancy and the period following birthing. The study focuses on local women in Ngwaland, Nigeria. Currently, the author is not aware of any study addressing geophageous practices among the Ngwa. In fact, studies on geophagy among Nigerian peoples are scanty. Where these exist, they focus largely on general populations, investigating such aspects of geophagy as types of earth eaten, frequency of geophagy, and gender differences in geophagus behaviour (Vemeer, 1997; Farrel, 1985; Vemeer, 1971).

The possibility that geophagy may be instrumentalised to negotiate cultural realities has often failed to engage the attention of geophagy researchers. The present paper, which addresses geophagy among pregnant and lactating women in Ngwaland, explores the cultural functions which soil eating performs for the women. The major hypothesis developed in this exploratory work is that geophagy is a

cultural practice relied upon by pregnant and lactating women in Ngwa to negotiate with and draw attention to the precarious nature of pregnancy and the period of and after birthing.

Materials and Methods

The Ngwa: an Ethnographic Sketch

The Ngwa are an Igbo-speaking people who live in Abia State, Nigeria. Reportedly the single largest clan in southeastern Nigeria, they inhabit the area lying between latitude 50.30°N and longitude 90° and 70.30°E. The area has a landmass of about 1312.768 square kilometers and a population that is above 700,000 (NPC, 1994). Ngwaland has six local government areas.

The origin of the Ngwa, like their parent Igbo stock, is not known and may be very difficult to trace. There are, however, various hypotheses about their origin. One of such speculations suggests a possible affinity with the Jews and hazards that the name 'Igbo' may well be an adulteration of the original and perhaps ancestral name 'Hebrew'.

The fact that the origin of the Ngwa is left to mere speculation does not, however, suggest that Ngwa has no known history. Recent archaeological activities in Ngwaland have unearthed invaluable remains pointing to a long rich cultural past, dating back, at least, to the 9th Century B.C. This may be construed to mean that the Ngwa have lived where they are presently found for several centuries, if not, as Acholonu (1987) suggests, since the beginning of times.

Bordering Ngwaland in the west is the fast-flowing Imo River. From the Imo River, its northern flank snakes through to join the Ahi River about two nautical miles east of the Oloko-Umuahia road. The eastern flank runs roughly northwards to link the 'No man's land', which separates the Ngwa from their Annang neighbours. Further northwards, adjacent to the Ngwa villages of Ntigha and Nsulu, are the Ubakala and Olokoro clans. Neighbouring the Ngwa on the northeastern flank are the Isiorgu, while westwards, the fabled Imo River separates them from the

Mbaise and Etche-Omuma peoples. Their neighbours on the south are the Asa-Ndokki people.

The Ngwa are predominantly farmers and their most beloved deity is the venerable *Ala* – the goddess of fertility, protection, and agriculture. The Ngwa produce food crops such as yam, cocoyam, cassava, banana and plantain. Other agricultural products from Ngwaland include palm produce, okro, and peas.

Traditionally, the Ngwa worship *Chukwu* – the great God, whom they generally believe lives in the distant skies. *Chukwu* is held to be an omnipotent, vindictive and self-sufficient being. *Ala*, good ancestors and other lesser but active gods, such as *Njoku* (god of yam), *Mmaji* (goddess of yam), and *Ogwugwu* (god of the valley), are intermediaries of this great and vindictive *Chukwu*. In a strict but possibly natural sense of the word, the Ngwa are a truly and deeply religious people. Traditional religious beliefs and practices permeate their work, leisure, and entire existence.

The basis of the Ngwa social organisation is the family. The Ngwa view the family as a sacred institution and have problems delineating where the family begins and ends. At one point, the Ngwa see the family in its nuclear meaning, at the other it is extended to refer to a whole lineage (*Onumara*) including the ancestors. In Ngwaland, the household (*Ezi*) is the core family unit and is headed by the father (*Nna*). A combination of households forms the compound (*Eziukwu*). A compound comprises households whose members have a common and obvious descent through a patrilineal ancestor (*Umunna*). The compounds exist as nucleated settlements within a lineage territory to form corporate patrilineal groups (*Onumara*). The *Onumara* is Ngwa's largest extended family unit.

Location of the study

The study was carried out in 8 rural Ngwa communities -- Umuezigbe, Umuoru, Okuenyi, Obete Nchina, Umuanunu, Okpuamaukwu, Iferife, and Ohanze-agwo. The surveyed sites share many common features. They lack basic social amenities such as hospitals, potable water

sources, good schools, roads, modern communication, and postal services. The inhabitants of these communities live mainly in poorly-built huts, shared often, with livestock such as sheep, goats, pigs, poultry, etc. Sanitary conditions in the communities are also generally poor, while poverty is, on the average, high (Izugbara, Okijie and Udoh, forthcoming).

Study Design: The study was part of an ethnographic survey on the nutritional behaviour of pregnant and lactating women in southeastern Nigeria. The Burgsey Research Foundation International funded it in part, an NGO headquartered in Aba, the popular and sprawling commercial city in Abia State, Nigeria. Altogether, 240 women, comprising equal numbers of pregnant lactating women, were surveyed. Local key informants were recruited to locate and identify these women for questioning. The study sites have an average population size of 9,672 persons, of which nearly half were women and girls of reproductive age (N.P.C., 1991).

Interview Procedures

The study of geophagy among the participants relied largely on unstructured in-depth individual interviews, conducted by 12 trained female field assistants who were all Ngwa. Field assistants were undergraduate students recruited from the University of Uyo and the Abia State University, Okigwe. The participants also gave verbal consent to the recording of the interviews and were assured of the confidentiality of their responses. The interview instrument was vetted independently by three professors drawn from the disciplines of sociology, anthropology, and health education. The introductory part of the interviews sought information on the socio-demography and nutritional habits of respondents and ended up with the identification of geophagists, their motives, and details of individual practice, types of soil eaten, and notions of risk associated with the habit. The audio-taped interviews were later transcribed into English with the help of four other Ngwa-speaking graduate students recruited from the University of Uyo, Nigeria.

Results

Table 1 Socio-demographic Characteristics of Respondents

Pregnant	Pregnant (n = 120)	Lactating (n=120)	Total N = 240	Percentage
Age				
20 and less	9	6	15	6.3
21-30	46	34	60	25
31-40	58	43	101	42.1
41-above	27	37	64	27
Highest Level of Education				
No formal-education	39	41	80	33.3
Primary (1-6 yrs)	58	61	119	49.6
Secondary (7-13 yrs)	19	16	35	14.6
Tertiary (14 – above)	4	2	6	2.5
Marital Status				
Single	2	4	6	2.5
Married	104	112	216	90
Widowed	10	4	14	5.8
Divorced	4	-	4	1.7
Religion				
Catholic	53	42	95	39.6
Protestant	63	77	140	58.3
Animist	4	1	5	2.1
Occupation				
House keeper	104	111	215	89.6
Farmer	118	116	234	97.5
Petty Trader/businesswoman	97	101	198	82.5
Student	1	2	3	1.25
Civil Servant	2	3	5	2.1
Housemaid	1	2	3	1.25

The socio-demographic characteristics of the study participants are shown in table 4.1. The bulk of the respondent is in the age category of 31 – 40. There were 60 (25) and 64 (27) persons in the age brackets of 21 – 30 and 41 and above respectively. 6.3% of the respondents were aged twenty or less. The average age of the respondents stood roughly at 33 years.

The educational profile of the respondents shows that the majority of them had little (49.6) or no formal education (33.3). Persons with a secondary level of education comprised 14.6% of the sample, while only 6 (2.5) persons had post secondary education. The average number of years of formal education stood roughly at 4.

With regard to religion, most of the respondents were Protestants (58) and Catholics (39.6). There were only 5 (2.1) traditional worshippers in the sample. Earlier surveys in Ngwaland have confirmed that there are more Protestants and Catholics than animists (Nwaghghi, 1995: 1996).

Married persons were clearly in the majority among the respondents (90). A handful of single (2.5), divorced (1.7), and widowed persons were also observed. Occupationally, the majority (93.5) described themselves as farmers, housekeepers (89.6), petty traders or business women (82.5). A few students (1.3), housemaids (1.30), and civil servants (2.1) were also in the sample. The majority of the respondents lived on less than a dollar a day. They reported monthly incomes below the Nigerian minimum monthly wage of 3,500 naira (about 300 US dollars). They can therefore be said to be poor. These were the basic socio-demographic characteristics of the women from whom data for this inquiry were gathered. From the profile of the respondents, it is evident that the sample comprises pregnant and lactating women firmly rooted in local culture and old enough to furnish reliable information on the practice of geophagy

Table 2 Frequency of Geophagy and types of soil eaten

Frequency of soil – eating	Pregnant women	Lactating women	Total	%
Eats soil at least once a day	96	92	188	78.3
Eats soil less than 7 time a week	15	21	36	15
Does not eat soil at all	09	07	16	6.7
<u>Types of soil eaten</u>				
Clay (Local name, <i>Nzu</i>)	111	113	224	93
Soil from gullies and path edges (local name, <i>Ajauzo</i>)	32	27	64	27
Walls of huts especially kitchens (local name; <i>Aja Ulo</i>)	62	81	43	59.6
Soil from cooking mounds (local name, <i>Aja Ekwu</i>)	94	63	157	65.4
Termite mound (local name, <i>Ozuru Akika</i>)	71	83	154	64.2

On display in table 2 is information on the prevalence of geophagy and the types of soil usually eaten by the participants. Only sixteen (6.7%) of the respondents claimed that they do not eat soils. Only two of these were women with a tertiary level of education. The most frequently given reasons for not eating soil (by the few non-geophagists) was the absence of any liking or desire for it. One of the non-geophagists, aged 38, reported that ever since she was a young girl, eating clay or other forms of soil upsets her stomach.

The majority (78.3%) of the respondents currently eats soil at least once a day while 15% currently eat soil less than once a day. On the average, geophagy was currently practiced at least once in 39 hours by the geophagists in this study. Soil eating, from the available evidence, is widespread among lactating and pregnant Ngwa women. We based our subsequent analysis on the responses of the identified geophagists only.

Women in the study ingest various types of soil. Clay (*Nzu*) was the most commonly eaten soil type among the participants. Hard (and often red) soil from the walls of huts especially kitchens (*aja ulo*) or from cooking mounds (*aja ekwu*) was also eaten by many of the women. 64% of the women reported eating termite mounds. The least

commonly eaten type of soil was soil from gullies and path edges, eaten only by 27% of the participants.

Information on the details of the practice shows that some of the women also process their own clay and soil, adding condiments such as salt, pepper, and even local spices to suit their tastes. Apart from clay, the other soil types require little labour input. The women noted they (the soil types) are often harvested within the homestead or in nearby bushes. Processed clay is also sold locally in the villages, and cheaply too. Five fistful balls of clay sell for just 1 naira (1USD = 120 naira). Respondents reported no specific time for the practice. They indulged in the practice of eating soil in the day and at night, while resting and at work. The women observed that geophagy was nothing new among women in Ngwaland, buttressing their point with references to local anecdotes such as *Ira Nzu bu nri ndi nne*, soil eating is the food of mothers: *Nwoke neweghi ike izutara nwanyi ya nzu, etozubeghi ilu Nwanyi*: A man who cannot afford to buy clay for the wife is not fit to marry; *Nwanyi oga ime gini ma Nzu adighi*; what will women do without clay?.

Table 3 Reasons for eating soil

	Reasons	Pregnant women	Lactating women	Total	%
1.	Natural craving/longing (<i>ukpa</i>)	116	113	229	100
2.	To reduce vomiting/spitting/salivating	101	89	190	79.2
3.	To stimulate the appetite	64	51	115	48
4.	To guarantee the quality and quantity of breast-milk	62	56	118	49
5.	To purify the stomach	41	52	93	38.8
6.	To prevent miscarriage and other pregnancy-related complications	57	-	57	23.8
7.	To prevent pregnancy during lactation	-	53	53	22.1
8.	To reduce the risk of infections and diseases	82	64	146	60.8
9.	To reduce the risk of complications during and after childbirth	64	-	64	27
10.	To safeguard the health of the unborn and newly born	62	73	135	56
11.	Others	23	11	34	14.2

As shown in table 3, women in this study indulge in geophagy for many reasons. *Ukpa*, a natural craving or longing (for anything edible) is the most commonly reported reason for eating soil. Participants noted that *Ukpa* results from the additional nutritional burden which pregnancy and lactation place on the woman's biological system. They observed that when pregnant and lactating women are undernourished, *ukpa* often becomes very strong, forcing them to eat anything, including soil, in order to quench it. Respondents noted however that excessive *ukpa* among pregnant and lactating women is often curbed by providing them with enough supply of food items especially stockfish, meat, dry fish, fruits, beverages and so on. Allowing women to quench their *ukpa* by eating soil alone was said to be dangerous. The excessive ingestion of soil was reported to be a major cause of cold stomach, (*afɔ oyi* : which was believed to be a major cause of maternal and fetal deaths), hemorrhage, prolonged labour among women, and teething difficulties among children. The excessive dependence of lactating and pregnant women on soil to curb *ukpa* was viewed as a sign of lack of adequate spousal care and was also associated with boils, gastronomical disturbances, etc among women and sleep disorders and growth delays among children and babies. The respondents were unanimous that husbands and relatives of the women have a duty of ensuring that they are adequately catered for in order to prevent them from eating soil to satisfy their cravings.

Geophagy was also practised to prevent or control excessive vomiting, salivating and spitting (79). It was reported that soil eating helps to refresh, warm, and cleanse the mouths of pregnant and lactating women, preventing them from vomiting, salivating, and or spitting regularly. Respondents noted that vomiting and spitting often cause dehydration among women, and also result in maternal and fetal deaths. Like *ukpa*, vomiting and spitting were also reportedly preventable by providing women with those food items mentioned earlier.

Other major reasons for indulging in geophagy among the participants include the desire to reduce the risk of contracting infections and diseases (60.8%) and to safeguard the health of both the unborn and newly-born (36%). The women generally agreed that soil eating helps

to fortify both pregnant and lactating women and their unborn and newly-born babies against diseases and infections. They noted that the properties derived from eating soil are passed on to the unborn through the mother's blood and to the newly-born through breast milk. A good number of the respondents indulged in the practice to reduce the risks of miscarriage and other pregnancy-related complications (23.8%), pregnancy during lactation (22%), and to stimulate their appetite for normal food (48%).

A substantial number of the women also asserted that eating soil enhances fertility and longevity and that soil when ingested had the powers to neutralize poison. The respondents explained that soil has the powers to enhance fertility and longevity, and to neutralize poison because *A/a*, the Ngwa earth deity, who is also the goddess of agriculture, fertility, protection, and longevity, lives in the soil.

Again, interview responses revealed that the women do not only ingest soil types such as cooking and termites mounds and clay but also frequently turned them into pastes which they regularly rubbed on their skins and those of their children. This practice, they noted, prevented infections and sweating, and softened the skin. The practice of rubbing soil was also believed to ward off evil spirits, as it could prevent evil spirits and other attacking supernatural forces from recognizing their targets or victims. The ability of soil to do this was also attributed to powers of *A/a*, the Ngwa earth goddess. Further inquiries among the women revealed that traditional birth attendants, older women, and traditional healers were in the forefront of spreading and sustaining the beliefs about the functions of soil and clay eating among local women. Respondents reported how their own mothers, peers, friends and older female relatives always advised them to indulge in geophagy. One pregnant woman even showed us the clay her mother sent her. The respondents reported that TBAs and other women in their community often encouraged pregnant and lactating women to eat soil for their wellbeing and for the safety of their babies. It was also confirmed that some TBAs and indigenous healers in their communities also prepared specially fortified clay, which they sold to pregnant and lactating women.

Discussion

Previous research on geophagy had neglected the critical cultural context of the practice. The focus of such studies had been on documenting the incidence of the practice, the types of soil often ingested, age and gender differentials among geophagists, and the nutritional outcomes of the practice for specific populations. A dangerous silence and amnesia has thus pervaded the cultural context of the practice of soil eating. I sought in this article to raise discourse on the cultural context of the practice of soil eating, focusing on lactating and pregnant women among the Ngwa of southeastern Nigeria. Information from the interviews covering such diverse topics as types of soil usually ingested, frequency of geophagy, reasons for geophagy, cultural factors in soil eating, perceived risks associated with the behaviour, source of information on the value of geophagy etc., have been presented in the results section of this paper.

It is evident that geophagy is widespread among the study sample, which supports not only anecdotal evidence from women in the study area that *Ira Nzu bu nri ndi nne*, soil eating is the food of mothers, but also existing literature that geophagy is prevalent among women in the tropics. However geophagy emerges, in the study, as a practice that Ngwa women rely on to draw attention to the precarious nature of pregnancy and childbirth. Yet, the dominant discourse on human geophagy has often alluded to mere cravings and taste as motivations for the practice, especially during pregnancy and lactation.

At closer examination of the data, Ngwa women eat soil in order to deal with the risks associated with pregnancy and the post-partum period. Essentially, geophagy is a critical outgrowth of local notions about the hazards that surround the lives of women, especially the pregnant and lactating ones, and is considered as a potential means for dealing with such risks. It has been reported that the customs, practices, and traditions surrounding pregnancy, birthing and the postpartum period in many cultures, especially in Africa, recognise elements that indicate a critical awareness of hazards and dangers.

Some of these customs, opines Obermeyer (2000), are explicit statements, while others are implicit in the practices and behaviours surrounding birthing and the time after it. There is evidence that Ngwa women recognise the hazardous nature of pregnancy and childbirth (Izugbara, 2000). They believe that pregnancy and childbirth put women in very precarious situations. They also believe that pregnant and lactating women and their babies are especially vulnerable to supernatural attacks by evil forces as well as by intentions, infections, and diseases. They can only be successfully protected from these through healthier nutritional practices and by superior supernatural powers, such as those of *A/a*, the great earth goddess of agriculture, fertility and health.

Research results show that pregnant and lactating Ngwa women indulge in geophagy to promote their health and safety. By eating earth, these women seek an implicit social and cultural endorsement of the precarious nature of pregnancy and child-bearing. This is indicated, among other things, by the widespread beliefs that *ukpa* which is recognized as a major cause of geophagy, is not the woman's fault, but rather the natural outcome of her precarious condition. This functions to temporarily excuse the woman from the rules that normally govern eating and nutrition in Ngwa society. During this period, she can eat anytime, ask for any kind of food, and is even allowed to become fastidious about her meals. It is however recognized that she is not doing these deliberately. If she vomits, spits, and craves for food, she is not to blame. In fact, the onus of helping her lies on the husband and relatives. All these go to celebrate and mark her new status. The cultural function of geophagy within this context is therefore to celebrate a fulfilled womanhood, to mark a new identity and to connect a given pregnant or lactating woman with the wider community of Ngwa pregnant and lactating women. This provides her with an opportunity for receiving quality care and attention. The dynamics that characterize *ukpa*, like those that characterize *wiham* among Moroccan women (Obermeyer, 2000), serve to redefine the rules of behaviour around pregnant and lactating women in ways that are favourable to them. Within this framework, geophagy emerges as a critical ritual, an

integral part of the expected behavioural disposition of pregnant and lactating Ngwa women. As an important belief regarding ukpa, vomiting, and spitting are dangerous. To rely solely on soil to curb them, pregnant or lactating women are presented with a true opportunity to attract greater attention and care from their husband and relatives, reinforcing the network of support they need at such trying times and period.

CONCLUSION

Interview responses emerging from the data highlight the cultural context of geophagy. In the existing literature, geophagy is dismissed as a paleonutritional necessity, a mere atavistic craving. It is explained away as consequent upon a mere desire for good taste. In this article, I have argued that geophagy is a culturally-informed practice, at least among lactating and pregnant Ngwa women. These women eat earth to draw attention to and negotiate with the precarious nature of pregnancy and child birthing

Studies interpreting geophagy outside its cultural context are likely to perpetuate the fallacy of paleonutritional necessity. It is imperative therefore that we begin to interrogate and take account of the cultural context of the practice of soil eating among specific populations, if our understanding of geophagy will not itself be soiled.

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