



FOODS TABOO FOR PREGNANT AND LACTATING WOMEN AND THEIR ADHERENCE IN AFAR REGION: A QUALITATIVE STUDY

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A THESIS SUBMITTED TO JIMMA UNIVERSITY; COLLEGE OF HEALTH SCIENCES; DEPARTMENT OF HEALTH EDUCATION AND BEHAVIOURAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS OF PUBLIC HEALTH IN HEALTH EDUCATION AND PROMOTION.

JIMMA UNIVERSITY
COLLEGE HEALTH SCIENCES

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Abstract

Introduction: Food taboo is contributing substantial share to malnutrition in pregnant and lactating women by restricting and limiting the frequency and variety of foods most of which are nutritious and easily accessible. Nonetheless, the area is poorly investigated in Ethiopia.

Objective: This study aimed to explore foods tabooed for pregnant and lactating women and adherence to the foods taboo if exists in Abala district of Afar region, Ethiopia.

Methods: Qualitative study was conducted from March 1 to 30, 2016 inductively. Participants were selected purposively and written informed consent was sought. Two pregnant and lactating women, one male elderly and one female elderly focus group discussions were conducted. Data from focus group discussions were triangulated by eight key informant's in-depth interviews. Discussions and Interviews were audio taped, transcribed word by word and then imported to Atlas.ti 7 software for coding. Analysis was done inductively. Triangulation and peer debriefing were applied to assure data quality.

Results: The study revealed that foods tabooed for pregnant women were 1) eating a lot amount of foods of any type, 2) fatty foods like meat, milk and Yoghurt, 3) solid foods including all forms of bread and 4) cool/cold foods such as cold milk, cold meat and cold water. The latter two were also tabooed for lactating women. Pregnant women were found to be adherent to the foods tabooed throughout their period of pregnancy while lactating women adhere to the taboos for the first six weeks after giving birth. The reasons mentioned to adhere with the foods taboo for pregnant women were to avoid difficulty to deliver the fetus, to prevent disease like, Gastritis, Diarrhea, Typhoid, and Abdominal cramp, and skin discoloration of the fetus while the reasons for lactating women were to prevent diseases for the women and her child.

Conclusions and recommendations: Pregnant and lactating women in Aballa district avoid eating numerous accessible foods because the foods are believed as tabooed for them. Further studies that focus on the extent of food taboo and uncovering the understanding on how it is being practiced were recommended.

Key Words: Foods taboo, pregnant and lactating women, Afar region

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List of Initials

DER= Dietary Energy Requirement

EDHS= Demographic Health Survey report

FGD=Focus Group Discussion

HEW=Health Extension worker

KII= Key Informants Interview

MDG=Millennium Development goal

MEDHS= Mini Ethiopian Demographic Health Survey report

TBA= Traditional Birth Attendant

WHO=World health Organization

Chapter 1: Introduction

1.1. Background

Malnutrition is globally the most important risk factor for illnesses and death, affecting especially hundreds of millions of pregnant women and young children (1). Maternal and child undernutrition, which encompasses stunting, wasting and deficiencies of essential vitamins and minerals is highly prevalent in low and middle-income countries, resulting in substantial increases in mortality and overall disease burden. Moreover, it is the underlying cause of 3.5 million preventable child and maternal deaths a year and 35% of the disease burden in children younger than five years (2).

Pregnancy and childhood are among the critical lifetimes in which under-nutrition in females may occur that in turn could lead to high possibility of cumulative adverse impact on the birth weight of future babies. Hence, the adequate nutritional status of a woman during pregnancy is important for the health of the mother and the pregnancy outcome (2, 3).

Women are more likely to suffer from nutritional deficiencies than men are, for reasons including women's reproductive biology, low social status, poverty and lack of education. Socio-cultural traditions and disparities in household work patterns can also increase women's chances of being malnourished. Globally, at least, 120 million women in less developed countries are underweight, and 50 percent of all pregnant women are anemic (4,5,6).

Given this problem, nutritional status of a population is recognized by almost all Millennium Development Goals (MDGs) and is recognized as a key indicator of poverty and hunger, of poor health, and of inadequate education and social conditions. Millennium Development Goals had given a due focus to the nutrition of women and children in which it puts the proportion of children who are underweight as one of its indicator for MDG one (7, 8).

Despite the commitment of Ethiopian government to achieve MDGs in the country and the concerted efforts in improving women's access to healthcare services through Health Extension Package in pastoral areas including Afar regional state over the last decade(9), improvement in nutritional status of women and children in the region remains very limited.

While poverty is the main underlying cause of malnutrition and its determinants (8), the degree and distribution of malnutrition in a given population also depends on cultural and religious food customs such as presence of food taboo. Food taboo, in synergy with availability and quality of health services, the prevalence of infectious diseases in the area and the educational and economic status in the majority of the population, is contributing substantial share to malnutrition (11). Underlying in social, cultural and religious reasons, the thought of food taboo classifies easily accessible and nutritionally rich foods as improper or unacceptable to be eaten by pregnant and lactating women for scientifically non-proven reasons (16, 20).

Food taboo is any prohibition of food items by the society as improper or unacceptable which arises mainly based on religious, cultural, historical and social principles of which some evolve from other forms of collective experience and have the force of tradition. The religious factor in food habits is difficult to eliminate and food taboos of religious type are productive of immense economic waste. Some paramount taboos are cultural and propagated by diffusion from original sources. They become psychologically effective by conditioning. The consequence of not adhering to an established taboo is always defined and common across the world, cause illness or death(13,14,15).

1.2. Statement of the Problem

Among the several factors that influence the choice of the food we eat, cultural and social habits, psychological and nutritional knowledge attributes significant part being food taboo one of these (16). Food taboo may govern the whole human life cycle or may be associated with special events such as pregnancy, childbirth and lactation. Hence, maternal malnutrition during these times may be attributed to food taboos and related dietary habits(17,18). It is common for women in developing countries to limit their nutrient intake to have smaller infants, assuming that it can reduce the risk of delivery complications (19).

Food taboo practice is high in developing countries though there is inconsistency on which food is considered as taboo and its attached reason from society to society. An ethnographic study finding from Madagascar shows that more than 77% of stories about the origins of food taboos are related to health and well-being (18). Nearly half pregnant mothers in India(40), 69% in Tanzania(20), 49% in Ghana (21), 27.5% in Hadya zone, Ethiopia(30),49% in Shashemene district of Ethiopia(23) reports avoidance of at least one food item during pregnancy.

However, restriction and or inadequate intake of some food items during the period of pregnancy and lactating for different reasons limit the frequency and variety of food, which can make consequences of malnutrition most awful (24,25,26,27). For the reason that women's energy requirements remain high during pregnancy and lactating period, and given the detrimental impacts of inadequate maternal nutrition on both gestational and neonatal outcomes, mothers can be affected by their adherence to food taboos (13, 7, 11). It is documented that malnutrition in women leads to economic losses for families, communities, and countries because malnutrition reduces women's ability to work and can create ripple effects that stretch through generations (1, 2, 3).

Researches also show that most of the foods either restricted or tabooed are inexpensive, nutritious and good for both the mother and the child while the beliefs stated for each food have no mostly scientific explanation (20). Despite of their share up to more than 50% in pastoralist communities' dietary energy requirements (DER) in sub Saharan Africa, foods of animal origin are prone to cultural food beliefs and taboos while most of the food taboos in East Africa fall on the women and most unfortunately on the pregnant (20,29,30).

As pregnant women's disobedience to food, most members of a community believe to cause illness to the mother, the child, and/or both while often attach it to cause disaster and disease outbreak in the community. Hence, disobedient mothers constantly face social punishments like frowned on, offended and excommunicated by parents and community elders/leaders (18, 31). Given these social sanctions, factors such as the odds of adherence to food taboo during pregnancy, is higher among teenagers, prim-gravid women, with low educational status, with low-income families (22, 32).

It is well known that most women in Afar region are illiterate, with low socio-economic status, low decision making power on household income, and face a risk of harmful traditional practices like FGM ,early marriage and abduction, and most of them suffer from acute malnutrition which made them the ever thinnest women population in Ethiopia (10,12,33).

Given these cultural and socio-economic characteristics, women of pastoralist community in Afar region may be prone to risk of food taboo and disproportionately affected by its consequences. Despite of the potential of food taboo to the danger of malnutrition, and the need to explore the specific food items avoided during pregnancy and lactating may highly contribute in designing tailored and effective interventions, this issue is not well studied and documented yet in the region.

Therefore, this study aims to close this gap of documented evidences regarding the area by exploring food taboos among pregnant and lactating mothers and their adherence to the taboos.

Chapter 2: Literature Review

2.1. 1. Nutrition during Pregnancy and Lactating

The nutritional status of a woman before, during and after pregnancy is important for a healthy pregnancy outcome. During this time, women often become more deficient in nutrients, with higher need to provide nutrition for the baby too for the reason that maternal malnutrition is a key contributor to poor foetal growth, low birth weight babies and short- and long-term infant morbidity and mortality. At least one extra serving of staple food per day during pregnancy and the equivalent of an extra meal per day during lactation is needed. Increased daily consumption of fruits and vegetables, animal products, and fortified foods, supplementation of micronutrients like Iron/folic acid is vital (7, 11, 13).

2.1.2. Food Taboo, Its Origins and Consequences in Maternal Malnutrition

Human behavior is not only governed by rational decision-making but also by standards of acceptable behavior in a society that members of the society are encouraged to follow. The list of behavioral guidelines is typically referred to as social norms and taboos. Taboos are sufficiently which are viewed as sacred and followed by punishment if violated. They are enforced by social punishment. An individual's way to behave and act are all governed by the norms and taboos of the society she/he belongs to (34).

Food taboo is any prohibition of food items by the society as improper or unacceptable, which arises mainly from the bases of religious, cultural, historical and social principles (13, 14, 15). Studies have argued that food restrictions may undermine the food and nutrition security of women and children in particular by preventing them from consuming nutrient-rich foods. Food taboo can magnify effects of restrictions on nutritional intake and may put women at nutritional risk during critical periods in their reproductive cycle by limiting the quantities of food consumed, dietary diversity and the intake of nutrient-rich foods. Though food taboo affects the world population at large, it is often pregnant and lactating women that are forced to abstain especially from nutritious and beneficial foods (25, 26, 27).

Rochow(2009) in his review of the origins and purposes of food taboo found that, with multiple reasons for avoidance of a particular food, adult women in general and pregnant mothers in particular face the challenge of food taboo. In his review he explores pregnant mothers face

restriction to most animal products in West Malaysia; fish, bananas, mango and other fruits in Kiriwina Islanders; egg and milk in some parts of Mid-West Nigeria; milk and milk products as very sacred in Hindu (India)(18).

In synergy with the existed social norms regarding intra-household food distribution among male and female, as women are expected to give preference to their husbands in the distribution of the quantity and/or quality of food (26,27), there is no doubt that food taboo is high likely to contribute for maternal malnutrition.

A review of existing literatures in developing countries by Alonso (2015) revealed that food taboos affect access to food and nutrients. Groups those are particularly vulnerable to malnutrition, such as pregnant women and young children, may face a large number of food prescriptions or proscriptions that determine their diet (11).

Dietary factors including presence and absence of food restrictions, feeding habits and nutritional knowledge are well-documented independent variables associated with pregnancy outcomes and weight gain during pregnancy (35).

A study from Tribe community state that pregnant and lactating mothers suffering from protein-energy malnutrition and other deficiencies that lead to health complications to both the mother and infants due to these traditional beliefs. Most of the foods either restricted or tabooed are inexpensive, nutritious and good for both the mother and child. The beliefs stated for each food often have no scientific explanation to be depleted. Early marriage, high work burdens, narrow birth intervals and discriminatory food customs combine to force the pregnant women at risk of becoming or remaining malnourished (26). For example in a study in Tanzania, where sixty-nine percent of pregnant women reported food taboos, it is found as contributing factors for malaria in the district(20).

2.1.3. Motivators to Food Taboo; Culture, Religion, Dietary Knowledge

Significant life events such as pregnancy and childbirth are generally characterized by numerous cultural or religious beliefs and practices regarding food and health. Beliefs and practices of food taboos during pregnancy, delivery and lactating are shaped by a society's cultural and religious belief systems and they are major determinants of what and how we eat (34, 36, 37).

A study among pregnant mothers from India shows that half of pregnant mothers do not consume Papaya, one in four do not consume citrus food such as Orange, Lemon, and Buttermilk for the belief that such foods can cause abortion, placental disruption and multiple others health effects. It also reports significant association of literacy status with presence of taboos. Related beliefs were also reported previously that avoiding 'hot' foods during pregnancy will prevent abortion and prohibiting 'cold' foods during lactation as associated with controlling the quality and quantity of milk production(38).

Dietary practices often take the form of rules stating which foods should not be eaten, i.e. food proscriptions or taboos which are usually temporary and selective, but often may have an absolute nature (39). Some well-known examples of absolute food taboos are religious taboos, such as the pork taboo among Muslims and the Hindu beef taboo (40). In various communities, absolute food taboos apply to animals that carry a particular symbolic value (26, 27, 35, 41).

Some food taboos may have a form of traditional medicine where food proscriptions and prescriptions for days are commonly used to prevent, treat and alleviate health problems and illnesses and there is no clear distinction between food and medicine in most societies (15, 35). In this view, pregnant and postpartum women often face a large number of food proscriptions and prescriptions based on the hot-cold belief as pregnancy is commonly considered as hot state and the postpartum period a cold state (42, 43).

Within variation from society to society, violation of food taboo is believed to different health related problems. In Sub-Saharan countries, it is commonly believed that violations can be a cause for sexually transmitted diseases or complications during childbirth (44).

In rural Ghanaian district, health related reasons, respect for community elders or significant others, and respect to ancestors are the motivators of obeying food taboo. Health related reasons include safe and timely delivery, avoidance of 'deformed babies ('monkey babies), health of the baby and the mother, and avoidance of epidemic diseases are the motivators to obey food taboos during pregnancy. Since parents and community elders/leaders are devoted about the health and safety of the children and community members they advice their members not to break the food taboos and using their power, disobedient members are constantly frowned on, offended and excommunicated. Thus, to guard against these odds, pregnant women exhibit high levels of

respect for their parents and community elders. The study also indicates that it is believed that disobedient to ancestral laws on food prohibition will lead to anger of the ancestors who may run destruction on the individual or the community as a whole may be through disease outbreak or other. As stated by Rochow (1998), the study also adds the pragmatic view of food taboos as a factor in group-cohesion and group-identity in which it keeps the strong delight and pride in belonging to what they view as a unique cultural setting(31, 38).

Lack of dietary knowledge is also among the motivators for food taboo. In Egypt pregnant women have little to no knowledge of optimal weight gain during pregnancy, many misunderstand the connection between nutrition and weight gain. Weight gain is viewed as carrying an “additional person” Overall, women indicated that they generally consume more foods during lactation than they usually do, including during pregnancy. The quantity of foods consumed is perceived to be associated with the amount of milk produced (45).

2.1.4. Magnitude of Food Taboo among Pregnant and Lactating Women

Not only the restriction and avoidances of food but also some other numerous cultural beliefs are also related to food taboos such as intra-family food distribution. Often as indication to hierarchical position with the head of the family, males receive priority in eating while mothers and children receive a smaller share of the family’s food, relative to their needs. In some communities, the mother will serve the husband first and will only join her children in eating after the man is satisfied. In some cases, the male children are fed first before the mother and female children. This order results to under-nutrition for most vulnerable groups (29).

Though no consistency in dietary restriction during pregnancy, 69% of pregnant women report food taboo in Tanzania (41) and 48.8% of ANC followers in Korle-Bu teaching Hospital of Accra Ghana (21). No consistent pattern of avoided food types was found in pregnant mothers in Burk Nafasso (46).

There are evidences that foods of animal origin like meat and milk with their products are often prone to cultural food beliefs and taboos though they take up 3.2% and 2.5% of dietary energy requirements (DER) in sub Saharan Africa with increased share among the nomadic and pastoral

communities. Milk can contribute up to half of dietary energy requirements among pastoral communities (29).

In Egypt some foods such as “*pickled*,” “*very salty*,” and “*very spicy*; ” “*heavy*” or “*simmered*” foods (which include stewed vegetables and meats) are considered taboo to consume during lactation, and are restricted from the diet of lactating mothers because they are perceived to decrease milk production and affect the health of the child or the mother(47).

The case is the same to East Africa in which though some food taboos are forbidden to both sexes in the region, most food taboos fall on the women and most unfortunately on the pregnant. Despite women’s role is more important than that of men in Africa producing and rearing children, prepare the food to maintain the life of the household’s member are among their role, they are affected disproportionately. A very earlier study of food taboo in east Africa revealed that,

“The pregnant East African girl may not eat eggs; if she were to do so the baby would be bald like an egg, or might develop a large spleen. She may not drink milk because it would spoil her own milk or it or it would cause the child to be covered with a white coating though to increase difficulties at birth or cause constipation in newborn. Maize is forbidden to eat because of its crunching noise in mouth when eaten would make the child cry too much” (30).

A cross sectional study among pregnant mothers from Hadya zone of Southern Ethiopia (1995) shows that over a quarter of the women (27.5%) abstained from eating at least one food, while 18.6% abstained from eating more than one food due to food taboos. The most common taboo foods were milk and cheese while nearly half of the women (44.4%) avoided them. The study also adds that half of the women claim fear of difficult delivery as the result of increased size of the fetus due to consumption of nutritious foods while a smaller proportion reported discoloration of the fetal body (30).

Studies among pregnant mothers in Shashemene also reported that one in two pregnant mothers strict themselves to eat one or more food items like Linseed, Honey and Milk/Yoghurt during pregnancy for beliefs that the food may be plastered on the fetal head, makes a fatty baby and

difficult delivery, fear of abortion and fetal abnormality(23). Restriction from eating food for cultural reason is also reported from Wondo-Genet district of Southern Ethiopia (47).

2.1.5. Adherence of Pregnant and Lactating Women to Food Taboo

Regarding adherence to food taboo, though it seems only rural resident pregnant mothers to obey the rules of food taboo, a study from Ougon state, Nigeria indicates that there is no significant difference among urban and rural residents (48).

A study from Nigeria (2010) also indicates that about 15% of pregnant mothers adhere to traditional beliefs about nutrition and feeding practices in pregnancy including food taboos while Grass Cutter meat, Spaghetti (Pasta) and Eggs are prohibited(49).

Another study from rural community shows that the odds of adherence to food taboos was higher among teenage participants, those with lower Body mass index (22.9 kg/m² or less), among prim gravid women than women who already had one or more children, those who ate less frequently (1-2 times per day) and among women from low income families (22).

A study from Southern Ethiopia also shows although categories of residence, age and gravidae did not show any difference but there was significant difference in prevalence of food taboos between the low and high education levels, lower, and middle-income groups. Four times more women who did not attend secondary schools reports food taboos compared to women who attended secondary school. Similarly, three times more women from low-income group observed food taboos compared to women from the middle-income group (30).

Foods of animal origin such as milk, honey, fatty meat, eggs, foods of and plant origin (fruits and vegetables) are among the foods that should be avoided by pregnant mothers in Shahemene district. The reasons to avoid the foods is attached to beliefs like that of it can makes fatty baby and difficult delivery, can cause abortion, can lead to fetal abnormality and may be plastered on the fetal head among others (23).

2.1.6. Sources of Information about Food Taboo during Pregnancy and Lactation

In rural Ghana, constant reminders from various people such as husband, community elders or parents and religious leaders enforce the various food taboos and beliefs. Every pregnant woman

will be properly educated about the taboo whenever she attempts to break it. They believe the punishment of breaking the taboo can as severe as dying of mother, baby or both (31).

In Egypt mothers are most often reported valuing and trusting advice about which foods to eat during pregnancy and breastfeeding while information is also received from family, elderly women, neighbors and friends and other members of their communities (45).

2.2. Significance of the study

As pregnant and lactating mothers are venerable to the restrictions and prohibitions to foods, this study will expand an understanding to the scientific community on food taboo and the mothers motivation to comply to the taboo in the pastoralist community through multiple data sources. The findings of the study will also generate evidences for policy makers to design effective strategies for policy makers and health practitioners to address pitfalls to maternal and child nutrition. The findings of the study will also help as a base line for other related studies.

2.3. Research Questions

1. What are the foods taboos for pregnant and lactating women in Abala district of Afar Region?
2. How do pregnant and lactating women adhere to food taboos, if exist?
3. What are the reasons behind the adherence to food taboo among pregnant and lactating women?

3. Objective

3.1. General objective

This study aims to explore food taboos for pregnant and lactating women and their adherence in Abala district of Afar region Ethiopia.

3.2. Specific Objectives

To explore the common foods tabooed for pregnant and lactating women in Abala district of Afar region

To explore adherence of pregnant and lactating women to the identified foods tabooed in Abala district of Afar region

To identify reasons behind adherence of food taboo during pregnancy and lactation in Abala district of Afar region

4. Methods and Participants

4.1. Study setting

Description of study area

Geography and population: Afar regional state is North East part of Ethiopia in which its Capital, Samara town, is 588 km North East from Addis Ababa, the capital of Ethiopia. According to 2007 censuses, the total population of Afar region is expected to be 1,893,028 in total area of 72,053 km² and is known for being less densely populated with 26.3 individuals per square kilometer (projected). Tigray, Amhara, Oromia, Ethiopian Somalia regional states in Ethiopia and partly Eritrea and Djibouti, bound the region.

According to the Mini Ethiopian Demographic Health Survey report (MEDHS) of the year 2014, about 44% of the women in Afar region, in which the study setting is found in, suffer from acute malnutrition; which made them the ever-thinnest women of any region in the country, while 35% experience high Anemia. Meanwhile, 31% of under five children in the region are severely stunted (chronic malnutrition) and 24% are wasted (acute malnutrition) which is two times and three times respectively higher than the national prevalence. Moreover, nearly half of under-five children are underweight in the region (10).

Aballa district, the study setting for the current study, is one of the seven districts in zone 2 (Kilbet Rasu zone) of Afar region in which Aballa town is the administrative center of the zone. It is located 775 Km North from Addis Ababa, the capital of Ethiopia and 489 Km North West of Samara town, the Capital of Afar. The district has a latitude and longitude of 13°22'N 39°45'E with an elevation of 775 meters above sea level. Based on figures from the Central Statistical Agency in 2005, Abala has an estimated total population of 6601 of whom 3448 are men and 3153 are women by the year of 2016. By the same year, It is expected that an estimated 204 mothers to become pregnant while 155 women are expected to be lactating women (currently breastfeed for a child less than two year).

Economic: Based on 2007 Ethiopian central statistical agency, about 30% of its people are pastoralists (CSA, 2007). Afar region in which the study setting is found in, is characterized by being the leading region to have high proportion of population with lower wealth quintile (60%)

which is 3 times higher than that of Ethiopia (20%) and one in two households are supported by Productive Safety Nets Programme (PSNP), a social protection programme against chronic hunger. Ethiopia's pastoralists, like pastoralists the world over, remain at the margins of national economic and political life being pastoral women at the top of vulnerability group. It is known that most of the foods for pastoralist depend on the livestock products, which are highly dependent on availability of water. In drought seasons, household members may be split for the sake of water for livestock leaving the women at home with extremely limited food(8,50). In Afar region, husband mainly decide on how to use the earned cash in the household (12).

Other Socio-demographics: Majority of the Afar population is Muslim in religion and rural in residence. Regarding educational status, 74% of females have never attended school in Afar region, and is characterized by its higher total fertility rate (5.7) and higher proportion of pregnant mothers among women of reproductive age groups than that of Ethiopia.

Culture: Regarding harmful traditional practices, women from Afar region are likely to pass through the experiences of FGM, child marriage and abduction and wife beating (52). Afar society have customary laws which bind all their people and have a clear, but unfortunately unfair, distribution of role among the family members. Men are the head of the family and represent the family at all level while grinding, food preparation, serving food, looking after goat and sheep and bearing and rearing children is the responsibility of the women (52).

Health Facility: Though there is two folds higher proportion of pregnant mothers among women of reproductive age groups in the region than the national proportion, utilization of maternal health and related services is still low. Only 8.5% of women of child bearing age use modern contraception, 29% of pregnant women receive ANC from skilled provider and only 6% receive skilled delivery (10)

Figure 2. Map of Afar Region



The Study Area was in Abala district of Zone 2

4.2. Study design

Community based qualitative study was conducted that was designed to enable to grasp the understanding and meaning of the community regarding food taboo, the level of pregnant and lactating women's adherence to the foods taboo and their reasons to adhere to the specified food taboos if exist.

4.3. Study period

This study was conducted from March 01 to 29, 2016

4.4. Population

All currently pregnant and lactating women and key informants residing in Ukri Gibi, Murga, Kaala and Adi Haremely Kebeles(smallest administrative unit) of Aballa district were source population of the studies. The study population for the study was all purposively selected pregnant women, lactating women and key informants in the Kebeles.

4.5. Sample size and Sampling procedure

Four FGDs, which included 01 Male elderly, 01 Female elderly, 02 pregnant and lactating women were conducted which of each FGD consisted of 6 to 8 participants. Eight individuals were purposively selected as key informants for in-depth interview that included pregnant and lactating women, female elderly, male elderly, Health extension workers, religious and community leaders. (The detailed sample size including categories of the participants and their number and their allocation to the kebeles is presented in table 1).

Purposive sampling technique was used to select study participants for FGD and key informants' in-depth interview (KII). With the help of local Health Extension Workers and leaders, study participants were selected for FGDs and KII depending the potential relevance of the participants in delivering wealth of information about foods taboo during pregnancy and lactating. Indented to this, variations for current pregnancy status and duration of lactating for the current child were considered to include women with maximum variation of characteristics while potential respondent' s variation in educational status, residence (Rural/Urban) and their age were considered for the opinion leaders and key informants.

Table 1. Study participants sample size for FGD and KII per category per Kebeles, Afar region, 2016.

Kebeles		Ukri Gibi	Murga	Kala	Adi Haremly	Total FGDs
FGD	Pregnant and lactating women FGDs	P&LW FGD	P&LW FGD			2
	Opinion leaders FGDs			Elderly men FGD	Elderly women FGD	2
	Total FGDs					4
KII	HW/HEWs	01	01	-	-	2
	Pregnant/lactating women			01	01	2
	TBA	01				1
	Elderly women			01		1
	Religious/community leader		01		01	2
	Total KIIs					8

4.6. Inclusion and Exclusion Criteria

All voluntary currently pregnant women (gestational period of 3 months and above ascertained by self report) and lactating women who are currently breast feeding children of 2 years and below and elderly women and men were eligible for the study. Elderly members of the community who are respected by the community for known social status (religious leader, clan/community/ethnic leader, Traditional birth attendant) were purposively selected. For key informants those purposively selected individuals who have potential information and who can talk about food taboo more were eligible.

Among these, the ones who can fulfill the criteria those who are unable to communicate due to physical and or mental illness were excluded from the study.

4.7. Data collection tools

Focus group Discussion Guide: Semi structured FGD guide was adapted and contextualized from a study by Samson Korvah Arzoaquoi on “Common food taboos and beliefs during pregnancy in Yilo Krobo district, University of Ghana, Ghana,2014 (Unpublished Article). The tool was designed to guide the content of discussion to address the following issues; explore existence of

foods taboo during pregnancy and lactating, the level of pregnant and lactating women adherence to the foods taboo if exist and the reasons to adhere to the foods taboo. It was developed first in English then translated to Afargna (Affar aff) by an expert then back to English by another expert to check consistency. Finally, the tool was pretested in similar context to the study area and necessary adjustments were performed based on the result of the pretest. During data collection, field note and audio recorder were used as supporting tools for data collection.

Key Informants Interview Guide: The guide used for FGD was also used for KII with modifications to fit for individual interview to assure grasping personal perspectives of the participants on the study issue in which probing and asking detailed information were possible. It was translated to local language and pretested in similar context as of the FGD guide. Data from each interview was recorded using audio recorder and field note.

4.8. Data collection Methods

Focus Group Discussions (FGDs): After assuring confidentiality, informed written consent was obtained from each FGD participants before the person joins the group. Then they were asked for convenient location and time and accordingly focus group discussion were conducted in a way to afford maximum degree of privacy to them. Health extension workers and kebele leaders were involved in selecting the setting with the assumption that they are familiar with the local area and cultural context. Hence, convenient location for most of the participants, suitable to sit for them in a circular way seeing one another face to face and recoding is possible with minimum external disturbance was selected.

Regarding facilitation and recording; three facilitators were assigned for each FGDs and their roles were clearly defined before each FGDs. These were the principal investigator, the recorder/note taker and the translator. The principal investigator took a responsibility of leading the focus group discussion, posing all questions specified in the focus group question guide, keeping the discussion on track, encouraging all participants to contribute and to take short notes and memos. The recorder and the translator were fluent speakers of both Affar Aff and Amharic languages. The translator translated each speech of participants word by word to Amharic language with maximum effort to minimize disturbance of flow of ideas. The recorder's responsibilities were; to operate the recorder, to take note and to crosscheck the contents of the translation. The principal investigator collected and labeled the records, collected all notebooks

and assures taking appropriate security measures to protect the tapes after each FGD. Each FGD took minimum of one and half an hour considering the extra time that would waste during translation.

Moreover, all FGDs were conducted before KIIs to understand the general group norm on foods tabooed and the variation of views in the types of foods tabooed, in the level of adherences to and the reasons behind foods tabooed in the community. Preliminary analysis of the first FGD was done before the next FGD and questions on newly emerging insights were incorporated to the FGD guide for the next FGDs. Finally, the cumulative preliminary result of all FGDs was considered in implementing KII guide to make the interview guide grasp the emerging insights in its contents. The minimum of 90 minutes was taken for each KII.

Key informants in-depth interview: Before the actual interview, each potential participant was asked for preferable place and time for interview. Then during the interview, all applicable ethical issues stated under the “Ethical Consideration” section of this document was undertaken. After that, the principal investigator conducted face-to-face interview with the help of translator using the KII guide. Data were recorded using tape recorder and the PI took note including memos of participant’s behavior and contextual aspects to assure triangulation of the data with the record. The note was also used as back up file for lost or damaged records that happen accidentally. Each interview took a minimum of 45 minutes. Analysis of each KII was conducted side by side with data collection.

4.9. Data analysis

Data analysis was done side by side of data collection. For KII, widening approach was used for analysis of data from key informants, in which data were gathered from the first key informant and interpreted. Based on that interpretation, the next key informants were asked and again interpreted and moves on to the next key informants to find answers to the questions or deepen interpretations of the data from previous key informants.

For all independently recorded FGDs and in-depth interviews, data were transcribed word by word at each step after a repeated listening. The transcribed documents were imported to Atlas.ti qualitative data analysis software version 7 for analysis. Analysis was begun with coding of respondent’s words, phrases and sentences related and relevant to the area of the study. Open

coding was used in which raw data were first systematically analyzed followed by axial coding to form related categories to their sub- categories. Finally, selective coding (the natural meaning of units were constructed and this was used to construct non-repetitive central themes) performed. The selected codes were synthesized in families. Furthermore, Inductive approach was applied in the overall data analysis.

4.10. Trustworthiness

Developed data collection tools were pretested in similar context to maximize the validity of the tool. Probe and multiple data sources (FGD and KII) during data collection and thick description during analysis were considered as data quality measurements and assuring trustworthiness of the data. Throughout the study, bracketing of preconceptions of the investigator was employed in order to minimize the investigator's bias and the risk of reactivity whereby participants could withhold information to; so that anticipated to assure credibility. The emerging findings during analysis were shared to experienced qualitative researchers for peer debriefing before synthesizing the final outputs.

4.11 Ethical consideration

Permission to conduct study; The research topic was approved by ethical review committee of Jimma University and permission to conduct the study was obtained from Afar Regional State Health Bureau and Abala district Health Offices.

Privacy/confidentiality; All study participants in the FGDs and interview were asked for convenient place and time to keep privacy and they were assured that the recorded audio and the field notes were strictly used only for the purpose of the study and everything would be done to maintain confidentiality. Moreover, personal identifiers such as names were excluded in the data and data were protected in personal computer where access of the data would be limited to the study's investigator and his advisors.

Informed consent; Participants were asked for written informed consent after explaining the aim of the study, its confidentiality, their right to refuse participation at all, to stop their participation at any time, and to refuse to answer specific questions they do not want to respond. Written individual consent was asked for participation and audio record.

4.12. Data dissemination plan

Data will be disseminated to Department Health Education, and Behavioral science, College of health Science Jimma University, to Samara university office of research and community service, to Afar Regional health Beurea and Aballa district health office. Efforts will be done to publish in reputable journals in British Medical Journal for Ethinobiology and Ethino Meicine or Journal Pregnancy and child health.

5. Result

Twenty-nine study participants were involved in four focus group discussions (FGD) while eight key informants participated for in-depth interview. For the first two FGDs, the participants were pregnant and lactating women while the participants of the third and fourth FGDs were elderly men and elderly women respectively. The mean ages of the respondents in each FGD were 31, 24, 45, and 47 respectively. All participants of the FGDs and Key informants in-depth interview (KII) were Muslim in religion. The FGDs participants reported that the number of children they had during the time of data collection ranges from two to eleven while their maximum educational status attained lay under the range of no formal education up to grade six. The participants of three FGDs and six KIIs were rural dwellers while the remained were urban dwellers.

Table 2. Socio demographic characteristics of FGDs participants on foods tabooed for pregnant and lactating women in Aballa district, Afar region, Ethiopia, 2016.

FGDs	Number of participants	Mean age of participants (Min, Max)	Number of children (Min,Max)	Educational level (Min, Max)	Kebele
Pregnant and lactating women FGD1	8	31(21,39)	2,7	0-3	Ukri Gibi /urbun
Pregnant and lactating women FGD2	8	24(19,41)	3,8	0	Murga /rural
Elderly men FGD	7	45(35,65)	5,11	0-6	Kala /rural
Elderly women FGD	6	47(38,55)	4,9	0	Adi Heremly /rural
Total	29		2-11	0-6	

Regarding participants of key in-depth interview, eight key informants were participated and their mean age was 37 while all were Muslim in religion.

Table 3. Socio demographic characteristics of study participants for Key informants interview on foods taboo for pregnant and lactating women in Aballa district, Afar region, 2016.

sex	age	Kebele	Maximum educational level attained	Role of the participant
F	23	Ukri Gibi	10	HEW
F	21	Murga	10	HEW
F	30	Kala	No read write	PW
F	27	Adi Haremely	6	LW
F	35	Kala	No read write	Elder
M	54	Murga	No read write	Elder
M	66	Adi Haremely	4	Elder
F	40	Ukri Gibi	No read write	TBA

Foods tabooed for pregnant women

The study participants in Aballa district of Afar region reported foods that are solid in their structure, fatty in their content and cool foods as tabooed during pregnancy. They revealed that these foods could be eaten out of pregnancy including during lactation after 45 days of giving birth. In addition to these specified food types, eating a lot amount of food was highly recognized as tabooed for pregnant women in the district.

Solid foods

According to the study participants, foods named as “Burkutta”, “Ambassha”, “Bahamo” and “Mengelle” are tabooed for pregnant women in Aballa district. All are forms of bread prepared locally using either using firewood or solar as source of heat. Almost all respondents in the key informant’s in-depth interview and the FGDs participants reported solid foods as tabooed during pregnancy.

Thirty-four year old pregnant woman FGD participant stated,

“Burkutta and Mengelle are not good foods for pregnant women. She should abstain eating these foods until she give birth. I do not like to eat these foods myself always during my pregnancy. I also advise others to avoid eating the foods.”

Another 29 years pregnant woman also explained, *“Pregnant women should eat soft foods while the solids could be eaten during lactating after a month and half (They call this period as “Elalo”) after giving birth”*. While another 22-year lactating women FGD participant added as *“pregnant women would not eat solid foods like ‘Burkutta’ and ‘Bahamo’ and including solid ‘injera’ during her time of pregnancy.”*

A 56 year old woman elderly also mentioned that pregnant women should not eat roasted seed (“Kalo”) saying *“... it would be painted at the head of the baby if eaten. It would not be dissolved and stay solid till she give birth”*. A 35 year community elder key informant also mentioned what pregnant women should eat as; *“They would not eat solid foods. They can drink cow milk eat porridge with butter during their pregnancy.”*

A 30 year pregnant key informant who had ever give birth four times before the current pregnancy also stated that *“Food that are prohibited for pregnant women are ‘Burkutta’, which*

is solid bread, 'Mengelle' and 'Behamo' (bread forms made of wheat on stone with solar or fire).

Fatty foods

The participants also reported that a pregnant woman should avoid eating foods that are associated with high fat content. They specified meat, camel milk and yoghurt/"Ergo" as highly fatty foods. They call the foods as "good foods", and pregnant woman should avoid eating these "good foods" to prevent the fetus from being large.

A 27-year lactating key informant stated, *"Pregnant women should avoid particularly eating camel meat while the meat of other sources such as cow, goat and sheep are good for the pregnant. Particularly meats of newly born goats and sheep are good for the mother. Cow milk is also good for pregnant women."* While 66 year elder key informant reflected a different view on meat, *"pregnant women should avoid eating meat and yoghurt at all till she would give birth."* Another 40 year TBA also agreed on the view of the elder strongly and explained it as,

"Pregnant women should be strongly advised to abstain from eating meat during their pregnancy. When she become arrives at her seventh and eighth month of her pregnancy she should completely stop eating milk, meat and some other good foods."

Cool foods

According to the current study, pregnant women in Aballa district avoid eating foods that are not warm and heated. The study participants reported that pregnant women should avoid eating cold foods during the period of their pregnancy that includes mainly cool meat, cool milk, Yoghurt cheese and cool water.

A 41 years old male elderly FGD participant stated this situation as, *"Pregnant women should avoid foods that are not heated with fire before eating. Milk and yoghurt should be heated so that the mother would not develop disease if she drinks it."*

Another 45 –year old FGD men elderly explained, *"Pregnant women should not make stay cooked meat for longer hours because they would be cool. They should consume them immediately as they are hot and warm. If not they should heat it again before eating."*

In line with these views, A 66 –year old man elderly key informant also mentioned, *“Foods that do not pass through fire are not good for pregnant women to eat. Mostly cool milk, yoghurt and cheese are prohibited...”*

Kebele Health Extension Worker (HEW) aged 21 and worked for six years in the district explained this phenomenon as:

“Most pregnant women prefer to consume warm foods such as porridge, tea, coffee and hot milk and avoid cool foods like yoghurt and cheese during their period of pregnancy. This is also the case for the lactating women.”

Another FGD participant, 32 years aged pregnant women also added that *“... Cool foods including cool water should be avoided from eating through the whole period of pregnancy and the first six weeks of lactation to avoid diseases associated to her abdomen...”* While Another 30-year old currently pregnant during the time of data collection also mentioned,

“Foods that are not heated are not good for pregnant and lactating women. Though I have never seen lactating women having abdominal disease/“Medalyta” because she drinks cool foods, I know pregnant women having that disease because she eat cool milk. I myself also have experienced it two months ago.”

Similar to the most of the respondents, a 49-year old FGD participant reflected a view in the issue, *“Camel Milk, cow milk and got milk is good for pregnant women if it is new. However, if it is stayed for a days it will cause gastritis and heartburn.”*

Eating much food

The study participants in Aballa district mentioned repeatedly that a pregnant woman should decrease the amount of food she would eat compared to when she is not pregnant. According to the participants, a pregnant should try to limit her diet in quantity and frequency to prevent the fetus from becoming very large thus; she would not have difficulty and bleeding during delivery. Almost all FGD and KII participants, but 27-year grade six lactating women, mentioned eating much food of any type including water during pregnancy as tabooed. FGD participants agreed on when to be said, “A pregnant eats much food” as “If she eats an amount of food as equal as she always eats when she is not pregnant.”

Forty-year old traditional birth attendant explained this situation as:

“... A pregnant woman should avoid eating much all the way through the period of her pregnancy so that the fetus will not become large. Nevertheless, if she eats too much as usual, firstly the fetus will become too large to be delivered. Secondly, she will experience severe bleeding during delivery.”

Another 43 old pregnant FGD participant reported, *“A pregnant women should reduce the number of meals she eat daily as she become at the late months of her pregnancy.”* While other pregnant women added to this view *“If the mother is too fatty, she should reduce her fat to keep the fetus from being large. She could fetch water; collect firewood; and looking after goats by walking long distance. This could help her to become thin.”*

Another FGD participant from Murga kebele also noted, *“If a pregnant woman is in the last months of her pregnancy, she should decrease the amount of all types of food items she eats in general, while meat, in particular, should be completely avoided.”*

In different with this view, 27-year lactating women reported differently,

“Pregnant women could eat much if she is told to do that by health professionals. For example, I know a neighbor that eats a lot amount of food as she get at home during her pregnancy because she was taking medication and told by the health workers in health center to eat more foods. She do not face difficulty when she give birth”

Table 4. Foods tabooed for pregnant in Aballa district, Afar Region, Ethiopia, 2016

Foods items	Description	Elaborative quotes
Solid foods Burkutta Mengelle Ambasha Bahamo	All solid form foods in which most of them are bread forms prepared locally. They participants call them as “Burkutta”, “Ambasha”, “Mengelle” and “Bahamo”	<i>“Pregnant women would not eat solid foods like “Burkutta” and “Bahamo” and including solid ‘injera’ during her time of pregnancy.” (29yrs pregnant woman)</i>
Roasted seed/ “Kollo”	These foods are believed to be painted on the head of the baby	<i>“... it would be painted at the head of the baby if eaten. It will not be dissolved and stay solid till she give birth” (56yr woman)</i>
Fatty foods Meat Camel milk Yoghurt	The foods assumed to have high fat content were reported as risky to make the fetus too large hence difficult to deliver.	<i>“...When a pregnant become arrives at her seventh and eighth month of her pregnancy she should completely stop eating milk, meat and some other ‘good foods’.” (40 yr TBA)</i>
Cool foods Cool milk Cool meat Cool water Yoghurt Cheese	Any types of foods that cool or cold were reported as tabooed for pregnant and lactating women	<i>“Foods that do not pass through fire are not good for pregnant women to eat. Mostly cool milk, yoghurt and cheese are prohibited...” (66yr Man)</i> <i>“Pregnant women should not make stay cooked meat for longer hours because they would be cool.” (45 yrs old man)</i>
Eating Much food	Eating much food is believed to make the fetus large and difficult to deliver.	<i>“A pregnant woman should avoid eating much all the way through the period of her pregnancy so that the fetus will not become large” (40 yrs TBA)</i>

Foods Taboo for Lactating women

According to the study participants, cool foods (milk, meat water and “Abish”) and solid foods “Burkutta, Mengelle, Bahamo, and Ambashha” are tabooed for lactating women similar to that of pregnant women, while the restriction for lactating women never lasts more than 45 days after giving birth. Few of the respondents shorten the length of restriction to 14 days immediately after birth thus, lactating women could eat foods whatever she get at home as of every women.

Similar to the pregnant women solid forms of foods including Burkutta, Mengelle and Bahamo are also tabooed for lactating women in Aballa district. A 33-year lactating FGD participant woman reported that, *“Solid foods like Burkutta are not good for both the pregnant and lactating women. They should preserve themselves to eat these foods.”*

Regarding the cool foods, study participants reported similar opinion as mentioned for pregnant women; that is cool foods should be avoided during lactation. Focus group discussion participants specified cool foods such as milk and cool meat and cold water as tabooed during lactation while the Key informant participants added “Abish” as tabooed for lactating women because it is cool to drink.

Twenty-seven year old lactating women stated these prohibited foods as:

“...In my opinion lactating woman should eat whatever she gets but she should abstain from eating foods that are cold during the early two weeks after they give birth. ... Lactating women should limit their diet to porridge and hot milk.”

Complimentary to this view, 42 aged elderly women FGD participant also explained the foods tabooed for lactating women comparing with pregnant women as,

“... A pregnant woman should not eat Burkutta because it is solid food, camel meat because it contains fat. ... However, all the foods avoided during the pregnancy will be eaten after 45 days of birth.”

An elderly woman FGD participant reflected different view in the discussion that she explained, *“There is no food prohibited for lactating women. She could eat whatever she gets at home. ... For lactating women all foods are good while meat and milk are especially good. If she can afford, she could eat whatever the food type is.”*

Moreover, within that period, the consequences of disobedience to the identified foods tabooed would be transfer to the child. A 48 years old, rural dweller woman elderly FGD participant said,

“In our community, child illnesses such as diarrhea, vomiting and abdominal pain are recognized as indications of non-compliance to the regulations that the women should avoid to eat. They should not eat cool milk and meat.”

The participants also indicated that foods eaten outside of her home such as at weeding or other ceremony are the source of child diseases. Hence, they reported that lactating women should avoid eating out of her home to prevent her child from getting sick. 33-year old lactating women FGD participant explained it as,

“During the period of lactation, women should avoid eating foods out of their home. These foods are mostly risky to diarrhea and vomiting for the baby. A woman in our community would be asked whether she eats food out of her home when her baby becomes sick. If she did that her parent’s would advise her to not eat foods out of her home for the future.”

Another 30-year old pregnant key informant also mentioned typhoid as possible consequence and she heighten the duration of expected time of compliance for the lactating women to one year after giving birth. *“... Typhoid and vomiting are the consequences of eating foods outside of home such as at weeding and funereal ceremonies. She should abstain eating such foods until her child become one year old.”*

Table 5. Foods tabooed for lactating women in Aballa district, Afar region, Ethiopia,2016

Food items	Description	Elaborative Quotes
<p><u>Solid foods</u></p> <p>Burkutta Mengele Bahamo Ambashsa</p>	<p>These are forms of bread made up of wheat using firewood and solar as source of energy.</p>	<p><i>“Solid foods like Burkutta are not good for both the pregnant and lactating women. They should preserve themselves to eat these foods.”(33 yr Lactating woman)</i></p>
<p><u>Cool foods</u></p> <p>Cool milk Cool meat Cool water</p>	<p>The foods are believed to cause disease for the child.</p>	<p><i>“In our community, child illnesses such as diarrhea, vomiting and abdominal pain are recognized as indications of non-compliance to the regulations that the women should avoid to eat. They should not eat cool milk and meat.”</i> <i>(48yr woman)</i></p>
<p>Foods eaten out of home</p>	<p>They are believed as cause for child illness.</p>	<p><i>“... A woman in our community would be asked whether she eats food out of her home when their baby becomes sick. If she did that her parent’s would advise her to not eat foods out of her home for the future.”</i> <i>.”(33 yr Lactating woman)</i></p>

Level of adherence of Pregnant and lactating women to food taboo

The study participants reported that due to the diseases that would happen to the mother, almost all pregnant women abstain from eating solid foods, foods with high content of fat and cold foods. Decreasing eating to all types of foods in general and fatty foods in particular was reported as the core of the food taboo in the district.

According to the participants, the level of compliance to this tabooed food should be increasingly heighten when she become near to the last stage of her pregnancy period while disobedience to the stated food taboo is believed to lead the mother to sever labour related problems including bleeding.

The participants also mentioned that most of the mothers in the community experienced longer labour time due to the large size of the fetus when giving birth. Therefore, every pregnant woman is told to adhere to the food taboo mainly to decrease the size of her fetus.

Twenty years aged pregnant women explained it as,

“In my opinion, I believe pregnant women should not eat the identified foods (the FGD participants mentioned meat, milk and cold foods during the discussion). If they eat these foods, they will have diseases.”

According to the participants, the adherence level of lactating women to the foods taboo when they breast feed was not as strong as that of pregnant women. It is mentioned that their adherence would be limited to the first forty-five days after giving birth. Another FGD participant, a 29 years old lactating woman reported it as,

“...Pregnant women should abstain from eating the foods associated with ill health strictly starting from the notified pregnancy to the delivery, while for the lactating women almost all foods are good for the health of the mother and her child if eaten after 45 days...”

Male elderly 41 years old FGD participant also explained this as, *“If lactating women frequently break rule by eating the prohibited foods like ‘Burkutta’ and if she always drink or eat cold foods her baby will get diseased. However, a single break of the rule may not lead to the disease.”*

Twenty seven years old lactating women was asked if she have ever seen a pregnant or lactating women having disease because of eating a food that is taboo; She replied for the question as follows; “I have never see any pregnant or lactating women having a problem because of eating the foods taboo. However, I myself experienced a problem because I ate solid foods with butter when I was feeding my breast for my older child. My child developed diarrhea and vomiting immediately. Therefore, in my opinion, every pregnant and lactating woman should not eat these foods (She mentioned drinking large amount of milk, all solid foods like Burkuta as taboo) because they may cause diseases to them and their children.” She also adds, “... *That is why I abstain from eating the foods for the current infant for the first two months. Now my baby is seven months old. I can eat the foods now.*”

According to the current study, the diet of pregnant women is limited to little amount, hot and soft foods. Thirty-five years old elderly women with six children agreed with this statement and explained it as; “*I believe pregnant women should not eat the foods (solid and fatty foods). Though there is no sever problem, however they can have gastritis if they eat solid foods for both the pregnant and lactating women. They should be restricted to only soft and warm foods.*” A 23 years aged health extension worker worked for 2 years in the area complemented this view explaining it as; “*Almost all pregnant women avoid eating prohibited foods and there is no pregnant woman who eats these prohibited foods.*” The study participants also mentioned that the lactating women should comply with them no longer than six weeks.

According to this study, tradition/culture plays a great role to lay out what pregnant and lactating women should not eat during their pregnancy and lactating period respectively. It is reported that pregnant and lactating women get information about foods tabooed during pregnancy and breast-feeding from their elders especially grandmothers. According to the respondents, the thought of foods tabooed during pregnancy and lactation has no religious base. Their tradition/culture made them to obey the regulations of foods tabooed. Twenty-seven years old lactating women key informant responded for the question on what their culture and religion say about food taboo during pregnancy as;

“... it is our culture (worded as “Adda”/ “Afar Adda”) not our religion that motivate pregnant and lactating women obedient to the orientation of avoiding eating some foods. I have never heard religious leaders informing someone else that pregnant and lactating

should avoid eating some foods because they are tabooed. We learn the tradition of avoiding tabooed foods from our elders.”

She also added that, “At this time every pregnant know what foods should be avoided from eating during her pregnancy. They have learned from their mothers and grandmothers.”

Another important thing regarding level of adherence to food taboo for the pregnant and lactating women is that most of the respondents heard about the foods tabooed they mentioned for pregnant and lactating women for the first time from their elders, mothers and grandmothers. In addition to being the first agents to transfer the thought of foods tabooed to the pregnant and lactating women, the elders and mothers also serve as reminders to the pregnant mothers to avoid the list of foods during their pregnancy and child feeding.

Reasons to adhere to food taboo for pregnant women

According to the study participants, the reasons for pregnant women to adhere to food taboo in Aballa district are difficulty to deliver the fetus, fear of disease for the mother and skin discoloration of the baby after birth.

Difficulty to deliver the fetus

The reason to avoid eating much food and fatty foods was fear of difficulty to deliver the fetus that it would become too large. Almost all participants stated that breaking the compliance to avoid these foods would result to this difficulty. A fifty years old participant of elderly men FGD explained this situation as, “... *Pregnant women should avoid eating meat especially camel meat because it contains fatty content. If she eats this food, the fatty content of the meat will make the fetus too large and that could result in suffering from difficulty to deliver the fetus.*”

54-year aged community leader explained the difficulty of delivery because of large seized fetus,

“...Often I am observing the women facing difficulty during delivery. This is when they eat a lot amount and “good” foods such as meat and milk. Thus, the size of the baby becomes very large so that it is hard to the mother to give birth.”

The community leader also stated the level of the difficulty she might face as,

“In our community, it is common that a pregnant woman experiences long period of labour and sever pain during delivery. She may take three to four days of labour. To my observation, I have see pregnant women experiencing a problem during delivery including sever bleeding.”

According to the participants, the problem of difficulty to give birth is mainly due to the large size of the fetus because of eating a lot of foods of all type and frequent presence of fatty foods in their diet during pregnancy. Hence, eating down is recommended by the community to make the size of the fetus keep small as much as possible so that it will help to ease the difficulty she would experience during giving birth.

Another 42 years old elderly men FGD participant also stated his agreement to pregnant women’s avoidance of “good foods” saying it as

“I believe they should avoid meat, milk, yoghurt. The pregnant mothers should also abstain from eating a much amount of food including water to prevent the fetus from getting large to reduce the risk of long labor, bleeding during labor. This problem is usual in our community; most women who ever give birth have experience of this problem.”

The pregnant women should avoid not only eating these types of foods, it is also expected from her to engage in activities that reduce her weight like walking a long distance, fetching water and collecting firewood to dissolve the fat in her body. 43-year old FGD participant stated this as,

“If the mother is too fatty, she should reduce her fat to keep the fetus from being large. She could fetch water; collect firewood and keeping goats by walking long distance. This could help her to become thin.”

Moreover, the study participants also mentioned that severe bleeding during labour and delivery could be due to either eating a much food and/or frequent eating of fatty foods during pregnancy or due to eating solid foods particularly different forms of bread. Sixty-six men elderly key informant explained this believe as,

“The pregnant would not have a power to dissolve solid foods such as “Burkutta”. Therefore, the foods could stay at her abdomen till she give birth thus makes her to bleeding during delivery.”

Hence, the reason to avoid consuming a solid food is believed to prevent harm on the abdomen of the pregnant women to the extent of bleeding. A sixty-six years old man key informant also strengthen this idea, *“Solid food items cause bleeding when she gives birth for they stay solid until delivery.”*

Disease

According to this study, among the reasons to adhere to food taboo for pregnant women in Aballa district of Afar region is that of preventing disease. This reason is the next repeatedly mentioned reason to avoid foods during pregnancy next to difficulty during delivery. Among the diseases reported to occur when a pregnant woman is disobedient to food taboo, Gastritis was frequently mentioned followed by Diarrhea, Vomiting, Abdominal Cramp and Typhoid.

They reported that solid foods are believed to cause gastritis (they call it as “Ali Diduh”) to the pregnant because they are very sharp and hard to dissolve when eaten.

A 27-year old lactating woman key informant also reported *“Burkutta and “Buhammo” cause gastritis (Ali diduh) to the pregnant. They will drink a lot amount of water thus causes gastritis and other diseases”*. She also added, *“Avoiding eating them helps them to avoid diarrhea, abdominal disease and vomiting for their child.”*

According to the study participants, cool food items are believed to cause abdominal diseases like bloody diarrhea, vomiting, distention/”Yehod Menefat” to the woman and her fetus.

Health Extension Worker also explained *“...it is said that eating cool foods causes abdominal diseases. Often, they believe she could experience abdominal pain, vomiting, and rarely severe and bloody diarrhea.”*

Fifty-four year elderly man key informant reflected a different view to the diseases caused by in compliance with foods tabooed during pregnancy as,

“I have not seen a pregnant woman got sick because she eats the solid foods but it said that they should not eat and I also believe that they should avoid eating the foods. It is not correct to advise them to eat the foods.”

However, 40-year Traditional birth attendant opposed this view saying as, *“we are saying they should avoid eating solid foods thus help to prevent gastritis. There is no other problem with the foods other than Gastritis. If they do not fear of having gastritis, they could eat the foods, no problem.”*

In addition to gastritis, the study participants also reported that eating solid foods could cause abdominal disease and heartburn for the pregnant. Health Extension Worker also reported that,

“Though this view is not supported by evidences the pregnant women’s believe is that because solid foods are sharp, they will harm her abdomen then can lead her to abdominal cramp. While additionally the foods could stay solid until she gives birth thus could lead her to suffer from gastritis.”

Another ill health consequence of eating solid foods during pregnancy as reported by the participants is heartburn /“Kar”. Moreover, study participants also mentioned that eating solid foods could make her drink a lot of water, which causes abdominal pain and distention. Thirty five aged elderly women also suggested, *“If a pregnant woman eats eating solid foods repeatedly, it would cause gastritis and heartburn/”Kar.”*

The reasons mentioned by the participants to avoid cool Milk, cool Meat, Yoghurt and cheese was because they are believed associated with bloody diarrhea, vomiting, abdominal disease and typhoid. A rural 54 years old key informant TBA also reported that she rarely sees a pregnant woman eating cool foods in her community that experienced diarrhea and abdominal cramp. She added her experience of diarrhea and vomiting as the result of drinking cool milk when she was a pregnant. Another 54 aged elderly man key informant stated his opinion on why pregnant women should avoid eating cold foods as,

“...regarding the cold foods, pregnant woman should avoid eating foods that are not hot. During her pregnancy period, she should not eat cool milk forms such as cheese because they cause diarrhea, abdominal disease and vomiting. They also can cause typhoid for the mother if frequently eaten.”

The study participants also added diarrhea as among ill-health consequences of eating fatty foods such as meat and milk during pregnancy. Thirty seven-year old Pregnant women FGD participant explained, *“Pregnant should abstain to eat too much meat and Yoghurt during their period of pregnancy because these foods have fatty content they causes diarrhea for the pregnant. Particularly, they do not consume yoghurt frequently”.*

Skin discoloration

Few participants also reported that preventing discoloration of the skin of the baby, as the other reason to avoid eating fatty foods especially Camel's milk and camel's meat during pregnancy. Though the FGD participants do not reach in agreement, a 25-year lactating women mentioned it as, "*... If a pregnant women eats fatty meat, the fat will be painted on the head of the fetus thus the head skin of the baby becomes yellow in color when born. Eating camel meat is particularly makes the head skin yellowish*" Another 27-year old key informant, also reported "*The place of the head where that fat painted on would be mostly yellowish hair and sometimes bald. Camel milk and fatty meat are the main causes for balding*".

Though not repeated by most few participants mentioned the need to avoid eating roasted or seeds/ "Kollo" during pregnancy explaining it could be painted on the head of the baby when born. A 30-year-old pregnant women key informant stated it as, "Roasted grains should not be eaten frequently by pregnant women. It does not have a problem for the woman but it could be painted on the head of the baby. Sometimes it could cause ulcer on the place that is painted often on head." She also added the head of the baby as the part of the baby that could be painted and it rarely to happen on other body parts of the baby.

Table 6. Reasons to adhere foods tabooed for pregnant mother in Aballa district of Afar region, 2016.

Foods tabooed	Reasons mentioned	Elaborative quotes
Solid foods Burkutta Mengelle Ambasha Bahamo	Gastritis Abdominal disease Bleeding during delivery Heartburn	<p><i>“Burkutta and “Buhammo” cause gastritis (Ali diduh) to the pregnant...”(27 yr lactating women)</i></p> <p><i>“...There is no other problem with the foods other than Gastritis. If they do not fear of having gastritis, they could eat the foods, no problem.”(40-yr TBA)</i></p> <p><i>“...pregnant women’s believe is that because solid foods are sharp, they will harm her abdomen then can lead her to abdominal cramp...”(HEW)</i></p>
Fatty foods Meat Camel milk Yoghurt	Difficulty during delivery including sever bleeding Diarrhea Fat would be painted on head of the baby when born	<p><i>“... Pregnant women should avoid eating meat especially camel meat because it contains fatty content. ... the fetus will become too large and that could result in suffering from difficulty to deliver the fetus.”(50yr Men)</i></p> <p><i>“... These foods have fatty content they causes diarrhea for the pregnant...” (37 yr pregnant women)</i></p>
Cool foods Cool milk Cool meat Cool water Yoghurt Cheese	Bloody diarrhea Vomiting Abdominal pain Typhoid	<p><i>“...it is said that eating cool foods causes abdominal diseases. Often, they believe she could experience abdominal pain, vomiting, and rarely severe and bloody diarrhea.”(HEW)</i></p> <p><i>“During her pregnancy period, she should not eat cool milk forms such as cheese because they cause diarrhea, abdominal disease and vomiting...”(54yr Man)</i></p>
Eating Much food	Difficulty during delivery	<p><i>“...Often I am observing the women facing difficulty during delivery. This is when they eat a lot amount and “good” foods</i></p>

	b/c the baby becomes large. Bleeding during delivery	<i>such as meat and milk. Thus, the size of the baby becomes very large so that it is hard to the mother to give birth...”(54yr man)</i>
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Reasons to Adherence to food taboo for Lactating women

According to the respondents, the foods taboo for lactating women in Aballa district of Afar region are also cold milk, cold meat, “Abish” and all bread form solid foods (Table 5). The participants the reasons mentioned to adhere to the tabooed cool foods is to prevent diseases happen to the baby. Allmost all participants called solid foods as tabooed for lactating women for the first month and half after give birth. They are believed to cause heartburn for the woman and gastritis for the baby. Thirty-four year old pregnant woman FGD participant explained why solid foods are not good for lactating women as,

“These foods are not good during pregnancy and lactation because the causes gastritis. foods like “Burkutta” would not be dissolved in her body. It would be stayed, as it is for long time thus it causes gastritis. These foods are not also comfortable for newly ever give birth women because her body is not becoming strong because of labour. Hence, her body could not digest it.”

Another 22-year lactating woman FGD participant also mentioned the consequences of eating solid foods as, *“Because these are solid foods, it could make the lactating women to drink a lot amount of water. This would be transferred to the fetus and in turn would cause gastritis for the baby”*

A 35 year community elder key informant also mentioned also mentioned heartburn as a cause of frequent eating of solid foods. Then he mentioned that *“I always advises my wives (he reported that he have two wives currently) to restrict their diet to soft foods women during the first 45 days lactation to avoid gastritis and heart burn.”*

Cold foods are believed to cause bloody diarrhea, vomiting, typhoid and abdominal cramp to the baby. The foods taboo reported for lactating women are applied no longer than the first six weeks after giving birth, according to the study participants.

A 27-year old lactating women key informant explained,

“For the lactating women the disease often happens to the child because the consumed cool foods such as uncooked milk. Eating foods today that are cooked before the day or stayed for longer hours causes diarrhea and abdominal cramp to the baby.”

Thirty-five years old FGD participant lactating women also explained the reasons to adhere to foods tabooed during lactating as

“... All the foods that are prohibited during pregnancy would be eaten after 45 days of giving birth, and there is no problem to eat any types of foods available at home.” The respondent also added, *“...However, during the early six weeks, her diet should be limited to hot foods such as porridge, “Shiro” and hot milk. Often they avoid consuming solid foods to prevent gastritis. These foods would not dissolve for long period of time and this causes gastritis.”*

Complimentary to this, 40 years aged traditional birth attendant also stated the reasons to comply with the foods taboo of cool foods for lactating woman in the in-depth interview as,

“ ... Lactating woman should not drink cool camel’s milk because it causes “Medalyta” (to mean “Yehod Menefat”). If she eats the cool foods, she would get sick of typhoid. She would also be at risk of frequent vomiting.”

According to this study, the reason to adhere to food taboo for lactating women was reported to prevent the child from disease that is not similar with the reasons mentioned for pregnant women. They also reported that the duration to comply with the restrictions do not stay longer than 45 days unlike the pregnant women.

Table 7. Reasons to adhere foods tabooed for lactating women in Aballa district, Afar region, Ethiopia, 2016.

Foods tabooed for LW	Reasons to adhere to the taboo	Elaborative quotes
<p>Cool foods Cool milk, Cool meat Abish/"Hilwa",</p>	<p>Bloody diarrhea, Vomiting Abdominal pain to the child</p>	<p><i>" ... Lactating woman should not drink cool camel's milk because it causes "Medalyta" (to mean "Yehod Menefat"). If she eats the cool foods, she would get sick of typhoid. She would also be at risk of frequent vomiting."</i></p> <p><i>"... All the foods that are prohibited during pregnancy would be eaten after 45 days of giving birth, and there is no problem to eat any types of foods available at home."(35 yr lactating women)</i></p>
<p>Solid foods Burkutta Mengelle Bahamo Ambasha</p>	<p>Gastritis Heart burn/Kar</p>	<p><i>"These foods are not good during pregnancy and lactation because they cause gastritis. Foods like "Burkutta" would not be dissolved in her body. It would be stayed, as it is for long time thus it causes gastritis. (34yr pregnant women)</i></p> <p><i>"...However, during the early six weeks, her diet should be limited to hot foods such as porridge, "Shiro" and hot milk.(35 yr elderly man)</i></p>

6. Discussion

According to the current study, “good foods” were reported as tabooed for pregnant women, as most of the foods were associated with the size of the fetus and the difficulty to deliver it. Hence, based on the community’s orientation, a fetus should be small to the minimum possible to reduce the risk of difficulty to deliver it. For this to happen, it was reported that pregnant women should avoid eating a much food and fatty foods. Compliance to these foods tabooed was reported helpful to ease the problems attached to labour and delivery including severe bleeding.

This result is in line with other findings from Hadya zone and Shashemene district of Ethiopia and South Eastern Nigeria that reported women’s claim to difficult delivery as the result of increased size of the fetus due to consumption of nutritious foods (19, 23, 30, 53). This may be due to lack of knowledge on the need of weight gain during pregnancy for the health of the fetus and the mother. The wide prevalence of the practice of female genital mutilation may also contribute to this thought, as the elastic nature of women’s vagina may be lost and then increase the risk of difficulty to deliver the fetus. Evidences from Afar region previously revealed that the prevalence of FGM for the region ranges to 90% by 2012(51).

In Aballa district, foods of animal sources including meat, milk and milk products were reported as tabooed for pregnant women for the main reason that they could make the fetus large because of their content. This result is similar with a finding found from Hadya zone of Southern Ethiopia that revealed milk and cheese as the most common tabooed foods for pregnant mother avoided by nearly half of the women in the zone (30). A study from Shahsemene also reported milk and fatty meat as tabooed for pregnant women (23). A study conducted in west Malaysia, Mid-west Nigeria and India supports this finding (18). Though milk has a potential to contribute up to half of dietary energy requirements among pastoral communities (29), it is a strong food taboo for pregnant mothers in Aballa district of Afar region.

In addition to the myth of eating down and abstain from eating “good foods” for the pregnant women, the current study also shows that solid foods(like different bread forms) and cool foods (including Milk, Yoghurt, Cheese, water and Meat) were tabooed for pregnant and lactating women. The reasons reported were the solids are believed to cause gastritis and the colds are believed to predispose diseases like diarrhea, typhoid and abdominal cramp.

This finding seems in line with previously reported evidences that the pregnant and pregnant women often face a large number of food proscriptions and prescriptions based on the hot-cold belief as pregnancy is commonly considered as hot state and the postpartum period a cold state (42, 43). Despite of the deference in study setting, time and method, related beliefs were also reported previously from ethnographic study that ‘cold’ foods should be prohibited during lactation but for different reason than found in this study. The previous study explains that prohibiting the foods for lactating women are associated with controlling the quality and quantity of milk production while preventing disease was the reason mentioned by the participants in Aballa district (38).

Meanwhile, this evidence may underpin that food taboo is adding additional challenge to maternal and child nutrition in the district. In synergy with other factors like high women illiteracy rate (74%), wide prevalent of FGM (90%), shortage of food for the general population (60% of the population is under lower wealth quintile), low women decision in household income (8, 10, 12, 50, 51, 52), it is anticipated that food taboo would make the women continue as disproportionally affected by malnutrition.

Regarding the level of adherence to food taboo in the district, the participants explained that it is common in their district for pregnant and lactating women with less than six weeks of giving birth to abstain from eating the identified foods. Furthermore, more number of foods were reported as tabooed during pregnancy than during lactation in the district while the consequence of non-compliance the taboo occurs only if break is happened frequently. In general, this may indicate that the risk of suffering from malnutrition because of their adherence to food taboo could be predictable for pregnant and lactating women in the district. This finding is in congruence with the literatures review by Alonso (2015) that revealed foods taboo affect access to food and nutrients being pregnant and young children at the top vulnerability (11,20).

Regarding the reasons to avoid some of the food items for pregnant women, i.e. eating much, fatty foods, solid foods and cold foods) the reasons lay under three categories. The first is minimizing the risk of difficulty to deliver by shortening the duration of labour and reducing risk of excessive bleeding. The second is preventing diseases such as gastritis, diarrhea, typhoid and abdominal cramp. Another findings in the glob also repeatedly reviled illness and death as the consequence of not adhering to an established taboo (13,14,15,18).

The third reason is preventing skin discoloration of the infant when born. Meanwhile, preventing disease for the infant was the main reason to adhere the foods taboo for lactating women. Among the reasons, religious related orientations were not reported, which makes this finding different from a finding from Ghana district in which religious leaders either advice or remind pregnant women to keep compliant to the foods tabooed (31).

The current study also revealed that community elders and grandmothers took the role of advising and reminding pregnant and lactating women to adhere to foods taboo. This may indicate the need to consider working with them in efforts to tackle the impact of foods taboo in nutritional security in Afar region.

7. Conclusions

Foods tabooed for pregnant and lactating women were found to exist in Aballa district. In Aballa district eating much food, foods with fatty content were reported tabooed for pregnant women. Foods that are in solid forms like bread and cool/cold foods were reported tabooed during pregnancy and the first 45 days of lactation. Hence, food taboo could pose considerable risks of maternal malnutrition and their offspring. Regarding the level of adherence to the food taboo, pregnant women avoided numerous easily accessible foods and were compliant until the end of their pregnancy compared to lactating women, while lactating women adhere only to the first 45 days after delivery. Fear of difficulty during delivery and preventing disease were the commonly reported reasons for adherence to the foods tabooed for pregnant women while preventing the child from disease was repeatedly reported reason to be compliant to the foods tabooed during lactation.

8. Recommendations

Afar regional health bureau should mobilize governmental and non-governmental organizations for concerted efforts to design and implement strategic health communication intended to reorient misconceptions and myths for the pregnant and lactating women regarding the food taboo. As this study is cross-sectional study, approaching the phenomenon through longitudinal designs like ethnographic study will be vital to uncover the detailed view of the food taboo and how it is being practiced in Afar region. Moreover, conducting quantitative will be crucial to

have an insight on the extent of the food taboo among the pregnant and lactating women so that it may have complementary role to this study.

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Annexes

Annex I: FGD Consent Form

The written consent form presented here below will be used for each FGDs. After assuring all applicable ethical issues presented under “Ethical Considerations “ section of this document, the translated version of this form will be read by data collectors for each participants of FGD first and consent will be obtained to participate in the FGDs and responses recording. Then group consent will also be obtained collectively. Finally, participants socio-demographic characteristics will be recorded in table format after explaining its purpose is to dialogue and communicate more respectfully and identifiers will be kept anonymously after data collection.

Introduction

Good morning/afternoon to all. I want to begin by thanking you for joining our group. My name is Znabu Hadush and I will serve as the head of this focus group discussion. This is a way for us to hear what you have to say issues that concern you, your community and the nation as a whole which will help in designing programs that are supposed to help you. The discussion is planned for about an hour and half. We are going to talk about how much you know about the common food taboos during pregnancy and lactating in your district, the prohibited foods and the reasons why pregnant women adhere to these taboos and the source of information for pregnant mothers adhere the prohibition.

We want you to explain to us how you got to know about these taboos, for how long and what your thoughts are about the practice in your district. There may be several different foods that are prohibited during pregnancy and lactating; we also want you to tell us these foods and the reasons for their prohibition. We will talk further about what is expected to happen to pregnant and lactating women who fail to adhere to the various taboos. Even though we are very happy about your participation, let me say, you have the right to continue or withdraw at any time or express any concern that you may have about what is done here.

Procedures/ Ground Rules;

No right or wrong answer;

We want to hear your general opinions but your personal practice should not be reported.

Be honest; want to know what you really think;

Anything you say will be regarded important; so don't be shy;

No need to raise your hand; but one person talks at a time;

Annex II: Focus Group Discussion (FGD) Guide

FGD guide for Pregnant and lactating women FGD, Female elderly FGD and Male elderly FGD

Part 1.Participant Introduction and Listing

S.No	Age in years	Residence	Religion	Occupational status	educational status	Number of children
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Part 2. Let Us Get Started.

1. Are there any Food prohibited for pregnant mothers in your district? If yes list them.

Do they eat these foods outside pregnancy? _____

2. Are there any Food prohibited for lactating mothers in your district? If yes list them.

Do they eat these foods outside lactating? _____

3. What do you know will happen if the pregnant eat them ?

What about for lactating woman?

4. Should pregnant mothers adhere to these prohibitions? If yes Why?

What about lactating women? If yes Why?

5. Do you know a pregnant mother who do not adhere to these Food Taboo? What happen to her? _____

What about lactating women? What happen to her?

6. What are your views about women observing Food Taboo during pregnancy?

What about during lactating? _____

7. Why do you think women should observe Food taboo during pregnancy? Tell me in detail.

8. Why do you think women should observe Food taboo during lactating? Tell me in detail.

9. When they observe Food Taboo during pregnancy, do you think them as doing the right thing? Why? Why not? -

What about during lactating? Why? Why not? _____

10. Is it common to prohibit some food items for pregnant mothers in this area? Probe: Explain.

What about during lactating? Probe. Explain.

11. In this area, what does culture say about being pregnant in the first place? Probe further: What about religion?

What about during lactating?

12. To the best of your knowledge, are all pregnant women adhere to the Food Taboo in this district?

What about during lactating?

13. Are there others who do not observe Food Taboo?

What about lactating women?

14 . What are the reasons they give for not adhering to the Food Taboo?

14. What do you think will happen to them if you refuse to observe the Food Taboos?

15. What about for lactating women?

16. How did they get to know about Food Taboo during pregnancy? Probe: During labor?

What about during lactating?

17. How are they reminded to observe Food Taboo during pregnancy? Probe: Mother? Mother In Law? Community elders? _____

18. Why did they say pregnant women should avoid eating them? Probe: Explain.

What about during your first pregnancy?

Thanks for your time and your kind participation!!!

Annex III. Key informants Consent form

The written consent form presented here below will be used for each Participant in KII. After assuring all applicable ethical issues presented under “Ethical Considerations “ section of this document, the translated version of this form will be read by data collectors for each participants and consent will be obtained to participate in the FGDs and responses recording.. Finally, participant’s socio-demographic characteristics will be recorded in table format after explaining its purpose is to dialogue and communicate more respectfully and identifiers will be kept anonymously after data collection.

Introduction

Good morning/afternoon. I want to begin by thanking you for joining our interview. My name is Znabu Hadush and I am from Jimma University and will serve as the head of this interview. This is a way for us to hear what you have to say issues that concern you, your community and the nation as a whole which will help in designing programs that are supposed to help you. The interview is planned for about 45 to 90 minutes. We are going to talk about how much you know about the common food taboos during pregnancy and lactating in your district, the prohibited foods and the reasons why pregnant women adhere to these taboos and the source of information for pregnant mothers adhere the prohibition.

We want you to explain to us how you got to know about these taboos, for how long and what your thoughts are about the practice in your district. There may be several different foods that are prohibited during pregnancy and lactating; we also want you to tell us these foods and the reasons for their prohibition. We will talk further about what is expected to happen to pregnant and lactating women who fail to adhere to the various taboos. Even though we are very happy about your participation, let me say, you have the right to continue or withdraw at any time or express any concern that you may have about what is done here.

Ground Rules ;

No right or wrong answer;

We want to hear your opinions about food taboo

Be honest; we want to know what you really think;

Anything you say will be regarded important; so don’t be shy;

Annex IV. Key Informants Interview Guide

Part 1. Participant Introduction and Listing

S.No	Age in years	Residence	Religion	Occupational status	educational status	Number of children
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Part 2. Let Us Get Started.

Sex	Age	Address	Religion	Education	Occupation	No Of Children

1. Are there any Food prohibited for pregnant mothers in your district? If yes list them.

Do they eat these foods outside pregnancy? _____

2. Are there any Food prohibited for lactating mothers in your district? If yes list them.

Do they eat these foods outside lactating? _____

3. What do you know will happen if the pregnant eat them ?

What about for lactating woman?

4. Should pregnant mothers adhere to these prohibitions? If yes Why?

What about lactating women? If yes Why?

5. Do you know a pregnant mother who do not adhere to these Food Taboo? What happen to her? _____

What about lactating women? What happen to her?

6. What are your views about women observing Food Taboo during pregnancy?

What about during lactating? _____

7. Why do you think women should observe Food taboo during pregnancy? Tell me in detail.

8. Why do you think women should observe Food taboo during lactating? Tell me in detail.

9. When they observe Food Taboo during pregnancy, do you think them as doing the right thing? Why? Why not? -

What about during lactating? Why? Why not? _____

10. Is it common to prohibit some food items for pregnant mothers in this area? Probe: Explain.

What about during lactating? Probe. Explain.

11. In this area, what does culture say about being pregnant in the first place? Probe further: What about religion?

What about during lactating?

12. To the best of your knowledge, are all pregnant women adhere to the Food Taboo in this district?

What about during lactating?

13. Are there others who do not observe Food Taboo?

What about lactating women?

14 . What are the reasons they give for not adhering to the Food Taboo?

14. What do you think will happen to them if you refuse to observe the Food Taboos?

15. What about for lactating women?

16. How did they get to know about Food Taboo during pregnancy? Probe: During labor?

What about during lactating?

17. How are they reminded to observe Food Taboo during pregnancy? Probe: Mother? Mother In Law? Community elders? _____

18. Why did they say pregnant women should avoid eating them? Probe: Explain.

What about during your first pregnancy?

Thanks for your time and your kind participation!!!

Annex V. Afar Aff Version of FGD guide with its respective informed consent

Mascassa

Yi migaq **Zinabu Hadush**. Anu akak emeetem Jimma uniiversii. Anu akusaq aba Jima University qaafiyat barittoh college bartenay akusaq abta buttak numuk teenah anuk adaqaarih addal soolim kee alqiinoonuh tan inontil waasole [xage waanam faxxinta] maaqoh kusaqa

Akusaq waksiisak dagoo adda fakoot abeyyoooh adda fakoot fanah gexaamak naharal meqennal yoo anka cissam massa kaxxaluk kol essera.

Tohuuk ugutak akusaaqak tuxxiq kee caala tittle wagsisak koh kaawiseyyo. Aku saqatat gabat agle abtam kee cintam yoh warsetto. Anu esseram soolimih tan inonti kee alqiinaanaay; rasi kasle kinnuuk atu aku saaqat gabat agle le marak tiyak teena [numuk teena] kinnitooh ,

Akusaaqak gexsit essero gacsa nummaane midaanisiyyi gurral abennooh. Ku sirri elle faxximma iyyanal dacarsimeleeh ,tonnah akusaaqih tuxxiqil dubuh asele.Ummaan num elle yamixxige sirri bedu[loowo]leeh migaq kaak maxagna .Akusaaqak gabbaaqu kee xaloot itta fan gacissa hayneh tuxxiqil asele.Esserok gacsi ku fayxil rakiiboh yan cintam duddah xagtam duddah

Takkay ikkah ku gabat aglet a kusaqaah kaxxa tuxxiq leeh mangom soolimih tan inonti kee alqiinoonuh tan inontih tawqe ikraaroh kaxxa tuxxiq le ,Abtu wayta gabat agleh gadda koh gacsa.

edde xinta

faxxa heemit yaabam duudah

kok fanxam dubuh mabla ikkah abina hinna.

gitaak ish tuscubeemit yab caya sinnim.

atu edde yabba ta yab inkih tuxxiq lek meesitekkah edde yab;

yabti saami geyeenuh gaba rubti mafaxxinta laakin inki wak inki num yaabele;

2^{haytoh} exxa

butta walal hangi elle yaceem :- sooliimiiy;alqiinon kee kasle mara.

nammay haytoh exxe itta barittiyya kee gabat agleey; itta ankacisiyya

I.L	Karma liggidah	guub	Diini	Taama wagittam	Bariitoh footima	Xaylok lem
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

nammay haytoh exxa qimbis nay

B. xagaanam faxxiime sinni maaqoh ixxiga

1.Caraamak tan maaqo taxigeeni a. is macaay

b. sin dariifal caraamak tan maaqo tani? wiliq: solimiini tan uddur? alqiinah tan uddur?

c. macaay soolimiini uddur maaqok baali akah wasaanam? wiliq: xalay uddur? alqiinah tan uddur?

2. kok caraamak tan maaqoh abak raag kee ixxig maca celtaah soolimini uddur kee alqiinahtan uddur?

3. mablaa kee elle aminiyya a.kok mabla maca celtaah caramak tan maaqo xalay waktii kee alqiinah uddur?

4. maca koy celtaah soolimini uddur maaqok bali akah wasaanam ? wiliq:- xalay uddur? alqiinah uddur?

5.soolimiini uddur akme woonay iyyen maaqo yokmeenik maca kot celtaah?

wiliq: xalay uddur? alqiinah. macah? macah akke waytaah?

6. ankek geeniih caraamak tan maqoh xaagu {waasole maaqok}

7. ankek geyteeh soliminul wasen maaqok xaagu? wiliqe xalay uddur, alqiinah uddur?

- a. .malaqook xabba haanam taaxigeeh waasen maaqoh xaagu b.miyaaay afaak koh warissem
8. iyyaay koo kassissam soolimiini uddur waasen maaqo? wiliq xalay uddur? alqinah uddur? macaay soolimini uddur maaqok baali akah wasaanam?
- 9..mannal ken kassiisanaah; iyyi ken kassiisaah; soolimini uddur waasole maaqo? wiliq: ina , ballo,rasi iddolu.
- 10.magide yakeenim kot celtaah amaaqo caraama axcuk yaamine mari awayih udduurul? qaddos?
- 11.adariifah addal cisartoh tan soolimak qaadah wasan maaqo maca iyyan ? baarluk qaados?
- 12.sin caddol inkih tan soolim waasole maaqo qadaay; diinil yaaxigeenih yaanamih ixig litoonu?
13. waasole maaqo tanm aaxige waamari yanii?
- 9a akah aaxige wan sabab macaay waasolem?
14. fooca fanah maca yascubeenih waasole maaqol caban ken tak wasaanam maca leeh?
15. macaa kee macaay soolimih tan inintik akme woonay yanam?(wiliqe toh) taysaaxxe barrak iyyaanam? baar luk qaddos? yokmeenik macaleeh? (isiyyil toh).
16. yokmeenik macaleeh soolimahane waan wak? qaddos: xalayuddur okmeenik? alqiinah yokmeenik?
17. ossotinah mango uddur akme waan maaqo macaay? qddos: macaay?
18. sin mablah, macaay amaaqo akah cabaanam?

GADDA GEYA

Annex VI. Affar aff version of Key informants interview with its respective informed consent

Mascassa

Yi migaq **Zinabu Hadush** anu akak emeetem Jimma uniiversitii anu akusaq aba Jima University qaafiyat barittoh college bartenay akusaq abta buttak numuk teenah anuk adaqaarih addal soolim kee alqiinoonuh tan inontil waasole [xage waanam faxxinta] maaqoh kusaqa

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kasle kinnuuk atu aku saaqat gabat agle le marak tiyak teena [numuk teena] kinnitooh ,

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bedu[loowo]leeh migaq kaak maxagna .Akusaaqak gabbaaqu kee xaloot itta fan gacissa hayneh tuxxiqil asele.Esserok gacsi ku fayxil rakiiboh yan cintam duddah xagtam duddah

Takkay ikkah ku gabat aglet a kusaqaah kaxxa tuxxiq leeh mangom soolimihi tan inonti kee alqiinoonuh tan inontih tawqe ikraaroh kaxxa tuxxiq le ,Abtu wayta gabat agleh gadda koh gacsa.

edde xinta

faxxa heemit yaabam duudah

kok fanxam dubuh mabla ikkah abina hinna.

gitaak ish tuscubeemit yab caya sinnim.

atu edde yabba ta yab inkih tuxxiq lek meesitekkah edde yab;

yabti saami geyeenuh gaba rubti mafaxxinta laakin inki wak inki num yaabele;

2^{haytoh} exxa

butta walal hangi elle yaceem :- sooliimiiy;alqiinon kee kasle mara.

nammay haytoh exxe itta barittiyya kee gabat agleey; itta ankacisiyya

I.L	Karma liggidah	guub	Diini	Taama wagittam	Bariitoh footima	Xaylok lem
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

nammay haytoh exxa qimbis nay

B. xagaanam faxxiime sinni maaqoh ixxiga

1.Caraamak tan maaqo taxigeeni a. is macaay

b. sin dariifal caraamak tan maaqo tani? wiliq: solimiini tan uddur? alqiinah tan uddur?

c. macaay soolimiini uddur maaqok baali akah wasaanam? wiliq: xalay uddur? alqiinah tan uddur?

2. kok caraamak tan maaqoh abak raag kee ixxig maca celtaah soolimini uddur kee alqiinahtan uddur?

3. mablaa kee elle aminiyya a.kok mabla maca celtaah caramak tan maaqo xalay waktii kee alqiinah uddur?

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5.soolimiini uddur akme woonay iyyen maaqo yokmeenik maca kot celtaah?

wiliq: xalay uddur? alqiinah. macah? macah akke waytaah?

6. ankek geeniih caraamak tan maqoh xaagu {waasole maaqok}

7. ankek geyteeh soliminul wasen maaqok xaagu? wiliqe xalay uddur, alqiinah uddur?

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8. iyyaay koo kassissam soolimiini uddur waasen maaqo? wiliq xalay uddur? alqinah uddur? macaay soolimini uddur maaqok baali akah wasaanam?
- 9..mannal ken kassiisanaah; iyyi ken kassiisaah; soolimini uddur waasole maaqo? wiliq: ina , ballo,rasi iddolu.
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- 11.adariifah addal cisartoh tan soolimak qaadah wasan maaqo maca iyyan ? baarluk qaados?
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18. sin mablah, macaay amaaqo akah cabaanam? qddos: macaay?

GADDA GEYA

The End!!

