

# Food related taboos and misconceptions during pregnancy among rural communities of Illu Aba Bor Zone, Southwest Ethiopia

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## Research article

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# Abstract

**Background:** Poor maternal nutrition adversely affects pregnancy and birth outcomes. In many societies, pregnant women have food taboos and misconceptions which consequently results in the depletion of vital nutrients. These cultural malpractices and beliefs can influence dietary intake of pregnant women which subsequently affects the birth outcome. This study aimed at exploring the extent of food taboos and misconceptions during pregnancy in rural communities of Illu Aba Bor Zone, Southwest Ethiopia.

**Methods:** A qualitative study was conducted using in-depth interviews of key informants and focus group discussions among purposefully selected pregnant women and their husbands, elderly people, health workers and health extension workers. Data were transcribed verbatim, thematized; color coded and analyzed manually using the thematic framework method.

**Result:** Thorough reading and review of the transcripts generated three major themes. The first theme was belief and practice of taboos related to the intake of certain food items during pregnancy. Pregnant women, their husbands and mothers-in-law believed that certain foods should be avoided during pregnancy. The second theme was foods that were held as taboo and the reason attached to the food taboos. The most common food items held as taboo were related to the consumption of vegetables like cabbage, pumpkin, milk and milk products, sugar cane, fruit like banana and avocado and egg and the main reasons to avoid these foods were a belief that it can be plastered on the fetal head, making fatty baby which is difficult for delivery. The third theme was the reasons underlying adherence to food taboos which is deeply embedded in the personal beliefs and attitudes of the pregnant women, who were nested within the influence of the social environment surrounding them and the traditional beliefs and values of the society in general.

**Conclusions:** The results showed a widespread practice of food taboo during pregnancy in the study area. The finding suggested that there is a need for strengthening the nutrition counseling components of antenatal care follow-up and planning comprehensive nutrition education through involving important others to dispel such traditional beliefs and prevent food taboo practices in the study community.

## Background

Pregnancy is a period when physiological nutrient demands are considerably increased. It imposes the need for considerable extra calorie and nutrient requirements. Therefore, a balanced and adequate diet is of utmost importance during pregnancy and lactation to meet the increased needs of the mother and to prevent "nutritional stress"(1).

However, dietary restrictions due to misconceptions or food taboos during the critical period of pregnancy may compromise the pregnant woman's ability to meet the increased demands of the extra calories and nutrients, hence putting the woman at an increased risk of adverse pregnancy outcomes (2).

The practice of food taboo is widespread in developing countries, even though there is a variation in the type of food considered as taboo and the reasons attached to it vary from society to society. For example, in a study in Cape town, South Africa, the most commonly avoided foods were meat products, fish, potatoes, fruits, beans, eggs, butternut and pumpkin, which are rich in essential micronutrients, protein and carbohydrates and the reasons for avoidance of the foods were associated with pregnancy outcome, labor and to avoid an undesirable body form for the baby(3). Similarly, snails and grass cutter meat are taboo among pregnant women in South Eastern Nigeria(4). In a study in shashmane district, Ethiopia, food items avoided were, linseed, honey, milk, fatty meat, eggs, fruits and vegetables and reasons mentioned for avoidance of this food item were Plastered on the fetal head, makes fatty baby and difficult delivery, fear of abortion, evil eye, fetal abnormality(5). Similar in a study in Arsi Zone, Central Ethiopia, the most common taboos were related to the consumption of green leafy vegetables, yogurt, cheese, sugar cane, and green pepper(6). While adequate dietary intake during pregnancy could be affected by many factors including affordability and accessibility, food taboo has been recognized as one of the factors contributing to maternal under-nutrition in pregnancy; especially in rural settings(7, 8).

Food taboos are closely related to dietary intakes of pregnant women underscoring the need for assessing food taboos and related misconceptions during pregnancy to design appropriate interventions at national, regional and local levels. However, studies in Ethiopia particularly that involves a number of actors that can influence food consumption like health workers, the elderly women, and health extension workers, as well as husbands of pregnant women are rare, if not nonexistent. Hence, this study used focus group discussions (FGDs) with pregnant women and their husbands, as well as key informant in-depth interviews (KIs) with various actors to explore maternal dietary habits, food taboos, and misconceptions that can influence dietary intake of pregnant women in rural Ethiopia.

## **Methods**

### **Study setting**

The study was conducted in eight rural Kebeles (the lowest administrative unit) selected from four districts of Illu Aba Bor Zone, Southwest Ethiopia. Illu Aba Bor zone is one of the twenty-one zones in Oromia regional state. The Zonal town, Mettu is found at a distance of 600km from Addis Ababa to the southwest direction. The Zone has 14 districts with a total population of 933,345 where 467,553 are males. Agriculture is the dominate means of livelihood in the Zone and cereals like maize, sorghum, millet and legumes such as beans and peas are the main grown crops. Fruits and vegetables can also grow in the area. Coffee is the main cash crop in the zone.

### **Study design and participants**

An exploratory study was conducted from May to June 2019 using qualitative method mainly Focus group discussions (FGDs) and in-depth interview of Key informant (KIs). The qualitative methods were preferred to best explore the food taboos and dietary habits since they are sensitive issues and it is necessary to uncover the why and how behind such practices. For an in-depth investigation of cultural

and community factors related to food taboos during pregnancy, four health care providers, four Health Extension Workers (HEWs) and four elders (mothers-in-law), a total of 12 key informants were interviewed. Eight FGDs (four with husbands and four with pregnant women) having 8-10 purposively selected participants were conducted. The number of in-depth interviews and FGDs were determined based on the level of saturation of information. This was determined by transcribing the discussions after each session. Purposive sampling was used to select the KII and FGD participants. The criteria for FGD eligibility required that women should be pregnant, able to understand and speak local language and give consent and husbands a pregnant women who is also able to understand and speak the local language and give consent. Homogeneity was maintained by sex and education to reduce sensitivity. The criteria for in-depth interview participants' selection were being health worker, health extension workers and elderly. The conduct and reporting of this study is compiled using the guidelines outlined in the consolidated criteria for reporting qualitative research (COREQ)(9); all details are provided in Additional file.

### **Data collection methods and tools**

Piloted interview guide questions were used for both the FGDs and IDIs. All of the participants were approached face to-face and none of them refused to participate. The FGDs were held with pregnant women and their husbands, separately to express their opinions without fear of being arbitrated by their respective partners. Individual KIIs were conducted with health workers, health extension workers, and the elderly (grandmothers /mothers-in-law). Both the FGDs and in-depth interviews were held at locations that were accessible to participants such as at health posts and health centers. The KIIs were conducted in an interactive manner, whereby the study participants were encouraged to take an active role in establishing the flow of the interview. All questions asked in the FGDs and KIIs were open-ended and new questions arising from the responses given by the respondents, as participants were able to build on each other's ideas and comments. Redundant responses were considered to be saturated and were removed every evening after transcribing the day's work and preliminary analysis. Whenever an information gap was identified new questions were added. The data collection team was composed of the principal investigator (PI) and two research assistants, all of whom had tertiary level qualifications. One of the research assistant was female. The principal investigator is a PhD student. The research assistances were BSc holders in public health and trained before the actual data collection period. All of the research assistants did not have a relationship with the participants before the commencement of the study. However, participants were informed about the reasons for doing the research in the study area. The principal investigator (PI) and one recorder/note taker facilitated each FGD and KIIs with male participants while the female research assistant and a recorder/notetaker conducted the FGDs and KIIs with female participants. Data were audio recorded and the investigators took note including memos of participant's behavior and contextual aspects to assure triangulation of the data with the record. The FGDs took a minimum of an hour and half whereas the IDIs took a minimum of 30 minutes.

### **Trustworthiness**

According to Lincoln and Guba, the quality of qualitative research should be assured by meeting standards of trustworthiness through addressing credibility and transferability(11). To meet credibility, we included participants from different districts and different backgrounds. Additionally, in-depth interviews, FGDs, and field notes were used in the analysis. To strengthen the transferability of the findings to different settings and contexts, our study provided descriptions of the setting, sampling, sample size, inclusion and exclusion criteria, interview procedures, and findings. Validity and reliability was ensured by triangulation of the information gathered from the interviews with the information obtained at the FGD and then after by sharing the results with the attendants.

## **Data analyses**

The tape-recorded FGDs supported by handwritten field notes were transcribed verbatim and analyzed manually using the principle of systemic text condensation(12). Transcripts were reviewed repeatedly to gain a thorough sense of the overall content in the texts, identifying central meaningful units in the material, condensation of the content through color coding of the text, and finally creating categories that contain the condensed meaning of the main themes in the material. The data were then sorted according to emerging themes. Sections of the discussions were quoted verbatim, and some modified to enhanced readability. The results were presented using narratives using the verbatim of the study participants as illustrations to substantiate major assertions. Quotes were translated from the local language (Afan Oromo) to English language.

## **Table 1 Phases of the thematic analysis of the qualitative data, Illu Aba Bor Zone Southwest, Ethiopia, 2019**

<b>Phase</b>	<b>Description</b>
<b>Transcription of data</b>	The audiotape interviews supported by handwritten notes were transcribed verbatim.
<b>Familiarization with the data</b>	Familiarization with the whole interview was made by listening to the audio recording and/or reading the transcripts and contextual or reflective notes that were recorded.
<b>Generating initial codes</b>	The transcripts were read carefully line by line applying a paraphrase or label (a code) to describe what have been interpreted in the passage as important.
<b>Searching for themes</b>	DTs reviewed and grouped codes according to similarity of topic and started to form potential themes. Theme names that captured all codes included within the theme were developed.
<b>Reviewing themes</b>	The themes were checked in relation to the coded data extracts and assessed in terms of how well they represented the entire data set.
<b>Defining and naming themes</b>	The names and definitions of each theme were refined and a short description of each theme was developed by the principal investigator.
<b>Producing report</b>	A full report of the analysis was written by DTs with the use of the most appropriate extracts and relating back to the original research question. Report was read and reviewed by all authors.

## Results

### Background Characteristics of the study participants

A total of seventy nine (79) respondents participated in the eight FGDs and Twelve KIIs. The participants comprise of twenty-six pregnant women, twenty-four men (husbands of pregnant women), four health professionals, four health extension workers four elderly (mothers-in-law). The participants represented a wide age range (20–63 years) and educational status of the respondents ranged from no formal education to secondary school and above. (Table 2)

**Table 2 Socio-demographic characteristics of the participants in rural Illu Aba Bor Zone, Southwest Ethiopia, 2019**

Characteristics of respondents	Categories	Frequency(n)	Percent (%)
<b>Age range</b>	20 - 63 years	-	-
<b>Sex</b>	Male	35	44.3
	Female	44	55.7
<b>Educational status</b>	No formal education	41	51.9
	Primary	20	25.3
	Secondary & above	18	22.8
<b>Occupational status</b>	Employee	21	26.6
	Housewife/Farmer	51	64.6
	Daily laborer	7	8.8

From a thorough review and readings of the scripts, the following three themes were identified:

- Beliefs and practice of food taboos in the community.
- Food items held as taboos and reasons attached to it
- Model summarizing the Reasons for adherence of the food taboos and misconceptions

### **Beliefs and Practice of food taboos in the community**

The respondents were asked whether they were aware of any foods that are culturally prohibited during pregnancy. Differing opinions were noted regarding to the practice of food taboos.

Some pregnant women, their husbands and mothers-in-law believed that some foods should be avoided during pregnancy to protect and support maternal health.

A mother-in-law, 51 years, KII participant stated,

*"...When they have morning sickness they cannot eat oily foods. Restriction of oily foods is Practiced early in pregnancy to reduce the likelihood and severity of morning sickness..."*

Similarly, one mother-in-law, 60 years explained the following corroborating what was said earlier,

*"... Intake of oily foods may be limited throughout pregnancy and that, in general, pregnant women don't eat as much oily food..."*

A Pregnant woman, 34 years, FGD participant also stated,

*"...pregnant women should be careful and avoid certain foods, particularly towards the last*

*trimester. Our community strongly believes that what a woman eats in the last months of her pregnancy goes directly to the womb to feed the baby. Thus, some foods can hurt the Fetus..."*

In contrast, the health workers and health extension workers believed that food taboos are becoming an old story.

A midwife Nurse, female, 30 years, working in the area stated,

*".... Except for a few women that live in remote areas, I do not think that many still believe that some foods need to be avoided during pregnancy..."*

Similarly, a 26 years old HEW, KII participant stated,

*"... ihhhhh, though in the former times there was restriction of foods like egg, milk and milk products, due to the belief that it makes the fetus big and gets attached to the fetal body,... now a days there is no such practice in our community..."*

40 years old, district health office head and KII participants stated,

*"...most of our community members are now questioning the reason behind these taboos and the need for adherence, so the practice is not widely observed in the district ..."*

Another 35 years old health worker stated the following substantiating the same opinion,

*"... Educated people are not strongly upholding the taboo and beliefs..."*

### **Foods held as taboos and reasons attached to it.**

FGDs across participant groups pointed to restriction of high carbohydrate foods particularly sugarcane. The consumption of this food was perceived to be associated with having bigger babies, which is believed to lead to a difficult labor and delivery.

FGD participant and husband of pregnant 34 years old stated,

*"...Our community strongly believes that if a pregnant woman eats sugarcane, she may have a big baby which endangers her life by making labor difficult, but I doubt the effect ..."*

Similarly, 27 years old pregnant women stated,

*"...if you eat these kinds of foods or meals you will have difficulty during birth. Consumption of carbohydrates during pregnancy leads to excessive weight gain and a risky delivery"*

*due to high gestational weight gain makes baby very big..."*

Similarly, the discussants' reported that foods like fruits specifically banana and avocado and some types of vegetables like cabbage, pumpkin and taro (*Colocacia esulenta*) are considered as taboo for pregnant women particularly as the gestational age advances. The reason attached to the taboo of these foods as stated by the discussants is that cabbage may cause abdominal cramps to the baby when born, whereas pumpkin, banana, Avocado and Taro (*Colocacia esculenta*) locally named "Godare" are believed to pass to the fetus in the womb and get plastered to the head of the fetus.

In explaining this situation a mother in law, 60 years old, KII participant stated,

*"...if a pregnant woman consumes banana, avocado and taro (locally known as Godare) particularly as the gestational age advances; it can pass to the womb and get attached to the baby's body while cabbage causes abdominal cramp to the fetus after birth. ..."*

Likewise, 28 year old FGD participant husband of a pregnant woman uttered,

*"... I heard some people saying that pregnant women should not consume pumpkin... But I do not know the reason..."*

By the same token, the consumption of dairy products (milk, yogurt, cheese) and eggs during pregnancy is considered harmful to the fetus and the mother.

FGD participant pregnant woman of 25 years old stated,

*"...it is believed that pregnant women should avoid consuming dairy products like yogurt and cheese, particularly in the last weeks of her gestation. This is because dairy products can pass to the womb and attach to the baby's body..."*

One of the respondents had the following to say, which reaffirms the assertions of the other discussants stated above:

*"...A pregnant woman shouldn't eat some foods such as eggs. This is because the fetus will become very big and the mother will have difficult labor and delivery..."*

**Table 3. Summary of the taboo food and reasons mentioned by the participants, Illu Aba Bor Zone, Southwest Ethiopia, 2019.**

Taboo foods	Reasons behind the taboo	Discussants who mentioned the reason
<b>Oily foods</b>	To reduce the likelihood and severity of morning sickness	Few of the KII and FGD participants
<b>Banana</b>	Plastered onto fetal head	Most of the FGD and KII participants
<b>Avocado</b>	Plastered onto fetal head	Nearly half
<b>Taro</b>	Plastered onto fetal head	Few participants
<b>Milk and milk products</b>	Makes the baby big / Plastered onto fetal head and body	Most of the FGD and KII participants
<b>Egg</b>	Makes the baby big/Difficult delivery	Most of the FGD and KII participants
<b>Sugarcane</b>	Excessive weight gain to the mother/ Makes the baby big / cause difficult delivery	Most of the FGD and KII participants
<b>Cabbage</b>	Causes abdominal cramp to the fetus after birth	Most of the KII and FGD participants
<b>Pumpkin</b>	Plastered onto fetal head and body	Few participants

### Reasons underlying the adherence to the food taboos.

The underlying reasons for adherence to the food taboos from explanations provided by study participants were grouped into three broad categories: cultural influence, social context and beliefs of the pregnant women themselves.

#### Cultural influences

Majority of the study participants viewed the existence of traditional practices and beliefs about foods held as taboos are inherent in the community. They stated the reasons for their practice of food taboos stems from cultural influences.

FGD participant husband 38 years of pregnant women stated the following to elaborate the matter,

*"... Our community strongly believes that if a pregnant woman consumes foods that are held as taboo, she may have a big baby which makes labor difficult and endanger her life ..."*

#### Social Context

The pressure from important others surrounding the pregnant women is a critical driver of the adherence to the food taboos. The discussant expressed that husbands and mothers-in-law impose cultural and traditional beliefs on pregnant women. One FGD discussant also mentioned about peer influence.

To substantiate this state affair, a KII participant Mother-in-law, stated,

*“...pregnant women should avoid foods like banana, avocado and taro (locally known as Godare) ...if she consumes particularly as the gestational age advances; it can pass to the fetus in the womb and gets attached to the baby’s body ...”*

Similarly, pregnant woman 32, years stated,

*“... It is believed that some foods can pass to the fetus in the womb and plastered on the fetal body...and women laugh at each other if a woman gives birth to a baby with full of the white substance on the body...that is why we follow the food restrictions...”*

### **Attitudes and beliefs of the individual pregnant women**

This study revealed that recipients of the cultural practices, pregnant women, were without an understanding of why they do what they do. However some of the discussant believed that consumption of the foods held as taboo may hurt the fetus.

Pregnant woman 27 years, stated,

*“...“if you eat certain kinds of foods or meals you will have difficulty during birth. ...”*

Similarly, 30 years pregnant woman, FGD participant stated,

*“... it is believed that consumption of the tabooed food may cause damage to the fetus, and ... I do not want my baby hurt, that is why I avoid the foods held as taboo...”*

In general, the reasons for the food taboos are deeply embedded in the personal believes and attitudes of the pregnant women, who are nested within the influence of the social environment surrounding her (important others) and the traditional beliefs and values of the society in general. The interrelationships between drivers at the different levels are illustrated in Figure 1.

## **Discussion**

We found out that one or more foods are avoided during pregnancy based on the local food taboos. This is similar to many studies reported elsewhere, where women would adhere to different food taboos and beliefs(6, 13–16). The foods items most commonly avoided during pregnancy were dairy products like milk, cheese, and yogurt, fruits such as banana, Avocado, eggs, vegetables like cabbage, pumpkin, Taro and sugarcane. Most of the foods that were reported as taboo are rich sources of essential micronutrients, which are crucial for maternal health and child growth and development. Findings from the current study support others in which food taboos during pregnancy were found to be more elaborate, nutritionally significant and differ only in the type and reasons attached to avoidance of the food type (4–6, 17, 18).

The main reasons for the restriction of the food items held as taboo in this study were, the fear that the food will be plastered on fetal head and having large baby which make labor and delivery difficult. This finding is supported by findings from a study in Shashmane and Addis Ababa that state the reasons for adhering to pregnancy related food taboos and myths to be large baby and difficult birthing and 'food sticking' on the fetal head (5, 14) .A study in Accra Ghana also showed that pregnant women were restricted from consuming certain foods to check their health, control the weight of the expectant mother and unborn child and ensure there is a safe delivery, which is consistent with our finding (7).

The study revealed that sugarcane is commonly restricted during pregnancy as it is believed to causes excessive weight gain and difficult deliveries. A similar finding was reported from a study in Arsi Zone, where the discussants considered consumption of sugarcane to be associated with having bigger babies, which is believed to lead to a difficult delivery(6). Similarly a study in Ghana showed that consumption of sugary foods make fetus large (18).

The study further revealed the community belies the fact that if pregnant women consume fruits like banana or avocado and vegetables such as pumpkin and taro particularly towards the last weeks of her pregnancy, it passes to the fetus in the womb and plastered onto the head of the fetus. This finding is supported by the report from Ghana and East Gojam, Ethiopia in which consumption of banana during pregnancy is believed to be attached to the head of the fetus (13, 18).

Another type food considered as taboo in the study area was the consumption of Eggs during pregnancy as it is believed that it makes the fetus large, contributing to a difficult delivery. This finding is again supported by the findings from the study in Ghana and Kenya that showed consumption of Eggs make the fetus large (18, 19). This finding is again supported by the study finding from Nigeria where consumption of eggs is prohibited during pregnancy because it is feared that the children may develop bad habits after birth(4). The difference supports literature that indicates there is no single reason but several reasons for the belief and adherence to food taboos(20).

Consumption of milk and milk products during pregnancy were also considered as taboo in the study area. The reasons for the restriction of the food type is that it passes to the fetus and gets plastered on to the head of the fetus and makes the baby big. Our study finding is supported by the study finding from Kenya which states the reason for restriction of milk during pregnancy is due to the belief that it makes the baby big(19). Similarly a study in Abala district of Afar region, Ethiopia also identified that consumption of milk and yoghurt is considered as taboo and the reason attached to the food held as taboo was to prevent the fetus from getting large and reduce the risk of a long labor(17).

Another food type considered as taboo during pregnancy was consumption of leafy vegetables like cabbage which are considered to hurt the fetus and pregnant women. This finding is similar to the study report from Arsi Zone, Central Ethiopia that showed if a pregnant woman eats leafy vegetables, especially after 8 months of gestation, the leaf passes to the womb and attaches to the baby's head and forms what they called "particles" (6).

The study further identified that the reasons underlying adherence to food taboos from explanations provided by study participants were cultural influence; traditions, beliefs and values in the society. This finding is consistent with the finding from the study in Tamilnadu state which showed that women were duty bound to avoid specific food items due to cultural and traditional views (16). Similarly, another study in Accra Ghana supports this finding that the main reason for belief and adherence to food taboo was culture(7). Another reason for the adherence to the food taboos was social environment; influence from mothers-in-law and peers). This finding agrees with the finding from a study in West Bengal in which majority of the respondents pointed that their mother, motherinlaw, other senior female members and female neighbors were the advisors of those taboos(15). Attitude and beliefs of the pregnant women themselves towards the food taboos is another reason for the adherence to the food taboos. Similarly, a qualitative study conducted in Addis Ababa points that the underlying reasons for the adherence to pregnancy related food taboos and myths (PRFT) were largely traditionally held beliefs and misconceptions (14). The findings have strong practical implication. After several years of implementing the national nutrition program (2008), national maternal and infant and young child feeding guidelines (2005), and deployment of both urban and rural health extension workers, finding of pregnant women who practice food taboos indicates the need for revamping the implementation to the grassroots level. Especially, the fact that this practices is backed by the pressure from the social environment (important others) and is deeply embedded in the traditional believes of the society heralds the need for galvanizing more public health interventions to optimize the dietary practices of pregnant women in the study area.

The following limitations need to be considered when interpreting the findings of this study. Although the KIs and FGDs were conducted with great care, the extent of over-reporting or underreporting of positive or negative behaviors may not be known. Moreover, purposive sampling was used to select the key informants and focus group discussant. Thus, the findings should not be generalized to the whole study population and beyond, but should be taken as an indication that taboos and misconceptions are still present among some of the studied subjects.

## Conclusions

This exploratory study revealed that pregnant mothers in the study area are influenced by food taboos based on cultural perceptions and beliefs, with the fear of increasing bodyweight of the fetus which can result in either the mother facing problems during childbirth or the child will be born with ill health.

The most common foods prohibited as taboo are milk and milk products and eggs, some vegetables like cabbage and pumpkin, taro, banana from fruits and sugarcane. Omitting those food staff from the requirement during pregnancy will have a long term impact on the mother and fetus making maternal and child that is, for the mother and underweight during delivery of the infant and easily susceptible to disease during childhood.

Based on the finding of the study, we recommend nutritional counseling with emphasis during ant-natal care and post natal service is imperative. At the same time a comprehensive nutrition education

involving significant others is recommended.

## **Abbreviations**

FGD Focus Group Discussion

HEW Health Extension Worker

KII Key Informant in-depth Interview

MCH Mother and Child Health

PRFT Pregnancy Related Food Taboos and Myths

## **Declarations**

### **Ethics approval and consent to participate**

Ethical approval was obtained from the Institutional Review Board (IRB) of Jimma University. Before the start of data collection, written informed consent was obtained from each of the study participants after information was provided about the nature and objective of the study. Participants were informed that they have the right not to participate in the study or can withdraw at any time point. Confidentiality was assured at all levels of the study.

### **Consent for publication**

All participants' statements were anonymised and all the participants consented for publication of the findings of the study through the informed consent they signed.

### **Availability of data and materials**

The datasets (audio records of the focus group sessions and written transcripts) generated and analyzed during the current study are not publicly available because they are confidential in order to protect the participants' anonymity.

### **Competing interest**

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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The views presented in this article are of the authors and do not necessarily express the views of the sponsoring organization. Jimma University did not involve in the data collection, analysis, and interpretation.

### **Authors' contributions**

DTs conceived the idea for the study and discussed it with DT and TB. DTs, DT, and TB designed the study and developed the analysis parameters. DTs collected the data. DTs, DT and TB involved in the analysis and interpretation of the findings. DTs produced the initial draft of the paper and DT and TB provided feedback and contributions to various sections. All authors critically reviewed and approved the final content.

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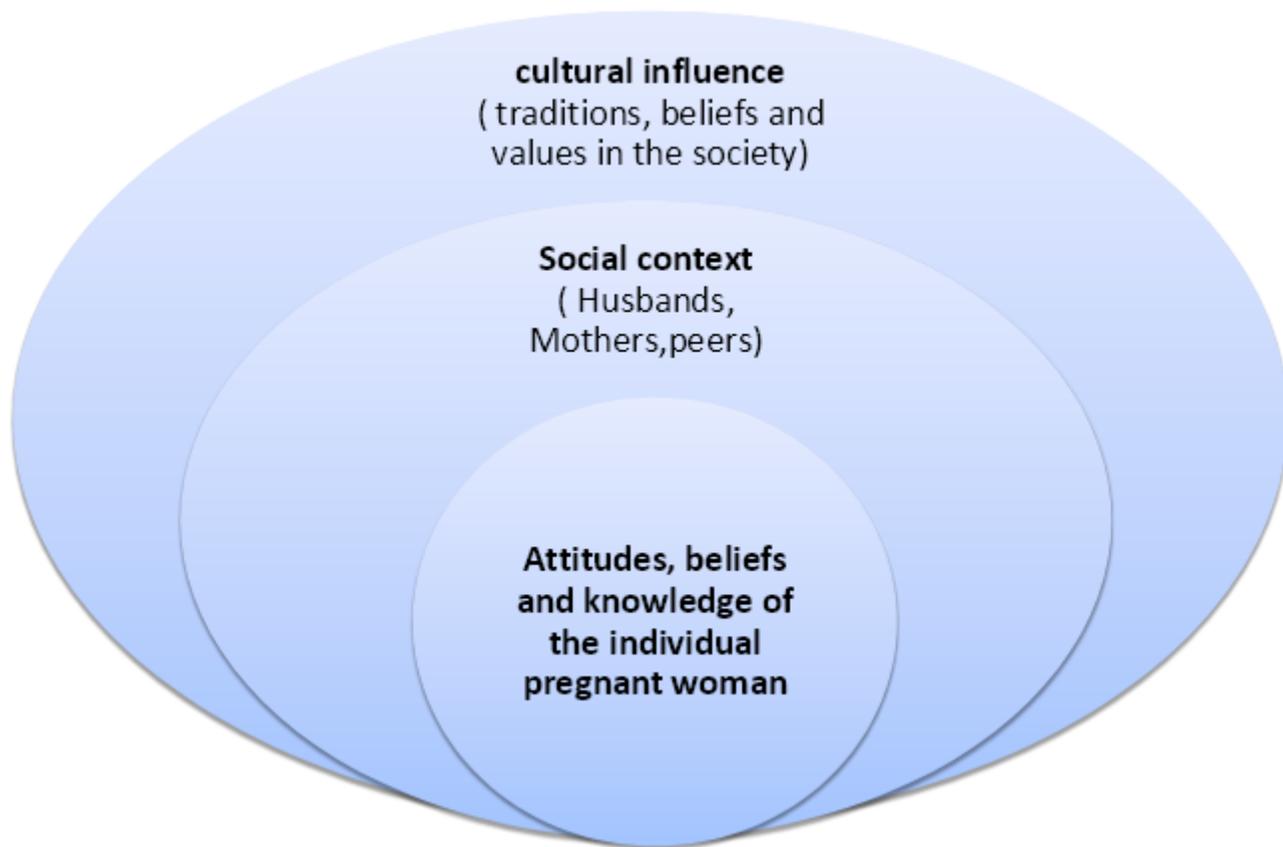
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## Figures



**Figure 1**

Model summarizing participants reported underlying reasons for the adherence to the food taboos and misconceptions during pregnancy in rural communities of Illu Aba Bor Zone, South West Ethiopia.