Perception of women toward childbirth positions among women on postnatal unit at Jimma Medical Center, Jimma town, South West Ethiopia: A Phenomenological Qualitative Study

Bikila Jiregna
Mettu University  https://orcid.org/0000-0003-1625-7567

Tigist Demeke
Jimma University

Enatfenta Sewmehone
Jimma University

Gugsa Nemera  (✉ gugsanemera@gmail.com)
Jimma University

Research Article

Keywords: Perception, Birthing position, Woman Jimma, Medical center

DOI: https://doi.org/10.21203/rs.3.rs-121139/v1

License: © This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License
Abstract

**Background:** The women have been giving birth at health facilities without considering their preference of birth positions. Accordingly, they routinely positioned at lithotomy position as standard medical practices during normal vertex vaginal childbirths, which results in negative maternal and neonatal outcomes. Thus, this study aimed to understand women's perception of birth positions.

**Objective:** To explore perception of women toward child birthing positions among women on postnatal unit at Jimma Medical Center, Jimma town, Ethiopia 2020.

**Methods and Materials:** A descriptive phenomenological approach was employed among women from postnatal and maternity care providers were selected purposively. The audio was transcribed, translated, coded, and categorized to respective identified themes. Then, thematized by Archive for Technology, Lifeworld and Everyday Language text interpretation (ATLAS.ti version 8) software for thematic analysis in triangulation with the quantitative findings.

**Results:** The women and health care providers were responded on factors affecting the use of alternative birth positions in the health facility. The women were positioned at common supine positions due to women's lack of awareness about birth positions, women's passivity to respect their decision-making on their position of preference, and health care professionals’ knowledge and skill gaps on alternative childbirth positions.

**Conclusion and recommendations:** The women were coerced and adopted birth positions directed by health care providers. Therefore, health care providers’ practice should be intensified through the provision and implementation of evidence-based alternative birth positions.

Introduction

The maternal birthing position is the arrangement of the parturient body parts with the horizontal plane to give a child during the second stage of labor or the physical postures the pregnant mother may assume during the process of childbirth(1,2). It can be categorized as horizontal (an angle of less than 45° between the horizontal plane and the line linking the midpoints of the 3rd and 4th lumbar vertebrae) and vertical (the angle of greater than 45°)(1). The position nowadays most widely had been used in maternity units is based on the work of the 17th –century France obstetrician named François Mauriceauan(3). The positions adopted naturally by women in England during birth were described and observed that a primitive woman(not influenced by western civilizations), would try to avoid the supine position and assume different upright positions such as standing, sitting, kneeling, and squatting(4).

A half-supine position with women's leg on the support has been used commonly, not for the sake of a woman comfort and preference rather than to allows a view of the perineum during delivery, facilitates
maneuvers, and as the standard medical practices by birth attendants(5). However, in Africa before colonization, it is evident that women were giving birth at various alternative birth positions including sitting, squatting, kneeling using hands and knees, and the left lateral birth positions. These positions were common birth practices that usually occurred in a home setting (6). Thus the world health organization endorsed the use of alternative birth positions which are associated with favorable maternal and childbirth outcomes but, the recent report revealed that lack of respect for women's preferred birth positions(7,8).

In many studies, the advantages of one childbirth position over the other position has been illustrated. Accordingly, most women perceived positive to the alternative birth positions(9). The women in the Netherland thought that, they felt more intense labor pain in upright positions compared to a supine position, and two women felt the opposite. Similarly, in this study two women felt more intense labour pain at supine positions compared to a lateral position(10). Additionally, the women in this study related difficulties of daily activities, tiredness, and emotional wellbeing with the birthing positions they adopted during the second stage of labour in the health facility(10).

Despite providing alternative positions and respecting women's perceptions during the second stage of labor, maternity health providers request a woman to open the legs one to a side and the other leg to the other side at lying supinely on the stretcher that further hurts their self-control and dignity(11). The women were giving birth at home with the help of traditional birth attendants, at upright birthing positions as their choice and preference, due to disrespect to their views of positions in terms of norms and culture(12,13).

Seemingly here in Ethiopia, women are still giving birth at the lithotomy birth position irrespective of considering their preference of positions and evidence-based medical precaution even if the guidelines for maternity care in collaborating with the national guideline of maternal and child health endorsed the use of alternative birth positions during delivery(14). Therefore, the focus of this study was to understand women's perceptions of different birth positions with why health care professionals didn't provide delivery service at alternative childbirth positions.

**Theoretical Framework**

This study is supported by Virginia Henderson's need theory. It illustrated that nursing as primarily assisting the individual (sick or well) in the performance of those activities contributing to health, or its recovery (or to peaceful death), that he would perform unaided if he had the necessary strength, will, or knowledge(32). The theory focuses on the significance of ensuring the patient autonomy to speed their recovery in the health facility, how nurses can aid the patient in attaining basic human needs. The society,
The need to move and maintain the desired position is directly applicable in changing of positions by a woman in labour and birth. In the ability to choose, the majority of women will react to pain through movement; these movements drastically reduce pain and aid the baby to be able to access the best passageway through the pelvis. The women need to have different positions during labour, and delivery like sitting, squatting, walking, standing, and lying down of reducing the labour duration; this also relieves discomfort because of reducing the need for painkillers and operative procedures to aid childbirth. Especially if seen from the angle of gravity it assists in the descent of the baby mainly when the mother assumes upright positions for childbirth.

The theory highlights the fourteen components of the basic needs of clients/patients. These components show a holistic approach to nursing that covers the physiological, psychological, spiritual, and social that can incongruent with child birthing positions. The first nine components are physiological needs and a few of them includes: breathing safely in a suit, to drink and eat satisfactorily, to get rid of body excrement, to aid in mobility and retain desirable positions, to ensure normal body temperature, to be safe from any dangers in the environment and free communication to others. The tenth and fourteenth are psychological ability to worship regardless of one’s faith and along with health and use of accessible health facilities. The eleventh component is spiritual and moral which is work in such a way that there is a sense of accomplishment. Lastly, the twelfth and thirteenth components are sociological specifically addressing occupational and recreation.

**Materials And Methods**

**Study Area and Period**

The study was conducted from March 20, to April 20, 2020 in Jimma medical center (JMC). JMC is found in Jimma town that is 352 km from Addis Ababa capital city of Ethiopia. As the population projection of 2014/15 indicated that the total population of Jimma zone is 3,090,112, out of this according to world population prospects of 2019 revision the total population lives in Jimma town is 128,306. JMC is the only referral hospital for southwest Ethiopia. It provides different services such as medical, surgical, emergency, gynecological and obstetric, physiotherapy, Ophthalmology, and recently commenced a reproductive health center to 15 million people.

**Study Design**

A descriptive phenomenological approach was employed to explore the view/perspective of the women about childbirth positions at Jimma Medical Center.

**Eligibility criteria**
A woman on postnatal unit with vaginal birth of alive baby. The maternity health care providers who are in charge of the maternity unit with at least six months' work of experience in the hospital were eligible for this study. A woman of primigravida, who had an instrumental delivery, or suffered serious medical conditions and required obstetrician-led care was excluded. Additionally, a woman with severely ill and unable to gives responses during data collection were excluded.

**Sample Size determination**

The adequacy of the sample size was attained when sufficient data had been collected so that saturation occurs and variation is both accounted for and understood. According to Polkinghorne (1989) for phenomenological studies, saturation means that no new or relevant data seem to emerge regarding a category, the category development is dense and the relationships between the categories are well established(34). The informants were selected purposively. Among the 17 recruited participants, 15 of them were sampled when saturation was achieved. The saturation of data was identified because both the data collection and analysis were done simultaneously. After each data collection, there was transcription, read, and re-read to extract significant statement. Therefore, this process enabled to get data saturation easily.

**Data collection instruments**

The open-ended questions were preferred because it will supply a frame of reference for the participants' answers. Based on the research question probes and follow up questions were used to gain an in-depth understanding on the topic of the study. Streubert Speziale and Carpenter stated that a descriptive method in data collection of a qualitative research is central to open-ended unstructured interview investigations(35). Accordingly, the interview guides were used to explore views of a woman toward childbirth positions that were categorized under the certain schematized areas including; 1) Factors affecting the use of alternative birthing positions, 2) the influence of birthing positions on labor, health of mothers, and newborns, 3) preparation regard to different positions.

**Data collection procedures**

The data collection process was done using an in-depth interview guide with open-ended questions by principal investigator. The investigator was engaged with participants posing questions in a neutral manner, listening attentively to participants' responses and asking follow up and probes questions based on participants' response. The interview was conducted a face to face and was involved one interview with one participant at a time(36). For each participant, the interviews were conducted at the range of 15 to 30 minutes. The interviews were conducted by researcher in translating to local language, Afan Oromo and Amharic, using the English version open-ended interview guide. The permission was obtained from participants for audio recording of interview guide.
All interviews were digitally recorded and transcribed verbatim by the investigator. In addition, short field notes were used for non-verbal (facial, head nodding, etc.) expressions as a means of data collection through active interaction with researcher-participants. The investigator held a debriefing session each day during the entire fieldwork and the newly emerging probes were included in the emerged themes and guide for the next data collection(36,37).

**Operational Definitions**

View/perspective is the way a woman perceive the effects of birth positions on labour, mother and newborn(38,39). Birth position: is the position of the woman resume at time of birth (regardless of position during first stage of labor)(2).

**Data processing and analysis**

The recorded data were transcribed and reviewed with audiotapes, as well as notes were taken on fieldwork. The verbatim data was translated from Afan Oromo to English and checked to maintain consistency. The data was imported from the word document into ATLAS.ti Development GmbH software for analysis. The investigator used thematic data analysis approach that looks across all the data to identify the common issues that recur and identify the main themes that summarize all the views collected. It is based on prior categories and the categories that become clear to the investigator as the analysis proceeds.

Accordingly, the data analysis passed through the following different steps. The first step was organizing the data in which the investigator familiarized with data by reading the transcripts through literal reading (concerns structure of the documents), and interpretive readings (in which the investigator synthesized and inferred the documents by own words and meanings). The second step was generating the subcategories, categories, and themes by noting the patterns in the data. Then, the coding of data was followed to apply the categories to the documents as well as to enable examples of the data to be used in the write up of the qualitative analysis. The fourth-step data analysis passed through was in which the investigator tested the emergent of the data and applied established theory. The final steps were in which the investigator searched for alternative explanations of the data and writing the reports. Lastly, the narrative texts followed by participants’ quotations were applied around the themes. In addition, it is discussed within triangulation of quantitative findings(40).
Data Quality Management

The interview guides were used based on information gained from the literature review and included open-ended questions and probes. It was prepared in English language and translated to the local languages Afan Oromo, Amharic, and back-translated to English to maintain consistency. The interview guides were pretested on two women on postnatal unit to ensure their relevance and appropriateness. The entire interview was recorded, transcribed, and translated to the English language. The consolidated criteria for reporting qualitative research (COREQ) checklist that include three domains: research reflexivity, study design, and data analysis and finding were used to guide the reporting of this study(41).

The various steps had been taken to ensure the trustworthiness of the data. To ensure the credibility of the data, the members of the study checked the interview responses to ensure truth-value from the participants’ point of view. All participants were seen equally by using a similar guide and approaches. Additionally, peer researchers were also engaged to reduce biases. The advisors had examined the documents and interview notes, as well as products (findings & interpretations), attested that these were supported by raw data to ensure the dependability of the data. Similarly, the transferability of the data was trusted through selecting the study participants purposively from adequate and different types of respondents, to assess the consistency and divergent responses that usually reflect individual differences including women on the postnatal unit and maternity health care provider. In addition, the respondents were assured that the interviews were conducted purely for research purposes. The other is the conformability of the data, in preference to objectivity. Therefore, the oral recorded and the transcribed texts were compared to ensure their consistency that the way and their interpretation were actual, similar and not fabricated. In addition; the researcher bracketed consciously previous concepts and understandings in order to understand, in terms of the perspectives of the participants interviewed regarding the topic of interest in this study.

Ethical Consideration

The ethical clearance was obtained from Jimma University, Institute of Health, Institutional Review Board (IRB), and a written permission letter from the School of Nursing and Midwifery was granted. The purpose
and process of the study were explained to all participants. They had informed that their participation was voluntary and withdraw at any time for any reason without any penalty. The verbal consent was obtained by asking a woman if she would participate in the study after explaining the purpose and reassuring her confidentiality. The interviews took place within the hospital premises, in a quiet room that provided privacy from other personnel. Lastly, the participants were informed that the in depth-interviews would be recorded and agreed that their anonymous quotes could be used.

Results

Ten women and five health care providers were participated for in-depth interview. The results were presented under subheading as follows

Socio-Demographic Characteristics

Ten women had interviewed and their ages were between 22 to 32 years. Six women were literate where the remaining four were illiterate. The women were mostly Muslim and orthodox followers (Table 1).

Table 1: The distribution of study participants’ socio-demographic characteristic for in-depth interview at Jimma Medical Center 2020

| Participant Code | Age | Educational status | Gravid and parity | Religion | Consent |
|------------------|-----|--------------------|-------------------|----------|---------|
| 01               | 29  | Illiterate         | 3 & 2             | Orthodox | Verbal  |
| 02               | 27  | Literate           | 3 & 1             | Muslim   | Verbal  |
| 03               | 30  | Literate           | 3 & 3             | Orthodox | Verbal  |
| 04               | 24  | Literate           | 2 & 1             | Protestant| Verbal  |
| 05               | 32  | Illiterate         | 5 & 4             | Orthodox | Verbal  |
| 06               | 23  | Illiterate         | 2 & 2             | Muslim   | Verbal  |
| 07               | 26  | Literate           | 2 & 1             | Muslim   | Verbal  |
| 08               | 23  | Literate           | 2 & 2             | Orthodox | Verbal  |
| 09               | 30  | Illiterate         | 4 & 2             | Muslim   | Verbal  |
| 010              | 22  | Literate           | 2 & 1             | Protestant| Verbal  |

From health care providers five professionals were interviewed from labour, delivery, and prenatal ward with three BSc midwifery, one Diploma midwifery, and one OB/GYN specialist. They were three male and
two female with age between 27 to 34 years. Their work experience was a range of 2 to 6 years (Table 2).

Table 2: The distribution of health care providers’ socio-demographic characteristics for in-depth interview at Jimma Medical Center 2020

| Participant Code | Age | Sex  | Educational status  | Experience | Consent |
|------------------|-----|------|---------------------|------------|---------|
| 1                | 28  | Male | BSc Midwifery       | 3 years    | Verbal  |
| 2                | 34  | Male | OB/GYN specialty    | 2 years    | Verbal  |
| 3                | 29  | Male | BSc Midwifery       | 3 years    | Verbal  |
| 4                | 28  | Female | Diploma Midwifery | 6 years    | Verbal  |
| 5                | 27  | Female | BSc Midwifery     | 3 years    | Verbal  |

**Women View toward Child Birthing Positions**

As shown in the thematic index below, three major themes including factors affecting the use of alternative birth positions, the effect of birth positions on labour, mother & newborn as well as required preparedness to use of positions at the health facility were identified. Respective to identified themes there were related subthemes, categories, and codes with a direct quotation from both participants of women and health care providers (Table 3).

Table 3: The construction of codes, categories, subthemes, and themes from the thematic analysis of women view on childbirth positions at Jimma Medical Center in 2020
| Codes | Sub-Categories | Categories | Themes |
|-------|----------------|------------|--------|
| ⊕ I don’t know disadvantages of lithotomy position | ☐ Mothers lack awareness | 1.1 Factors from women who visit Maternity ward | 1. Factors affecting the use of alternative birthing positions |
| ☐ I have never seen and heard of alternative positions | ☐ Women rely on HCP decision | 2.1 Factors affecting the use of alternative birthing positions | 1. Effects of birth positions on labour and delivery |
| ⊕ I don’t have a hint on the pros and cons of alternative positions | ☐ I rely on doctors decision | 2.1 Factors affecting the use of alternative birthing positions | 2. Effects of birth positions on labour and delivery |
| ☐ HCPs rejected our choice | ☐ HCP abuse women’s choice of positions | 1.2 Factors from Health care providers at Maternity ward | 1. Effects of birth positions on labour and delivery |
| ☐ I didn’t have counselling on birthing positions | ☐ No Health information at ANC on positions | 1.2 Factors from Health care providers at Maternity ward | 1. Effects of birth positions on labour and delivery |
| ☐ Women autonomy of birth positions | ☐ No chair or bed for sitting position | 1.3 Factors from Teaching institutions | 1. Effects of birth positions on labour and delivery |
| ☐ No chair or bed for sitting position | ☐ I didn’t practice alternative birthing positions | 1.3 Factors from Teaching institutions | 1. Effects of birth positions on labour and delivery |
| ☐ Not enough space in ward | ☐ I didn’t practice alternative birthing positions | 1.3 Factors from Teaching institutions | 1. Effects of birth positions on labour and delivery |
| ☐ Not enough space in ward | ☐ I didn’t practice alternative birthing positions | 1.3 Factors from Teaching institutions | 1. Effects of birth positions on labour and delivery |
| ☐ Lithotomy delays labour | ☐ Lithotomy loss effort of pushing down | ☐ Effect of lithotomy on labour | 2.1 Effect of birth positions on labour |
| ☐ Lithotomy is comfortable to control labour process | ☐ Lithotomy fasten labour | ☐ Effect of alternative positions on labour | 2.1 Effect of birth positions on labour |
| ☐ Lithotomy is painful, difficult of breathing and | ☐ Sitting shorten duration of labour | ☐ Effect of alternative positions on labour | 2.1 Effect of birth positions on labour |
| ☐ Lithotomy is painful, difficult of breathing and | ☐ Alternative are not safe for labour | ☐ Effect of alternative positions on labour | 2.1 Effect of birth positions on labour |
| ☐ Lithotomy is painful, difficult of breathing and | ☐ Alternative are not safe for labour | ☐ Effect of alternative positions on labour | 2.1 Effect of birth positions on labour |
Factors affecting the use of alternative birthing positions

Women in this study lack awareness about alternative positions, their advantages, and disadvantages during the second stage of labour to give birth. For example, there is a point forwarded by one woman that she gave birth in this hospital at a lithotomy position because she saw women giving birth at this position here in the hospital and never seen & heard of alternative positions before admitted to the delivery room.

"...I haven’t ever seen and heard of alternative birthing positions to give childbirth what I saw is giving birth lying at supine by opening the legs apart on stirrups..." (From Participant G1P1)

"As my concern, I don’t know about alternative birthing positions rather than lithotomy..." (From Participant G3P1)
“Now I have known nothing about other alternative birthing positions advantages and disadvantages ....” (From Participant G2P2)

Interestingly, the respondents from maternity health care providers confirm that women's lack of awareness about alternative positions leads them to stay passive to their preference and choice of birthing positions.

“...Most of the time we guide them in common positions (lithotomy). Because, women lack awareness about alternative positions, shy and simple to accept our request whether they liked or not...” (From Participant OB/GYN Specialist)

Another factor women forwarded were health care providers' ignorance of their feeling or needs toward resuming the positions of their preference. This happened to a few of them when they tried to use alternative birth positions during pushing down the baby. Especially they had stressed the negative response from maternity health care providers to birthing positions that were the mistreatment and disrespectful when they were on the delivery coach.

“...I tried to attain at another position(sitting) but the health care providers rejected me to resume back to supine positions(Lithotomy). ...but the health care providers pushed me to the position they preferred.” (From Participant G3P3)

“...During my previous delivery I used to give birth at other positions but the HCP didn’t give the chance to use...” (From Participant G2P2)

“...For example, I had tried to use a squatting position by getting off the delivery coach but the doctor neglected me to go back bed (Coach). And the health care providers advise me only to give in lithotomy position” (From Participant G3P2)

Maternity health care providers added another barrier to why they positioned women in a lithotomy position. They had thought alternative birthing positions not comfortable for both mothers and babies. Since lithotomy is common, they had practiced and they had never seen women giving birth at different positions in the health facility.

“As my thought positions out of lithotomy are not comfortable for health care providers and women...” (From Participant of BSc Midwifery)

“...I had learned at school about alternative birth positions, but I had never seen on the ground(health facility) when women gave birth by their choice of positions and similarly, I as HCP didn’t provide information...” (From Participant of BSc Midwifery)

“In this hospital, women give birth at lithotomy position as a common. This is not mean women don’t need/prefer other positions. Standing from this here in our hospital nobody trained in alternative
positions, it is not from women's need rather from health care providers' concern. So we conduct at lithotomy position routinely.” (From participant OB/GYN Resident)

Lack of preparedness of hospital set up including chair or bed and enough space were other factors forwarded from health professionals for not giving birth at different positions. As it was responded from them women need homelike care which means free of any coercion and ensures their privacy toward birth positions.

“...Here in our hospital, the problem of why we don't facilitate delivery at alternative positions was no prepared set up (delivery bed). The preparedness for even lithotomy is not home-like care (free of any dangers and privacy).” (From participant BSc Midwifery)

“...there is nothing prepared for such positions and... because without preparedness set up the risk outweigh the benefit.” (From participant OB/GYN Resident).

“As to my suggestion, the preparedness of delivery coach in this hospital lacks the issue of privacy. It is good if the service of labour and delivery in this hospital should be home-like care and if so women will give birth to whatever positions they want.” (From Participant of BSc Midwifery)

**Effects of birth positions on labour, mother and newborn**

Women complain about the positioning (lithotomy) at the hospital for childbirth which causes delaying labour and losing the effort to push when she felt pushing down. Similarly, health care professions said that the lithotomy position has a risk of prolonging labour and weakening the pushing effort of mothers.

“The major problem of giving birth at lying to supine positions are...labour also delays, loss the effort to push the baby...” (From Participant G2P1)

“...But, when they give birth at lithotomy position complication...the weakness of push down effort...” (From participant BSc Midwifery)

“Lithotomy position prolongs the duration of labour, it also painful...“ (From participant OB/GYN specialist)

Seven women felt severe back pain when they gave birth in a lithotomy position. There were also other problems in which women don't want to give birth at supine positions including due to difficulty of breathing, and expose women genitalia a naked to everybody white dressed personnel.

“...when I was pushing the baby lying at lithotomy position there was a difficult backache, my breathing was in trouble and it was my pleasure if someone supports me by rising entire my back to sitting position.” (From participant G2P2)

“Oho...it is my glad if you didn’t ask me what happened to me. It was very painful, depressive and I thought that would never come again but it’s forgettable. Ah...it was very difficult and painful...“ (From
Participant G3P2) 

“hum...very difficult, there was no way in which I became confidential about my privacy when I was in the situation of pushing the baby by opening my legs, a lot of health care providers saw me a naked. Additional to I was in terrible pain, I more felt discomfort at the situation happened being naked.” (From participant G3P3) 

Similarly, maternity care providers shared the problems women encountered that it(lithotomy) position threatens them(women) causing lower limb numbness, severe back pain and fatigue(loss effort to push) when they lied on the delivery coach. 

“...it also painful worse than giving birth at sitting position.” (From Participant OB/GYN specialist) 

“But, when they gave birth at lithotomy position complications...numbness of their entire legs will happen. Again most of the time women complaint difficulties of getting on the coach...” (From Participant BSc Midwifery) 

As the majority of women didn’t satisfied with the lithotomy birthing position, but there were also women and health professions wanted lithotomy position for different reasons including it comforts the baby and health professionals and to control the labour, and fasten the delivery. 

“...so giving birth at lithotomy position is beautiful even though it has a bit of stress. It is comfortable for health care providers, it also fastens the labour while others don’t take comfort...” (From Participant G3P1) 

“I gave birth at supine(lithotomy) positions. It is better than other positions, safe for me as well as for a baby...” (From participant G2P1) 

“...the advantages of lithotomy position is obvious it is comfortable for both mothers and health professions and especially to control labour process...“ (From Participant BSc Midwifery) 

From women respondents, though more than half of them didn’t know the presence of alternative birth positions, surprisingly some women prefer other positions to give birth due to multiple reasons including easy to give birth, lessen backache and to fasten labour 

“...It was better to give birth at sitting position since it relieves me from bach pain and child deliver soon but the health care providers pushed me to resume...” (From Participant G3P3) 

“...It is no so bad to give birth at alternative positions the point is to give birth in a way comfortable and easy for the mother...” (From Participants G2P1) 

Maternity health professionals also suggested that the advantages of alternative birthing positions outweigh the lithotomy position in terms of fastening the second stages of labour and minimize the rate of episiotomy.
"...giving birth at sitting position that fastens duration of labour, as well as relieve back pain..." (From respondent OB/GYN specialist)

"In my suggestion, childbirth at the sitting position might shorten labour in terms of gravity and reduce genital trauma... So it is better if sitting position put to practice." (From Participant BSc Midwifery)

Nevertheless, there were health care professionals that claim alternative birth positions that compromise the newborn breathing system that leads to fetal distress. Three women also reflected that different birthing positions cause negative outcomes on a newborn than a common childbirth position (lithotomy) at the hospital including injury the baby and changing fetal presentation.

"...if a woman give birth at sitting position it will compromise breathing system ends up with newborn bradycardia." (From Participant BSc Midwifery)

"...For example, most of the time there was a situation in which women challenge HCP to get off the bed (Coach) to give birth at squatting position that is difficult to control the further complication (Extension, genital laceration)" (From Participant OB/GYN Specialist)

"...But, others like sitting position which looks worse at changing fetal presentation and compromise fetal breathing system." (From participant G2P1)

The preparation with regard to birthing positions

Women of more than eight responded stressing on in order to have a clear understanding of alternative birth positions. Especially, a woman comes to visit health institution should have informed either during antenatal care or during labour and delivery of birth positions.

"...So, HCPs should have informed us on alternative birthing positions which one has a benefit than others because we (women) may have a different need on the positions to give birth so that it should be according to our choice in addition to that health care provider recommends." (From Participant G3P3)

"...so that it is good if we have a more understanding of present options of the position that could be safe for mother and newborn.” (From Participant G3P1)

Similarly, health care providers supported the thought arisen from women that they should have more understanding of birth positions including its advantage and disadvantages on mother, labour, and newborn.

"Ohoo...from the beginning, the information about birth preparedness could be addressed to the clients in addition to alternative birth positions." (From BSc Midwifery)

"...If possible women should have all necessary information of birthing positions consequences..." (From participant OB/GYN Specialist)
The preparation of health facility set up for women giving birth at alternative positions was also another point forwarded from women and maternity health care providers that it could be homelike care & ensure the privacy and autonomy of clients/patients.

“There is no problem so far but if health facility and health care providers prepared on other positions because a woman needs home-like care.” (From participant G2P1)

“As to me, it is better if the delivery bed could be enough support for a woman back to assume a sitting position.”(From Participant G2P2)

“As to my suggestion, the preparedness of delivery coach in this hospital lacks the issue of privacy. It is good if the service of labour and delivery in this hospital should be home-like care and if so women will give birth at whatever positions they want.”(From Participant BSc Midwifery)

As there were women that need health facility should be prepared enough for alternative birthing positions, nevertheless there were also women who need everything should be continued as it is.

“As to me this position is safe, let it continues as it is...”(From participant G4P3)

“What I’m going to leave a message is, it is enough to give birth at home since the government make everything available/suitable and let it continue as alike...”(From Participant G3P3)

Lastly, health care professionals need to scale up their knowledge and skills through training on how to conduct childbirth at alternative birthing positions.

“...training for health care providers on how to give birth on alternatives birth position should be my suggestion.”(From Participant BSc Midwifery)

“I had learned different child birthing positions but since then I had never seen women delivering at alternative positions. Why it doesn’t on practice is also a question for me. So it is good if health care provider take a training...” (From Participant BSc Midwifery)

**Discussion**

The quality of maternal and newborn care guidelines illustrated three practical categories for all childbearing women. From these, one is the midwives provision of health education(information) and the other was the midwives promoting normal processes of labour to prevent complications(42). However, in this study, the majority of women responded that they hadn’t discussed childbirth positions with their health care providers, neither during antenatal follow up nor during labor and delivery. This finding is similar to a study done in Tanzania in which it was not common for information about birthing positions to be included in antenatal health education, despite the fact that some postnatal mothers knew about it(28). However, the maternity health care providers at the labour and delivery unit in Michigan mentioned (discussed) about birthing positions once during the second stage of labour. They often discussed on
birthing positions when the second stage of labour last longer and offer different alternative positions (43). This difference could be due to a lack of preparedness at a health care facility and health care providers’ skill gaps in alternative birthing positions.

In this study, health care providers’ reasoned out for not promoting alternative birthing positions that they had thought of the alternative positions were unsafe for mother, fetus and to manage the process of labour. In addition, they thought that they had a lack of skills to manage women at the alternative birth position because they had never practiced at their teaching institutions/hospitals they are working. This is similar to a study done in Tanzania in which midwives didn’t promote women's autonomy on birthing positions and lack the skills to allow them to have suitable positions (44). This also concurs to a study done in Tanzania in which nurse-midwives did not assist or advise women to use alternative birthing positions because they themselves did not know these birthing positions (28).

In this study, even if there were women that knew alternative positions and their preference for birthing positions, they give credit for what health professionals suggested to them. Similarly, women in this study reflected that health care providers know for them and trust they do not hurt them (women). This is similar to a study conducted in the Netherlands in which women prefer health professionals’ suggestions than their own position of preference (10).

The women are positive for health care professionals who are supportive, friendly, polite, and who stayed close to their needs (45). However, in this study women felt unsatisfactory to health care providers’ reactions when they were on the delivery coach/bed and requested to be at positions of their own suit. For instance, one woman said that she requested to get off the delivery coach to have birth at squatting then the health care provider ignored and left her alone. This is similar to a study done in Nigeria in which health professionals manifested disregarded of her opinion and joined forces with her spouse to carry out the positions against her wishes (44).

The world health organization in the 1990s proposed that obstetric practices into different categories based on scientific evidence according to efficiency, effectiveness, and risk (7). So, Health care providers in this study were subjected to category B in which they were condemning women to passivity by denying their autonomy and reinforcing them by using their authority to a common and traditional birthing position (lithotomy).

The lithotomy position is associated with negative maternal and newborn outcomes including maternal hypotension, prolong the duration of labor, reducing fetal oxygenation, inhibiting fetal descent, and birth asphyxia (46). Similar to this, some women and the majority of health care providers in this study revealed that the lithotomy position is painful, depressive, delay the labour, losing the effort of push down and compromise the breathing system. Similarly, a study done in the Netherlands showed that women who gave birth at supine positions felt more intense of labour pain, tiredness, and back pain (10). Again from the previous study in three regional states in Ethiopia showed that giving birth at supine positions was contradicting the cultures and norms in a society in which women’s reproductive organs seen naked by every personnel of white dressed in the institution or hospital (31).
Nevertheless, there were some women and health care professionals forwarded that the lithotomy position was safe for both mothers and babies in addition to convenience to control the parturition process. This is similar to a study done in South Africa in which midwives prefer the lithotomy for a good view of the perineum, ease of labor monitoring, and minimize midwives’ physical strain during birth(25). Similarly, Nurse-Midwives in Tanzania and Nigeria had thought that supine positions were the safest position for delivery, more convenient for the accoucheur, afforded increased access and better control over the delivery process effectively during the second stage of labour(27,28).

In this study, some women reflected that alternative positions like sitting were safe for a lot of reasons including for ease to give birth, relief them from back pain, and needless effort to push down the baby. This finding concurs with the evidence that supports the use of alternative birthing positions in facilitating labour through normal physiological functioning by utilizing the force of nature and gravity that associated with optimal maternal and fetal outcomes(47). Additionally, it is similar to a study done in the Nijmegen Netherland in which women felt they had control over there pushing, less tired, and relief of back pain during the second stage of labour when they were at the upright positions(39).

In this study, women showed a strong need to have health education on childbirth positions during their labour and delivery admission or during antenatal care follow up to have their preference of positions. This is similar to the study done in Nijmegen in the Netherlands 2002 in which women thought that it was important to have information about birthing positions from midwives during their clinic visit(39).

Lastly, health care professionals in this study need to scale up their knowledge and skills through training on how to manage women with different childbirth positions during their second stage of labour. Similarly, a study done in Nigeria showed that all the interviews (HCPs) expressed interest in receiving further training in the use of alternative birth positions for the future of their clients(27).

The strength of this study was it is the first study in this country that going to use a baseline in further studies. However, it was the period of national and global coronavirus disease 2019(COVID-19) pandemic when the data was collected.

Conclusion

Generally, the crucial points were also forwarded from mothers and maternity health care providers on factors affecting the use of alternative birthing positions at health institutions. These were women's lack of awareness about birthing positions, women's passivity to respect their decision-making on their position of preference, and health care professionals didn't practice alternative positions. In this study, some women felt unsatisfactory to the position (lithotomy) they resume at the hospital for a lot of justifications: delays labour pain, weakens the effort to push the baby and compromise their breathing system. Synergistic to this, health care providers also stressed on thought from women that lithotomy positions expose women for negative maternal and newborn outcomes. However, there were health care professionals and mothers that didn’t prefer alternative birthing positions for sort of reasons including it hurt the baby and not suitable to control the labour process. Additionally, health care providers in this
study were providing of non-consented services, denial of women’s right of information, rights of choices and preferences of childbirth positions. This was one the type of disrespectful care and mistreatment women facing today in this particular study, even though there were women need everything to continue as it is.

**Recommendations**

Based on the findings the following recommendations are forwarded:

*For the Health Care Professionals:*

- They should provide health education to pregnant women in all about birth positions using different teaching materials (posters or pamphlets).
- They should maintain women’s autonomy in preference of their positions during childbirth.

*For the Health Facilities (hospitals, health centers):*

- They should provide appropriate training for maternity health care professionals that scale up their knowledge and skills on the use of alternative birth position.

*For the Academic and Clinical Researchers:*

- Since the birth position is a topical issue, further research should be carried out towards determining the best position for delivery.

**Declarations**

**Acknowledgements**

First and foremost, we would like to praise the Almighty God that is the basement for our courage, strength, and inspiration in every journey of life. Next, our heartfelt thanks also go to the Postgraduate library local area network and workers for their kind assistance in finding resources and literature. Finally, we want to pass our appreciation gratitude to the data collectors and study participants without them conducting this study could be difficult.

**Competing Interest**

There is no competing interest.

**Author Contributions**
Conceptualization and design work: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Acquisition of data: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Analysis and interpretations: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Drafting or revisiting the article: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Supervision: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Validation: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Visualization: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone

Writing – original draft: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

Writing – review & editing: Bikila Jiregna, Tigist Demeke, Enatfenta Sewmehone, Gugsa Nemera

List Of Abbreviations

| Abbreviation | Description |
|--------------|-------------|
| ANC          | Antenatal Care                        |
| ATLAS.ti     | Archive for Technology, Life-world, and Everyday Language. text interpretation |
| BSc          | Bachelor of Science                    |
| COREQ        | Consolidated criteria for Reporting Qualitative research |
| EMDHS        | Ethiopia Mini-report Demographic Health Survey |
| GA           | Gestational Age                        |
| G/P          | Gravity and/or Parity                  |
| HCP          | Health Care Provider                   |
| IRB          | Institutional Review Board             |
| JMC          | Jimma Medical Center                   |
| OB/GYN       | Obstetrics and Gynecology              |
| Mdw          | Midwifery                              |
| MSc          | Master Science                         |
| PI           | Principal Investigator                 |
| Prof         | Professor                              |
| TBA          | Traditional Birth Attendants           |
| WHO          | World Health Organization              |
References

1. Richard J. Atwood. Parturitional Posture and Related Birth Behavior. Scand Assoc Obstet Gynaecol. 1976;
2. Olson R, Olson C, Cox NS. Maternal birthing positions and perineal injury. J Fam Pract.; 1990.
3. Dundes L. The Evolution of Maternal Birthing Position. Public Heal Then Now. 1987;77(5).
4. Mwanzia BL. An investigation into the perceptions and preferences of birth positions in a Kenyan referral hospital. African J Midwifery Women Heal. 2012;8(2).
5. Meyvis I, Rompaey B Van, Goormans K, Truijen S, Lambers S, Mestdagh E, et al. Maternal Position and Other Variables: Effects on Perineal Outcomes in 557 Births. Birth issues Perinat care. 2012;39(2):115–20.
6. Debra B, Glover P, Jones M, Teoh K, Waazileni C, Muller A. Malawi women’s knowledge and use of labour and birthing positions: A cross-sectional descriptive survey. Women and Birth [Internet]. 2017;30(1):e1–8. Available from: http://dx.doi.org/10.1016/j.wombi.2016.06.003
7. Director R of G. World Health Organization Report: Fighting Disease Fostering Development. In World Health Organization, Geneva; 1996.
8. Bonet M, Portela A, Downe S. WHO model of intrapartum care for a positive childbirth experience: transforming care of women and babies for improved health and wellbeing. WH Recommendations: Geneva; 2018.
9. Jonge A De, Teunissen TAM. Supine position compared to other positions during the second stage of labor: A meta-analytic review. J Psychosom Obs Gynaecol. 2004;(April).
10. Jonge A De, Lagro-Janssen ALM. Birthing positions. A qualitative study into the views of women about various birthing positions. J Psychosom Obs Gynecol. 2004;25:47–55.
11. Silva LS da, Leão DCMR, Da AF do N, Valdecyr Herdy Alves, Diego Pereira Rodrigues CBP. Women knowledge about the different positions for labour: A contribution for caring. J Nurs. 2016;10(4).
12. Thilagavathy G. Maternal birthing position and outcome of labor. J Fam Welf. 58(1):68–73.
13. Wilunda C, Scanagatta C, Putoto G, Takahashi R, Montalbetti F, Segafredo G, et al. Barriers to Institutional Childbirth in Rumbek North County, South Sudan: A Qualitative Study. PLoS One. 2016;11(12):1–20.
14. FDREMoH. Basic Emergency Obstetric and Newborn Cares. 2010.
15. Meyvis I, Rompaey B Van, Goormans K, Truijen S, Lambers S, Mestdagh E, et al. Maternal Position and Other Variables: Effects on Perineal Outcomes in 557 Births. Birth issues Perinat care. 2012;39(2):115–21.
16. Gupta, Sood A, Gj H, Jp V. Position in the second stage of labour for women without epidural anaesthesia (Review). Cochrane Database Syst Rev Position. 2017;(5).
17. Epidural T, Trial P, Group C. Upright versus lying down position in second stage of labour in nulliparous women with low dose epidural: BUMPES randomised controlled trial. BMJ. 2017;
18. Nasir A, Korejo R, Noorani KJ. Child birth in squatting position. J Pak Med Assoc. 2007;57(1):19–22.
19. Bick D, Briley A, Brocklehurst P, Hardy P, Juszczak E, Lynch L, et al. Upright versus lying down position in second stage of labour in nulliparous women with low dose epidural: BUMPES randomised controlled trial. BMJ. 2017;359.
20. Teunissen, Doreth A. M.; van Diem, Mariet Th.; Scheepers, Peer L. H.; Lagro-Janssen ALM. Women’s positions during the second stage of labour. J Adv Nurs. 2008;63(4):11–2.
21. FDREMoH. Federal Democratic Republic of Ethiopia Ministry of Health National Compassionate, Respectful and Caring Health Workforce Training. In 2017. p. 1–153.
22. HSTP. Health Sector Transformation Plan. 2015;
23. ICF EPHI (EPHI) [Ethiopia] and. Ethiopia Mini Demographic and Health Survey: Rockville, Maryland, USA: EPHI and ICF; 2019.
24. Mocumbi S, Högberg U, Lampa E, Sacoor C, Valá A, Bergström A, et al. Mothers ’ satisfaction with care during facility-based childbirth : a cross-sectional survey in southern Mozambique. 2019;6:1–14.
25. Mentee MM, Mentor SP, Walt C Van Der, Advisor F. Implementation of evidence based alternative birth positions in a hospital , in Tshwane . Nurs Invest Matern Heal. 2019;1:2019.
26. Diorgu FC, Steen MP, Keeling JJ, Mason-whitehead E. Mothers and midwives perceptions of birthing position and perineal trauma : An exploratory study. Women Birth [Internet]. 2016;1–6. Available from: http://dx.doi.org/10.1016/j.wombi.2016.05.002
27. Badejoko OO, Ibrahim HM, Awowole IO, Oyebamiji SBB, Ljarotimi AO, Loto OM. Upright or dorsal? childbirth positions among antenatal clinic attendees in Southwestern Nigeria. Trop J Obstet Gynaecol. 2016;33.
28. Mselle LT, Eustace L. Why do women assume a supine position when giving birth ? The perceptions and experiences of postnatal mothers and nurse-midwives in Tanzania. BMC Pregnancy Childbirth. 2020;20(36):1–10.
29. Bedford J, Gandhi M, Admassu M, Girma A. ‘ A Normal Delivery Takes Place at Home ‘ : A Qualitative Study of the Location of Childbirth in Rural Ethiopia. Matern Child Heal J. 2013;17:230–9.
30. Molla M, Muleta M, Betemariam W, Fesseha N, Karim A. Disrespect and abuse during pregnancy , labour and childbirth : a qualitative study from four primary healthcare centres of Amhara and Southern Nations Nationalities and People ’ s Regional States , Ethiopia. Ethiop J Heal Dev. 2017;31(3):129–37.
31. Sabit A, Ababor S, Birhanu Z, Defar A, Amenu K, Araraso D, et al. Socio-cultural Beliefs and Practices Influencing Institutional Delivery Service Utilization in Three Communities of Ethiopia : A Qualitative Study. Ethiop J Heal Sci. 2019;29(3).
32. V. H. Virginia Henderson’s Nursing Theory. India Pearson Educ. 2015;
33. Huang J, Zang Y, Ren L, Li F, Lu H. International Journal of Nursing Sciences A review and comparison of common maternal positions during the second-stage of labor. Int J Nurs Sci [Internet]. 2019;6(4):460–7. Available from: https://doi.org/10.1016/j.ijnss.2019.06.007
34. Brooks D. Research Design and Methodology. Internet. 2004.
35. E. M. The Interview: Data Collection in Descriptive Phenomenological Human Scientific Research. J Phenomenol Psychol. 2012;43(1):3.
36. Morse J. Qualitative Research and its Uses in Health Care. Sultan Qaboos Univesity Med J. 2008;8(1):3–5.
37. ZQ A. Qualitative Health Research: creating a new discipline. Int J Qual Methods. 2012;28–9.
38. McDonald SM. Search terms : Descritores : Author contact : 2017;28(1):44–52.
39. Jonge A De, Lagro-Janssen ALM. Birthing positions . A qualitative study into the views of women about various birthing positions. J Psychosom Obs Gynecol. 2004;16(2):11–2.
40. Stuckey HL. Methodological Issues in Social Health and Diabetes Research Three types of interviews: Qualitative research methods in social health. 2013;1(2):2–5.
41. Tong A, Sainsbury P CJ. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Heal Care. 2007;19(6):349–57.
42. Yelland J, Riggs E SJ. Compromised communication: a qualitative study exploring Afghan families and health professionals’ experience of interpreting support in Australian maternity care. BMC Pregnancy Childbirth. 2016;25(4).
43. MarianneJ, Nieuwenhuijze, RM M, LisaKaneLow, CNM P, IreneKorstjens P, ToineLagro-Janssen, MD P. The Role of Maternity Care Providers in Promoting Shared Decision Making Regarding Birthing Positions During the Second Stage of Labor CEU. J ofMidwifery &Women's Heal. 2014;59(3).
44. Diorgu FC, Steen MP. Nigerian Mothers ‘ Perceived Disrespectful Care during Labour and Birth Arising from Lack of Choices for Birthing Position and Episiotomy. J Gynecol Obstet. 2017;1–4.
45. Gebremichael MW, Worku A, Medhanyie AA, Edin K. Women suffer more from disrespectful and abusive care than from the labour pain itself: a qualitative study from Women’s perspective. 2018;1–6.
46. Waldenström U, Hildingsson I, Rubertsson C RI. A negative birth experience: prevalence and risk factors in a national sample. Birth. 2004;
47. Thilagavathy G. Maternal Birthing position and Outcome Of labour. J Fam Welf. 2012;58(1):68–73.