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Birth attendants' attitudes and practice of companionship during facility-based childbirth and associated factors in the West Shoa Zone, central Ethiopia: A mixed method design

Yonas Sagni Doba[1], Gizachew Abdissa Bulto[2], Eden Girmaye Tefera[2], Negash Wakgari[2], Temesgen Daksisa[3], Tura Muda[4], Gurmessa Daba Dina[2] and Berhanu Ejara Moti[2]

Abstract

Objectives: The World Health Organization strongly recommends companion of choice for all women during health facility delivery. However, in the developing countries, it is low and not well studied in Ethiopia. Thus, the study aimed to assess the birth attendants' attitude and practice of companionship during health facility-based childbirth and associated factors in the West Shoa Zone, Ethiopia.

Methods: A cross-sectional study design with a concurrent mixed method approach was employed from 17 August to 23 September 2021. A simple random sampling was used to collect data from 422 birth attendants using a pretested structured self-administered questionnaire. The data was entered into Epi-data 3.1 and exported to the Statistical Package for Social Sciences for analysis. Bivariate and multivariate logistic regressions were done. The qualitative data was analyzed manually using thematic analysis, and the result was triangulated with the quantitative data.

Results: About, 208 (51.2%) of birth attendants had favorable attitude, and only 79 (19.5%) of them reported that they practice companion presence during childbirth. Reported job satisfaction (adjusted odds ratio = 5.29, 95% confidence interval: 3.08, 9.1), presence of a screen (adjusted odds ratio (AOR) = 3.4, 95% confidence interval: 1.94, 5.99), and wideness of the delivery room (adjusted odds ratio = 4.74, 95% confidence interval: 2.48, 9.04) were factors associated with the attitude of birth attendants. The number of deliveries per month (adjusted odds ratio = 3.34, 95% confidence interval: 1.37, 8.13), having had training (adjusted odds ratio = 3.286, 95% confidence interval: 1.52, 7.08), and presence of a screen (adjusted odds ratio = 2.88, 95% confidence interval: 1.42, 5.85) were statistically associated with practice of companion presence during childbirth. The main themes that emerged as the key barriers to the practice of companion presence during childbirth include structural factors, societal norms and culture, lack of interest, birth attendant-related barriers, unsupportive administration protocol, and companions' awareness.

Conclusion: The magnitude of favorable attitudes and reported practice of birth attendants regarding companion presence during childbirth is low. Structural related factors were the main barriers. Training of birth attendants and structural interventions are needed to ensure that delivery rooms are designed in ways that facilitate the presence of companions during childbirth.

Keywords

Attitude, practice, companionship, birth attendants, West Shoa Zone

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[1]Department of Midwifery, College of Medicine and Health Sciences, Wachemo University, Hosanna, Ethiopia
[2]Department of Midwifery, College of Medicine and Health Sciences, Ambo University, Ambo, Ethiopia
[3]Department of Midwifery, College of Medicine and Health Sciences, Mada Walabu University, Shashemane, Ethiopia
[4]Elwaye District Health Office, Borena Zone, Yabello, Ethiopia

Corresponding author:
Gizachew Abdissa Bulto, Department of Midwifery, College of Medicine and Health Sciences, Ambo University, Ambo, Oromia, Ethiopia.
Email: gizachab@yahoo.com

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Introduction

Companionship refers to being with and providing support to women during labor and delivery.[1,2] A companion can be any person chosen by the woman; it could be someone from the family, friend, or relatives, a community member, a community health worker, a doula, or a staff healthcare professional (HCP).[3]

The World Health Organization recommends a companion of choice for all women throughout labor and childbirth, in conjunction with respectful maternity care (RMC) and effective communication between healthcare providers and the women in labor and delivery.[4] National policy guidelines in 53% of African countries recommend the presence of a companion of choice during labor and childbirth.[3] The Ethiopian Ministry of Health also recommends allowing birth companionship as an integral component of compassionate and respectful care.[5]

The presence of a companion during labor and delivery helps both the birth attendants and the women.[6] It has been viewed as a potential compensatory measure for insufficient staffing and as a means of reducing some of the burdens on healthcare providers.[7,8] The presence of a companion is very important for women, primarily to receive RMC, as HCP provide RMC more frequently when a companion is present.[7,9] Furthermore, women also get psychological and emotional support, which soothes pain and loneliness, strengthens family bonds, and helps in the physiological progression of labor and delivery.[10–12]

Evidence shows that allowing companionship during labor and delivery improves the process of normal labor and birth and, hence, increases the likelihood of spontaneous vaginal birth and reduces the likelihood of operative delivery, including the cesarean section, compared with a setting in which companionship is not allowed. In addition, it reduces the duration of labor and the likelihood of having a baby with a low 5-min Apgar score. It also enhances women's feelings of control during labor and reduces the need for intra-partum analgesia.[1] Furthermore, from the study conducted in Brazil, having a companion during childbirth increases women's satisfaction when compared to those who do not have it.[6] In line with this, companionship is an integral part of the labor guide for skilled health personnel to offer supportive care with the presence of companion throughout labor to ensure a positive childbirth experience for women.[4,9]

Despite its importance, studies show that companionship is not fully embraced in some countries. In a study done in south Brazil, only 39.4% of the women had a birth companion.[13] Many countries do not have policies in favor of companionship, and most health facilities' policies and protocols do not allow companion presence during labor and childbirth.[3] In the study done in Saudi Arabia, the hospital system and not having a private room for women in labor and delivery and cultural influences were identified as barriers to the husband's presence as a companion in the delivery room.[14] Furthermore, the presence of a companion was identified as a source of discomfort and interference by birth attendants during childbirth in Nepal.[15] Furthermore, negative attitudes of birth attendants toward companion presence during labor and delivery were the main barriers to companionship implementation.[16]

Several studies in African countries have revealed that allowing a companion of choice during childbirth is unusual. According to a 2016 study conducted in Tanzania, 10% of birth attendants allow companionship during childbirth.[17] The main barrier identified was the physical infrastructure of healthcare facilities, which results in overcrowding in the delivery ward. However, most birth attendants have a positive attitude toward the presence of companions and are willing to allow them if modifications are made to the physical infrastructure of healthcare facilities.[17–19]

Even though it is the right of the woman in labor and delivery to be respected for her choices and preferences and supported by a companion of her choice, the implementation is very poor in Ethiopia. This study is important because it provides input for improving the quality of care provided to mothers during labor and childbirth. It can also help health managers and other stakeholders in identifying and addressing barriers to the practice of companion presence during childbirth, as well as designing an appropriate intervention. There is also a paucity of evidence on birth attendants' attitudes and practices regarding companion presence during childbirth in Ethiopia. As a result, the purpose of this study is to assess birth attendant attitudes and practices regarding companionship during health facility-based childbirth and associated factors at public health facilities in the West Shoa Zone.

Methods

Study setting and period

The study was conducted at public health facilities in the West Shoa Zone from August 17 to September 23, 2021. Ambo is the capital town of the zone which is located 114 km away from Finfinnee the capital city of Ethiopia to the West. According to the data obtained from West Shoa Health Office, the Zone has nine public hospitals (one referral, three general hospitals and five primary hospitals), 92 health centers, and 529 health posts. There are 982 obstetric care providers in West Shoa Zone. Among those, 11 are obstetricians and gynecologists, 21 integrated emergency surgical officers (IESO), 13 general practitioners, 426 midwives, 222 health officers, and 289 nurses (those nurses who conduct deliveries during night duty time in health centers). One hundred sixty-five of them are working in public hospitals while the remaining 817 are working in public health centers.[20]

Study design and population

A cross-sectional study design with a concurrent mixed-methods approach was used among birth attendants who conduct deliveries in the West Shoa Zone's selected public health facilities. Birth attendants whose work experience was less than 6 months and who were on maternity and annual leave during data collection time were excluded. The qualitative interview was carried out with medical directors and primary healthcare unit directors (PHCUD) in the selected public health facilities of the West Shoa Zone to explore the barriers to the practice of companion presence during childbirth.

Participants' recruitment

The sample size was calculated using a single population proportion formula, assuming the proportion of the level of practice of birth attendants on companion presence during childbirth was 50%, since a similar study on the same study population is not found in Ethiopia. By using a 95% confidence interval and a 5% margin of error and adding a 10% non-response rate, the final sample size was 422.

A stratified sampling technique was used after stratifying hospitals and health centers. Then six hospitals from a total of nine hospitals and 46 health centers from a total of 92 health centers were selected randomly by lottery method. The calculated total sample size ($n=422$) was proportionally allocated to each randomly selected hospital and health center based on the number of birth attendants found in each health facility (by multiplying the proportion of allocation by the number of birth attendants in each health facility). Finally, the study participants were selected by simple random sampling (lottery method) from the list of birth attendants found in each randomly selected health facility. For the qualitative study, a purposive sampling technique was used to select medical directors and PHCU directors from public health facilities in the West Shoa Zone. Data saturation was achieved after collecting data from ten key informants.

Variables of the study

Attitude toward companion presence and the practice of birth attendants regarding companion presence during childbirth were dependent variables.

Independent variables

- **Socio-demographic factors:** age, sex, marital status, profession, level of education, and years of experience
- **Institutional factors:** type of health facility (HF), structural factors such as presence of screen/curtain, wideness of the space in the delivery room, number of couches in the delivery room, and administration protocol of the HFs
- **Individual factors:** number of work hours per week, number of deliveries conducted per month, job satisfaction, allowing companion presence in labor and having training on Compassionate, Respectful and Caring (CRC), RMC and Basic Emergency Obstetric and Neonatal Care (BEmONC).

Measurements

The practice of birth attendants regarding companion presence during childbirth: in this study, companion presence was considered practiced if the birth attendants reported allowing companion presence during childbirth always for all mothers and most of the time in the delivery room from the time the woman entered the delivery room to the time she transferred to the postnatal room.[3]

Attitude of birth attendants toward companion presence during childbirth: A 5-point Likert scale was used. There are nine positive statements (each item was scored "strongly disagree = 1" to "strongly agree = 5") and seven negative statements (each item was scored "strongly disagree = 5" to "strongly agree = 1"). Then, the scores for each item were summed up, and a total score was obtained for each respondent. Finally, the median score was calculated and categorized into two (dichotomized). **Favorable Attitude**: The respondents who scored greater than or equal to the median value for the attitude-related questions. **Unfavorable Attitude**: The birth attendants who answered lower than the median value to the attitude-related questions.[14,21]

Data collection procedures and instruments

A structured, self-administered questionnaire written in English and the Afan Oromo Version (local language) was used for the quantitative study. The questionnaire was adapted by reviewing related literature.[16–18], [22–25] It contains five parts: socio-demographic characteristics questions, questions related to individual factors, questions related to institutional factors, attitude items, and practice questions. Names or any other identifying information were not included in the tool. Six Bachelor of Science degree-holding nurse data facilitators and two senior Bachelor of Science degree-holding nurse supervisors were recruited.

For the qualitative data, key informant interviews involving MDs and PHCUDs were used to explore the barriers to the practice of companion presence during childbirth. The key informant interviews were conducted by the first two male authors, YSD (MSc), and GAB (Assistant Professor), who had prior experience in collecting qualitative data. The interviews were conducted privately in the office of the participants. Five open-ended questions

prepared in English were translated into Afan Oromo to collect the qualitative data. A mobile audio recorder was used to record the interview, and simultaneously, short notes were taken.

Data quality control

Prior to data collection, a pre-test was conducted on 21 birth attendants in Nekemte town at Nekemte Specialized Hospital and Bake Jama Health Center. Coefficient of reliability, Cronbach's alpha was 0.791. Training was given for data facilitators and supervisors on the objective, the benefit of the study, individual rights, and informed consent for the common understanding of the study. To get informed consent and reliable data, a clear explanation of the purpose and procedure of the study was given to the study participants. Each questionnaire was checked for completeness, missed values and unlikely responses. The data was checked daily for completeness and consistency throughout the data collection period, then, each completed questionnaire was given a unique code.

To ensure the credibility of the qualitative data, the study participants were given a detailed explanation of the study's purpose and procedure. During the interview, based on the participant's responses, probing was used for each question to dig out the possible factors in detail to maintain consistency of data. The results were shown with detailed descriptions and using quotes. The audio recordings were copied to the computer as a backup, and copies of the written notes were kept private until the transcriptions were checked for accuracy and completeness.

Statistical analysis

The quantitative data were entered into the computer using the Epi-data 3.1 software before being exported to SPSS version 25 for analysis. To determine frequencies, descriptive statistics were computed, and summary statistics were used to present the socio-demographics and other relevant variables of the study populations. Analysis was done separately for the two dependent variables. The assumption of multicollinearity was met (Variance inflation factor was less than 1.6 for all predictors). For the first dependent variable (attitude of birth attendants), the model was built with 12 predictor variables. Finally, on the multivariable logistic regression model, a p-value of less than 0.05 and an odds ratio with a 95% confidence level were used to declare the level of statistical significance.

The qualitative data was transcribed and translated into English. After understanding the transcripts by reading and rereading them, the data was coded. Then, the codes were combined into themes. The main themes that emerged include structural barriers, norms and culture of the society, lack of interest among the mothers, birth attendant-related barriers, the companions' awareness and view, and unsupportive administration protocol of the HFs. After reviewing, the themes were defined and described. The results were triangulated with the quantitative data.

Results

Socio-demographic and individual-related characteristics of the respondents

A total of 406 birth attendants responded completely to this study, with a response rate of 96.2%. The participants' age ranged from 22 to 52 years old, with a median age of 29 years, and the majority (59.9%) of them fell into the age category of 26–30 years. Male participants were 216 (53%), and about 230 (56.7%) of the participants were married. Midwives constituted more than half of the sample size, 219 (53.9%).

The median year of respondents' experience was 5 years, with a range of 1–32 years. About 226 (55.7%) of them worked for less than or equal to 5 years. Half of them, 204 (50.2%), reported that they conduct fewer than 10 deliveries per month. Subsequently, nearly half of the respondents 194 (47.8%) reported that they were dissatisfied with their job, and 321 (79.1%) of them reported that they thought they were not paid fairly. Only 146 (36%) of them reported having had training like CRC, RMC, and BEmONC (Table 1).

Health institution-related characteristics

The most reported number of delivery couches in the delivery room/ward was two, which accounts for about 182 (44.8%). Two hundred forty-eight (61.1%) of the respondents reported that there was no screen or curtain in between the couches in the delivery room. Nearly two-thirds of the respondents 264 (65%) reported that the space in the delivery room is not wide enough to accommodate the birth companions. Similarly, 253 (62.3%) of the respondents reported that their HF's administration protocol does not allow companion presence during childbirth (Table 2).

Attitude of the birth attendants toward companion presence during childbirth

The birth attendants' attitude toward companion presence was assessed using a 5-point Likert scale. The frequency of responses for an individual item of the questionnaire (16 items) was calculated. The highest attitude response was "agreed," 181 (44.6%) for the item "companion of choice during childbirth should be allowed for all mothers who request it." Conversely, the lowest attitude response was "strongly agree," with 19 (4.7%) for the item "companion of choice during childbirth should never be allowed in the delivery room/ward." About 118 (29%) of the obstetric care providers responded neutral when asked as to if companion presence during childbirth always reduces the use of analgesia and anesthesia. The item companion of choice during

Table 1. Socio-demographic and individual-related characteristics of birth attendants working in the selected public health facilities of West Shoa Zone, central Ethiopia 2021 ($N = 406$).

Variable	Category	Frequency	Percent
Age (years)	⩽25	49	12.1
	26–29	243	59.9
	⩾30	114	28.1
Sex	Male	216	53.2
	Female	190	46.8
Marital status	Single	167	41.1
	Ever married	239	58.9
Professional category	Obstetrician and/or gynecologist, GP and IESO	19	4.8
	Health officer	72	17.7
	Midwife	219	53.9
	Nurse	96	23.6
Level of education	Above 1st degree	21	5.2
	First degree	285	70.2
	Diploma/level-4	100	24.6
Type of health facility	Referral hospital	34	8.4
	General hospital	45	11.1
	Primary hospital	17	4.2
	Health center	310	76.4
Years of experience	⩽5	226	55.7
	6–10	143	35.2
	>10	37	9.1
Deliveries attended per month	⩽10	204	50.2
	11–20	145	35.7
	>20	57	14.1
Time spent on work per week (h)	⩽60	166	40.9
	61–90	202	49.8
	>90	38	9.4
Reported job satisfaction	Dissatisfied	194	47.8
	Neither satisfied nor dissatisfied	24	5.9
	Satisfied	188	46.3
Perceive as paid fairly for job duties	Yes	85	20.9
	No	321	79.1
Having had training	Yes	146	36
	No	260	64

Table 2. Health institution-related characteristics of the selected public health facilities of West Shoa Zone, central Ethiopia 2021 ($N = 406$).

Variables	Category	Frequency	Percentage
Number of couches in the delivery room/ward	⩽2	184	45.3
	⩾3	222	54.7
Screen/curtain presence	Yes	158	38.9
	No	248	61.1
Wideness of the space in the delivery room	Yes	142	35
	No	264	65
Guideline presence (CRC, RMC, BEmONC)	Yes	53	13.1
	No	353	86.9
Administration protocol support companion presence	Yes	153	37.7
	No	253	62.3
Favor protocol change	Yes	229	56.4
	No	177	43.6
Necessary to restructure the HF	Yes	341	84
	No	65	16

Table 3. Frequency table that shows attitude of birth attendants toward companion presence during childbirth at public hospitals in West Shoa Zone, central Ethiopia 2021 ($N = 406$).

Items	Frequency (percentage)		
	Disagree	Neutral	Agree
Companion of choice during childbirth should be allowed for all mothers who requested it	107 (26.4)	29 (7.1)	270 (66.5)
Companion presence during childbirth reduces some of the burdens of the birth attendants	134 (33)	50 (12.3)	222 (54.6)
Companion presence during childbirth improves quality care provided by the birth attendants	162 (39.9)	51 (12.6)	193 (47.5)
Companion presence during childbirth reduces maternal stress, anxiety and fear of labor pain	131 (32.3)	74 (18.2)	201 (49.5)
Companion presence during childbirth shortens the length of labor	193 (47.6)	79 (19.5)	134 (33.2)
The presence of the companion during childbirth results in less cooperation of women with the staff throughout childbirth	140 (34.5)	82 (20.2)	184 (45.3)
The presence of a companion during childbirth increases maternal satisfaction	136 (33.4)	93 (22.9)	177 (43.6)
The woman will be very comfortable with a companion of her choice by her side	142 (35)	79 (19.5)	185 (45.6)
The presence of a companion during childbirth makes the woman relaxed and confident	187 (46)	59 (14.5)	160 (39.4)
Companion presence during childbirth reduces mistreatment and abuse	149 (36.7)	54 (13.3)	203 (50)
Companion of choice during childbirth should never be allowed in the delivery room/ward	246 (60.6)	58 (14.3)	102 (25.1)
The presence of a companion during childbirth Should be allowed only if the woman requested	208 (51.3)	80 (19.7)	118 (29)
Companion presence during childbirth does not reduce the need for augmentation, instrumental and cesarean deliveries	222 (54.7)	76 (18.7)	108 (26.6)
Companion presence during childbirth does not have an advantage for the establishment of breastfeeding immediately after delivery	199 (49.1)	72 (17.7)	135 (33.3)
Companion presence during childbirth never reduces the use of analgesia and anesthesia	197 (197)	118 (29.1)	91 (22.4)
Companion presence during childbirth has no role in improving neonatal outcomes	208 (51.2)	97 (23.9)	101 (24.9)

childbirth should be allowed for all mothers who request it received the lowest attitude response of "neutral," with 19 (4.7%) (Table 3).

In this study, the scores of each item were summed up for every respondent, and the median for the total scale was 45. Finally, 208 (51.2%) of the birth attendants were categorized as having a favorable attitude toward companion presence during childbirth.

Practice of birth attendants regarding companion presence during childbirth

In this study, nearly one-fifth 79 (19.5%) of birth attendants allowed companion presence during childbirth. Three-fourths of the respondents, 302 (74.4%) responded that they allow a companion of choice during labor in the labor room or ward, and about 158 (38.9%) of the respondents reported that they allow obstetric care providers during childbirth in the delivery room/ward. Among those who reported that they allow companion presence during childbirth in the delivery room/ward, about 47 (11.6%) and 32 (7.9%) of them reported that they allow obstetric care providers in the delivery room always for all mothers and most of the time during childbirth, respectively (Table 4).

The reason reported for the refusal of the request for companion presence was mainly for the sake of other women's privacy (37.1%), followed by the companion may disturb the birth attendant (23%) (Figure 1). The main reasons reported for not allowing the companion of choice during childbirth were that the delivery room/ward was too busy and the absence of screens or curtains separating the delivery couches (Figure 2).

Factors associated with the attitude of birth attendants toward companion presence during childbirth

Multivariable logistic regression analysis identified that level of education, reported job satisfaction, number of deliveries conducted per month, presence of screen/curtain between the couches, and wideness of the space in the delivery room were statistically associated with the attitude of birth attendants toward companion presence during childbirth.

The birth attendants whose level of education is first degree were 3.2 times (AOR = 3.2, 95% confidence interval (CI): 1.71, 5.98) more likely to have a favorable attitude toward companion presence during childbirth when compared to those with diplomas or level-4. The birth attendants who reported being satisfied with their job were 5.29 times (AOR = 5.29, 95%CI: 3.08, 9.1) more likely to have a favorable attitude toward companion presence during childbirth when compared with those who reported being dissatisfied. Birth attendants who reported conducting more than 20

Table 4. Practice of birth attendants regarding companion presence during childbirth in public health facilities of West Shoa Zone, central Ethiopia 2021 (*N* = 406).

Variable	Category	Frequency	Percent
Ever allowed companion presence in labor ward/room	Yes	307	75.6
	No	99	24.4
Currently allowing companion presence in labor ward/room	Yes	302	74.4
	No	104	25.6
Ever allowed companion presence in the delivery room/ward	Yes	217	53.4
	No	189	46.6
Currently allow companion presence in the delivery ward/room	Yes	158	38.9
	No	248	61.1
How often do you allow companion presence?	Always for all mothers	47	11.6
	Most of the time	32	7.9
	Sometimes	49	12
	Rarely	30	7.4
	Never	248	61.1
Type of mothers mostly allowed for companion presence (*N* = 158)	Primipara	118	74.7
	Multipara*	40	25.3
Condition in which you allow companion of choice for mothers (*N* = 111)	When needed for decision-making	42	37.8
	When there is a complication	17	15.3
	When the mother is not cooperative with the procedure	50	45
	Other reason	2	1.9
Who requests for companion presence mostly (*N* = 337)	Women herself	165	49
	The companion	172	51
Obstetric care providers response to the request for companion presence (*N* = 337)	allowed	211	62.6
	Not allowed	126	37.4
Type of companion allowed most (*N* = 211)	Partner/husband	45	21.3
	Mother-in-law	28	13.3
	Mother	69	32.7
	Sister/sister-in-law	12	5.7
	Friend/neighbor	14	6.6
	Community health volunteer	7	3.3
	Nurse/midwife/doctor	36	17.1
The outcome of companion presence (*N* = 211)	Did not disturb	129	61.1
	Disturbed me from doing my work	28	13.3
	Was afraid	25	11.8
	Was crying	25	11.8
	Other**	4	1.9
Would you like if the companion be with you or stay with the mother during childbirth?	Yes	245	60.3
	No	161	39.7
Would you allow companion presence during childbirth in the future?	Yes	243	59.9
	No	163	40.1

*Grand multipara = 5 (3.2%), huge multipara = 1 (0.6%) **Took the HF to the court = 3 (1.4%), fainted = 1 (0.5%).

deliveries per month were 2.29 times (AOR = 2.29, 95%CI: 1.04, 5.05) more likely to have a favorable attitude toward companion presence during childbirth when compared to those who reported conducting less than or equal to 10 deliveries per month.

Regarding the presence of a screen or curtain between the couches, the birth attendants who reported the presence of a screen/curtain between the delivery couches were 3.4 times (AOR = 3.4, 95%CI: 1.94, 5.99) more likely to have a favorable attitude toward companion presence during childbirth when compared to those who reported the absence of the screen/curtain between the delivery couches. Similarly, the birth attendants who reported that the delivery room is wide enough to accommodate the birth companion were 4.74 times (AOR = 4.74, 95%CI: 2.48, 9.04) more likely to have a favorable attitude toward companion presence during childbirth when compared to those who reported that the delivery room is not wide enough to accommodate the birth companion (Table 5).

Factors associated with the practice of birth attendants regarding companion presence during childbirth

Multivariable logistic regression analysis showed that level of education, number of deliveries conducted per month, administration protocol supporting companion presence, allowing companion presence in the labor room, having had training, the presence of a screen or curtain between the couches, and wideness of the space in the delivery room were statistically associated with the practice of birth attendants regarding companion presence during childbirth.

The birth attendants whose level of education is first degree were 2.8 times (AOR = 2.8, 95%CI: 1.225, 6.38) more likely to allow companion presence during childbirth when compared with diploma/level-4 birth attendants. Regarding the number of deliveries conducted per month, the birth attendants who reported conducting more than 20 deliveries per month were 3.34 times (AOR = 3.34, 95%CI: 1.37, 8.13) more likely to allow companion presence during childbirth when compared with those who reported conducting less than or equal to 10 deliveries per month. Similarly, birth attendants who have had training like CRC, RMC and BEmONC were 2.17 times (AOR = 2.17, 95%CI: 1.06, 4.44) more likely to allow companion presence during childbirth when compared with those who have not had training like CRC, RMC and BEmONC.

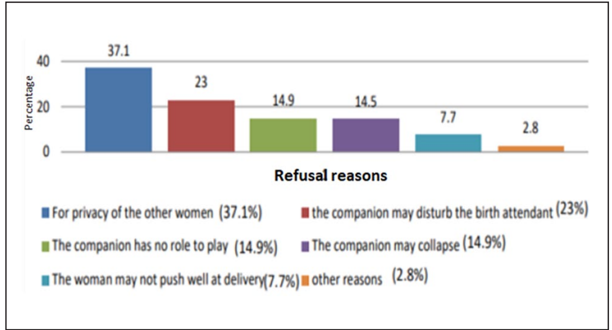

Figure 1. Reason for refusal to request for companion presence during childbirth among birth attendants in selected public health facilities of West Shoa Zone, central Ethiopia 2021.

Regarding the presence of a screen or curtain between the couches, the birth attendants who reported the presence of a screen/curtain between the delivery couches were 3.286 times (AOR = 3.286, 95%CI: 1.52, 7.08) more likely to allow companion presence during childbirth when compared to those who reported the absence of the screen/curtain between the delivery couches. Similarly, the birth attendants who reported that the delivery room is wide enough to accommodate the birth companion were 2.88 times (AOR = 2.88, 95%CI: 1.42, 5.85) more likely to allow companion presence during childbirth when compared to those who reported that the delivery room is not wide enough to accommodate the birth companion.

The birth attendants who reported that the administration protocol of their HF supports companion presence during childbirth were 4.86 times (AOR = 4.86, 95%CI: 2.41, 9.79) more likely to allow companion presence during childbirth when compared to those who reported that the administration protocol of their HF does not support companion presence during childbirth.

Moreover, comparing the birth attendants who allow companion presence in the labor room/ward with those who do not allow it, the birth attendants who allow companion presence in the labor room/ward were 2.93 times (AOR = 2.93, 95%CI: 1.07, 8.06) more likely to allow companion presence during childbirth (Table 6).

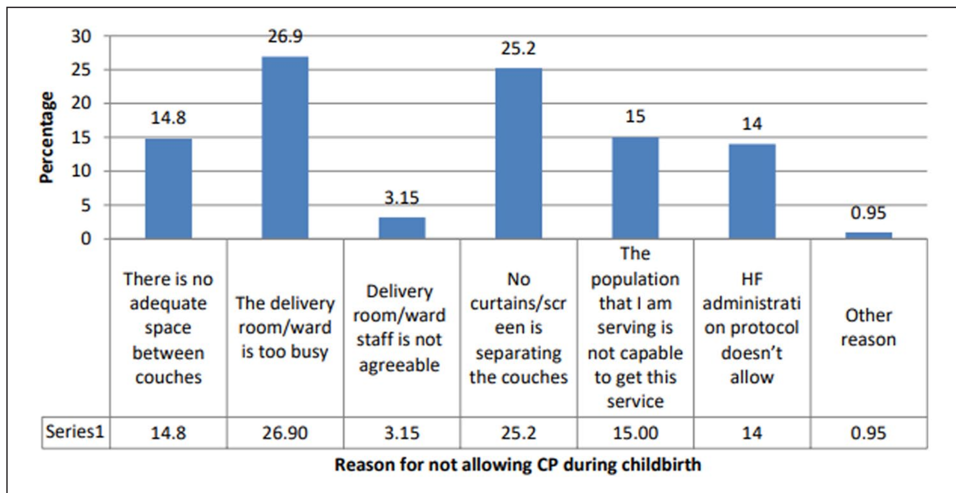

Figure 2. Reason for not allowing companion presence during childbirth among birth attendants who do not allow companion presence during childbirth in public health facilities of West Shoa Zone, central Ethiopia 2021.

Table 5. Multivariate logistic regression analysis result for variables associated with the attitude of birth attendants toward companion presence during childbirth in public health facilities of West Shoa Zone, central Ethiopia 2021 (*N* = 406).

Variable	Attitude		COR (95%CI)	AOR (95%CI)	*p*-value
	Favorable	Unfavorable			
Profession	*n* (%)	*n* (%)			
GP, IESO, obstetrician/specialist	14 (6.7)	5 (2.5)	3.04 (1.02, 9.1)	0.99 (0.18,5.48)	0.998
Health officer	36 (17.3)	36 (18.2)	1.08 (0.59, 2)	0.57 (0.24,1.41)	0.226
Midwife	112 (53.8)	107 (54)	1.13 (0.7, 1.84)	0.87 (0.38, 2.06)	0.765
Nurse	46 (22.1)	50 (25.3)	1	1	
Level of education					
Above 1st degree	15 (7.2)	6 (3)	4.85 (1.73, 13.64)	1.66 (0.47, 5.91)	0.431
First degree	159 (76.4)	126 (63.6)	2.45 (1.52, 3.94)	3.2 (1.71, 5.98)*	0.001
Diploma/level-IV	34 (16.3)	66 (33.3)	1	1	
Reported job satisfaction					
Satisfied	146 (70.2)	42 (21.2)	9.74 (6.1, 15.58)	5.29 (3.08, 9.1)*	0.001
Neither satisfied nor dissatisfied	11 (5.3)	13 (6.6)	2.37 (1, 5.63)	2.1 (0.79, 5.55)	0.135
Dissatisfied	51 (24.5)	143 (72.2)	1	1	
Thought of paid fairly					
Yes	60 (28.8)	25 (12.6)	2.8 (1.67, 4.7)	1.487 (0.75, 2.94)	0.254
No	148 (71.2)	173 (87.4)	1	1	
Having had training like CRC, RMC, BEmONC					
Yes	110 (52.9)	36 (18.2)	5.05 (3.21, 7.94)	1.23 (0.66, 2.3)	0.513
No	98 (47.1)	162 (81.8)	1	1	
Number of deliveries conducted per month					
Greater than 20	38 (18.3)	19 (9.6)	2.12 (1.15, 3.93)	2.29 (1.04, 5.05)*	0.04
11–20	71 (34.1)	74 (37.4)	1.02 (0.66, 1.56)	0.94 (0.54, 1.63)	0.834
1–10	99 (47.6)	105 (53)	1	1	
Number of couches in the delivery room					
1–2	79 (38)	105 (53)	0.54 (0.365, 0.8)	0.64 (0.367, 1.13)	0.126
3 and above	129 (62)	93 (47)	1	1	
Screen/curtain presence					
Yes	127 (61.1)	31 (15.7)	8.45 (5.26,13.56)	3.4 (1.94, 5.99)*	0.001
No	81 (38.9)	167 (84.3)	1		
The wideness of the space of the delivery room					
Yes	117 (56.2)	25 (12.6)	8.89 (5.39, 14.68)	4.74 (2.48, 9.04)*	0.001
No	91 (43.8)	173 (87.4)	1	1	
Presence of guideline concerning birth companionship (CRC, RMC and BEmONC)					
Yes	34 (16.3)	19 (9.6)	1.84 (1.01, 3.35)	0.82 (0.35, 1.92)	0.654
No	174 (83.7)	179 (90.4)	1	1	
Administration protocol support companion presence					
Yes	106 (51)	47 (23.7)	3.34 (2.18, 5.11)	1.27 (0.7, 2.31)	0.424
No	102 (49)	151 (76.3)	1	1	
Allow companion presence in the labor room/ward					
Yes	174 (83.7)	128 (64.6)	2.8 (1.75, 4.47)	1.325 (0.73, 2.4)	0.353
No	34 (16.3)	70 (35.4)	1	1	

COR, Crude Odds Ratio; AOR, Adjusted Odds Ratio; CI, Confidence interval.
*Significant at *p*-value <0.05 1- Reference.

Findings from qualitative data

Key informant interviews were conducted among 10 key informants (four MDs and six PHCU directors), with 100% response rate. Eighty percent[8] of the respondents were male. The mean age of the respondents was 33.4 years. The average duration of the interviews was 18 min and 28 seconds. They were asked about the implementation of the practice, whether the practice of companion presence during childbirth was adopted in their health facility or not, and what they thought was the barrier to the proper implementation of companionship. Regarding allowing companion presence during

Table 6. Multivariate logistic regression analysis result for variables associated with the practice of birth attendants toward companion presence during childbirth in public health facilities of West Shoa Zone, central Ethiopia 2021 ($N = 406$).

Variable	Practice companion presence		COR (95%CI)	AOR (95%CI)	p-value
	Practiced	Not practiced			
	N (%)	N (%)			
Level of education					
Above 1st degree	4 (5.1)	17 (5.2)	1.9 (0.54, 6.67)	0.699 (0.15, 3.36)	0.655
First degree	64 (81)	221 (67.6)	2.34 (1.18, 4.65)	2.8 (1.225, 6.38)*	0.015
Diploma/level-IV	11 (13.9)	89 (27.2)	1	1	
Reported job satisfaction					
Satisfied	66 (83.5)	122 (37.3)	9 (4.57, 17.73)	2.22 (0.95, 5.19)	0.066
Neither satisfied nor dissatisfied	2 (2.5)	22 (6.7)	1.5 (0.315, 7.27)	1.39 (0.235, 8.21)	0.717
Dissatisfied	11 (13.9)	183 (56)	1	1	
Thought of paid fairly					
Yes	31 (39.2)	54 (16.5)	3.265 (1.91, 5.59)	1.91 (0.92, 3.945)	0.083
No	48 (60.8)	273 (83.5)	1	1	
Have you had training like CRC, RMC, BEmONC					
Yes	57 (72.2)	89 (27.2)	6.93 (4, 11.99)	2.17 (1.06, 4.44)*	0.033
No	22 (27.8)	238 (72.8)	1	1	
Number of deliveries conducted per month					
Greater than 20	18 (22.8)	39 (11.9)	2.15 (1.11, 4.18)	3.34 (1.37, 8.13)*	0.008
11–20	25 (31.6)	120 (36.7)	0.97 (0.55, 1.71)	1.496 (0.71, 3.15)	0.289
1–10	36 (45.6)	168 (51.4)	1		
Screen/curtain presence					
Yes	65 (82.3)	93 (28.4)	11.68 (6.25,21.84)	3.286 (1.52,7.08)*	0.002
No	14 (17.7)	234 (71.6)	1	1	
The wideness of the space of the delivery room					
Yes	58 (73.4)	84 (25.7)	7.99 (4.57, 13.95)	2.88 (1.42,5.85)*	0.003
No	21 (26.6)	243 (74.3)	1	1	
Presence of guideline concerning birth companionship (CRC, RMC and BEmONC)					
Yes	23 (29.1)	30 (9.2)	4.07 (2.2, 7.5)	2.07 (0.91, 4.7)	0.084
No	56 (70.9)	297 (90.8)	1	1	
Administration protocol allow companion presence					
Yes	61 (77.2)	92 (28.1)	8.66 (4.86,15.44)	4.86 (2.41, 9.79)*	0.001
No	18 (22.8)	235 (71.9)	1	1	
Allow companion presence in the labor room/ward					
Yes	73 (92.4)	229 (70)	5.21 (2.19, 12.37)	2.93 (1.07, 8.06)*	0.037
No	6 (7.6)	98 (30)	1	1	
Had request of companion presence					
Yes	73 (92.4)	264 (80.7)	2.9 (1.21, 6.97)	1.24 (0.41, 3.72)	0.707
No	6 (7.6)	63 (19.3)	1	1	

COR, Crude Odds Ratio; AOR, Adjusted Odds Ratio; CI, Confidence interval.
*Significant at p-value <0.05 1- Reference.

childbirth in the delivery room or ward, the key informants pointed out that, though it is not usual to allow a companion of choice during childbirth, there were conditions under which the birth attendants allowed a companion of choice during childbirth. On the contrary, it is common practice to allow them during labor in the labor room or ward. It was explained that companion presence is allowed during childbirth whenever the laboring mother is resistant and not cooperating, and it is necessary to persuade the mother for procedures like episiotomy and instrumental delivery.

There is also a condition in which you allow it even in the second stage of *labor*. For example, when the head of the fetus is unable to be delivered, there is a procedure called an episiotomy [. . .]. Normally, consent is necessary. During

this time, the mother must have consented, and if the mother refuses the procedure, the companion will be allowed to persuade her. There is also what is called instrumental delivery, [. . .]. This also requires consent since it has its own complications. Because of the presence of these conditions, a companion of choice is sometimes permitted to accompany the mother during the second stage of *labor* to support her. (38 years, male MD of GH)

It was also stated that companion presence is permitted during childbirth if only the mother is present in the delivery room. But it is not allowed if two or more laboring mothers are in the delivery room to protect their privacy.

> If two mothers are transferred to the delivery room at the same time, if you allow the companion of one mother, it is shameful for the other mother; it will pose a problem for that mother. If only one mother is in the delivery ward, it does not matter if she chooses to allow a companion of her choice. (31 years old, male, MD of GH)

The participants mentioned that the reason why the birth attendants refuse the request for companion presence during childbirth is in order to protect the privacy of mothers. One of the participants explained it as follows:

> If a mother requests her companion be with her in the delivery room, it is not allowed in the presence of other laboring women in the delivery room. For example, in our health facility, there are only two couches, and the delivery room is very narrow; it is substandard. If two or three companions are allowed to enter with her in the delivery room, the place where the delivery procedure is done is there. Even after she gives birth, everything that is done for the newborn will be done there. Therefore, it is not comfortable for the mother to keep her privacy. (28 years old, male PHCUD)

Another PHCU director explained why birth attendants refuse to request companion presence during childbirth:

> If two mothers are transferred to the delivery room at the same time, if you allow the companion of one mother, it is shameful for the other mother; it will pose a problem for that mother. If only one mother is in the delivery ward, it doesn't matter if she chooses to have a companion of her choice. But if the companions of choice for the two mothers are in the delivery room, one of the mothers is afraid of the other mother's companion and vice versa. Therefore, it affects the privacy of the mothers greatly. (29 years old, male PHCUD)

Barriers to the practice of companion presence during childbirth

Interviews with the key informants (medical directors and PHCU directors) revealed a number of factors that affected the practice of companion presence during childbirth. As a result, the main themes that emerged as key barriers to the practice of companion presence during childbirth include structural factors, societal norms and culture, laboring mothers' lack of interest, birth attendant-related barriers, unsupportive administration protocol and companions' awareness and perspective.

Structural factors

The major barriers identified were the lack of a partition between delivery couches, which is required to maintain the privacy of every laboring mother in the delivery room/ward, and the narrowness of the delivery room. A primary hospital MD explained it as:

> If you allow companion presence, sometimes it doesn't matter. But, most of the time, their privacy might be disclosed since there is no screen or curtain that separates one *laboring* mother from the other mother's companions. (31 years old, male, MD of GH)

The respondents pointed out that the delivery room is too narrow to accommodate the companions.

> There might be three or four mothers giving birth in the delivery room at a time. The room itself is narrow to accommodate the delivering mothers, their companion of choice, the HCPs, and, additionally, there might be students who come to our HF for practical attachment. Even if we allow it, it will end up in overcrowding, compromise the ventilation of the room, and pave the way for communicable infections like COVID-19 and sepsis in the newborn.(34 years old, male MD of PH)

> . . . When we see the delivery room, it is not more than 3 x 3 or 3 x 4 meters. Even if they have been allowed, it is not good. As a result, they do not enter; it is not permitted to enter, as in our health facility. (37 years, male PHCUD)

Overcrowding was also identified as a barrier to the companion's presence. Added to the narrowness of the delivery room or ward, allowing the companions to enter the delivery room results in overcrowding, which might lead to other complications like nosocomial infection, neonatal sepsis and a compromise in the ventilation of the room. A medical director of a referral hospital was described as:

> Because of the narrowness of the delivery ward and human trafficking (overcrowding) in the *labor* and delivery ward, it is not allowed. There are HCPs like physicians, nurses, interns, midwives, and residents. In the presence of all of these professionals. . . (41 years old, male MD of RH)

The norms and culture of society

It is not acceptable for companions to enter the delivery room during childbirth, according to societal norms and culture. For those clients who come from rural areas, it is not

acceptable for the male companions to witness childbirth. A medical director of the primary hospital said:

> Because culturally, it is not usual for a member of society to be with the mother giving birth at the same time the baby is being delivered. In particular, male companions do not accept watching a mother deliver a baby, even if it has been offered to them. (34 years old, male MD of PH)

> According to the norm and culture of our society, mothers don't need male companions or relatives, but their mother or female companion of choice. Because of the norm and culture, we have, this practice (companion presence) is not being practiced. (41 years old, male MD of RH)

Lack of interest among the laboring mothers

The other barrier identified was a lack of interest among the laboring mothers. In particular, those mothers who come from rural areas do not particularly like having their companions (especially their husbands) be with them during delivery. Similarly, most primigravida mothers have no interest in companion presence during childbirth since they have a fear of exposing their genitalia even to the birth attendant. One of the study participants described it as follows.

> Some mothers themselves don't need anybody to be alongside them starting at the transitional stage of *labor*. At this stage, they become highly stressed and they experience severe pain in *labor*. They say, 'I don't want to see his face. The doctor gets him out of the room'. (34 years old, male MD of PH)

> . . .Even when they come for delivery for the first time, they have no interest in exposing their genital body, and we call them 'primi'. They do not expose their bodies even when they come for delivery. (37 years old, male PHCUD)

Birth attendant-related barriers

Birth attendant-related barriers were also identified. Some of the birth attendants are not willing or interested in allowing their companion of choice to enter the delivery room, and they think the delivery room/ward is the place where only HCPs work.

> In the delivery room only, HCP is allowed to enter; it is not allowed for the companions. It is not necessary for the mother to allow companions in the delivery room. Only HCP stays with her in the delivery room. (28 years, male PHCUD)

Additionally, some birth attendants do not allow companion presence because they do not want the companions to be witnesses if an incident happens. A medical director of GH narrated as follows:

> . . . While you are working as HCP, you could face some incidents. It is not true that your work is always perfect. There could be incidents. The companions shouldn't witness the incident because they were in the delivery ward. (38 years old, male MD of GH)

The key informants also mentioned that some HCPs lack awareness regarding birth companionship, while those who have had training like CRC lag behind in the implementation of the practice.

> The HCPs haven't been familiarized with this practice. Even though they have taken CRC training, there is a slow progress towards the implementation. (29 years, Male PHCUD)

Unsupportive administration protocol

In this finding, the unsupportive administration protocol of the health facility was also identified as a factor that hinders the companion presence during childbirth. In some health facilities, the delivery room/ward is considered the place where only HCPs work. The birth attendants do not allow companions' presence in the delivery room in health facilities where the administration protocol does not support companion presence.

> As much as possible, we stop them outside of the ward. We forced them (the companions) to stay and wait outside of the ward. There is a security man who was recruited for this purpose, who does not let the companions get into the delivery ward; only the birth attendants enter the delivery room with the mother; the companions do not enter with her.' (41 years old, male MD of RH)

> As a rule, it is forbidden for them to enter. Why? In our HC, we conduct 3 to 4 deliveries at a time; it is known that we conduct more deliveries than hospitals. . . (32 years old, female, PHCUD)

Companions' awareness and view

The awareness and perception of the companions was identified as a barrier to the practice of companion presence during childbirth. It was pointed out that some companions do not have awareness regarding the importance of companion presence and, even if allowed to enter the delivery room, their view toward the procedures done by the birth attendants becomes the opposite to the intention of the procedure, and they are not interested in the procedures at all. They think that some procedures were done intentionally to harm the mother.

> From a professional standpoint, you did everything you could to assist the mother, but the family (companion) sees things differently and might accept or reject the interventions. . . . Some of the interventions may be acceptable or unacceptable to the mother's companions (family); from a professional standpoint, you did your best to help the mother, but the family (companion) has a different perspective. (38 years old, male, MD of GH)

> You do the procedure to help the mother, but they (the companions) might perceive that you are intentionally harming

the mother. This is why, most of the time, birth attendants do not allow companions. (32 years old, female PHCUD)

Discussion

In this study, 51.2% (95%CI: 46.3, 56.2) of the birth attendants had a favorable attitude toward companion presence during childbirth. This finding is lower than the study done in Nigeria, which showed that the proportion of birth attendants supporting the companion's (male partner's) presence was 82.4%.[22] This discrepancy might be due to the difference in norms and cultures between the societies, as well as differences in healthcare policy and administrative protocol at the health facilities. The qualitative data also revealed that companion presence during childbirth is not common in most health facilities since societal norms and culture do not accept it, and many health facilities' protocols do not allow it.

According to the findings of this study, the magnitude of reported use of companion presence during delivery was found to be 19.5% (95%CI: 15.8, 23.4). This finding is higher than the study done in Tanzania, which showed that the proportion of birth attendants reporting allowing companion presence during childbirth was 10%. Another study done in Arba Minch found that 13.8% of mothers utilized companionship during delivery.[17,26] These findings show that the magnitude of companionship is very low. The qualitative finding also showed that in most health facilities, most birth attendants do not allow companions of choice during childbirth in the delivery ward, during the second stage of labor. But there are health facilities where birth attendants allow companion presence during childbirth if the conditions allow it. Some allow it only if a mother is in the delivery room or if the birth attendant is alone and needs assistance. In addition, it was also identified that some laboring mothers do not want their companions to be with them, especially their husbands.

The physical structure of the health facilities, such as the presence of a screen or curtain, was found to be associated with a favorable attitude toward companion presence during childbirth in this study. This could be due to their desire to protect the mother's privacy and keep the mother from being embarrassed by the other mother's companion. The surface area of the delivery room has also been found to be associated with a positive attitude toward companion presence during childbirth. This implies that birth attendants who work in health facilities with narrow delivery rooms are less likely to have a favorable attitude toward companion presence during childbirth. This could be due to a desire to avoid overcrowding, which would affect the delivery room's ventilation.

According to the findings of this study, birth attendants who conduct more than 20 deliveries per month are twice as likely to have a favorable attitude toward companion presence during childbirth as those who conduct less than or equal to 10 deliveries per month. This might be due to the fact that the companion presence could reduce some of the burdens of the birth attendants by supporting the laboring mother and assisting the birth attendants.[8]

Birth attendants with a first degree were more likely to have a positive attitude and allow companion presence during childbirth than those with a diploma or level-4 education. This could be because more than half of the respondents in this study were midwives by profession with bachelor's degrees, and they were more aware of the recommendations and importance of companion presence than those with diplomas.

This finding also showed that birth attendants who reported conducting more than 20 deliveries per month were three times more likely to allow companion presence during childbirth than birth attendants who reported conducting less than 10 deliveries per month. This finding is consistent with the study done in Tanzania, which showed that the birth attendants who reported conducting a higher number of deliveries were more likely to allow birth companions than those birth attendants who conducted fewer deliveries.[17]

Birth attendants who have had training like CRC, RMC, and BEmONC were two times more likely to allow companion presence during childbirth when compared with those who had not had training. The qualitative finding articulated that birth attendants who were unaware of birth companionship were rarely allowed to have their preferred companion of choice during childbirth. This is consistent with a qualitative review done in 2019 which identified that birth attendants who were not trained on how to use companions do not allow birth companions during childbirth.[24]

Those who reported that their HF's administration protocol does not support companion presence during childbirth were nearly five times more likely to allow companion presence during childbirth than those who reported that their HF's administration protocol does support companion presence during childbirth. This was supported by the qualitative result that showed most of the health facilities' administrative protocols do not support CP presence during childbirth, which is in line with the qualitative study done in Brazil and three Arab countries (Lebanon, Syria, and Egypt) that showed that the health facilities' unsupportive policy is a barrier to the practice of companion presence during childbirth.[16,23]

In this study, birth attendants who reported the presence of a screen or curtain between the delivery couches were three times more likely to allow companion presence during childbirth than birth attendants who reported the absence of a screen or curtain between the delivery couches. This indicates that to allow a companion of choice during childbirth, a delivery room with a partition (screen/curtain) in between the delivery couches is required. The qualitative finding corroborates the finding. The presence of a screen/curtain that is important to maintaining the privacy of the laboring mother is crucial for the presence of a companion of choice. It showed that unless the privacy of the laboring mother is maintained either in a private room or in a room partitioned by a screen/curtain, it is not appropriate to allow companion

presence during childbirth. This finding is consistent with the qualitative study done in three Arab countries and Brazil, which revealed that the absence of partitions in between the delivery couches hinders the practice of companion presence during childbirth.[16,23]

The study findings also revealed that the width of the space within the delivery room is related to allowing companion presence during childbirth. Birth attendants who reported that the delivery room is wide enough to accommodate the birth companion were nearly three times more likely to allow companion presence during childbirth than those who reported that the delivery room is not wide enough to accommodate the birth companions. This indicates that to allow a companion of choice during childbirth, the delivery room must be wide enough to accommodate the companions and have a partition (screen/curtain) in between the delivery couches. The qualitative study also identified that the narrowness of the delivery room is the main barrier to the practice of companion presence. This finding is in line with the qualitative study done in three Arab countries and Brazil which revealed that structural factors like the absence of partition in between the delivery couches and the narrowness of the delivery room/ward act as a barrier to the companion presence during childbirth.[16,23]

The birth attendants who allowed a companion of choice during labor were more likely to allow a companion of choice during childbirth. This is consistent with the study done in Tanzania, which showed that allowing companions in labor is a strong predictor of birth companionship. This suggests that a companion of choice who is allowed to be with a laboring mother in the labor room/ward is more likely to be allowed to stay alongside during childbirth.[17]

As a strength, this study employed a mixed research method that helps to understand the problem at a more detailed level. However, because the data for this study was collected based on self-report, it is susceptible to social desirability and recall bias.

Conclusion

In this study, nearly half of the birth attendants had an unfavorable attitude toward companion presence during childbirth. The practice of companion presence during childbirth among birth attendants is low. Structural related factors of the health facilities (screen or curtain presence and wideness of space within the delivery room) and the number of deliveries conducted per month were statistically associated with attitudes. Whereas the practice of birth attendants was associated with having had training, allowing companions during labor, and administration protocol of the health facilities. As barriers to the practice of birth companionship, the absence of a partition for privacy, the narrowness of the delivery room or ward, overcrowding, the norm and culture of the society, a lack of interest among some mothers, unsupportive administration protocols of health facilities, and factors related to birth attendants were identified.

Therefore, the Ministry of Health and Regional Health Bureau have to work on improving the structural aspect of the health facilities that will be constructed in the future. Delivery rooms should be constructed as wide as possible to accommodate the birth companions, and appropriate partitions should be made for the privacy of the parturient mothers. More work is also needed to address all of the birth attendants' training needs. The administration protocol of the health facilities needs to be modified. Further study is necessary to better assess the practice of birth attendants regarding birth companionship, focusing on an observational study in health facilities. The community acceptability of companionship during childbirth also needed to be studied further.

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Authors contribution

YSD, GAB, EGT, NW, TD, TM, GDD and BEM conceptualized, and designed the study, developed the methodology, supervised the data collection, analyzed and interpreted the data, and participated in the write up of the manuscript. GAB and YSD critically edited and revised the manuscript, and all authors have read and approved the final manuscript.

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Ethics approval and consent to participate

Ethical approval for this study was obtained from Ethical Review Board of the College of Medicine and Health Sciences, Ambo University (Ref. No: PGC/144/2021). Ethical clearance for the study was obtained from Ambo University, College of Medicine and Health Sciences Ethical Review Board (ERB). Then, supportive letters obtained from the West Shewa zonal health office were distributed to all selected health facilities. The selected participants were informed by the data facilitators that they had been selected to participate in the study. Written informed consent was obtained from the respondents after they were clearly informed about the purpose, procedure, duration, and possible risks and benefits of the study in their local language. The confidentiality of the respondents was assured, and they were informed that they had the full right to refuse to participate and/or withdraw from the study at any time if

they had any difficulty. Names or any other identifying information were not included in the tool. The collected information was kept confidential by data collectors and investigators.

Informed consent

Written informed consent was obtained from all subjects before the study.

Trial registration

Not applicable.

ORCID iDs

Yonas Sagni Doba https://orcid.org/0000-0003-2837-9289
Gizachew Abdissa Bulto https://orcid.org/0000-0003-4390-1418

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Supplemental material

Supplemental material for this article is available online.

References

1. Hodnett ED, Gates S, Hofmeyr GJ, et al. Continuous support for women during childbirth. *Cochrane Database Syst Rev* 2013; 7: CD003766.
2. World Health Organization. *Why having a companion during labour and childbirth may be better for you*. World Health Organization, 2019, https://www.who.int/reproductivehealth/companion-during-labour-childbirth/en/
3. World Health Organization. Companion of choice during labour and childbirth for improved quality of care. *Publ World Heal Organ* 2014; 4: 1–7, www.who.int/health-topics/maternal-health
4. WHO Recommendations. *Intrapartum care for a positive childbirth experience*. Geneva: World Health Organization, 2018, www.who.int/maternal_child_adolescent
5. Federal Ministry Of Health Ethiopia. *Compassionate, respectful and caring, health workforce taining, participant manual*. Addis Ababa, Ethiopia: Ethiopian Ministry of Health, 2017
6. Bruggemann OM, Parpinelli MA, Osis MJD, et al. Support to woman by a companion of her choice during childbirth : a randomized controlled trial. *Reproductive Health* 2007; 7: 1–7.
7. Sheferaw ED, Bazant E, Gibson H, et al. Respectful maternity care in Ethiopian public health facilities. *Reproductive Health* 2017; 14: 1–12.
8. Gutman Y and Tabak N. The intention of delivery room staff to encourage the presence of husbands/partners at cesarean sections. *Nurs Res Pract* 2011; 2011: 192649.
9. Diamond-smith N, Sudhinaraset M, Melo J, et al. The relationship between women' s experiences of mistreatment at facilities during childbirth, types of support received and person providing the support in Lucknow, India. *Midwifery* 2016; 40: 114–23.
10. Wanyenze EW, Nalwadda GK, Byamugisha JK, et al. Effect of midwife-provided orientation of birth companions on maternal anxiety and coping during labor : A stepped wedge cluster randomized control trial in eastern Uganda. *Int J Environ Res Public Health* 2023; 20; 1549.
11. Amorim P, Dulfe M, Valério D, et al. Presence of a companion of the woman's choice in the process of parturition: Repercussions on Obstetric Care. *Cogitare Enferm*. 2016; 21(4): 1–8.
12. Cardoso C, Iv DP, V CAG, et al. Benefits of the presence of a companion during the process of labor and delivery : integrative review. *Rev Enferm UFSM* 2019; 9: 1–18.
13. Monguilhott JJDC, Brüggemann OM, Freitas PF, et al. *Nascer no Brasil*: The presence of a companion favors the use of best practices in delivery care in the South region of Brazil. *Rev Saude Publica*. 2018; 52: 1–11.
14. Alharbi AA, Alodhayani AA, Aldegether MS, et al. Attitudes and barriers toward the presence of husbands with their wives in the delivery room during childbirth in Riyadh, Saudi Arabia. *J Fam Med Prim care*. 2018; 7(6): 1467–1475.
15. Sapkota S, Kobayashi T, Kakehashi M, et al. In the Nepalese context, can a husband's attendance during childbirth help his wife feel more in control of labour ? *BMC Pregnancy Childbirth* 2012; 12(1): 1.
16. Kabakian-khasholian T, El-nemer A and Bashour H. Perceptions about labor companionship at public teaching hospitals in three Arab countries. *Int J Gynecol Obstet* 2015; 129(3): 223–226.
17. Dynes MM, Binzen S, Twentyman E, et al. Client and provider factors associated with companionship during labor and birth in Kigoma Region, Tanzania. *Midwifery* 2019; 69: 92–101.
18. Afulani P, Kusi C, Kirumbi L, et al. Companionship during facility-based childbirth : results from a mixed-methods study with recently delivered women and providers in Kenya. *BMC Pregnancy and Childbirth* 2018; 18(1): 1–28.
19. Emelonye AU, Vehviläinen-Julkunen K, Pitkäaho T, et al. Midwives perceptions of partner presence in childbirth pain alleviation in Nigeria hospitals. *Midwifery* 2017; 48: 39–45.
20. West Shoa Zone Health Office. *Data of human resource in 2013 EC 2nd quarter Report*. Ambo, Ethiopia: West Shoa Zone Health Office, 2021.
21. Sheppard V. *Research methods, data collection and ethics*. Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence, 2020.
22. Adeniran A, Adeniran A, Adesina K, et al. Attitude and practice of birth attendants regarding the presence of male partner at delivery in Nigeria. *Ethiop J Heal Sci*. 2017; 27(2): 107–114.
23. Brüggemann OM, Ebsen ES, Oliveira ME, et al. Reasons which lead the health services not to allow the presence of the birth companion: Nurses' discources. *Texto & Contexto-Enfermagem* 2014; 23(2): 270–277.
24. Bohren MA, Berger BO and Munthe-Kaas H. Perceptions and experiences of labour companionship: a qualitative evidence synthesis. *Cochrane Database Syst Rev* 2019; 3.
25. Senanayake H, Wijesinghe RD and Nayar KR. Is the policy of allowing a female labor companion feasible in developing countries? Results from a cross sectional study among Sri Lankan practitioners. *BMC Pregnancy Childbirth* 2017; 17(1): 1–6.
26. Getahun KB, Ukke GG and Alemu BW. Utilization of companionship during delivery and associated factors among women who gave birth at Arba Minch town public health facilities, southern Ethiopia. *PLoS One* 2020; 15: 10.