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Husband responses towards birth preparedness, complications readiness, and associated factors in southern Ethiopia: the case of Kena District

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Abstract

Background Birth preparedness and complication readiness is a holistic approach that empowers mothers and families with the knowledge, attitude, and resources to alleviate potential challenges during childbirth. Despite its benefits, husbands' participation in maternal care differs significantly between countries and regions. There is a lack of previous studies that look at husbands' responses to birth preparedness and complication readiness in the research area. Thus, the primary goal of this study is to find out how husbands who have wives with infants under 12 months old feel about birth preparation, readiness for problems, and its associated factors.

Methods A community-based cross-sectional study design was conducted from May 30 to July 29, 2022. Simple random sampling was employed to select 499 husbands. An interviewer-administered, structured, and pretested questionnaire was used to collect the data. Data entry and analysis were performed using Epi Data version 4.6 and SPSS version 25, respectively. We used multivariable logistic regression to find statistically significant factors. *P*-values less than 0.05, 95% confidence intervals, and adjusted odds ratios are used to declare statistical significance. The findings were shown in figures, tables, and text.

Results The study found that 55.9% (95% CI: 51.4 to 61.4%) of husbands responded to birth preparedness and complication readiness. This response was significantly associated with being employed (AOR = 3.7, 95% CI: 2.27–5.95), engaging in self-business (AOR = 5.3, 95% CI: 2.34–12.01), having wives who delivered in health facilities (AOR = 7.1, 95% CI: 3.92–12.86), accompanying wives for antenatal care (AOR = 2.2, 95% CI: 1.39–3.56), possessing good knowledge of danger signs during labor (AOR = 2.0, 95% CI: 1.08–3.74) and the postnatal period (AOR = 7.1, 95% CI: 3.14–16.01). Interestingly, residents living near a health facility (AOR = 0.6, 95% CI: 0.39–0.97) were less likely to respond.

Conclusion The present study found that nearly 6 out of 10 husbands actively responded in terms of birth preparedness and complication readiness. While husbands in this study showed some involvement in birth preparedness and complications, it is good when compared to studies carried out nationally. To improve this, educating husbands by focusing on the danger signs and their role in childbirth is recommended.

Keywords Birth preparedness, Complications readiness, Husband involvement, Husband responses, Husband participation, Male involvement, Kena Woreda

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Introduction

Across the globe, 295,000 maternal deaths resulted from pregnancy and childbirth issues, mostly affecting developing nations. Sub-Saharan Africa alone contributed to 66% of these fatalities [1]. Maternal mortality rates vary notably among countries and regions, highlighting disparities between different socioeconomic groups and urban and rural settings [2]. In Ethiopia, one in every 267 women will die due to pregnancy-related complications [3].

Birth preparedness and complication readiness is a comprehensive approach that equips pregnant women, their families, and communities with the necessary information and support to prepare for childbirth and address potential complications during pregnancy, delivery, and the postpartum period. This strategy typically includes preparing for skilled birth attendance, securing financial and transportation resources, recognizing warning signs, and being aware of where to seek prompt and skilled medical assistance in case of an emergency [4–6].

Birth preparedness and complication readiness are vital for accessing skilled maternal services promptly, either through healthcare providers at clinics or community health workers visiting pregnant women at home. Emphasizing strategies such as BPCR is key to decreasing home births, reducing maternal mortality rates, and empowering pregnant women and their families to prepare for safe deliveries and manage emergencies efficiently. These strategies contribute significantly to improving maternal health and preventing adverse childbirth outcomes [7–9].

Husbands' responses to BPCR minimizes care delays during emergencies and enhance maternal and child health by promoting preparedness for childbirth [10–12]. Husbands' pivotal roles in decision-making and financial support significantly impact women's healthcare decisions in developing nations [7].

However, the common approach in employment for safe motherhood programmes, BPCR, may be hindered by husband involvement due to their influential role as decision-makers in the family [13]. Encouraging husbands to accompany their pregnant partners for antenatal care is an important first step in engaging men to support women's health from conception through the puerperium [14].

A study shows that husband involvement in birth preparedness and complication readiness varies, with rates of 42.4% in low- and middle-income countries [15] and 40.17% in Ethiopia [16].

In Ethiopia, the practice of husband response in BPCR ranges from 30.2% to 60.1% [6, 9, 17–19]. A study demonstrated that the educational status of husbands [6, 16, 18, 20, 21], monthly income [19], husband's occupational

status [22], husbands who accompanied their wives for antenatal care [18], knowledge of key danger signs during pregnancy, labor, and puerperium [16, 18], knowledge of key danger signs during puerperium [17], and distance from the health facility [16, 17, 21] were associated with the husband's response in BPCR.

WHO interventions should support women's autonomy and choices, aiding in self-care and newborn care [7]. Involving husbands during pregnancy can help women make timely decisions and prevent delays [6]. To the researchers' knowledge, no previous study has examined husbands' responses to BPCR in this community. Therefore, this study aims to determine the extent of husbands' responses to BPCR. Additionally, the current focus is on the ten components of BPCR to explore the level of husband responses towards birth preparedness and complications readiness .

Methods and materials

Study design, period, and area

A community-based cross-sectional study was conducted from May 30 to July 29, 2022, in Kena District, Konso Zone, Southern Ethiopia. The administrative town of Kena Woreda is Fasha, which is located 605 km south of Addis Ababa, the capital city of Ethiopia, and 15 km west of Karat, the town of Konso Zone. In Kena Woreda, there were 11 kebeles, 4 health centres, and 11 health posts. According to Kena Woreda Health Office statistics, the total population of Kena District was estimated to be 82,019, of which 40,189 (49%) are males, 41,830 (51%) are females, and 41% are reproductive-age women [23].

Source population

All husbands who had resided in Kena woreda for a minimum of six months prior to the study.

Study population

All husbands who had infants less than 12 months old and who were residents of the chosen kebeles in Kena woreda.

Inclusion and exclusion criteria

Inclusion criteria

All husbands who had infants less than 12 months old were included.

Exclusion criteria

All husbands who had infants less than 12 months old but who did not stay together with their wives during pregnancy or the birth of their child and were critically ill during the data collection period were excluded.

Sample size calculation

The sample size for the first objective was determined using the single population proportion formula by considering the following assumptions: 95% confidence interval, a 5% margin of error (d), and the proportion of males who participated in BPCR in Debre Berhan town, Ethiopia, was 51.4% [20], considering a 10% non-response rate. The final sample size was 422.

The sample size for the second objective was calculated using Epi Info version 7.2, with a 95% confidence interval and 80% power. A variable that measures knowledge of at least one danger sign during puerperium ($P=25.8\%$ and $OR=1.8$) [18] would give a larger sample size. Considering a non-response rate of 10%, the final sample size was determined to be 499 participants (Table 1). Based on this, the objective with the largest sample size was taken.

Sampling procedure

There are eleven kebeles in Kena District. A lottery method was used to select five kebeles. The Woreda Health Bureau estimated the number of mothers with children under 12 months old. The calculated sample size for each selected kebele was distributed proportionally based on its population size, as determined from available information.

A sampling frame containing a list of wives who had given birth in the last 12 months was obtained from the health posts, where birth information was available. The list of wives who had given birth in the last 12 months was identified, and each was assigned a unique identifier. Then, the husbands of the wives who had given birth during the previous year were selected for interviews using a simple random selection technique generated by a computer. Three follow-up visits were conducted for husbands who were not available during the initial appointment (Fig. 1).

Data collection tools and procedures

Data were collected by two midwives holding bachelor's degrees and two midwives with diplomas. The

data collection process was supervised by two professionals with bachelor's degrees in public health. An interviewer-administered structured questionnaire, adapted from survey tools developed by the Johns Hopkins Programme for International Education in Gynaecology and Obstetrics within Maternal and Neonatal Health Programmes [5] as well as other pertinent articles [18, 20], was used. Face-to-face interviews were conducted at the participant's home.

One-day training was provided to both data collectors and supervisors to familiarise them with the objectives and data collection procedures. A pretest was carried out on 5% (24) of the husbands at Borkara Kebeles. Following the pretest, the questionnaire was thoroughly reviewed and refined, leading to adjustments in its logical flow, skip patterns, and any unclear wording. The interview duration was also fixed, ranging from 20 to 30 minutes.

On a daily basis, the principal investigator and the supervisors oversaw the data collectors and made necessary adjustments to the data collection process. Subsequently, the collected data was uploaded daily to ensure accuracy and consistency.

Study variables

Dependent variable

Husband response to birth preparedness and complication readiness.

Independent variable

Socio-demographic and economic related factors: age, residence, educational status, occupation, and monthly income.

Obstetric-related factors: ANC, number of children, place of last delivery, source of information on problems during pregnancy, childbirth, and post-partum period.

Health services-related factors: nearest health facility, mode of transportation to the health facility, distance from the health facility, and attitude towards the service given.

Table 1 Sample size calculation for the second objective in BPCR, Kena District, South Ethiopia

Variables	Percent of outcome in unexposed	Power (%)	CI (%)	AOR	Non-response rate	sample size	Reference
Attitude towards male involvement in BPCR	48.2%	80	95	2.23	10%	246	[20]
Has 1 or 2 children	52.6	80	95	2.52	10%	200	[20]
Knowledge of at least 1 danger sign during delivery	32.9	80	95	2.2	10%	255	[18]
Knowledge of at least 1 danger sign during puerperium	25.8	80	95	1.8	10%	499	[18]

AOR Adjusted odd ration, CI Confidence interval, BPCR Birth preparedness and complication readiness

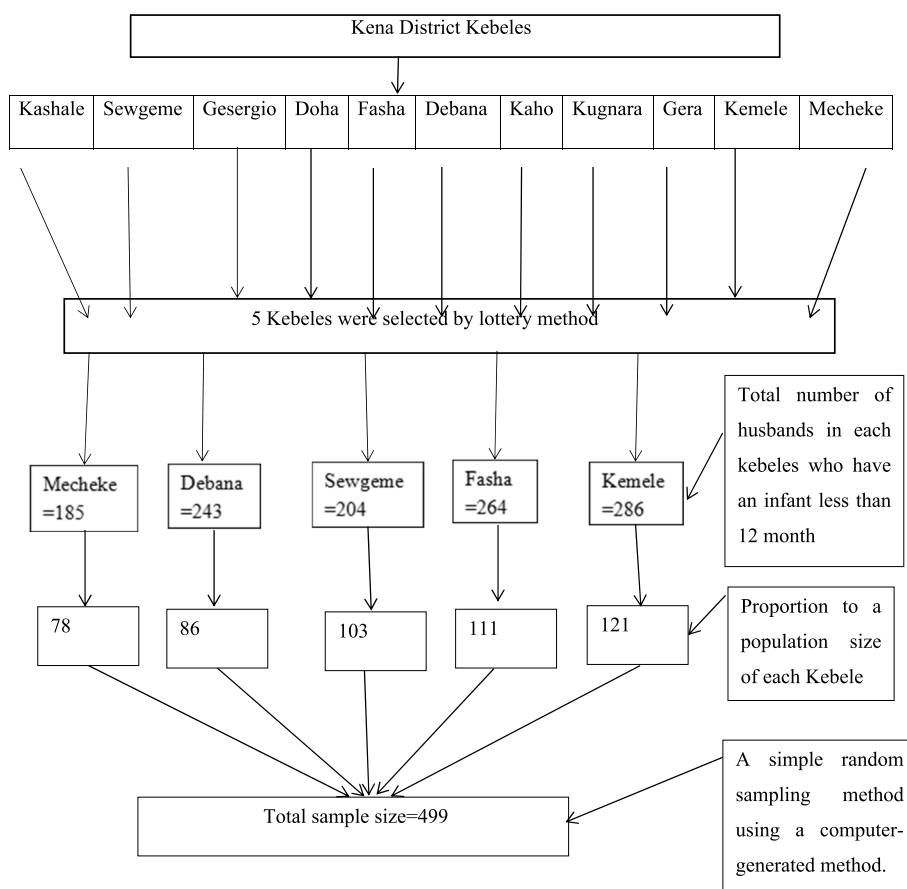


Fig. 1 Schematic presentation of husbands’ responses in BPCR in Kena District, South Ethiopia

Operational definition

Good response for BPCR: Individuals who respond to at least five components out of the ten parameters of BPCR [17] are considered to have good responses.

Poor response for BPCR: Individuals who respond to fewer than five components out of the ten parameters of BPCR [17] are considered to have poor responses.

General Knowledge of Key Danger Signs: Individuals who correctly identify five or more key danger signs during pregnancy, delivery, and the postnatal period out of the total ten key danger signs are deemed knowledgeable [20].

Knowledge of Key Danger Signs During Pregnancy: A husband is deemed knowledgeable if he spontaneously lists all three key danger signs during pregnancy, including vaginal bleeding, blurred vision, and swollen hands or face [24].

Knowledge of Key Danger Signs During Labor: A husband is considered knowledgeable if he spontaneously identifies all four key danger signs of labor, such as severe vaginal bleeding, convulsions, prolonged

labor, and retained placenta; otherwise, he is deemed not knowledgeable [24].

Knowledge of Key Danger Signs During Postpartum: A husband is considered knowledgeable if he spontaneously mentions all three key danger signs of the postpartum period, such as severe vaginal bleeding, foul-smelling discharge, and high fever; otherwise, he is classified as not knowledgeable [24].

Data quality control

To ensure the accuracy and appropriateness of the questionnaire, a comprehensive process was employed. First, the questionnaire was drafted in English and then expertly translated into Amharic. To further guarantee accuracy, the Amharic version was translated back into English by the same language experts. A pretest was conducted on 25 husbands in Borkara Kebeles, a community outside the study area, before applying to the main study. One-day training was provided to both data collectors and supervisors. Cronbach’s alpha (a statistical measure of reliability) was calculated to evaluate

the questionnaire's internal consistency, resulting in a score of 0.869, indicating good reliability. To ensure data quality and consistency, daily data submission was implemented. The principal investigator and supervisor diligently monitored the data collectors on a daily basis, guaranteeing accuracy and consistency in data collection.

Data Processing and analysis

After completion of data collection, the data were coded, entered into the computer through Epi Data version 4.6 data entry forms, and then transferred to SPSS version 25 software for data cleaning and analysis. Percentages, frequencies, median, and interquartile range were used for descriptive purposes.

Bivariable logistic regression was employed to identify the associations between the BPCR and independent variables. First, a variable with a *P*-value less than 0.25 was used to select potential variables for the multivariable logistic regression. Then, before doing the final multivariable analysis, multicollinearity was examined using the variance inflation factor and revealed no association between each other. The model goodness-of-fit was checked using Hosmer–Lemeshow, which was insignificant (*p*-value = 0.57). A statistically significant result was declared using a *p*-value less than 0.05 with a 95% confidence interval and an adjusted odd ratio.

Results

Socio-demographic characteristics of husband

A total of 488 (97.8%) husbands were included in the study. The median age (\pm IQR) of the husbands was 31 (\pm 8) years. About 223 (45.7%) respondents ranged in age from 30–39 years old. The median age (\pm IQR) of the wives was 28 (\pm 7) years. About 399 (81.8%) of husbands live in rural areas (Table 2).

Obstetric characteristics of respondents

Around 86.1% of husbands expressed worry about potential risks during pregnancy and childbirth. Only 65% attended prenatal care visits with their partners. Additionally, 77.3% stated that their partners had previously delivered their children in a healthcare facility (Table 3).

Husband's Knowledge of BPCR

In the current finding, the general knowledge regarding danger signs during pregnancy, labour, and puberty was found to be 65%, with a 95% confidence interval (CI) of 60.5 to 69.2%. Most partners are aware of at least one significant warning sign, and around half are aware of at least two warning indicators related to pregnancy, labour, and puerperium. However, there was an extremely low awareness of the main warning signs for every particular category (Table 4).

Table 2 Socio-demographic profile of husbands in Kena District, South Ethiopia (*n* = 488)

Variables	Categories	Frequency	Percent
Residence	Rural	399	81.8
	Urban	89	18.2
Husbands age	18–29	205	42
	30–39	223	45.7
	40–49	49	10
	\geq 50	11	2.3
Educational level of husband	No formal education	49	10.04
	Primary	152	31.14
	Secondary	80	16.4
	College and above	207	42.42
Age of the wife	< 20	33	6.8
	20–29	281	57.6
	30–39	147	30.1
	\geq 40	27	5.5
Occupation of wife	Employed	55	11.3
	Self-business	69	14.1
	Farmer	364	74.6
Family monthly income	\leq 500	43	8.8
	501–1000	101	20.7
	> 1000	344	70.5
Family size	1–3	45	9.2
	4–6	228	46.7
	\geq 7	215	44.1
Educational level of wives	No formal education	262	53.7
	Primary (1–8)	130	26.6
	Secondary (9–12)	40	8.2
	College and above	56	11.5
Husband occupation	Employed	224	45.9
	Self-business	47	9.6
	Farmer	217	44.5

Magnitude of husbands responses to birth preparedness and complication readiness

Ten parameters were employed in this study to determine the husband's BPCR response. A husband was considered to have good involvement in the study if his response was above or equal to the mean value of the ten BPCR parameters (Table 5).

In this study, the magnitude of husbands' responses towards readiness for complications and birth preparation was 55.9% (95% CI: 51.4% to 61.4%).

Factors related to the service given at a health facility

For over two-thirds of the study participants, Health Centre 337 (69.1%) was the closest health facility offering obstetric care. About 289 (59.2%) were fewer than 5 kms away from the healthcare centre. A motorcycle (25.6%) and foot (70.1%) were the most common ways

Table 3 Obstetric characteristics of respondents' in Kena District, South Ethiopia (n = 488)

Variable	Category	Frequency	Percent
The presence of problems during pregnancy or childbirth endangers women	Yes	420	86.1
	No	68	13.9
Obstetric complication in previous pregnancy	Yes	316	64.8
	No	172	35.2
Accompany wife for antenatal care	Yes	317	65
	No	171	35
Place of delivery	Home	111	22.7
	Health facility	377	77.3
Number of children	1–2	229	46.9
	3–4	169	34.6
	≥ 5	90	18.4
Source of information about health problems	HEW	268	54.9
	Health centers	162	33.2
	Hospital	98	20.1
	Radio/TV	73	15
	Relatives	32	6.6

Table 4 Knowledge status of the husbands in Kena District, South Ethiopia (n = 488)

Variables	Category	Frequency	Percent
Know at least one key danger signs during pregnancy	Yes	431	88.3
	No	57	11.7
Know at least two key dangers during pregnancy	Yes	208	42.6
	No	280	57.4
Knowledge status on key danger sings during pregnancy	Had good knowledge	85	17.4
	Had poor knowledge	403	82.6
Know at least one key danger sign during labor and delivery	Yes	476	97.5
	No	12	2.5
Know at least two key danger signs during labor and delivery	Yes	363	74.4
	No	125	25.6
Knowledge status on key dangers during labor & delivery	Had good knowledge	87	17.8
	Had poor knowledge	401	82.2
Know at least one key danger sign during puerperium	Yes	437	89.5
	No	51	10.5
Know at least two key danger sign during puerperium	Yes	243	49.8
	No	245	50.2
Knowledge status on key dangers during puerperium	Had good knowledge	71	14.5
	Had poor knowledge	417	85.5
Know at least one key danger sign for newborns	Yes	373	76.4
	No	115	23.6
Know at least two key danger signs for newborns	Yes	168	34.4
	No	320	65.6
Knowledge status on key danger signs in newborns	Had good knowledge	71	14.5
	Had poor knowledge	417	85.5
General knowledge status during pregnancy, labor and puerperium	Had good knowledge	317	65
	Had poor knowledge	171	35

Table 5 Parameters of BPCR responses in Kena District, South Ethiopia ($n = 488$)

Variables	Category	Frequency	Percent
Plan for a preferred birthplace	Yes	332	68
	No	156	32
Selection of a skilled birth attendant	Yes	234	48
	No	254	52
The arrangement of a source of household support	Yes	374	76.6
	No	114	23.4
The arrangement of means of transportation	Yes	190	38.9
	No	298	61.1
Saving or arranging alternative funds	Yes	352	72.1
	No	136	27.9
Accompanying wife to a health facility	Yes	299	61.3
	No	189	38.7
The arrangement of blood donors in cases of complications	Yes	136	27.9
	No	352	72.1
The preparation of clean clothes and other materials for the baby or mother's	Yes	296	60.7
	No	192	39.3
The arrangement for post-partum cultural food expenses	Yes	364	74.6
	No	124	25.4
The arrangement of decision-makers in the absence of husbands	Yes	243	49.8
	No	245	50.2

Table 6 Health facility characteristics in Kena District, South Ethiopia ($n = 488$)

Variable	Category	Frequency	Percent
Level of the nearest health facility	Health post	140	28.7
	Health centre	337	69.1
	Hospital	11	2.3
	< 5 km	289	59.2
	> 5km	199	40.8
Distance to reach health facility	On foot	342	70.1
	Public transport	125	25.6
Means of transport to reach the health facility	Ambulance	20	4.1
	Private vehicle	1	0.2
	Yes	216	44.3
Problems that prevent visiting a health facility	No	272	55.7
	Husband only	50	10.2
Decision-maker to seek health care	Wife only	35	7.2
	Husband and wife	403	82.6

for participants to get to the medical facility. Approximately half (44.3%) of husbands had health service issues that might have prevented them from accessing health care facilities (Table 6).

Factors that prevent or discourage husbands from going to a health facility

Husband involvement is prevented from visiting a health facility by several factors, including the institution's

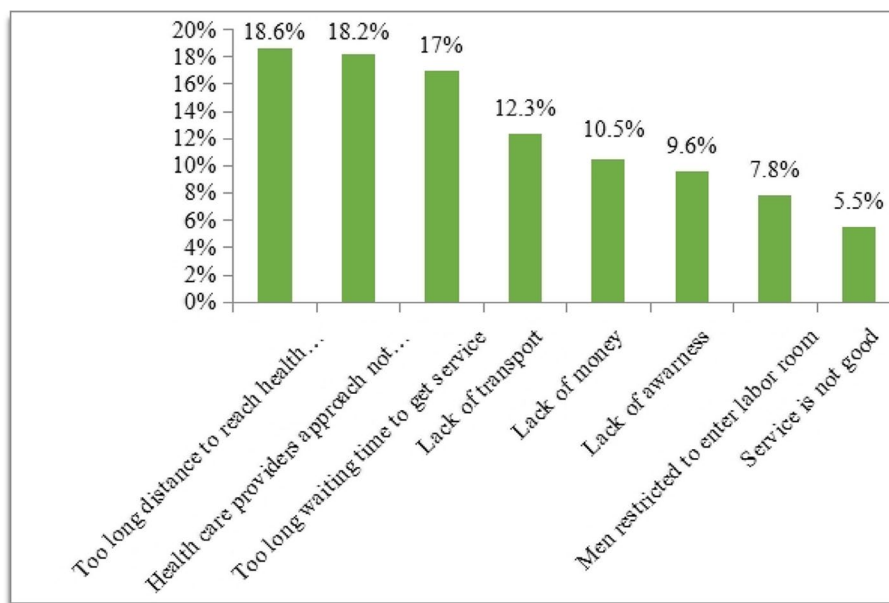


Fig. 2 Barriers of husbands from going to a health facility in Kena District, South Ethiopia

distance (18.6%) and the improper attitude expressed by the healthcare providers (18.2%) (Fig. 2).

Factors contributed to husbands birth preparedness and complication readiness

The husband's occupational status, location of the last delivery, accompanying the wife for ANC, knowledge of key danger signs during pregnancy and puerperium, and distance to a health facility have a statistically significant association with husbands' involvement in birth preparedness and complication readiness after adjusting for the effects of confounding variables using multivariable logistic regression.

Husbands with employment were 3.7 times more likely to participate in BPCR (AOR=3.7, 95% CI: 2.27–5.95), while those working independently were 5.3 times more likely to engage in BPCR (AOR=5.32, 95% CI: 2.34–12.01). Additionally, husbands whose spouses delivered at a healthcare facility were 7.1 times more likely to be involved in BPCR compared to home births (AOR=7.1, 95% CI: 3.92–12.86).

Furthermore, husbands who accompanied their wives during ANC were 2.2 times more likely to participate in BPCR (AOR=2.2, 95% CI: 1.39–3.56), and those with good knowledge of key danger signs during labor and delivery were twice as likely to engage in BPCR compared to those with poor knowledge (AOR=2, 95% CI: 1.08–3.74). The study also revealed that husbands knowledgeable about postnatal danger signs were 7.1 times more likely to participate in BPCR (AOR=7.1, 95%

CI=3.14–16.01). However, husbands living within 5 km of a health facility were 40% less likely to be involved in BPCR compared to those living farther away (AOR=0.6, 95% CI: 0.39–0.97) (Table 7).

Discussion

Hundreds of thousands of lives suffer due to maternal mortality each year, mostly in countries with low or middle incomes, making it a serious public health concern. Key contributors include inadequate healthcare systems, education, and limited access to high-quality healthcare. In order to improve the health of mothers and children, it is vital to implement robust programmes for complication readiness and birth preparedness. This study aimed to assess husband responses towards birth preparedness, complications readiness, and associated factors in the case of Kena District. The findings indicated that the practice of husband involvement in BPCR was found to be 55.9%, with a 95% CI of 51.4% to 61.4%. The husbands who participated in BPCR were significantly associated with those who were employed, ran their own businesses, had a wife who delivered her last pregnancy in a medical facility, had at least one antenatal care visit, were well-versed in the danger signs of labor and delivery and the postpartum period, and lived less than five kilometres from the health care facility.

This finding is consistent with studies in Nepal showing a rate of 57.6% [23]. It is further supported by studies conducted in Ambo town, with 50.8% [19], Debre Berhan, with 51.4% [20], and Wolaita Sodo town with 54.7% [25] of husbands having practiced BPCR in Ethiopia. This

Table 7 Logistic regression analysis of factors associated with BPCR in Kena District, South Ethiopia ($n = 488$)

Variables	Participation on BPCR		OR (95%CI)		P-value
	Yes (%)	No (%)	COR	AOR	
Occupational status of husband					
Employed	154(68.8)	70(31.2)	3.35(2.26-4.96)	3.7(2.27- 5.95)	0.00
Self-business	33(70.2)	14(29.8)	3.59(1.81- 7.1)	5.3(2.34- 12.01)	0.00
Farmer	86(39.6)	131(60.4)	1	1	
Place of delivery					
Health facility	249(66)	128(34)	7.05(4.28- 11.62)	7.1(3.92- 12.86)	0.000
Home	24(21.6)	87(78.4)	1	1	
Accompanied wife to ANC					
Yes	210(66.2)	107(33.8)	3.36(2.28-4.96)	2.2(1.39- 3.56)	0.001
No	63(36.8)	108(63.2)	1	1	
Knowledge on key danger signs during labor & delivery					
Good	62(71.3)	25(28.7)	2.23(1.35- 3.7)	2(1.08- 3.74)	0.027
Poor	211(52.6)	190(47.4)	1	1	
Knowledge on key danger signs during puerperium					
Good	61(85.9)	10(14.1)	5.9(2.94- 11.8)	7.1(3.14- 16.01)	0.000
Poor	212(50.8)	205(49.2)	1	1	
Distance to reach health facility					
< 5 km	182(63)	107(37)	2.02(1.4- 2.9)	0.6(0.39- 0.97)	0.038
≥ 5 km	91(45.7)	108(54.3)	1	1	

ANC Antenatal care, AOR Adjusted odd ratio, BPCR Birth preparedness and complication readiness practice, COR Crude odd ratio, OR Odd ratio 1: reference

might be due to the similarity of methods and socio-demographic characteristics.

The current study's findings indicated a higher rate of husbands practicing BPCR compared to studies in India at 41% [26], Axum town at 46.9% [27], and Kucha woreda at 30.2% [6] in Ethiopia. These variations could be attributed to differences in socio-cultural and socio-demographic characteristics among regions and variations in the assessment methods used for BPCR [6].

In this study, husbands with formal employment or running their own businesses were significantly more likely to engage in BPCR, being 3.7 and 5.3 times more likely than farmers, respectively. Employed and self-employed husbands often have a better income to cover healthcare costs for their pregnant partners. This aligns with a similar finding from a study in Arba Minch, Ethiopia [22], possibly due to shared experiences and cultural values among neighbouring ethnic groups. Employer sectors can support BPCR by providing paid parental leave and flexible work schedules that allow husbands to support their wives during pregnancy and delivery and to accompany them to prenatal care appointments.

Husbands whose wives delivered in a health facility were seven times more likely to engage in BPCR than those with home births. This shows that government efforts promoting maternal healthcare access and male participation in BPCR are effective in preventing

maternal deaths [1]. This finding is consistent with a study in Wolaita Sodo town, Ethiopia [25]. This alignment could be due to the Ministry of Health and its partners promoting education and counselling on BPCR and the significance of hospital deliveries during maternity care appointments. Health facilities can improve their services to make them more welcoming and supportive of husbands by providing private spaces for husbands to talk to healthcare providers and offering educational materials about BPCR.

In this study, husbands who went to antenatal care with their wives were 2.2 times more likely to follow BPCR compared to those who didn't. This aligns with similar studies in Ethiopia, like those in North Gonder [18], Ambo town [19], and Wolaita Sodo town [28]. The reason for this correlation is that men who participate in ANC can learn vital information about their partners' reproductive health and signs of obstetric risks, which may boost their commitment to following BPCR advice given at the clinic.

Husbands who had good knowledge of key danger signs during labor, delivery, and puerperium were more likely to practice BPCR than those who had poor knowledge. This is similar to study findings in Mekele town, Ethiopia [17]. This might be because knowing may enhance husbands' participation in issues that are helpful for maternity care, such as BPCR. Initiatives for health education

should focus on husbands and raise their knowledge of the significance of BPCR.

In the current study, proximity to the health care facility was found to be a key factor influencing the involvement of husbands in birth and postpartum care readiness (BPCR). This finding is consistent with previous studies conducted in Wolaita Sodo town, Ethiopia [28] and Kucha woreda, Ethiopia [6]. The trend observed may be attributed to husbands living within a radius of less than 5 km from the health facility, leading to the perception that proximity to the facility makes preparing for childbirth and readiness for complications seem like less of a priority, as they believe they can easily access care if needed [6].

Strengths and limitations of the study

The study highlights its strengths in examining an overlooked community group, achieving positive outcomes, conducting a pretest, and making necessary adjustments. However, being a cross-sectional study, it cannot establish a causal relationship. It is also susceptible to social desirability bias, potentially influenced by traditional gender roles that may lead males to overstate their readiness and preparation for childbirth.

Conclusion

Compared to other national studies, it was determined that a husband's response to BPCR was satisfactory. Husbands' involvement in birth preparation and complication readiness was positively influenced by factors such as employment status, involvement in self-business, wives giving birth in health facilities, accompanying wives for antenatal care, having an extensive knowledge of danger signs during labour and the postpartum period, and living close to health facilities.

Recommendation

To enhance couples' comprehensive understanding of the most important danger signs during labor and the postnatal period, it is advised to provide husbands with individualised information about danger signs, the benefits of professional birth attendance, and the role husbands play in supporting their wives during pregnancy and childbirth. At the woreda level, healthcare professionals must collaborate with the maternal and child health sectors to offer a comprehensive antenatal care service. They should also provide couples with counselling regarding actual maternal health service difficulties and best practices for birth preparedness and complication readiness to better prepare husbands for potential emergencies.

The government and non-governmental sectors play a critical role in expanding husbands engagement in BPCR responses through their employment and the facilitation of a suitable working environment.

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12978-024-01849-3>.

Supplementary Material 1.

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Authors' contributions

Belda Negesa Beyene: conceptualization, methodology, investigation, writing review, and editing of the research. Korra Gochano Hirra: conceptualization, methodology, software, formal analysis, investigation, and writing the original draft. Negeso Gebeyehu Gejo: conceptualization, methodology, supervision, and investigation of the paper. Derese Eshetu Debela: conceptualization, methodology, and investigation of the paper.

Availability of data and materials

The authors will provide the raw data without undue delay in order to verify the conclusions of this article.

Declarations

Ethics approval and consent to participate

The study received ethical approval from the Institute Review Board of Bule Hora University (Ref. No. BHU/RPD/919/13). Patients provided written informed consent, and confidentiality was maintained throughout data collection, analysis, and interpretation. All datasets utilised or analysed in the study are included in the manuscript and supplementary materials.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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