



**COLLEGE OF MEDICINE AND HEALTH SCIENCE,
DEPARTMENT OF MIDWIFERY**

**PREVALENCE OF SHORT BIRTH INTERVAL AND
ASSOCIATED FACTORS AMONG WOMEN WHO GAVE
BIRTH IN THE PAST THREE YEARS IN SHEBEDINO
WOREDA, SIDAMA REGION, ETHIOPIA, 2023**

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HAWASSA UNIVERSITY
COLLEGE OF MEDICINE AND HEALTH SCIENCE,
DEPARTMENT OF MIDWIFERY

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THREE YEARS IN SHEBEDINO WOREDA, SIDAMA REGION,
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DECLARATION

I, the undersigned, declare that this is my original work, has never been presented in this or any other university, and that all the resources and material used for the dissertation have been fully acknowledged.

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Date-----

ADVISOR APPROVAL SHEET

Prevalence of short birth interval and associated factors among women who gave birth in the past three years, Shebedino woreda, Sidama region, Ethiopia, 2023. The thesis is submitted in partial fulfillment of the requirements for the degree of Master of Science with specialization in clinical midwifery in the Graduate Program of the Department of Midwifery and has been carried out by Yesuf Yimer ID. No. GPCMR/0009/2014 under my supervision. Therefore I recommend student fulfill the requirements and hence hereby can submit the thesis to the department.

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EXAMINERS' APPROVAL SHEET

We, the undersigned, members of the Board of Examiners of the final open defense by Yesuf Yimer have read and evaluated his thesis entitled “prevalence of short birth interval and associated factors among women who gave birth the past three years in Shebedino Woreda, Sidama Region, Ethiopia, 2023”. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the degree of Master of Science in Clinical midwifery.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
BI	Birth Interval
CI	Confidence Interval
COR	Crude Odds Ratio
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
FP	Family Planning
HEW	Health Extension worker
IBI	Inter Birth Interval
PHCWs	Primary Health Care Workers
SBI	Short Birth Interval
SDG	Sustainable Development Goal
SGA	Small for Gestational Age
SPSS	Statistical Package of Social Science
SRS	Simple Random Sampling
USAID	United States Agency for International Development
WHO	World Health Organization

ABSTRACT

Background: The prevalence of short birth intervals is high and widespread in developing countries, particularly Ethiopia. It is highly associated with increased risks of adverse maternal and neonatal outcomes, such as preterm birth, low birth weight, and maternal anemia. Conducting regular surveys on the prevalence of short birth intervals is necessary for effective family planning interventions. Nevertheless, there is a lack of periodical and timely surveys reported from the region and the study area in particular.

Objective: To assess the prevalence of short birth intervals and associated factors among women who gave birth within the previous three years in Shebedino Woreda, Sidama Region, Ethiopia.

Methods: A community-based cross-sectional study was carried out from July 30 to August 30, 2023. A total of 620 multiparous women were chosen using multistage sampling. A structured interviewer-administered questionnaire was used. Data were Collected through open data kit and exported to statistical package for social science version 27 for analysis. Bivariate and multivariable logistic regression analysis was done. Multicollinearity and model fitness were examined by variance inflation factors and the Hosmer-Lemeshow test, respectively. *P*-value <0.05 variables were considered statistically significant.

Results: A total of 620 participants with a response rate of 99.5% were involved in the study. The prevalence of short birth interval was 37.1% with 95% CI; (33.3, 41.0). Being Muslim religion follower (AOR=2.31 95% CI: 1.03, 5.18), unable to read and write (AOR =4.0; 95%CI: 1.01, 15.85), delivery of index child at home (AOR=2.05, 95% CI: 1.23, 3.41), no history of antenatal care visit (AOR=2.45 95% CI:1.25, 4.80), and non-use of contraceptive (AOR=4.20, 95% CI: 1.71, 10.3) were factors statistically associated with short birth interval.

Conclusion: In this study, more than one-third of respondents practiced short birth intervals. Factors associated with outcome variable were religion, respondent educational status, contraceptives, antenatal care visits, and place of delivery. Therefore, optimizing the birth spacing strategy should improve family planning, institutional delivery, encouraging women's education, religion leaders, and antenatal care visits.

Keywords: short birth interval, reproductive age, factors, contraceptive, Ethiopia

1. INTRODUCTION

1.1. Background

Having a short birth interval (SBI) means having two live births within a span of less than 33 months. One of the world's major issues is the high fertility rate, which has an impact on a nation's total social, political, and economic spheres. High fertility also places a strain on health because it negatively affects both mothers' and children's health (Tessema *et al*, 2013). Short birth intervals one of the public health and demographic concern is associated with several adverse health outcomes, such as poor maternal nutritional status and folate depletion, suboptimal lactation for the newborn, infections, child survival complications, incomplete healing of the uterus and abnormal remodeling of endometrial blood vessels (Kassie *et al.*, 2023). Global findings have shown that small or suboptimal birth spacing outcomes in an increased risk of maternal mortality and hostile pregnancy results (WHO, 2006). Short inter-birth intervals of less than 24 months are among the main predictors of increased risk of perinatal and infant mortality (Dadi, 2015).

In the underdeveloped world, women who have several children in a short period of time put both themselves and their offspring in great danger. The likelihood that a child will survive infancy and the early years of childhood is significantly influenced by childbearing patterns, including maternal age, birth order, and the time between births. For a kid's chance of survival, birth or child spacing is very important. The child's odds of survival are negatively impacted during at least the first four years of life as a result, not only in the first year of life. The highest odds of survival are for children born three to four years later (Towriss and Timæus, 2018).

The World Health Organization (WHO) advises at least two-year intervals between a live birth or termination to the next conception or 33-month intervals between a live birth and termination to the next live birth. The birth spacing or birth interval can be found in four different ways: the first is by looking at the birth and birth interval of the live-born child; the second is by looking at the outcome interval, or the period of time between the current pregnancy's outcome and the previous pregnancy's result; and the third is by looking at the time interval between conception and birth. This is the amount of time that passed between the last pregnancy's conception and the birth of a living kid. The inter-pregnancy interval, or the period of time between two successive

pregnancies, is the fourth technique. Birth interval is a crucial element of family planning (FP) and fertility control (WHO, 2006).

There is disagreement among studies on the ideal birth interval time. According to some research, there should be a minimum of 27 months between births and a maximum of 59 months. However, a technical review on birth spacing conducted by the World Health Organization advised a minimum 33-month gap between pregnancies. Attempts to lower the risk of negative maternal, perinatal, and newborn outcomes served as the foundation for this study. To maintain optimal birth spacing, developing an efficient family planning approach ultimately involves an understanding of reproductive patterns and behaviors (Exavery, 2012).

Currently, in developing countries, more than 200 million women want either to space or limit pregnancies and yet they lack access to FP options. Demographic Health Survey (DHS) studies indicate a high level of short birth intervals in many African countries (Rwanda: 20%; Uganda: 25.3%; Ethiopia: 20.4% and Cameroon: 21.3%) (Chirwa *et al.*, 2014).

Compared to the typical incidence of newborn and neonatal mortality reported in Africa, Ethiopia has seen a disproportionately high number of infant and neonatal deaths. The median birth interval has not significantly changed over the past 20 years; however, the average birth interval has gradually increased. The median birth intervals in Ethiopia were 33.6, 33.8, 33.9, 34.5, and 35.8 months in 2000, 2005, 2011, 2016, and 2019, respectively according to the Ethiopian Demographic and Health Survey (EDHS). The interval is longer in urban areas than in rural areas (38.6 months versus 35.1 months). In the most recent EDHS, the median birth interval varied by area, ranging from 26.0 months in Somalia to 48.6 months in Amara (EMDHS,2019).

1.2. Statement of the problem

Globally, short birth intervals estimate that 25% of births still happen at intervals less than 24 months worldwide. Three-quarters of the examples of short birth intervals were found in Central Asia. The birth interval was low in sub-Saharan Africa, at 20% (Rutstein, 2011). The median birth interval at birth order two in sub-Saharan Africa was 35 months, longer than in Asia and Latin America, where it was 25 months, according to a study on fertility transition (Bongaarts & Casterline, 2013).

Birth intervals were found to vary throughout nations, even while the sub-Saharan African region as a whole has ideal median birth intervals. According to data from the Demographic and Health Survey (DHS), a considerable proportion of births occur at short intervals in the majority of the nations. Ethiopia is one of the African nations not recorded as having long birth intervals, perhaps because these events are uncommon. Short birth intervals were reported to be 29% in Ethiopia (EMDHS, 2019), 23% in Nigeria (Francis, 2018), and 19% in Tanzania (MoHCDGEC, 2016) had birth intervals of fewer than 24 months, which are nearly identical.

All countries throughout the world make efforts to halt population growth, yet it keeps accelerating. The high birth rate and tight spacing of births are the major causes of this. Short birth intervals have, empirically, significantly contributed to population increase in addition to sabotaging nations' efforts to expand. At the individual, family, and societal levels, several other variables contribute to high birth rates and brief gestation periods, including illiteracy, early marriage, and a lack of family planning options (Mustafa and Belay, 2021).

Short birth interval is the major contributor to maternal and infant mortality particularly in developing countries like Ethiopia. It places a heavy burden on the powers of the family economy and health condition in particular and the nation's economic development in general. Practices of adequate birth interval between successive pregnancies are a proven measure in combating and reducing both maternal and infant mortality (Mace and Sear, 2015).

The WHO estimates that one in every 22 African women dies from problems connected to pregnancy. Because so many women in developing nations do not utilize contraception during the postpartum period, they are more likely to become pregnant once fecundity returns. This is the major cause of the SBIs (Exavery, 2012).

The child's future physical and mental capacities are said to be significantly impacted by the child's birth interval. It has also been demonstrated to have an impact on moms' health. Women's health is significantly influenced by pregnancy and childbirth. About one-fourth of all fatalities among women of reproductive age occur in underdeveloped nations due to problems during pregnancy and delivery. Low birth weight, premature delivery, and delivery of a small for gestational age newborn have all been linked to both short and extended inter-pregnancy intervals. There are a variety of processes, including maternal factors, which contribute to the increased risk of unfavorable pregnancy outcomes associated with short inter-pregnancy intervals (Youssef, 2006).

Numerous studies have demonstrated that a variety of factors, including those connected to the mother, birth history characteristics including the place of delivery, and others, were responsible for the poor birth spacing practices. Important indirect drivers of inadequate birth spacing practices include socioeconomic and demographic characteristics (Dadi, 2015; Hailu & Gulte, 2016). A community-based intervention that involves health extension workers (HEWs) educating the public is one of the several programs and tactics used in Ethiopia to maximize the practice of birth spacing.

Despite their preference for optimal birth spacing, women in poor nations continue to give birth at short intervals (WHO, 2005). Like many other sub-Saharan African nations, Ethiopia continues to have high rates of child, maternal, and reproductive death. The nation continues to have greater rates of neonatal, and infant mortality, 33/1000, and 47 per 1000 live births, respectively—according to recent estimates from EMDHS 2019 (EMDHS, 2019). Infant mortality was cut by half in Ethiopia by prolonging the birth interval to at least two years (Dadi, 2015).

Thus, understanding factors that influence women's birth interval is critical for countries like Ethiopia with a population policy aiming at reducing fertility. There is no study conducted so far to identify prevalence and determine of birth interval in this particular area Shebedino Woreda in Sidama Region, Ethiopia. This study was aimed at assessing the prevalence and the determinant of short birth intervals among women of childbearing women at Shebedino woreda, Sidama Region.

1.3. Significance of the study

In Ethiopia, like many other sub-Saharan African countries, fertility, maternal and child mortality are still high due to short birth interval. Therefore, research-based knowledge is a vital step to minimize these problems.

Therefore, together with other similar research findings the findings of this study use the Ethiopian Ministry of Health and its stakeholders to strengthen the existing strategies of information, giving attention to women's awareness about the importance of modern contraceptive utilization.

The findings of this study give information for governmental and non-governmental organizations to strengthen their concern about short birth intervals. It provides information for policymakers to integrate all reproductive-age women to get health care services at all health institution levels. It also gives direction to improve women's education.

The findings also provide information for the Sidama Region and Shebedino Woreda to develop extension programs to reach all reproductive-age women in their catchment area. Therefore, the finding of this study would be a supportive idea in reminding local policymakers to design appropriate strategies for encouraging greater use of optimal birth spacing.

For health care providers it gives some information on improving antenatal care, institutional delivery, and contraceptive methods. Therefore the way to prevent short birth intervals is practiced by minimizing potential factors. Religious leaders used to improve the use of modern contraceptives. Finally, it is also anticipated to offer baseline information for additional robust follow-up studies.

2. LITERATURE REVIEW

2.1. Introductions

Short birth interval, one of the public health and demographic concern, is associated with several adverse health outcomes, such as poor maternal nutritional status and folate depletion, suboptimal lactation for the newborn, infections, child survival complications, incomplete healing of the uterus and abnormal remodeling of endometrial blood vessels (Kassie *et al.*, 2023). Global findings have shown that small or suboptimal birth spacing outcomes in an increased risk of maternal mortality and hostile pregnancy results (WHO, 2006). According to EDHS statistics, Ethiopia also has a high neonatal, infant, and maternal mortality rate, making short birth spacing a major barrier to meeting the Sustainable Development Goal (SDG) of eradicating avoidable child and maternal deaths.

2.2. Definitions and measures of short birth interval

Birth interval is a crucial indicator of mother and child health. Healthy pregnancy timing and spacing have been proven to be effective therapies to enhance mother, baby, and child health. Some pregnancies are at more risk than others, even though every pregnancy has a risk of maternal mortality or illness (Kumar *et al.*, 2020).

Previous evidence by the World Health Organization (WHO) and other international organizations suggested that waiting for at least 2-3 years between pregnancies can reduce infant and child mortality and improve maternal health (WHO, 2005). However, current studies supported by the United States Agency for International Development (USAID) and others have shown that this recommendation is no longer valid (Chirwa *et al.*, 2014).

2.3. Prevalence and trends of short birth interval

The typical time between births, according to research conducted in Babol, Northern Iran, was 61 ± 25.7 months. 3.8%, 41.7%, and 28% of the respondents in this research had birth intervals of less than 2, 3-5, and greater than or equal to 6 years, respectively (Ko *et al.*, 2009). The 24.6% of respondents in a different sizable cross-sectional research in rural Bangladesh had SBIs of fewer than 33 months (Jonge *et al.*, 2014). Rural Uganda still has a high frequency of short birth intervals (52.4%), even though the majority of women (86.6%) want long birth intervals (Aleni *et al.*, 2020). In research from northwest Ethiopia, the median birth interval was 36 months, with

an interquartile range of 8 months, and the frequency of short birth intervals was determined to be 382 (43.4%) with 95% CI:(40.2,46.9) (Belayneh *et al.*, 2022). Another research from northern Ethiopia found that 187 (23.3%) women of reproductive age had short birth intervals on average.

2.4. Associated factors with short birth interval

2.4.1 Sociodemographic Factors demonstrate that several researches have emphasized the importance of sociodemographic, economic, and birth history factors in birth spacing among women of childbearing age. In this case, good examples of factors that have been frequently studied to determine the length of the birth interval include the mother's age at the time of her last delivery, her husband's occupation, her marital status, her educational level, her religion, her place of residence, her monthly income, her husband's occupation,

Age of the mother: A cross-sectional health institution research among multiparous women in Babol, Northern Iran, found that the mother's age was a significant factor in determining the birth interval. It said that the birth interval diminishes with age. In the study's participants, 50% of women under the age of 20 and 0.9% of women over the age of 35 had a birth spacing of fewer than two years, whereas 42.9% of mothers over the age of 35 had a birth spacing of more than six years, which increased with maternal age while the birth spacing of fewer than two years decreased with maternal age ($p < 0.05$) (Ko *et al.*, 2009).

Similar evidence was seen in African nation findings. Maternal age was shown to be inversely associated with failure to adhere to the advised minimum interval between two live deliveries in Tanzanian research. The percentage of poorly spaced inter-birth intervals was largest (76%) among the youngest (15–19) women and rapidly decreased with advancing age, reaching as low as 30% among the oldest (45–49) women ($p < 0.001$) (Exavery, 2012).

According to the report from Ethiopian MDHS 2019, young maternal age exhibited a strong correlation with brief birth intervals, which is consistent with the aforementioned findings. From 27.3 months for births to women aged (15 to 19) to 41 months for births to women aged 40 to 49, the median birth gap rises with age (27.3 versus 41 months) (EMDHS, 2019).

Maternal religion; Compared to Muslim women, Christian or Hindu women had a 32% lower chance of having a short birth interval (AOR 0.68, 0.53-0.87) (Jonge *et al.*, 2014). A study conducted in the Tselemit district in Tigray revealed that the religion of the mother shows

significant associations with short birth intervals. Muslim participants were about 2 times more likely to have short birth intervals when compared to Orthodox Christians (Gebrehiwot *et al.*, 2019). The retrospective cross-sectional analysis also supported the former conclusion (Mruts *et al.*, 2022).

Respondent education level: Another demonstrates that cross-sectional community research carried out in the Education of women has been demonstrated to be a significant predictor of birth intervals. According to a study done in Nepal, there is a significant statistical correlation between birth spacing and education level. Compared to women with basic school or no formal education, those with greater levels of education were more likely to have longer birth intervals. According to a similar study conducted in southern Ethiopia, illiterate women are 2.8 times more likely to experience an inter-delivery interval than those who have received formal education (Belayneh *et al.*, 2022).

Respondents' jobs status: According to research from Nepal, mothers' jobs were proven to be a significant predictor of birth interval. Compared to stay-at-home moms, working women were more likely to have longer childbearing gaps. According to a similar study conducted in Nepal, spouses' jobs were substantially related to birth intervals. Compared to those whose spouses worked in the business and cottage industry, women whose husbands were involved in agriculture had longer childbearing intervals (Suwal, 2001). Women whose husbands were students were shown to be major predictors of brief birth intervals, according to another study conducted in Southern Ethiopia (Yohannes, 2011).

Additionally, it has been shown that a **woman's residence** has an impact on how long it takes between her pregnancies. According to a study conducted in Nepal, women who lived in urban regions had longer childbearing intervals than those who lived in rural areas (Suwal, 2001). Another Tanzanian research found that women who lived in rural regions had shorter birth intervals than those who lived in urban areas (50% vs 45%) and the difference was statistically significant ($p < 0.001$) (Exavery, 2012). An Ethiopian cross-sectional research with identical results came to the same conclusion (Dereje, 2017; Yohannes, 2011). Other study finding shows short birth intervals are 2.5 times more common in rural-dwelling women than in urban-dwelling women (Mruts *et al.*, 2022; Yosef, *et al.*, 2023). In contrast to the research mentioned above,

Dembecha district women who live in urban were 3.2 times more likely to have brief childbearing intervals than women living in rural regions (Belayneh *et al.*, 2022).

Short birth intervals were well predicted by the **wealth index**. According to research conducted in the Arbaminch district, moms who were in the poorest wealth index had higher odds of having a short birth interval (AOR: 4.89, 95% CI: [1.81–13.25]) (Hailu & Gulte, 2016). The same conclusion from cross-sectional study was done in the Dembecha district in northern Ethiopia, (lowest quartile) [AOR: 3.75, (95% CI: 2.35, 5.97) (Belayneh *et al.*, 2022). Median birth intervals increase with increasing wealth. The birth interval among women in the highest quintile is more than 12 months longer than the interval among women in the lowest quintile (43.3 months versus 30.9 months) (EMDHS, 2019).

2.4.2. Birth/Obstetrics History of Respondents

Birthplace: According to a study conducted in Rufiji, Tanzania, children whose index birth occurred outside of a health facility had a higher likelihood of having inter-birth intervals that were shorter than the advised minimum length (OR = 1.81, 95% CI (1.68-1.94)) (Exavery, 2012). According to a different study conducted in Ethiopia, moms who had their previous child at home had a 4.75 times higher chance of having subsequent children quickly than those who gave birth in a medical health facility (AOR=4.75, 95 CI% 2.30, 9.79) (Ejigu *et al.*, 2019). The same study from Tanzania found that compared to birth intervals corresponding to singleton births of the index kid, intervals related to twin or multiple births of the index child were less likely to be closely spaced. (OR = 0.76, 95% CI (0.59–0.97) (Exavery, 2012).

Maternal age at first marriage: A study conducted in Manipur found that when a woman's age at first marriage rises (p 0.05), so does the median birth interval of respondents (Sanajaoba Singh *et al.*, 2010). A similar study in Ethiopia found a high correlation between short birth intervals (15–17 years old) and age at first marriage. [AOR: 1.65, (95% CI: 1.15, 2.26) (Belayneh *et al.*, 2022). Compared to women who married at age 18 or older, those who married while they were younger had a roughly two-fold higher likelihood of practicing short birth intervals (Ayane et al., 2019).

Sex of the index child: Among responders from a similar group, the index child's sex was found to be a significant predictor of the birth interval. According to a Manipur study, mothers

who had previously given birth to a girl child experienced a considerably shorter average birth interval ($p < 0.01$) (Sanajaoba Singh *et al.*, 2010). According to research done in Southern Ethiopia, moms of female-index children were more likely to experience frequent pregnancies than mothers of male-index children (Wassihun *et al.*, 2021). Another study conducted in the Oromia Region and Jigjiga of Ethiopia found the same (Begna *et al.*, 2013; Roble *et al.*, 2021)

Planned pregnancy: According to a Danish study, women who reported having a planned pregnancy were more likely to have longer childbearing gaps than women who said their pregnancies just happened (Kaharuza *et al.*, 2001). This is also supported by the study conducted in rural Uganda (Aleni *et al.*, 2020).

Alive children currently: Mothers who had less than or equal to two alive children were significantly associated with short birth intervals. This might be due to women wanting many numbers of children and the number of children is considered as asset, especially for rural resident parents (Mihretie *et al.*, 2021).

Number of deliveries: This factor significantly lowers the likelihood of subsequent pregnancies. The research done in Manipur and Babol, Northern Iran, which showed that birth interval rises with increasing parity ($p < 0.05$), served as the basis for this. mentioned that birth interval increases with increasing parity ($p < 0.05$) (Sanajaoba Singh *et al.*, 2010; Ko *et al.*, 2009;).

Breastfeeding length: According to a study done in Northern Iran on multiparous women, breastfeeding duration was proven to be a reliable predictor of birth spacing. According to the findings (AOR = 0.01, 95% CI (0.004-0.046)), mothers who breastfeed their kid for more than two years are more likely to have longer birth intervals than those who breastfeed for less than six months (Ko *et al.*, 2009). Similar findings were observed in research from Manipur, Ahvaz Iran (Sanajaoba Singh *et al.*, 2010; Rasekh & Momtaz, 2021;). According to research done in Southern Ethiopia, women who nursed their index kid for less than 24 months were nearly five times more likely to deliver their next child quickly than those who did so for 24 months or more (Wassihun *et al.*, 2021).

For moms who did not attend antenatal care visit follow-up during the previous pregnancy as opposed to those who did, the probability of having a short birth interval was three times higher

(Mihretie *et al.*, 2021). Another study in Ethiopia also shows the same conclusion but is not statistically significant (Hailemeskel *et al.*, 2020).

One of the key factors influencing birth interval duration was the use of contraceptive methods. According to research done in Southern Ethiopia, women who didn't use any kind of contraception between the birth of their first kid and their most recent pregnancy were around six times more likely to have their babies at less-than-ideal intervals (Wassihun *et al.*, 2021). According to a different study done in Northern Ethiopia, women who did not utilize contemporary contraceptive methods before becoming pregnant with their most recent child had shorter birth intervals than those who did (Hailemeskel *et al.*, 2020). Similar research found that women who didn't take postpartum contraceptives after the index child were 8.78 times more likely to have frequent births than contraceptive users in the Dembecha District in Northern Ethiopia (Belayneh *et al.*, 2022).

. 2.4.3. Knowledge of participants about birth interval

According to research, a cross-sectional study done in Northern Ethiopia found that 66.4% of participants had a good understanding of short birth intervals (Belayneh *et al.*, 2022). Another study was conducted in Dessie town northern Ethiopia and Hadiya zone in southern, Ethiopia women who hadn't knowledge about the birth spacing method were faced with short birth intervals compared with the women who had good knowledge about birth intervals (Hailemeskel *et al.*, 2020; Wassihun *et al.*, 2021).

2.4.4. Attitude of participants towards birth intervals

Numerous studies showed that most moms had a good attitude while giving delivery (Exavery, 2012). According to a Jordanian survey, the majority of spouses were supportive of spaced-out births and were statistically related to education and monthly income (Youssef, 2006). According to research, a cross-sectional study done in Northern Ethiopia found that 45.9% of women had a favorable attitude toward short birth intervals (Belayneh *et al.*, 2022).

2.3. Conceptual framework

Concepts that are directly related to the dependent variable of the short birth interval have been changed and adapted from many kinds of literature. Socio-demographic characteristics, obstetric history, knowledge, and attitudes of the respondents about short birth intervals were listed as the possible factors that may be associated with outcome variables.

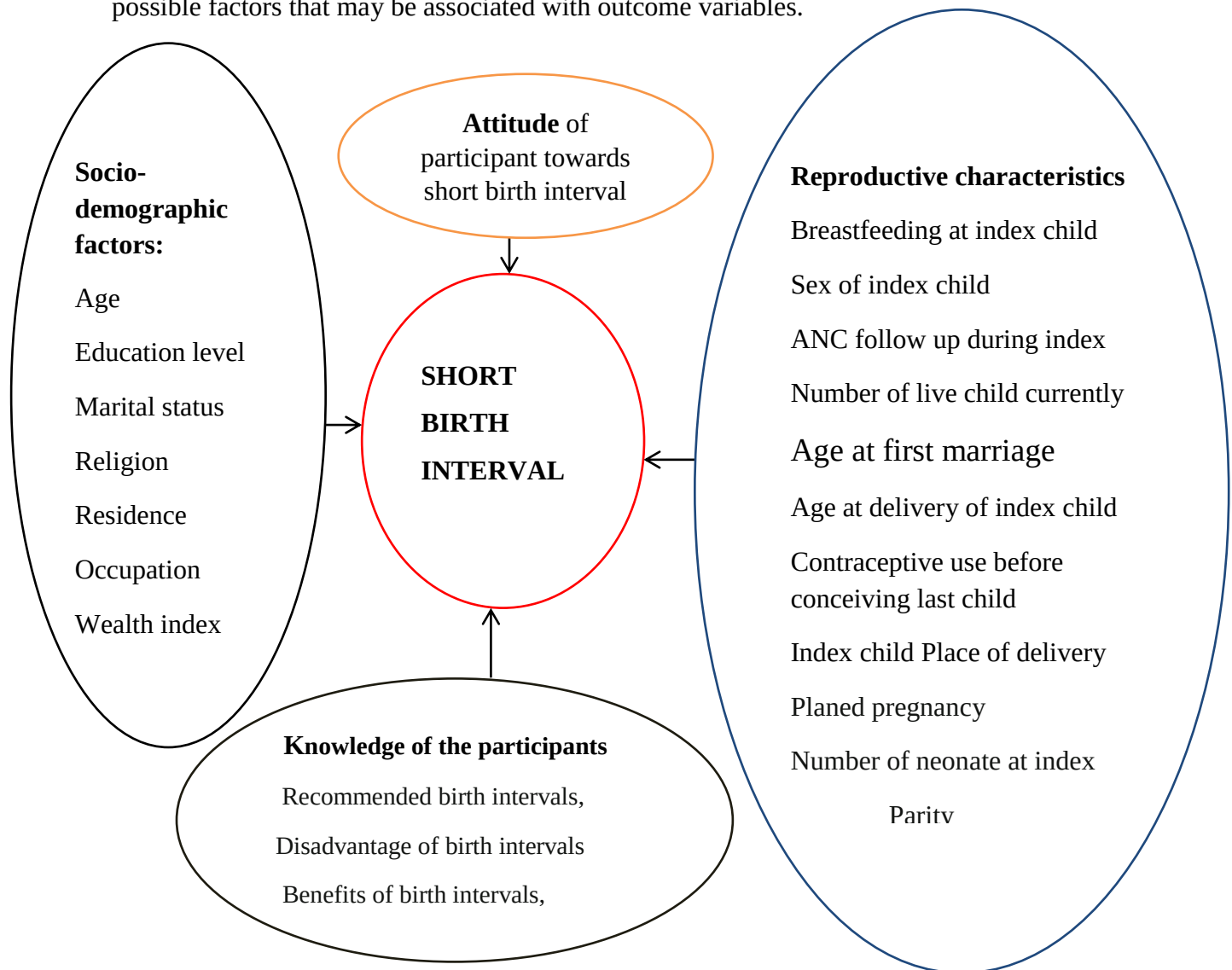


Figure 1 Conceptual framework of factors associated with a short birth interval among women who gave birth in the past three years in Shebedino woreda, Sidama Region, Ethiopia 2023 (Begna *et al.*, 2013; Belayneh *et al.*, 2022; Gebrehiwot *et al.*, 2019).

3. OBJECTIVES

3.1. General objective

- ✓ To assess the prevalence of short birth intervals and associated factors among women who gave birth in the past three years in Shebedino, Sidama Region, Ethiopia, 2023.

3.2. Specific objectives

- ✓ To determine the prevalence of short birth intervals among women who gave birth in the past three years in Shebedino, Sidama Region, Ethiopia, 2023.
- ✓ To identify associated factors of short birth intervals among women who gave birth in the past three years in Shebedino, Sidama Region, Ethiopia, 2023.

4. METHODS

4.1. Study area and period

A community-based cross-sectional survey was carried out from July 30 to August 30, 2023, in the Sidama region of Shebedino woreda. Shebedino woreda is located 310 kilometers from Addis Ababa, the capital of Ethiopia, and 27 kilometers from Hawassa, the seat of the Sidama Regional State. The elevation of Shebedino Woreda is between 1750 and 3000 meters above sea level. It has an average annual temperature of 28.5 °C with highs of 25 °C and lows of 16 °C. It receives an average annual rainfall of 1200 mm, a maximum mm, and a minimum mm. It lacks a lowland climatic zone and has 14% and 86% midland.

Shebedino Woreda contains twenty-three (23) rural and three (3) urban kebeles, according to statistics received from the Woreda administration. Shebedino woreda has 241581 people overall, with a sex ratio of 1:1. 85% of the population is concentrated in rural regions. There are 56288 reproductive age groups overall. Nearly the bulks of the inhabitants of Shebedino Woreda are of the Sidama ethnic group and speak the Sidamu affoo language. Other language speakers also be found in and around Leku town, the woreda's seat. Shebedino Woreda has 41055 households in total, Laku Town has 1980, and there are 43035 homes overall in Woreda. Nearly all of Shebedino Woreda's economic activity is based on agriculture.

The Woreda features 23 health posts, six health centers, and one general hospital. In Shebedino woreda majority of reproductive-age women get health services like antenatal care (96%) first ANC visit, child immunization (98%), institutional delivery (87%), and family planning (86%). There is one gynecologist staff, 56 midwives, and 61 health extension workers. The health institution to population ratio for health centers is 1:40, 263 whereas the ratio to health post is 1:10, 495

4.2. Study Design

Community-based cross-sectional study design was conducted.

4.3. Source and study population

4.3.1. Source of population

The source population consisted of all women of reproductive age located in Shebedino Woreda who had gave birth at least twice in a row and had last birth within the previous three years before data collection.

4.3.2. Study population

The study population was randomly selected women, who had at least two consecutive live births and the last birth in the past three years, before data collection, living in the study area.

4.4. Eligibility Criteria

4.4.1. Inclusion criteria

Women who had at least two consecutive live births and gave the last birth during the last three years.

4.4.2. Exclusion criteria

Women with a history of abortion between their most recent kid and the index child were left out.

4.5. Sample size determination

Based on the premise that the population proportion ($p=43.4\%$) was collected from research done in the Dembecha district, Northwest Ethiopia (Belayneh et al., 2022). with a margin of error of 5%, the sample size was determined using a single population proportion calculation.

$$n = \frac{z^2 p(1-p)}{d^2} \quad \text{therefore } n = \frac{(1.96)^2 \times 0.43(1-0.434)}{(0.05)^2} \quad n=377$$

Design effect 1.5 was applied, and the resulting sample size was $n=377 \times 1.5=566$. Where n is the sample size, z is the standard deviation of the 95 percent confidence interval, which is 1.96, p is the prevalence of SBI, 43.4%, and d is the marginal error, which is 0.05 (5%). The total sample size after adding a 10% non-response rate equals $57+566 = 623$.

The sample size for the second specified objective was determined independently using Epi Info version 7 software. Prior related literature was referred and the proportion of SBI among non -exposed groups of revised features was taken. Power is 80%, the confidence interval is 95%, and the exposed-to-unexposed ratio is 1:1. Design effect 1.5 and non-response rate 10%

Table 1 Sample size calculation for second objectives on short birth interval Shebedino Woreda, Sidama Region, Ethiopia, 2023.

Variable	Category	Prevalence	AOR	Sample size	Reference
Residence	Urban *	5.3	3.2	534	(Belayneh et al., 2022)
	Rural	38.1			
Contraceptive	No*	45.9	2.44	294	(Gebrehiwot et al., 2019)
	Yes	16.5			
Age at the first marriage	<18	22.9	2.09	505	(Ayane et al., 2019)
	≥18	36.9			
Previous child sex	Male	10.5	1.96	538	(Ayane et al., 2019)
	Female*	29.6			
Religion	Orthodox	20.0	2.02	465	(Gebrehiwot et al., 2019)
	Muslim*	37.0			

*= non exposed group,

The sample size determined for the first specified objective was 623, which was larger than the sample size for the second objective.

4.6. Sampling technique and procedures

The approach employed was multistage stratified sampling. To choose the study representative sample a lottery was used to select 8 rural and 2 urban Kebeles from the total of 26 Kebeles (38.5%). Women who were pulled out from the family folder of health extension workers (HEW) in each of the selected kebeles were assigned to homes that satisfied the criteria for participation. Systematic sampling procedures were then used to determine the skip interval, which was calculated as $k=N/n$, $7360/623 = 12$ by proportionally allocating sample size to each chosen kebeles. Based on the proportion of women in each of the chosen kebeles who gave birth in the previous three years the entire sample size was distributed.

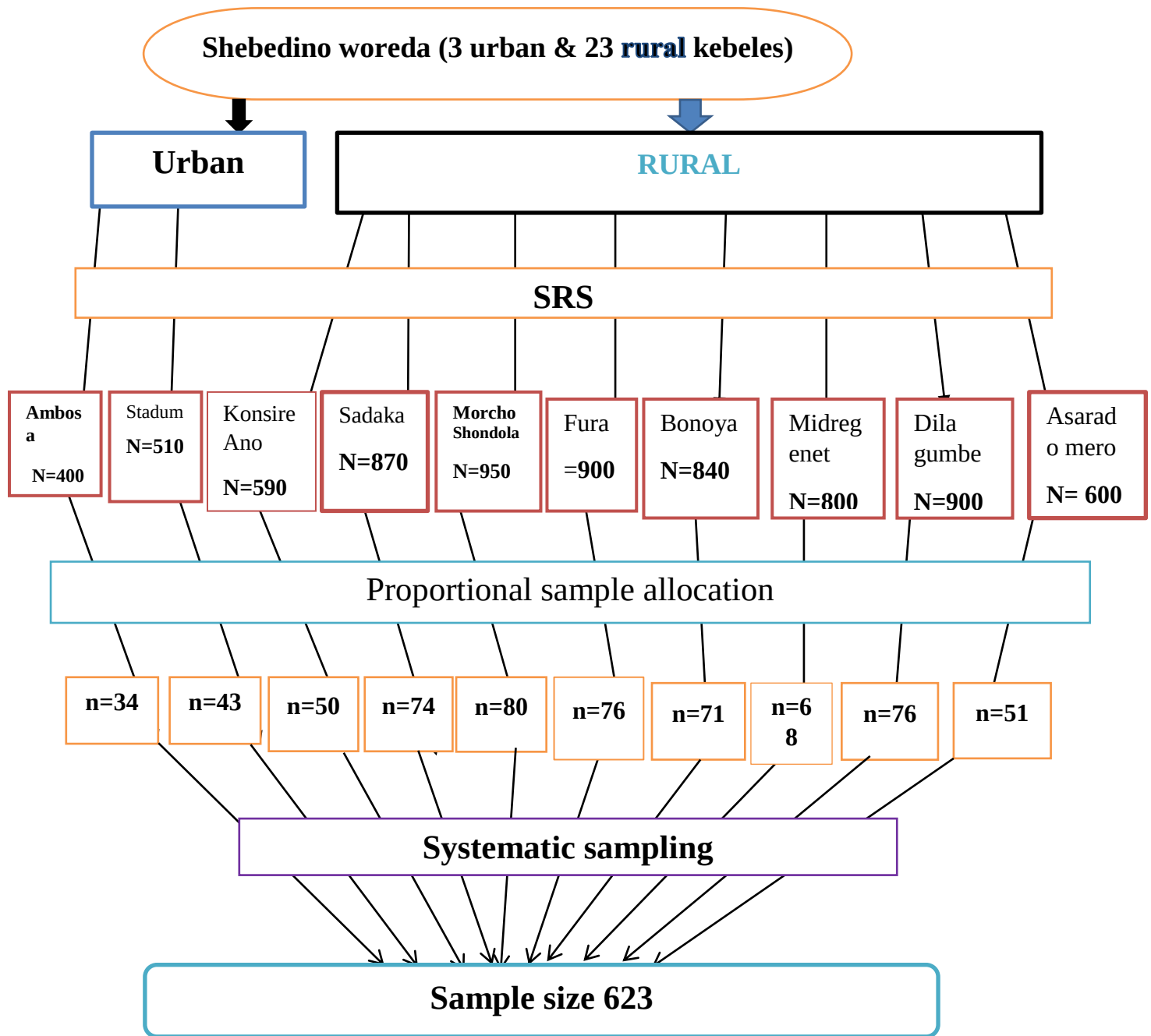


Figure 2 Schematic presentation of sampling procedure to assess the prevalence of short birth interval and associated factors among women who gave birth in the past three years in Shebedino, Sidama Region, Ethiopia, 2023.

4.7. Study variables

4.7.1 Dependent variable

Short birth interval was the dependent variable.

4.7.2 Independent Variable

Independent variable includes; Sociodemographic characteristics (the mother of age, occupation, education, marital status, residence, religion, husband education level, husband's occupation, and wealth index of household); reproductive characteristics of the study participants (number of neonates at the index kid, place of birth at index child, parity, breastfeeding at index child, the sex of the index child, age at first marriage, maternal age at delivery of the index child, prior use of FP, current live children, antenatal care visit, and planned pregnancy, knowledge about birth interval: By asking the respondents to mention the suggested birth interval, the level of knowledge on birth intervals was assessed. Additionally, respondents were prompted to select precoded answers. The disadvantage of birth intervals and the advantages of birth intervals were among the topics covered in the questionnaire and the attitude of the participants about short birth intervals.

4.8. Operational definition

Short birth interval: Denotes a birth gap of fewer than 33 months between two consecutive live births. (WHO, 2006)

The term "index child" refers to the infant who was born before the last child (Gebrehiwot *et al.*, 2019).

Knowledgeable: According to respondents were thought knowledgeable if they properly answered sixty percent of the questions concerning knowledge of a short birth interval (Hailu & Gulte, 2016).

Negative attitudes: According to respondents who answered the attitude questions above means were judged to have a negative attitude toward a short birth interval (Belayneh *et al.*, 2022).

Household Wealth Index estimation: Household wealth status was estimated by principal component analysis based on 21 household variables (source of drinking water, the presence of farmland, ownership of land, size of own farm land, average product, do you have toilet, whether

the toilet is private, type of toilet facility, which assets (electricity, radios, mobile phones, watches, televisions), ownership of your house, roof of house, floor of house, wall of your house, sleeping bed, cooking place, cooking material, livestock animal, own animal, number of animal (cows, oxen, horses/mules/donkeys, goats/sheep,) primary income source, bank account.

4.9. Data collection tool and procedure

The questionnaire was adapted from related literature with slight modifications in line with the objectives of this particular study (Ayane et al., 2019; Belayneh et al., 2022; Gebrehiwot et al., 2019; Hailu & Gulte, 2016). It includes socio-demographic characteristics, reproductive characteristics of study participants, knowledge of participants about birth interval, attitude of participants about short birth interval, and household wealth index.

The questionnaire used to assess the knowledge of participants consisted of five knowledge items and twelve attitude items and the internal reliability (Cronbach alpha 0.748) of the instrument. The answers to the yes/no or no idea options were scored as "0" for the incorrect/I don't know, and "1" for the correct response. The attitude was also measured using a Likert scale, each of which has a different scoring system that ranges from 1 to 5 depending on whether the question is positive or negative. For the negative questions, the scoring system was as follows: 1 = strongly agree, 2 = agree, 3 = no opinion, 4 = disagree, and 5 = strongly disagree. For the positive questions, the scoring system applied the opposite of the negative questions. The total knowledge and attitude scores were then added together to obtain a knowledge and attitude score. Data was collected by face-to-face interviews using a structured and pre-tested questionnaire which was first prepared in English and translated into Amharic then the local language to simplify the data collection process and then translated back to English. Ten health extension workers who were fluent in both Amharic and the local language were involved in the data collection while Master of Science (MSc) holders supervised the data collection process in each cluster. Before data collection, verbal informed consent was obtained from study participants. The collected data was reviewed and checked for completeness before data entry and the incomplete data was discarded. ODK (open data kit) was used to collect data.

4.10. Data Quality Assurance

The supervisor and investigator evaluated and examined the questionnaires after each day to ensure their accuracy, completeness, and consistency. Corrective discussions were then held with the whole study team. The subjects included in the questionnaire, interviewing techniques, the purpose of the study, the significance of privacy, discipline, and interviewer approaches as well as the confidentiality of the respondents were all covered in the days of training for the data collectors. Before the main research, a pretest was carried out on 5% (31) of the total sample size. Before the real data collection was carried out, changes were made to several variables once the pretest had been completed. Beliefs of the partner about birth intervals, Ethnicity, and type of marriage were among the removed variables. The primary researcher was present throughout the entirety of the data-collecting period.

4.11. Data Processing and Analysis

Data were collected by ODK (open data kit) and exported to SPSS version 27 for analysis. Descriptive statistics like frequencies and cross-tabulation were performed. Texts and tables were used as result reports. All variables with $P < 0.25$ in the bivariate analysis were included in the final model of multivariable analysis to control all possible confounders. The overall goodness-of-fit was assessed using the Hosmer–Lemeshow goodness-of-fit test. Which was ($p=0.816$) and the multi-collinearity was checked by variance inflation factors and tolerance test they were 4.7 and 0.92 respectively. The wealth index was analyzed by using a principal component factor analysis after checking assumptions. After dimensional reduction only seven (7) variables were left for another analysis based on eigenvalue which was one or greater than one. Principal component analysis was carried out using SPSS version 27 software (PCA). The Bartlett test sphericity was significant $p = 0.000$ and the Kaiser-Meyer-Olkin (KMO) test was **=0.733** measuring sample adequacy. Finally, four categories were created and the wealth status was graded from poor to highest. The strength of the relationships between short birth intervals and their associated variables was reported using adjusted odds ratios (AOR) with 95% confidence intervals (CI). In this study, variables $P\text{-value} < 0.05$ were considered to declare a result as a statistically significant association.

4.12. Ethical consideration

The Hawassa University College of Medicine and Health sciences institutional review board granted ethical approval **Reff No IRB/352/15**. Laku Woreda was officially informed about the study in a letter from the Sidama Region Public Health Institute. The study's purpose was conveyed to the participants by the trained data collectors. After describing the study's objectives to the study participants who took part in filling out the questionnaire, verbal informed permission was acquired. Data was kept private and was solely utilized for study.

5. RESULTS

5.1. Socio-demographic characteristics

A total of (620) respondents were included in this study with a 99.5% response rate. The mean age of the study participants was 31.4 and the standard deviation (± 6.1) ranged from 20-48 years. Of the total respondent's wealth index, one-fourth, 155(25%) were poor. Almost half 316(51%) of the participant's religions were protestant. Nearly ninety-one percent 563(90.8%) of the respondents were married. Most of the respondent's 511(82.4%) occupational status was a housewife and more than half of 325(54.2%) of the respondent's husbands' occupational status were farmers. One-third 205 (33.1%) of the participant's educational status was primary education and one-third 216(33.4%) of the participant's husband's educational status was secondary education. Two third 416(67.1%) of the participants had lived in rural (Table 2).

Table 2 Socio-demographic characteristics of study participants Shebedino Woreda, Sidama Region, Ethiopia, 2023(n=620)

Variable	Category	Frequency	Percent (%)
Age	20-24	128	20.6
	25-29	136	21.9
	30-34	151	24.4
	35-39	135	21.8
	≥40	70	11.3
Marital status	Married	563	90.8%
	Widowed	21	3.4%
	Divorced	20	3.2%
	Single	16	2.6%
Religion	Protestant	316	51%
	Orthodox	186	30%
	Catholic	77	12.4%
	Muslim	41	6.6%
Residence	Rural	416	67.1%
	Urban	204	32.9%
Educational status of mothers	Unable to read and write	199	32.1%
	Able to read and write	97	15.6%
	primary education	205	33.1%
	Secondary education	101	16.3%
	Collage and above	18	2.9%
Maternal occupation	Government employed	12	1.9%
	Housewife	511	82.4%
	Merchant	68	11.0%
	Others*	29	4.7%
Husband education n=604	Unable to read and write	77	12.7
	Able to read and write	37	6.1
	primary education	169	28
	Secondary education	221	36.6
	Collage and above	100	16.6
Husband occupation n= 604	Government employed	98	16.2
	Merchant	89	14.7
	Farmer	325	53.8
	Daily laborer	92	15.2
The wealth index of the participant	Poor	155	25.0%
	Second	155	25.0%
	Third	150	24.2%
	Highest	160	25.8%

* farmers, students

5.2 Reproductive characteristics of the study participants

Almost two third 417 (69 %) of the respondent's age at the first marriage was greater than or equal to eighteen years. More than half, 349(56.3%) of the respondents were given 2-3 childbirth. More than three-fourths, 542 (87.4%) of the participants had ANC follow-up during the index child. From ANC follow almost ninety-five percent of 510(94.1%) gained birth interval information. Almost eighty percent of 497(80.2%) respondents gave birth at the health facility. Just about ninety percent 563(90.8%) of the respondents used methods of contraceptive before conceiving the last child and all of them said used them for birth spacing ([Table 3](#)).

Table 3 Reproductive characteristics of study participants Shebedino Woreda, Sidama Region, Ethiopia, 2023. (n=620)

Variables	Category	Frequency	Percent (%)
Age at the first marriage n=604	<18	187	31
	≥18	417	69
parity n=620	2-3	349	56.3
	≥4	271	43.7
Number of alive children currently n=620	1-2	203	32.6%
	3-4	289	46.3%
	≥5	128	21.1%
Age at the delivery of index child? n=620	15-19	134	21.6
	20-29	271	43.7
	30-39	190	30.6
	≥40	25	4.0
Antenatal care visit at index child n=620	Yes	542	87.4%
	No	78	12.6%
Number of antenatal care visits n= 542	1-3	301	55.5%
	≥4	241	44.5%
Gained birth information during ANC n=542	Yes	510	94.1%
	No	32	5.9%
Place of delivery at index child n=620	Health facility	497	80.2%
	Home	123	19.8%
Sex of index child n=620	Female	354	57.1%
	Male	266	42.9%
Number of deliveries at index child n= 620	Singleton	602	97.1%
	Multiple	18	2.9%
Breastfeed for index child n=620	Yes	591	95.33%
	No	29	4.67%
Duration of breastfeeding n= 591	≤12months	23	3.9
	13-24 months	239	40.4
	≥ 24 months	329	55.7
Was the last child planned? n=620	Yes	589	95%
	No	31	5%
Length of birth interval n=620	≤32 months	230	37.1
	≥33 months	390	62.9
Contraceptive use after index child n=620	Yes	563	90.8%
	No	57	9.2%

5.3. Knowledge of respondents about short birth interval

A short birth interval was thought it less than or equal to 32 months, according to 221(35.6%) of the respondents who had information on birth intervals. The majority of the respondents 543(87.6%) thought 3 to 5 years of the birth interval have a health advantage. All of them mentioned that it is used for mothers, newborns and child health and next child Table (4).

Table 4 Knowledge of the Participants short birth interval Shebedino Woreda, Sidama Region, Ethiopia, 2023.

Variable	Category	Frequency	Percent (%)
What is the number of years between two consecutive births called a short birth interval? n=620	≥33 months	399	64.4
	≤32 months	221	35.6
Which birth interval do you think has a health advantage? (n=620)	Below 3 years	23	3.7
	3 to 5 years	543	87.6
	Above 5 years	2	0.3
	I don't know	52	8.4
Said 3-5 years, for whom do you think to have a health advantage? n= 1,629	Mother's health	543	33.33
	Newborns& child health	543	33.33
	Next child 'health	543	33.33
Which birth interval has health disadvantages? (n=620)	Below 3 years	522	84.2
	3 to 5 years	10	1.6
	Above 5 years	11	1.8
	I don't know	77	12.4
Birth interval is a good practice. (n =620)	Yes	531	85.6
	No	9	1.5
	No idea	80	12.9

5.4. Attitude of the study participants towards short birth intervals

Among the respondents, 208 (33.5%) had negative attitudes concerning short birth intervals. However, 447 respondents (71.6%) felt that having fewer children was bad for economic standing. (Table 5)

Table 5 Attitudes of the study respondents short birth interval Shebedino Woreda, Sidama Region, Ethiopia, 2023(n=620)

Variable	Category (frequency/percentage)				
	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
I want to practice birth intervals of at least 3years	132(21.3)	483(77.9)	5(0.8)	0(0.0)	0(0.0)
Need husband's willingness for birth space	30(4.8)	529(85.3)	40(6.5)	21(3.4)	0(0.0)
Having short birth intervals can be harmful to newborn	114(18.4)	500(80.6)	6(1.0)	0(0.0)	0(0.0)
Having short birth intervals can be harmful to both the mother & father	77(12.4)	531(85.6)	9(1.5)	2(0.3)	1(0.2)
Family has all girls should keep having children until they have at least one boy	6(1.0)	387(62.4)	37(6)	169(27.3)	6(1.0)
Having a short birth interval is important to prove her fertility	9(1.5)	350(56.5)	89(14.4)	144(23.2)	28(4.5)
Women should not limit the number of children they should have as it is against the will of God.	28(4.5)	360(58.1)	61(9.8)	136(21.9)	35(5.6)
Parents with fewer children have better economic status.	27(4.4)	504(81.3)	53(8.5)	33(5.3)	3(0.5)
Having few children may cause a person to feel economically insecure in old age.	39(6.3)	408(65.3)	39(6.3)	118(19)	16(2.6)
Frequent births may lead to health problems	30(4.8)	529(85.3)	40(6.5)	21(3.4)	0(0.0)
Compared with small families large families are less happy	30(4.8)	543(87.6)	26(4.2)	21(3.4)	0(0.0)
All boys should keep having children until they have at least one girl.	46(7.4)	374(60.3)	25(4)	163(26.3)	12(1.9)

Prevalence of short birth interval

The prevalence of short birth interval was found 230(37.1%) with 95%CI: (33.3-41.0). The median birth interval of this study was 34 months with an IQR of 6 months.

5.5. Factors associated with short birth interval

Cross-tabulation and a logistic regression model were used to examine the relationship between the outcome and predictor variables.

In bivariate analysis among twenty-six variables, twelve variables were associated with short birth intervals with a value of < 0.25 and used as cutting value candidates for multivariable analysis. These twelve variables were maternal religion, maternal education, residence, parity, number of neonates at index child, sex of index child, place of delivery, breastfeeding at index, antenatal care visit, last child planed, contraceptive use, and knowledge of respondents about birth interval.

In multivariable analysis, only five candidate variables—these include mothers who were being Muslims religion followers, unable to write and read, home delivery at index child, no history of ANC visit at index child, and not history of contraceptive use before last child—were shown to be substantially linked with short birth intervals. The specifics of the regression findings are shown in Table_6. In comparison to orthodox Christianity, Muslims were 2.31 times more likely to have SBI (AOR=2.31, 95%CI: 1.03, 5.18). Women who were unable to read and write have a four times higher chance of having an SBI than those who have completed college (AOR =4.0; 95%, CI: 1.01, 15.85). Women who gave the index child at home were 2.05 times more likely to experience SBI than those who gave birth in a medical institution (AOR=2.05, 95% CI: (1.23, 3.41)). Women who had not history of ANC visits were 2.45 times more likely to have SBI than those who had ANC visits (AOR=2.45, 95% CI: (1.25, 4.80)). Women who hadn't a history of contraceptive used were 4.20 times more likely to have SBI compared with women who had used contraceptive history (AOR=4.20, 95% CI: (1.71, 10.3)).

Table 6 Bivariate and Multivariable logistic regression on factors associated with short birth interval Shebedino Woreda, Sidama Region, Ethiopia, 2023

Variable	Category	Short BI		COR95%CI	AOR95%CI
		Yes	No		
Religion	Orthodox	59	127	1	1
	Protestant	118	198	1.28(0.9, 1.9) *	1.4(0.9,2.1)
	Catholic	30	47	1.4(0.8, 2.4)	1.4(0.7,2.6)
	Muslim	23	18	2.6(1.4,5.5) *	2.31(1.0,5.2)**
Maternal education	Unable to read and write	99	100	2.5(1.19,18.52)*	4 (1.0,15.8)**
	Able to read and write	29	68	1.1(0.48, 6.98)	2.3 (0.6,9.8)
	Primary education	59	146	1.05 (0.6, 7.6)	2.6(0.6, 10.6)
	Secondary education	30	71	1.1(0.5, 7.3)	2.4(0.6,9.9)
	Collage and above	5	13	1	1
Residence	Rural	142	274	1	1
	Urban	88	116	1.5(1.0,2.1)*	1.4(0.9, 1.2)
Parity	2-3	117	232	1.4(1.0,1.9) *	0.7(0.6, 1.1)
	≥4	113	158	1	1
Number of neonates	Singleton	219	383	0.37(0.1, 0.95)*	1.7(0.4,6.8)
	Multiple	11	7	1	1
Sex of index child	Female	118	236	1	1
	Male	112	154	1.5(1.1, 2.0) *	1.13(0.8,1.6)
Place of delivery at index child	Health facility	151	346	1	1
	Home	79	44	4.1 (2.6, 6.2)*	2.05(1.2,3.4)**
Breastfeed the index child	Yes	206	385	1	1
	No	24	5	8.97(3.4,18.9)*	2.77(0.8, 9.8)
Antenatal care visit	Yes	175	367	1	1
	No	55	23	5.015(3.0,8.4)*	2.45(1.3, 4.8)**
Was the last child planned?	Yes	206	383	1	1
	No	24	7	6.4(2.7,15.1)*	1.53(0.5, 4.6)
Contraceptive use before last-child	Yes	182	381	1	1
	No	48	9	11.2(5.4,16.3)*	4.2(1.7,10.3)**
Knowledge about birth intervals	Not knowledgeable	121	173	1.4 (1.0, 1.9)*	1.09(0.4, 1.4)
	Knowledgeable	109	217	1	1

*=p-value <0.25, **= p-value=0.05

6. DISCUSSION

In the previous section, we have seen the main findings of the study in detail. This chapter discussed the main findings guided by the specific objectives. Thus, in this discussion section, primarily, the prevalence of short birth intervals was discussed followed by the five factors predicting its occurrences among women who gave birth in Shebedino woreda, Sidama Region of South Ethiopia.

The prevalence of short birth intervals (<33 months) in our study was found to be 37.1%. This finding was comparable to the one that was done in the Debre-markos town (40.9%) (Ejigu et al., 2019). This might be because the research participants' socioeconomic backgrounds were comparatively comparable.

The outcome of this study was lower than those of studies carried out in the Oromia Illubabor zone (51.2%) (Dereje, *et al.*, 2017), Serbo town in Jimma (59.9%) (Ayane et al., 2019), Dembecha district northwest Ethiopia 43.4% (Belayneh et al., 2022), West Shoa 72.3% (Edris, *et al.*, 2021), and Yumbe (52.4%) (Aleni et al., 2020). This discrepancy may result from different definitions of what constitutes a short birth interval. In contrast to the current study, this used 33 months as per the WHO standard, earlier studies used 36 months as a criterion to identify short birth intervals, study periods, data collation method, availability of contraceptive method, and socio-cultural differences which may have slightly increased the prevalence. Additionally to the above-mentioned criteria, a study conducted in rural Uganda shows a higher prevalence of short birth intervals than our study. This might be due to the difference in study setting and sample size (Aleni et al., 2020).

However, the result of this research was higher than other research conducted in Tselemit District Tigray, Ethiopia (23.3%) (Gebrehiwot et al., 2019), Iran (28.5%) (Rasekh & Momtaz, 2021), Bangladesh (24.6%) (Jonge *et al.*, 2014). The research participants' varied selection criteria and sociocultural factors may be the cause of this discrepancy. Mothers, who had multiple births, delivered before 37 weeks of gestation, and without a birth certificate were not included study conducted in the Tselemit District. According to our research, we only excluded women who had abortions between their two most recent pregnancies. This could have made short birth intervals more common in this research. The research conducted in Iran and Bangladesh differs from our study in terms of socioeconomics. Contrary to our study, where the

majority of respondents were uneducated rural dwellers, the women in the aforementioned studies, conducted in Iran and Bangladesh, were largely educated and lived in metropolitan areas.

Religion is one of the predictors of short birth intervals. Muslim religion followers had a greater probability of getting short birth intervals than Orthodox Christians did. This conclusion is supported by several investigations. Studies conducted in Bangladesh, for instance, support similar findings (Jonge et al., 2014). A study from the Tselemit district, Tigray also shows the same conclusion (Gebrehiwot et al., 2019). Though it was not statistically significant, another Ethiopian research found that Christians prefer to space their pregnancies out further than Muslims (World et al., 2013). This might be a result of Muslim adherents not using contraceptive measures.

Another important factor that is significantly linked to inadequate birth spacing practice is the respondents' educational background. According to this study, respondents without formal education were likely to have short birth intervals as compared to their female counterparts with collage and above. This conclusion is supported by research from the Hadiya zone, Illubabor Zone, and Arbaminch district (Dereje, 2017; Hailu & Gulte, 2016; Wassihun et al., 2021). This could be because women who have had formal education are more likely to be knowledgeable about and capable of making informed decisions regarding the use of modern contraception and other reproductive health services. Additionally, educated women may have easier access to print media coverage on the significance of practicing optimum birth spacing. It is also supported by a quotation “Educating females is educating the family”.

In comparison to mothers who gave birth in a medical health facility, mothers who had their most recent delivery at home were more likely to have a short birth interval. This is consistent with research done in the Dabat district, Tanzania, Debremarkos (Exavery, 2012; Tessema *et al*, 2013; Ejigu *et al.*, 2019). This can be because women who gave birth in healthcare facilities had a higher likelihood of becoming aware through effective counseling and getting post-partum family planning methods. Due to a lack of antenatal care failure to give birth in a health facility is likely to delay getting information about reproductive health service-related care during pregnancy and delivery, which in turn are likely to increase the risk of short birth interval (Berhan & Berhan, 2014).

Predictors of the dependent variables included ANC follow-up. For moms who did not attend antenatal care follow-up during the previous pregnancy compared to those who did, the probability of having a short birth interval was greater. A study conducted in south Gondar supported this conclusion (Mihretie et al., 2021). This may be because women aren't receiving adequate health education and family planning counseling during their ANC visits, and a lack of access to a health facility may also make it difficult for them to maintain the recommended birth spacing.

Women who hadn't history of contraceptive used after the index were more likely to have SBI compared with women who had used contraceptives history. This finding is supported by studies done in South Pastoral Community, Dembecha District, Northern, Ethiopia (Begna et al., 2013; Belayneh et al., 2022). This may be due to married women being more inclined to avoid utilizing contraceptive techniques, which increases the likelihood of unforeseen conceptions that affect the birth interval. Participants felt that they were not exposed to the danger of pregnancy since they were breastfeeding, which was their main justification for not using contraception. This might be due to contraceptive utilization being able to delay the pregnancy. When women use contraceptive methods, they are intentionally preventing short birth intervals and their bad outcomes (WHO, 2005).

6.1. Limitations

- Within three years of birth, participants are included, and recall bias may be present. (Example; asking women to remember the duration of breastfeeding, age of child, number of antenatal care visits)
- The study only evaluated one birth interval

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

The overall prevalence of short birth intervals was lower than the national finding. Women unable to read and write, having not history of contraceptive use, not history of antenatal care visits, home delivery at index child, and being Muslim religion followers of respondents were independent predictors of short birth intervals. The majority of the women in this study were aware of at least one modern kind of birth control; however, they were either misinformed or lacked accurate knowledge of the ideal length of birth intervals. In this study most of the respondents' antenatal care visits. Women's education should be encouraged to decrease the likelihood of short birth intervals.

7.2. Recommendation

The Ethiopian Ministry of Health together with its stakeholders strengthens existing strategies of providing information giving attention to women to improve awareness about modern contraceptive utilization. Policy makers also design new strategies to encourage women to pursue their education to at least the primary education level. Furthermore, this study only evaluated one birth interval therefor, to make these findings more relevant, more research covering more than two inter-birth periods.

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ANNEXE

Annex I: Subject Information

Good morning/afternoon. My name is _____. I am working as a data collector for Mr. Yesuf Yimer MSC candidate from Hawassa University who conducted this study.

Research title – prevalence of short birth interval and associated factors among women who gave birth in the past three years in Shebedino Woreda, Southern Ethiopia, 2023.

Aim of the study: To assess the prevalence of short birth intervals and associated factors among women who gave birth in the past three years in Shebedino Woreda, Southern Ethiopia, 2023.

This supports the health office that makes different activities to prevent short birth interval-related infant and maternal mortality and it helps to differentiate associated factors related to short birth intervals. The research is helping the concerned body to design strategies for prevention and combating short birth interval problems. It also has a great contribution for the researcher to prepare graduation thesis papers for the fulfilling degrees of master in clinical midwifery.

Process and time of the research: I read the question for you, please give me a response to those questions for 25-30 minutes with me. The total number of questions is 62. So, I read the question, and your answer was filled in properly according to the question arrangements.

Benefits and risks- This research has no risk except taking your time. You do not benefit directly from participating in this research. However, the result of the study gives important information for health offices and organizations that work in the Shebedino Woreda.

Confidentiality- I would like to inform you that for some personal issues, your answers, and ideas are completely confidential and secured. Your name will not be written on this form. The result of this study provides general information about the community in the woreda not reflect the individual or house identity of the specific individual. The research does not present the identity of individuals by any means written or in words.

Participants' rights- Your participation is voluntary. Please take as much time as you need to read/listen to the information sheet. You have the right to participate or not participate in this research. You can refuse to answer a single question and even to the extent of stopping the interview at any time you want if you are not comfortable.



Ref. No: IRB/352/15

Date: 29/06/2023

Name of Researcher(s): **Yesuf Yimer, Andargacheq Kassa (PhD, asso. Prof.), Semira Defar (MSc)**

Topic of Proposal: ***Prevalence of short birth interval and associated factors among women who gave birth in the past three years in Shebedino woreda, southern Ethiopia, 2023***

Dear researcher(s),

The Institutional Review Board (IRB) at the College of Medicine and Health Sciences of Hawassa University has reviewed the aforementioned research protocol with special emphasis on the following points:

- | | | | | |
|--|-----|-------------------------------------|----|--------------------------|
| 1. Are all principles considered? | | | | |
| 1.1. Respect for persons: | Yes | ☒ | No | ☐ |
| 1.2. Beneficence: | Yes | ☒ | No | ☐ |
| 1.3. Justice: | Yes | ☒ | No | ☐ |
| 2. Are the objectives of the study ethically achievable? | Yes | ☒ | No | ☐ |
| 3. Are the proposed research methods ethically sound? | Yes | ☒ | No | ☐ |

Based on the aforementioned ethical assessment, the IRB has:

- | | |
|---|---|
| A. Approved the proposal for implementation | ☒ Approval period - 29 June 2023 to 28 June 2024 |
| B. Conditionally Approved | ☐ Element Approved: Protocol Version No. 1 |
| C. Not Approved | ☐ Follow up report expected in 6 months |

Obligation of the PI:

1. Should comply with the standard international and national scientific and ethical guidelines
2. All amendment and changes made in protocol and consent form needs IRB approval
3. The PI should report SAE within 3 days of the event
4. End of study, including manuscript should be reported to the IRB

Yours faithfully,

Dr. Embialle Mengistie (Ph.D. Associate Prof.)
Chairperson, Institutional Review Board

T/kilro 100/1092/30
Barra 7/11/2015

23ka fayyimmate keela

olliira

Hajo:-Irkote borro aa la'anno.

Aleeni eote aana kuilli hajo yaano fayyimmte keelini sid/da/qoq/mot/fa/instiyuute DFI/9707/1 barra 30/10/2015 m.d fayyimmate keeli /Ollu/giddo rossu xinixalora /Reaserch/ assano rosanchira taje uyiinemose/si gede irkote taje borreesinooni borroni xa'mitinokke daafira ki'ne fa/xaawi giddo "Prvalence of short birth interval and associated factors among women who gave birth in the past three years in shebedino woreda ,sidama region,Ethiopia,2023''yitano umini barra 10/11/2015 m.d hanafe 10/12/2015 m.d geesha hasidhano taje uyyiitianise gede tene irkote borro uyiinoomta eggeensiinseemo.

Keeru ledo!

Fiquadu Se/Baro Baada
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2014006

Annex II: Informed consent

The objective, benefits, harms, procedures, and confidentiality of the study have been read and explained to me in the language I comprehend. I further understand that taking part in this study and withdrawing from participating at any time without having a reason is purely voluntary. I agree to participate in this study.

Participant...

Sign..... Date.....

Data collector:.....

Sign..... Date.....

For any questions or queries contact the principal investigator at any time

Yesuf Yimer (Principal investigator)

Phone number: +251-921609409

Email: yesufyimer20@gmail.com

Name of advisors

DR Andargachew Kassa (PHD, Associated professor)

Email address

Semira Defar (BSc, MSc)

Email address:

Thank you for your co-operation!!

To be filled by data collectors

Region: Sidama Town: Name of Kebele: _____

Date: _____ month: _____ year: _____ Code Number: _____

Supervisor's name: _____ signature: _____

Annex III: Questionnaire English Version

Instruction: please encircle the number listed before the option to indicate your response and fill in the blank for without option.

Code No _____

Part I: socio-demographic characteristics			
SN	Questions	Answers/choices	Skip
101	How old are you?	-----completed years	
102	What is your marital status?	1. Single 3. Divorced 2. Married 4. Widowed	
103	What is your religion?	1. Orthodox 2. Protestant 3. Catholic 4. Muslim	
104	What is your educational level?	1. unable to read and write 2. Able to read and write 3 primary education 4. secondary education 5. collage and above	
105	What is your primary Occupation?	1. Employed (governmental 2. Housewife 3. Merchant 4. Farmer 5.Others_____	
106	Where is your residence?	1. Urban 2. rural	
107	What is your husband's education level?	1. unable to read and write 2. Able to read and write 3 primary education 4. secondary education 5. collage and above	
108	What is your husband's primary occupation?	1. Employed (governmental 2. Merchant 3. Farmer 4. Daily laborer	
Part II: Reproductive Characteristics of the Respondents			
201	What was your age at first marriage?	completed years	
202	How many times did you deliver in totally?	times	
203	How many living children do you have now?	Male_____ Females_____	
204	How old were you when you delivered your index child?	-----years	
205	Did you have antenatal care visit follow-up for your index child?	1. Yes 2.No	If say 2 go to Q208

206	If your answer for Q; 205 is yes how many times did you visit the ANC clinic?	1. Once 2. twice 3. three times 4. four and above	
207	During ANC follow up did you get any information regarding birth interval?	1. yes 2.No	
208	Where did you deliver your index child?	1. Health facility 2. Home	
209	What was the Sex of the index child?	1. Female 2.Male	
210	How many neonates are delivered at index child?	1. Singleton 2. multiple delivery	
211	Have you breastfed your index child?	1. yes 2.No	If 2 go to 213
212	If yes for Q 212 How many months?	months	
213	Was the last delivery planned?	1. Yes 2.No	
214	What was the length of the birth interval between the index child and the last child?	-----months	
215	Before you become pregnant with the last child, did you use contraceptives?	1. yes 2.No	2 go to Q219
216	If your answer to Q; 216 is yes, what was the aim of using this contraceptive?	1. birth spacing 2. limiting birth	
Part III: Knowledge of women about Birth interval			
301	What is the number of year's b/n two consecutive births called short birth interval?	-----months	
302	Which birth interval do you think has a health advantage?	1. Below 3 years 2. 3 to 5 years 3. Above 5 years 4. I don't know	
303	Stay 3-5 years, for whom do you think has a health advantage? (More than one answer possible)	1. Mother's health 2. Newborns and child health 3. Next child's health	
304	Which birth interval has health disadvantages?	1. Below 3 years 2. 3 to 5 years 3. Above 5 years 4. I don't know	
305	Birth spacing is a good practice	1. Yes 2.No 3. no idea	
Part IV: Attitude of respondents about birth interval			
401	I want to practice birth spacing for a minimum of 3years	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	

402	Need a husband's willingness for birth spacing	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
403	Having short birth interval can be harmful to the health of the newborn and the preceding child	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
404	Having short birth intervals can be harmful to the physical and mental health of both the mother & father	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
405	The family that has all girls should keep having children until they have at least one boy	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
406	Having a short birth interval is important for the woman to prove her fertility	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
407	Women should not limit the number of children they should have as it is against the will of God.	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
408	Parents with fewer children have better economic status.	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
409	Having a few children may cause a person to feel economically insecure in old age.	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	

410	Frequent birth may lead to health problems	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
411	Compared with small families large families were less happy	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
412	The family that has all boys should keep having children until they have at least one girl	1. Strongly agree 2. Agree 3. No opinion 4. Disagree 5. Strongly disagree	
Part V: household wealth status of respondents			
501	What is the main source of drinking water for the members of your household?	1. Piped water 2. Protected well 3. unprotected well 4. protected spring 5. unprotected spring 6. surface water (River) 7.Others(specify)_____	
502	Do you have a toilet?	1. yes 2.No	If no go to Q505
503	Is it private?	1. yes 2.No	
504	What kind of toilet facility do members of your household usually use?	1. Flush toilet 2. Ventilated improved pit latrine 3. Pit latrine with slab 4. Pit latrine without slab/ open pi 5. others (specify __	
505	Which of the following assets do you have in your household? (more than one answer is possible)	1. Electricity 2. Watch 3. Radio 4. Television 5. Mobile telephone 6.Others(specify)_____	
506	What type of fuel do you use mainly for cooking in your household?	1. Electricity 2. Kerosene 3. Charcoal 4. Wood	

		5. Animal dung 6. Others (specify)	
507	Ownership of the house	1. Private 2. Rented from individual 3. Others(specify)_____	
508	Number of rooms in the household sleeping	-----in number	
509	Is the cooking usually done in the house, in a separate building, or outdoors?	1. In a separate room 2. Elsewhere in the house 3. In a separate building 4. Outdoors	
510	What is the material of your house floor? (observation)	1. Ceramic tiles 2. Cement/bricks 3. Wood 4. Mud 5. Other (specify)_____	
511	What is the material of the roof of your house (observation)	1. Corrugated iron sheet 2. Cement 3. Wood 4. Plastic sheets 5. Other(specify)_____	
512	What is the material of the walls of your house (observation)	1. Wood with mud 2. Stone with mud 3. stone with Cement 3. Other[specify]_____	
513	What is the primary source of income for this household?	1. Farming 2. Employment/Salary 3. Petty trading 4. Daily labor 5. Others(specify)_____	
514	Does any member of the household own any land that can be used for agriculture?	1. Yes 2. No	
515	If yes Ownership of the agricultural land	1. Own, in hectares____ 2. Rent, ..	
516	How many farmlands do you have?	-----hectares	
517	Annual total agricultural products	-----quintals	
518	Does this household own any home animals	1. Yes 2. No	
519	Do you have your animals?	1. yes 2. No	
520	How many of the following animals does this household own? [Multiple answers are possible]	1. Cows and Oxen/bulls____ 2. Horses, donkeys, mules 3. Sheep and Goats----- 4. Others(specify)_____	
521	Does any member of this household have a bank account?	1. yes 2. No	

Annex I: ርዕሰ ጉዳይ መረጃ

እንደምን አደሩ/ ከሰአት። የኔ ስም _____ . ይህንን ጥናት ላካሄደው ከሐዋሳ ዩኒቨርሲቲ እጩ አቶ የሱፍ ይመር MSc መረጃ ሰብሳቢ ሆኜ እየሰራሁ ነው ። የጥናት ርዕስ፡- በደቡብ ኢትዮጵያ ሸበዲኖ ወረዳ ባለፉት ሦስት ዓመታት ውስጥ በወለዱ ሴቶች መካከል የአጭር ጊዜ ልዩነት እና ተያያዥ ምክንያቶች መስፋፋት

የጥናቱ ዓላማ፡- በደቡብ ኢትዮጵያ ሸበዲኖ ወረዳ ባለፉት ሦስት ዓመታት ውስጥ የወለዱ ሴቶች የአጭር ጊዜ ልዩነት እና ተያያዥ ምክንያቶች መበራከታቸውን ለመገምገም 2023.

ይህም ከአጭር ጊዜ የወለድ ጊዜ ጋር የተያያዙ የጨቅላ እና የእናቶች ሞትን ለመከላከል የተለያዩ ተግባራትን ለሚያከናውነው ጤና ፅህፈት ቤት የሚደግፍ ሲሆን ከአጭር ጊዜ የወለድ ጊዜ ጋር የተያያዙ ጉዳዮችን ለመለየት ይረዳል። ጥናቱ የሚመለከተው አካል የአጭር ጊዜ የወለድ ጊዜ ችግሮችን የመከላከልና የመዋጋት ስልቶችን በመንደፍ እገዛ እያደረገ ነው። በክሊኒካል የማስተርስ ዲግሪያቸውን ለሚሉ የመመረቂያ ፅሁፎችን ለማዘጋጀት ለተመራማሪው ትልቅ አስተዋፅኦ አለው።

የጥናቱ ሂደት እና ጊዜ፡ ጥያቄውን ለእርስዎ አነበብኩኝ, እባክዎን ለእነዚያ ጥያቄዎች ከእኔ ጋር ለ 25-30 ደቂቃዎች ምላሽ ይስጡኝ. አጠቃላይ የጥያቄዎች ብዛት 68 ነው. ስለዚህ, ጥያቄውን አንብቤዋለሁ, እና መልስዎ በጥያቄው ዝግጅት መሰረት በትክክል ተሞልቷል.

ጥቅሞች እና አደጋዎች- ይህ ምርምር ጊዜዎን ከመውሰድ በስተቀር ምንም አይነት አደጋ የለውም. በዚህ ጥናት ውስጥ በመሳተፍ በቀጥታ ምንም ጥቅም የለዎትም። ነገር ግን የጥናቱ ውጤት በሸበዲኖ ወረዳ ውስጥ ለሚሰሩ ጤና ቢሮዎችና ድርጅቶች ጠቃሚ መረጃ ይሰጣል።

ሚስጥራዊነት- ለአንዳንድ ግላዊ ጉዳዮች የእርስዎ መልሶች እና ሃሳቦች ሙሉ በሙሉ ሚስጥራዊ እና ይህንነታቸው የተጠበቀ መሆኑን ለሳውቅዎ እወዳለሁ። ስም በዚህ ቅጽ ላይ አይጻፍም። የዚህ ጥናት ውጤት በወረዳው ስላለው ማህበረሰብ አጠቃላይ መረጃ የግለሰቡን ግለሰብ ወይም ቤት ማንነት የማያሳይ ነው። ጥናቱ የግለሰቦችን ማንነት በምንም መንገድ በጽሁፍም ሆነ በቃላት አያቀርብም።

የተሳታፊዎች መብቶች - የእርስዎ ተሳትፎ በፈቃደኝነት ነው። እባክዎን የመረጃ ወረቀቱን ለማንበብ/ ለማዳመጥ የሚፈልጉትን ያህል ጊዜ ይውሰዱ። በዚህ ጥናት ውስጥ የመሳተፍ ወይም ያለመሳተፍ መብት አልዎት። አንድን ጥያቄ ለመመለስ እምቢ ማለት እና ምንም እንኳን ካልተመቸዎት በማንኛውም ጊዜ ቃለ መጠይቁን እስከ ማቆም ድረስ ይችላሉ።

Annex II: በመረጃ የተደገፈ ስምዎንት

የጥናቱ ዓላማ፣ ጥቅማጥቅሞች፣ ጉዳዮች፣ ሂደቶች እና በሚስጥር በሚስጥር ተነቦ በተረዳኝ ቋንቋ ተብራርቶልኛል። በዚህ ጥናት ውስጥ መሳተፍ እና ምክንያት ሳይኖር በማንኛውም ጊዜ ከመሳተፍ መውጣት ብቻ ፍቃደኛ እንደሆነ ተረድቻለሁ። በዚህ ጥናት ለመሳተፍ ተስማምቻለሁ ።

ተሳታፊ ፡.....

ይፈርሙ..... ቀን.....

መረጃ ሰብሳቢ፡

ይፈርሙ..... ቀን.....

ለማንኛውም ጥያቄዎች ወይም ጥያቄዎች በማንኛውም ጊዜ ዋናውን መርማሪ ያነጋግሩ

የሱፍ ይመር (ዋና መርማሪ)

ስልክ ቁጥር : +251-921609409

ኢሜል : yesufyimer20@gmail.com

የአማካሪዎች ስም

ዶ/ር አንዳርጋቸው ካሳ (PHD፣ Associated Professor)

የ ኢሜል አድራሻ

ሰሚራ ደፋር (ቢ.ኤስ.ሲ፣ ኤም.ኤስ.ሲ)

የ ኢሜል አድራሻ:

ለትብብርዎ እናመሰግናለን!!

በመረጃ ሰብሳቢዎች መመላት

ክልል: ሲዳማ ከተማ: የቀበሌ ስም: _____

ቀን: _____ ወር: _____ ዓመት: _____ ከድ ቁጥር: _____

ተቆጣጣሪ ወይም ስም: _____ ፊርማ: _____

Annex VI: የአማረጅ መጠይቅ

መመሪያ: ከተዘረዘሩት ምርጫዎች መልስ የያዘውን ቁጥር በማክበብ እና ምርጫ ለሌላቸው ጥያቄዎች ክፍት በታዉን

በመመላት ይመለሱ::

መለያቁጥር-----

ተ.ቁ	ጥያቄዎች	ምላሽ	ይለፉት
ክፍል- I ማህበራዊነክ መረጃዎችን በተመለከተ የሚሰበሰብ			
101	እድሜዎት ስንት ነዉ?	-----ዓመት	
102	የጋብቻ ሁኔታዎ ምንድን ነዉ?	1.ያላገባች 3. የፈታች 2.ያገባች 4.የሞተባት	
103	ሐይማኖትዎ ምንድን ነዉ?	1.ኦርቶዶክስ 2. ፕሮቴስታንት 3. ካቶሊክ 4. ሙስሊም	

104	የትምህርት ደረጃዎት ስንት ነው?	1. ማንበብ እና መጻፍ የማይችል 2. ማንበብ እና መጻፍ የሚችል 3. የመጀመሪያ ደረጃ ትምህርት 4. ሁለተኛ ደረጃ ትምህርት 5. ኮሌጅ እና ከዚያ በላይ	
105	የስራ ሁኔታዎት ምንድን ነው?	1. ተቀጣሪ (የመንግስት/የግል) 2. የቤት እመቤት 3. ነጋዴ 4. አርሶአደር 5. ሌላ (ይገለፅ)---	
106	መኖሪያ ቤትዎ የትኛው ነው?	1. ገጠር 2. ከተማ	
107	የትዳር ጓደኛዎ የትምህርት ደረጃ ምንድን ነው?	1. ማንበብ እና መጻፍ የማይችል 2. ማንበብ እና መጻፍ የሚችል 3. የመጀመሪያ ደረጃ ትምህርት 4. ሁለተኛ ደረጃ ትምህርት 5. ኮሌጅ እና ከዚያ በላይ	ካላገቡ ወደ ጥ.ቁ 201 ይለፉ
108	የትዳር ጓደኛዎ ስራ ምንድን ነው?	1. የግል ተቀጣሪ (የመንግስት ተቀጣሪ) 2. ነጋዴ 3. አርሶአደር 4. የቀንሠራተኛ	
ክፍል II: የጥናቱ ተሳታፊዎችን ስነ-ተዋልዶ በተመለከተ የሚሰበሰብ መረጃ			
201	መጀመሪያሽን ስታገቢ ዕድሜሽ ስንት ነበር?	-----ዓመት	
202	በአጠቃላይ ስንት ጊዜ ወልደዋል?	-----ጊዜ	
203	አሁን በህይወት ያሉ ስንት ልጆች አሉዎት?	ወንድ_____ ሴት_____	
204	ከአሁኑ ልጅዎ በፊት ያለውን ልጅ የወለዱት በስንት አመትዎ ነው?	-----ዓመት	
205	ከአሁኑ ልጅዎ በፊት ያለውን ልጅዎን እንዳረገዙ የእርግዝና ክትትል አድርገው ነበር?	1. አዎ 2. አላደረጉም	መልስዎ 2ከሆነ ወደ 208 ይለፉ
206	ለ205 መልስዎ አዎ ከሆነ ስንት ጊዜ የእርግዝና ክትትል አድርገዋል?	-----ጊዜ	
207	የእርግዝና ክትትል በሚያደርጉበት ወቅት አራርቆ ስለመውለድ ትምህርት አግኝተዋል?	1. አዎ 2. አላገኘሁም	
208	ከአሁኑ ልጅዎ በፊት ያለውን ልጅዎን የትነው የወለዱት	1. ጤናተቋም 2. ቤት	
209	ከአሁኑ ልጅዎ በፊት ያለው ልጅዎ ያታ ምን ነበር?	1. ሴት 2. ወንድ	
210	ከአሁኑ እርግዝናዎ በፊት በነበረው እርግዝናዎ ስንት ልጆችን ተገላገሉ/ወለዱ?	1. አንድ ብቻ 2. ሁለት እና ከዚያ በላይ	
211	ከአሁኑ ልጅዎ በፊት ያለውን ልጅዎን ጡት ያጠቡ ነበር	1. አዎ 2. የለም	መልስዎ 2 ከሆነ ወደ 2013 ይለፉ

212	መልስዎ አዎ ከሆነ ለጥያቄ ቁ.211 ለምን ያህል ወራት ጡት አጠቡ?	-----ወራት	
213	ከአሁን በፊት ያለው እርግዝና የታቀደ ነበር?	1.አዎ 2. አይደለም	
214	በመጨረሻ ልጅዎና በእሱ/ሳ ቀጣይ ታላቅ ምን ያህል የእድሜ ልዩነት አለ ?	-----ወራት	
215	የመጨረሻ ልጅሽን ከማርገዝሽ በፊት የእርግዝና መከላከያ ትጠቀሟ ነበር?	1.አዎ 2.አልጠቀመም	
216	ለጥያቄቁ. 215፤መልስዎ አዎ ከሆነ አላማዉ ለምን ነበር?	1.አራርቆ ለመዉለድ 2.ልጅንላ መመጠን 3.ሌላ ካለይግለጹ-----	
ክፍል- III እናቶች ስለአቀራርቦ/ቶሎቶሎ መውለድ ያላቸዉን እውቀት በተመለከተ			
301	ስለአቀራርቦ/ቶሎቶሎ መውለድ ከስንት ወራት በታች ነዉ?	-----ወራት	
302	በሁለቱ ተከታታይ የወሊድ ጊዜ፤የትኛዉ የጊዜ ልዩነት ነዉ የጤና ጥቅም ያለዉ?	1.ከ3 ዓመትበተታች 2. ከ3-5 ዓመት 3. ከ5 ዓመትበላይ 4. አላቅም	
303	ከ3-5 ዐመት ፤ለማን ነዉ? የጤና ጥቅም ያለዉ (ከአንድበላይመልስይቻላል)	1.ለእናትዬዎ ጥቅም 2.ለጨቅላ ህፃናት እና ለልጆች 3.ለሚቀጥለዉ ልጅ ጤና 4.ሌላ ካለ ይግለፁ-----	
304	በሁለቱ ተከታታይ የወሊድ ጊዜ፤የትኛዉ የጊዜ ልዩነት ነዉ የጤና ችግር የሚያስከትለዉ?	1.ከ3 ዓመትበተታች 2. ከ3-5 ዓመት 3. ከ5 ዓመትበላይ 4. አላቅም	
305	ልጅን አራርቆ መዉለድ ጥሩ ተግባርነ ነዉ?	1.አዎ 2.አይደለም 3.ሀሳብ የለኝም	
ክፍል IV: አቀራርቦ/ቶሎቶሎ መዉለድን በተመለከተ ተሳታፊዎች ያላቸዉን አመለካከት ለማወቅየተዘጋጁ			
401	አራርቆ መዉለድን መተግበር እፈልጋለዉበ ትንሹ 3 ዐመት አ ::	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
402	አራርቆ ለመዉለድ የባለቤቴ ፈቃደኝነት አስፈላጊ ነዉ::	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	

403	ቶሎ ቶሎ መዉለድ ለሚወለዱት ልጆችና ለተወለዱት ልጆች የጤና ችግር ሊያመጣ ይችላል።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
404	ቶሎ ቶሎ መዉለድ ለእናትና ለአባት አካላዊና ስነልቦናዊ ጤና ችግር ሊዳርግ ይችላል።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
405	ሴት ልጆች ብቻ ያላቸው ቤተሰቦች ወንድ ልጅ እስኪያገኙ ድረስ መውለድ አለባቸው ።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
406	ቶሎቶሎ መዉለድ የሴቶችን ወላድነት/የመውለድ አቅም ለማረጋገጥ አስፈላጊ ነው/ይጠቅማል ።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
407	ከእግዚአብሔር ፈቃድ ውጭ ስለሆነ ሴቶች የሚወልዷቸውን ልጆች መመጠን የለባቸውም ።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
408	ጥቂት ልጆች ያላቸው ቤተሰቦች የኢኮኖሚ ደረጃቸው የተሻለ ነው።	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
409	ጥቂት ልጆች መኖራቸው ወላጆች በሚያረጁበት ጊዜ ኢኮኖሚያቸው የተረጋጋ እንዳይሆን ሊያደርግ ይችላል.	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
410	ቶሎቶሎ መዉለድ ለጤና ችግር ሊያጋልጥ ይችላል	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	

411	ብዙ ቤተሰብ ያላቸው ሰዎችን ቤተሰብ ከሌላቸው ሲወዳደሩ ደስተኞች አይደሉም ?	1.በጣም እስማማለሁ 2.እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
412	ወንድ ልጆች ብቻ ያላቸው ቤተሰቦች ቤት ልጅ እስኪያገኙ ድረስ መውለድ አለባቸው ?	1.በጣም እስማማለሁ 2. እስማማለሁ 3.አስተያየት የለኝም 4.አልስማማም 5.በጣም አልስማማም	
ክፍል-V:የቤተሰብ የሃብት መጠን የሚመለከት ጥያቄዎች			
501	የቤተሰባችሁ አባላት የመጠጥ ውሃ ከየት ነው የሚያገኙት?	1.የቧንቧ ውሃ 2. ከተከለለ የጉድጓድ ውሃ 3.ካልተከለለ የጉድጓድ ውሃ 4. ከተከለለ ምንጭ 5.ካልተከለለ ምንጭ 6.የኩሬ ወይም የወንዝ ውሃ 7.ሌላ(ይገለፅ)_____	
502	ሽንት ቤት አላችሁ ?	1. አዎ 2. የለንም	መልስዎ 2 ከሆነወደ 505 ይለፉ
503	ሽንት ቤቱ የራሳችሁ ነዉ ?	1. አዎ 2.አይደለም	
504	ምን አይነት ሽንትቤት ቤት ነዉ የምትጠቀሙት?	1.ሲንክ የተገጠመለት 2.ቬንትሌትድ(የአየርመናፈሻ) የተገጠመለት 3.በርብራብ የተሰራ ሽንትቤት 4.ርብራብ የሌለው(ክፍት) ሽንትቤት 5.ሌላ(ይገለፅ)-----	
505	እዚህ ከተጠቀሱት ውስጥ የትኛው በናንተ ቤት ውስጥ አለ ? (ከአንድበላይመመለስይቻላል)	1.ኤሌክትሪክ 2.ሰዓት 3.ሬዲዮ 4.ቴሌቪዥን 5.የሞባይል ስልክ 6. ሌላ(ይገለፅ)___	
506	ምግብ ለማብሰያ የምትጠቀሙት ምንድ ነው? (አንዱንብቻያክብቡ)	1. ኤሌክትሪክ 2. ነጭጋዝ 3. ከሰል 4.እንጨት 5. ኩብት 6.ሌላ (ይገለፅ)_____	
507	የምትኖሩበት ቤት ይዞታው የማን ነው?	1.የግል/የራሳችሁ 2.የክራይ 3.ሌላ/ይጠቀስ__	
508	በቤት ውስጥ ለምኞታ የሚያገለግል ክፍል ብዛት?	-----ቁጥር	

509	ራሱን የቻለ የምግብ የማብሰያ ክፍል አላችሁ?	1.በተለየ ማብሰያ ክፍል (በቤትውስጥ) 2.መኖሪያቤት ውስጥ በየትኛውም ቦታ 3.በተለየ ማብሰያ ቤት 4.ከቤትውጭ	
510	የቤቱ ወለል ከምንድን የተሰራው (እባክዎን ይመልከቱት) ? አንዱን ብቻ ያክብቡ	1.አፈር/ጠጠር 2.በእበት የተለቀለቀ 3.ሲሚንት 4.ቅርቅሃ 5.ሌላ ካለ ይጠቀስ_____	
511	የቤቱ ጣራ ከምንድን የተሰራው (እባክዎን ይመልከቱት) ? አንዱን ብቻ ያክብቡ	1.ከቆርቆሮ 2.ከሲሚንት 3.ከእንጨት 4.ከቀርቀሃ 5)ሌላ (ይገለፅ)_____	
512	የቤቱ የወጭ ግድግዳ ከምንድን የተሰራው (እባክዎን ይመልከቱት) ? አንዱን ብቻ ያክብቡ	1.ከድንጋይ በጭቃ 2.ከእንጨት በጭቃ 3.ከድንጋይ በሲሚንት 4.ሌላ ይጠቀስ-----	
513	ዋናው የቤተሰባችሁ የገቢ ምንጭ ምንድን ነው? አንድ መልስ ብቻ ያክብቡ	1.እርሻ 2.የቅጥር ደመወዝ 3.ጥቃቅን ንግድ 4.የቀንስራ 5.ሌላ(ይገለፅ)_____	
514	የእርሻ መሬት አላችሁ?	1. አዎ 2.የለንም	መልስዎ 2ከሆነ ወደ 518 ይለፉ
515	የእርሻ መሬቱ ባለቤትነቱ የማንነው?	1.የእራሳችን፣ ሄክታር----- 2.የክራይ፣ ሄክታር-----	
516	በአማካይ ምን ያህል ሄክታር መሬት አላችሁ?	-----ሄክታር	
517	በአመት በአማካኝ የምታገኙት የሰብል ምርት ስንት ይሆናል?	-----በኩንታል	
518	የቤት እንስሳት አላችሁ?	1. አዎ 2. የለንም	መልስዎ 2 ከሆነ ወደ ቁ.521
519	የራሳችሁ የሆኑ የቤት እንስሳት አሉ አችሁ?	1.አዎ 2.የለም	
520	ምን ያህል የሚከተሉት የቤት እንስሳት በቤት ውስጥ ይገኛሉ? [ከአንድ በላይ መልስ መመለስ ይቻላል]	1.ላምነናበሬ_____ 2.ፈረስ፣አህያናበቅሎ_____ 3. በግና ፍየል_____ 4.ሌላ(ይገለፅ)_____	
521	ከቤተሰባችሁ መካከል የቁጠባ ደብተር ያለው አለ?	1. አዎ 2.የለም	

ጨርሻለሁ አመሰግናለሁ

Qa'miso

Qa'miso: Hajote Umi Mashalaqqe(taje)

Keere galitto/a hositto/a. Anesu'mi_____tenne xiinxallo asseemmohu Hawaasi Yuniveresitenni Dooramoommohu Kalaa Yuusuufi Yimeri MSC tajete gambaasincho ikke loosanni noommo. Xiinxalloti umi:- Sidaamu Qoqqowira Shabbadiini Woradira sa'u sasu dirra giddo ilino meenti mereero harancho yanna badooshshenna amdisiisantino korkaatta hala'la

Xiinxallote mixo: Sidaamu Qoqqowira Shabbadiini Woradira sa'u sasu dirra giddo ilino meenti mereero harancho yanna badooshshinna amdisiisantino korkaatta hala'lansa fatilateeti 2023

Kunino harancho yannanni ilatenni ledi amadantino daaimu qaaquullinna amuuwwu rewo gargarate addi addi loossa loossannore fayyimmate borro mine irkisannoha ikkana harancho yanna ila ledi amadiisannanno hajubba badate kaa'lanno. Xiinxallo haja la'anno bissa harancho yanna ilate yanna mitiimmubba gargaratenna olamate hayyubba kalaqatenni kaa'lo assitanni no. Kilinikaalenni Masiterse(layinki Digirensa) wonshitinorira maassote borro qixxeessate xiinxallaanchoho jawa kaa'lotti.

Xiinxallote ha'rinshonna yanna: xa'mo atera nabbawoommohe, eeggatena kuriuu xa'mubbara ane ledi ikkate 25-30 daqiiqa geeshsha dawaro qolie. Xaphooma xa'mubbate batinyi 68tete. Konni daafira, xa'mokki nabbawoommo nna dawaro xa'mote qixxaawo garinni garunni wonshinoonni.

Afi'nanni Ho'ronna Gawajjo: tini xiinxallo yanna adhase gobbaanni mitte gawajjono dinose. Tenne xiinxallo giddo beeqaatenni xaaddotenni mitte ho'rono dinohe. Kayinni xiinxallote gumi shabbadiini Woradi giddo loossanno fayyimmate biiroranna uurrinshubbara ho'ro afidhino mashalaqqe uytanno.

Fojaanchimma: mite mite hallanya hajubbara ate dawaro nna hedokki wo'munni wo'ma fojaanchotenna keeraanchimmase agarantinota ikkase kulammohera baxeemmo. Su'ma tenne qitse aana diborreessinanni. Tenne xiinxallo gumi woradaho noo dagoomira xaphooma mashalaqqe hallanyu hallanyita woy mini ayimma leellishshannokkite. Xiinxallo hallanyootu ayimma mitte doogonnino borrotennino ikko qaalatetenni dishiqishshanno.

Beeqqaanote qoosso: ate beeqqo fajjotenniiti. Eeggatena mashalaqqete woraqata nabbawate/macciishshate hasidhinanni geeshshi yanna adhe. Tenne xiinxallo giddo beeqqate woy beeqqa hoogate qoosso noohe. Mitte xa'mo qolate giwanna inja hoogihero nafa ayee yannarano qaalu xa'mo nafa uurrisate geeshsha dandaatto.

Qa'miso II: mashalaqqetenni woy tajetenni irkisantino sumimme

Xiinxallote mixo, horaafishshubba, gawajjo, ha'rinshubba nna fojo fojotenni nabbambe huwateemmo qaalinni xawinsoonie. Tenne xiinxallo gidde beeqqa nna korkaatu nookkiha ayee yannarano beeqqaanchimmatenni fulate calla fajjaameessa ikkoommo gedde huwatoommo. Tenne xiinxallora beeqqate sumuu yoommo.

Beeqaancho:_____

Malaatisi_____ barra_____

Tajete gambaasincho_____

Malaatisi_____ barra_____

Ayee xa'mora woy xa'mubbate ayee yannarano qara xiinxallaancho ikkinoha hasaawisse

Yuusuufi Yimeri (qara xiinxallaancho)

Bilbilu Kiir: +251-921609409

Imeele: yesufyimer20@gmail.com

Amaalaanote su'ma:

Dr. Andargachewu Kaasa (PHD: Associated Proffessor)

Imeelete Teessosi

Semiira Deffaari(BAS, MAS)

Imeelete Teessose:

Halanshokkara galanteemmo.

Qaqqowo: Sidaama Quchuma:_____ Qawalete Su'ma_____

Barra:_____ Agana:_____ DIro: _____ Koodete Kiir _____

Qorqoraanchu woy su'ma: _____ Malaate_____

Qa'miso: Amaaru Afiinni Xa'minoonnita

Biddissa: tittirroonni doorshubbara dawaro amaddino kiir qoqqowatenninna doorshu noonsakki xa'mubbara fano baycho wonshatenni dawarre.

Badooshshu kiir_____

A.K	xa'mubba	dawaro	saie
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Kifile- I Dagoomitte Mashalaqqe lainohunni gamba assinannita

101	Dirikki me''eho?	----- diro'yaati	
102	Adhammete garikki maati?	1. Adhantinokkita 3. Adhante tirtinote 2. Adhantinota 4. reynosete	

103	Amma'nokki Maati?	1. Ortodokise 3. Pirotessitaante 2. Kaatolike 4. Musiliime	
104	Rosu Deerrikki mageeshshaati?	1. Nabawanna borreessa dandaannokkiho 2. Borreessanna nabbawa dandaannoho 3. Umi Dirimi Rosi Mine 4. Layinki Dirimi Rosi Mine 5. Kolleejjenna hakkunni ale	
105	Loosikki dani maati?	1. Gaamamoottate(mootimmaate/gillite) 2. Mini amaati 3. Daddalaanchote 4. Loosi're galinoho 5. Wole(xawisi)---	
106	Hee'rattowi/awi mamaati?	1. Baadiyyete 2. Quchumaho	
107	Adhammete galtekkihu/jaalakkihu rosise deerri maati?	1. Nabawanna borreessa dandaannokkiho 2. Borreessanna nabbawa dandaannoho 3. Umi Dirimi Rosi Mine 4. Layinki Dirimi Rosi Mine 5. Kolleejjenna hakkunni ale	Adhantin- ookkiro aantete kiiro 201 sa'e
108	Adhammete jaalikki/lakki loosi maati?	1. Gillete (mootimate Gaamamoottate gaamantino/mino) 2. Daddalaanchote/ho 3. Loosi're galinoho 4. Barru loosaasincho	
Kifile II Xiinxallote beeqqaanowinni sinete waaldo lainohunni gamba assinanni mashalaqqe			
201	Umo adhamitta woyte dirikki me''eho?	----- diro'yaati	
202	Xaphooma me''e higge ilootta?	----- hige	
203	Xa lubbotenni noori meu qaaquulli noohe?	Labbaahu ----- meyaati -----	
204	Xaa qaaqqikkira albaanni noo qaaqqokki iloottahu meu dirikiniiti?	----- dirinniiti	
205	Xaa qaaqqikkira albaanni noo qaaqqokki godowitta woyte godawate buuxo qorqorsha assiroottanka?	1. Ee 2. Diassi'roomma	Dawarokki 2 ikkituro 208 kirowa sai
206	205 aana dawarokki ee ikkituro me''e higge godowate buuxo qorqorsha assi'rootta?	----- hige	
207	Godowate buuxo assi'ratta yannara xeertise ilate daafira rosicho afi'rootta?	1. Ee 2. Diafi'roomma	
208	Xaa qaaqqikkira balaxe ilamino qaaqo hiikko ilootta?	1. Fayyimmate uurrinshara 2. Mine	
209	Xaa qaaqqikkira balaxe ilaminoqaaqqikki labbaahonso	1. Meyaaate 2. labbaaho	

	Meyaate?		
210	Xa godowoottahura albaanni godowittahunni me''e ooso ilootta?	1. Mitto calla 2. Lamenna hakkunni aleenni	
211	Xaa qaaqqikkira albaanni ilitta qaaqqikki unuuna qananni no?	1. Ee 2. Dee'ni	Dawarokki 2 ikkituro 213 sai
212	211 kiirora dawarokki Ee ikkituro mageeshshi agana unuuna qansootta?	----- aganna	
213	Albaanni godowitta godowa hedde godowootta?	1. Ee 2. Dee'ni	
214	Jeefote qaaqqikkiranna bayru mereero mageeshshi diri badooshshi no?	----- aganna	
215	Jeefote qaaqqokki godowakkira albaanni ila gargadhinanni hayyo horoonsi'ratta?	1. Ee 2. Dihoroonsi'reemma	
216	Xa'mote kiir 217te dawarokki ee ikkituro mixokki mayiraatinka?	1. Xeertise ilate 2. Ooso quwunni ilate 3. Wole heedhuro xawisi-----	
Kifile III Amuuwwu mule mulenni ilate daafira noonsa egenno lainohunni			
301	Xa'mote kiir aana dawarokki ee ikkituro meu aganna woroonniiti?	----- aganna	
302	aantete ilitta yannara hiittee yanna badooshshinniiti keeraanchimmate ho'ro noohu?	1. 3 diri woroonni 2. 3-5 diri 3. 5 diri ale 4. Diafoomma	
303	dawarokki 3-5 diri geeshsha ikkituro ayeraati? Fayyimmate ho'ro noohu (mittete ali dawaro qola dandiinanni?	1. Amate ho'rora 2. Daaimu qaaquulliranna oosote 3. Aananno qaaqqi fayyimmara 4. Wolu hee'riro xawisi----	
304	Lamente aante aantete ilitta yannara hiittenne yanna badooshsheeti fayyimmate qarra iillishannohu?	1. 3 diri woroonni 2. 3-5 diri 3. 5 diri ale 4. Diafoomma	
305	Qaaquulle xeertise ila danchate?	1. Ee 2. Dee'ni 3. Hedoe dinoe	
Kifile IV: mule mule ila lainohunni beeqqaanote noonsa hedoe afate qixxeessinoonnita			
401	Xeertise ilate hasi'rittaro shiimunni 3 dirooti	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoe dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	

402	Xeertise ilate galte'ya fajjamaanchimma hasiissanno	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
403	Mule mulenni ila, ilantanno oosoranna ilantino oosora fayyimmate mitiimma abbitara dandiitanno.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
404	Mule mulenni ila amatenna annaho bisunna tiuu qarrira regeccisha dandiitanno	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
405	Meyaa qaaquulli callu noonsari labbaaha afi'ra geeshsha ila noonsa.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
406	Rahe rahe ila meentunnita ilate wolqansa buuxate kaa'litanno.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
407	Maganu fajjo gobbaanni ikkinohura meentu ilanno qaaquulle bikka dinonsa	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
408	Shiima ooso noonsa maatera miinjinsa deerri woyyaawinoho.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
409	Shiima ooso hee'ra annunna ama geedhitanno yannara miinjinsa ragaa yiinoha ikkannokki gede assitanno.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
410	Rahe rahe ila fayyimmate mitiimmara regeccisha dandiitanno.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedoo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	

411	Haammata maate noonsa manna noonsakkirinni ledoo heewinsiinsanni woyte hagiirraamma dikkitino.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
412	Labbaa ooso calla noonsa maate meyaata ilta geeshsha ila hasiissannonsa.	1. Addintanni sumuu yeemma 2. Sumuu yeemma 3. Hedo dinoe 4. Sumuu diyeemma 5. Horontanni sumuu diyeemma	
Kifile V: maatete jiro bikka la'anno xa'mubba			
501	Maatete miilla anganni waa maminniiti afidhannohu?	1. Baanbu waa 2. Huxxinoonni kofote waa 3. Huxxinoonnikki kofote waa 4. Huxxinoonniha burqanno waa 5. Huxxinoonnikkihaburqanno waa 6. Kooffichu woy xashshu waa 7. Wole(xawisi) -----	
502	Shumate mini noo'ne?	1. Ee 2. Dino	Dawarokki 2 ikkituro 505 sai
503	Shumate mini umi'neho?	1. Ee 2. Dee'ni	
504	Hiitto dani shumate mineeti horoonsidhinannihu?	1. Sinke xaadinsoonnitaa 2. Ventileetere xaadinsoonnita 3. berbiraabetenni loonsoonnita 4. berbiraabe nookkita fano shumate 5. wole (xawisi) -----	
505	Kuriuu kulloonniri giddonni hiikku ki'ne mine no? (mittete ale qola dandiinanni)	1. Korreente 2. Sa''aate 3. Raadiyyo 4. Tolomishiine 5. Moobaalete silke 6. Wole (xawisi) -----	
506	Sagale raisi'rate horoonsidhinanniri maati?(mitto calla qunqumme)	1. Korreentetenni 2. Laanbunni 3. Kasaletenni 4. Haqqetenni 5. Obbikosetenni	
507	Heedhinanni mini amadooshshi ayeeho?	1. Umi'neho 2. Kirunniho 3. Wole kuli-----	
508	Mini giddo goxate horoonsi'nanni kifilla batinyi?	----- kiir	
509	Umosi dandiitinoti sagale rainsanniwi kifile noohe?	1. Addi addi rainsanni kifile Gallanni mini giddo hiikko baychono	

		2. Baxxino rainsanni mine 3. Mini gobbaanni	
510	Mine woriido mayinniiti loonsoonnihu (eeggatena lai) ? mitte calla qunqumi	1. Bushshunni/ xaxaretenni 2. Obbunni karsiisaminohunni 3. Simmintotenni 4. Qerqehunni 5. Woluri heeriro kuli-----	
511	Minunnita xarra maanniiti loonsoonnihu(eeggatena lai) ? mitte calla qunqumi.	1. Qorqorrotenni 2. Simmintotenni 3. Haqquetenni 4. Qarqahunni 5. Wole xawisi-----	
512	Minunniha gobbaydi girgidda mayinniiti loonsoonnihu(eeggatena lai) ? mitte calla qunqumi.	1. Kichunna sabbunni 2. Haqquetenna sabbunni 3. Kinchunna simmintotenni 4. Wole kuli-----	
513	Qara maatete eote buicho maati? Mitte dawaro calla qunqumi	1. Irsha 2. Qixirete damooza 3. Shiimmammadda daddalo 4. Barru looso 5. Wole xawisi -----	
514	Irshu baatto noo'ne?	1. Ee 2. Dino	Dawarokki 2 ikkituro kiiro 518
515	Irshu baatto annimma aate?	1. Uminketi, hekitaare ----- 2. Kirayenniti , hekitaare -----	
516	Mereerimunni mageeshsha hekitaare ikkitanno baatto noo'ne?	----- hekitaare	
517	Dirunni afidhinanniti mereerimunni laalchu gumma mageeshsha ikkitanno?	----- kuntaalunni	
518	Mini saada noo'ne?	1. Ee 2. Dino	Dawarokki2 ikkituro kiiro 521
519	Umi'neta ikitino mini saada noo'ne?	1. Ee 2. Dino	
520	Mageeshshiti aante noori mini saada mini giddo afantanno (mittowa dawara dandiinanni)	1. Saanna Bootu----- 2. Farashshu, Harrichonna Gaango---- 3. Gerechonna Meicho ----- 4. Wolu (xawisi) -----	
521	Maatete mereerinni baankete/suuqote/ dafitari noohu no?	1. Ee 2. Dino	

Gudoommo Galateemmo!!