Knowledge, Attitude and Practice Towards Utilization of Long-acting Family Planning Methods Among Reproductive Age Women in Jinka Town, Southern Ethiopia Region, 2025

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ABSTRACT

Long-acting contraceptive methods (LACMs) offer safe, effective, and low-maintenance protection against unintended pregnancy, with clinical durations ranging from 3 to 10 years. However, utilization in this setting remains critically low, with the intrauterine contraceptive device (IUCD) and implant usage rates at 0.8% and 3.4%, respectively. Therefore, this study aimed to assess the knowledge, attitudes, and practices regarding LACMs among women of reproductive age in Jinka Town in 2025.

A community-based, descriptive cross-sectional study was conducted in 2025 to assess the knowledge, attitudes, and practices regarding long-acting family planning (LAFP) methods among reproductive-age women in Arkisha Kebele, Jinka Town, Southern Ethiopia. Data were collected through face-to-face interviews using a semi-structured questionnaire. The study area was selected using simple random sampling, while individual participants were recruited *via* systematic random sampling. Data were analyzed using SPSS version 27, and the findings are presented using descriptive statistics.

The study revealed that 203 (72.0%) participants were aware of at least one LAFP method; of these, 59.1% knew of implants only, 38.4% knew both implants and intrauterine contraceptive devices (IUCDs), and 2.5% knew of IUCDs only. Overall, 46.1% of the respondents demonstrated good knowledge, and 202 (71.6%) held a positive attitude toward LAFP. Current LAFP utilization was reported by 149 (84.7%) participants, among whom 91.3% used implants and 8.7% used IUCDs. Ultimately, good practice was observed in only 33.3% of the respondents.

The study reveals low knowledge of long-acting contraceptive methods (LACMs) in Jinka Town, with only 46.1% of the women demonstrating good knowledge. Regarding utilization, 52.8% of respondents reported prior use, while 47.2% had never used these methods. Furthermore, a substantial proportion of family planning clients expressed no intention to use LACMs

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in the future, underscoring persistent gaps in awareness and attitudes that continue to limit uptake.

To enhance the utilization of long-acting family planning (LAFP) methods, all family planning-providing facilities should implement targeted, community-level health education and provider-led Information, Education, and Communication/ Behavior Change Communication (IEC/BCC) campaigns. These initiatives should address specific misconceptions and barriers to LAFP uptake, leverage peer-to-peer testimonies from satisfied users, and integrate focused counseling into routine antenatal care (ANC), postnatal care (PNC), and childhood immunization services. Furthermore, systematic monitoring and evaluation of these interventions are critical to optimizing public knowledge, attitudes, and overall service utilization.

Keywords: Knowledge, Attitude, Practice, Contraceptives, Family Planning

ABBREVIATION AND ACRONYMS

ANC: Antenatal Care

CPR: Contraceptive Prevalence Rate

EDHS: Ethiopian Demographic Health Survey

EPI: Expanded Portray of Immunization.

FP: Family Planning

IUCD: Intrauterine contraceptive device

LACs: Long-Acting Contraceptives

LARCs: Long-Acting Reversible Contraceptives

LAPMs: Long Acting and Permanent Methods

MCH: Maternal and Child Health

MC: Modern Contraception

OPD: Out Patient Department

SPSS: Statistical Package for Social Science

VCT: Voluntary, Counseling and Testing

WHO: World Health Organization

INTRODUCTION

Family planning (FP) refers to the ability of individuals and couples to anticipate and attain their desired number of children, as well as the spacing and timing of their births, primarily achieved through the use of contraceptive methods. FP serves as a vital tool for promoting the health of women and families, and is a key strategy for reducing maternal, infant, and child mortality rates [1]. It is a low-cost yet highly effective intervention to lower maternal mortality by reducing high-risk pregnancies specifically those that are too early, too closely spaced, too frequent, or too late all of which pose severe health consequences for the mother, child, and family [2]. Ultimately, FP is critical to individual well-being and national economic development. Global experience demonstrates that without the widespread availability and utilization of effective modern contraceptive methods, fertility levels would remain unsustainably high, maternal and child mortality rates would remain intractable challenges, and national developmental progress would be severely hindered [3].

Modern contraceptive methods are broadly categorized into two groups: short-acting methods, and long-acting and permanent methods (LAPMs) [4]. LAPMs include intrauterine contraceptive devices (IUCDs), subdermal implants, female sterilization, and vasectomy. Among these, IUCDs and implants are classified as long-acting reversible contraceptives (LARCs), which allow for a prompt return to fertility upon removal. The copper-bearing IUCD is highly effective for up to 12 years, whereas implants provide protection for 3 to 7 years, depending on the device type. Conversely, female sterilization and vasectomy are permanent, irreversible contraceptive methods [5].

LAPMs are ideal options for individuals seeking highly effective, long-term protection against unintended pregnancy. Due to their long-term efficacy and reversibility, LARCs (IUCDs and implants) are particularly suitable for women and couples wishing to space their pregnancies, young people aiming to delay parenthood, and individuals transitioning from other contraceptive methods. Conversely, permanent methods like vasectomy and female sterilization are best suited for individuals and couples who are certain they have completed their family size, although LARCs also remain highly viable options for those wishing to limit childbearing [6].

According to the World Health Organization (WHO) medical eligibility criteria for contraceptive use, almost all women can safely use IUCDs, implants, or sterilization, and almost all men are eligible for vasectomy. Over time, LAPMs are highly cost-effective for health programs, yielding significant cost savings for governments while directly contributing to national and

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international health goals [7]. A 2021 WHO report indicated that globally, 164 million women wished to avoid pregnancy but lacked the means to do so. This unmet need contributes to approximately 21.6 million unsafe abortions annually, resulting in 8 million complications or disabilities, of which 3 million go untreated, and contributing to 47,000 annual maternal deaths from pregnancy-related conditions [8]. Historically and globally, women have faced unintended pregnancies due to various barriers, including a lack of access to modern contraceptives, an inability to negotiate contraceptive use with partners, or contraceptive method failure [9].

Worldwide there were an estimated 287 000 maternal deaths yielding 210 maternal deaths per 100 000 live births among 180 countries in 2013. Developing countries account for 99% (286 000) of the global maternal deaths, the majority of which are in sub-Saharan Africa (179 000) accounting for 62% [10]. Approximately one-third of maternal deaths could be avoided annually if women who did not wish to become pregnant had access to and used effective contraceptives. Each year, nearly 50 million of the 190 million women who become pregnant undergo abortions to terminate unwanted pregnancies, and about 13% of maternal deaths are caused by complications of abortion [11,12].

Under the third Sustainable Development Goal (SDG 3), the international community is committed to reducing the global maternal mortality ratio to less than 70 per 100,000 live births by 2030. In developing countries, a significant proportion of maternal and neonatal deaths stem from preventable, pregnancy-related complications, including unsafe abortions. Despite the substantial benefits of family planning (FP), utilization remains critically low in many developing nations. Globally, while approximately 63 percent of married women or those in unions used some form of contraception in 2017, one in ten still experienced an unmet need for family planning.

In Ethiopia, the maternal mortality ratio (MMR) is 401 per 100,000 live births, with an estimated 32% of all maternal deaths attributed to complications from unsafe abortions [13]. According to the 2016 Ethiopian Demographic and Health Survey (EDHS), the total fertility rate (TFR) was 4.6, and the contraceptive prevalence rate (CPR) among women of reproductive age (15–49) was 36%, with 35% utilizing modern methods. The most common modern contraceptives used were injectables (23%), followed by implants (8%). Furthermore, 22% of currently married women had an unmet need for family planning services, with 13% requiring spacing and 14% requiring limiting method [14-16].

The utilization rate of long-acting and permanent methods (LAPMs) remained critically low, consisting of implants (3.4%), intrauterine contraceptive devices (IUCDs) (0.8%), and female sterilization (0.1%). Although the Federal Ministry of Health (FMOH) has prioritized expanding the family planning method mix, particularly LAPMs at lower-tier service delivery levels and has made modern contraceptives accessible in nearly all urban areas at little to no cost [17-31], both utilization and the intention to use LAPMs remain low [14]. Consistent with these national and regional trends, LAPM utilization is extremely low in the present study area, highlighting the urgent need for local scientific evidence to guide planners and policy-makers.

METHODS

Study Area and Period

The study was conducted in the Jinka Town Administration from November 11–16, 2024. Jinka, the administrative center of the Ari Zone in the Southern Ethiopia Region, is located approximately 270 km from Wolyita Sodo and 750 km from Addis Ababa (5°47'N, 36°34'E). As of 2024, the town's population was estimated at 54,400, comprising 27,758 males (51%) and 26,642 females (49%), with approximately 15,000 women of reproductive age. Health infrastructure in Jinka includes one general hospital, two health centers, and six health posts. The administration is divided into two primary kebeles, each containing three sub-kebeles. This study was conducted specifically in the Arkisha sub-kebele (Kebele 02, sub-kebele 06), which has a total population of 7,072 (3,529 males and 3,543 females), 1,648 women of reproductive age, and an estimated 1,443 households.

Study Design

Community based cross-sectional study was conducted.

Population

The source population comprised all reproductive-age women residing in Jinka Town in 2024, while the study population specifically consisted of reproductive-age women living in Arkisha Kebele. The study sample was drawn from randomly selected households within this kebele, with eligible women in those households enrolled in the study.

Eligibility criteria

The study included women of reproductive age (15–49 years) residing in Arkisha Kebele who were eligible for the study and provided informed consent. Conversely, women who had

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lived in the area for less than six months or those who were severely ill at the time of data collection were excluded from participation.

Sample Size Determination

The sample size was calculated by using single population proportion formula on long-acting contraceptive methods from the study conducted on use of LAPMs in Jinka town in 2016.

Knowledge among reproductive age women towards IUCD (18). - (p) = 0.72 (72%)

By using the formula, $n = \frac{z^2 xp(1-p)}{d^2}$ Where, n=minimum sample size, P=knowledge among reproductive age women towards IUCD - (p)=0.72(72%) population proportion

z= confidential interval (95%), d= margin of err or (5%) $n = \frac{(1.96)^2 * 0.72(1-0.72)}{(0.05)^2}$, estimated sample size, n=309, we use 0.05 marginal error. Since, the knowledge among reproductive age women gives the largest sample size, i.e.; 309 as compared to others. Therefore; we were use 309 as a sample size for this study.

However; since the study population is 1443 households (less than 10, 000), so adjustment formula is used as follows; $Nf = n/[1+(n/N)]$

Where n=sample size with finite population correction

N= population size

Nf=the final required sample size (adjusted sample size).

Therefore, Nf=309/ (1+309/ 1443) =257

NF=257 the final sample size will be 257 as determined by above formula. 10% of non-response rate which is 25 was added, thus the final sample size was 282 households.

Sampling Techniques

A multi-stage sampling technique was utilized to select reproductive-age women for the study. First, one sub-kebele was selected from the six available sub-kebeles using simple random sampling. Next, systematic random sampling was employed to select households within this chosen sub-kebele. A sampling interval (K) was calculated as 5 (derived from the total households in Arkisha [1443] divided by the allocated sample size [282]). The first household was selected using a lottery method, and subsequent households were then selected by choosing every Kth household from an organized list. Households found to have no women of reproductive age were skipped, and the next eligible household was included in the sample. Finally, if a selected household contained more than one eligible woman of reproductive age, one woman was randomly selected using the lottery method.

Study Variable

Independent variables in this study included socio-demographic and reproductive factors such as age, marital status, ethnicity, occupation, residence, income, educational status, religion, and reproductive history. The dependent variables were knowledge, attitude, and practice regarding long-acting contraceptive methods.

Data Collection Methods

Data were collected through face-to-face interviews with women of reproductive age using a semi-structured, interviewer-administered questionnaire implemented on the Kobo Collect platform. The questionnaire captured socio-demographic and reproductive characteristics and included both structured and open-ended questions to provide quantitative measures and qualitative insights into participants' knowledge, attitudes, and practices regarding contraceptives and family planning.

Data Collection Tools and Procedure

A pretested, semi-structured questionnaire was adapted from the Ethiopian Demographic and Health Survey (EDHS) and relevant literature [2]. The questionnaire was initially prepared in English, translated into Amharic, and then back-translated into English by fluent experts to ensure consistency and preserve the original meaning. The questionnaire consisted of sections assessing participants' socio-demographic characteristics, as well as their knowledge, attitudes, and practices regarding long-acting contraceptive methods.

Data Collectors

Data was collected by five trained diploma midwives and two BSc midwives were selected for supervision. Instruction on how to conduct the study was provided to data collectors and supervisors.

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Data Quality Control

The semi-structured questionnaire was pretested in Gazer Town using 5% of the total sample size. The pretest was conducted to assess the clarity, length, and completeness of the questionnaire. Based on the findings, the skip patterns were corrected, and any questions that were found to be difficult, unclear, or misleading were revised and rephrased accordingly.

Data Analysis and Interpretation

After data collection, the questionnaires were checked for completeness and coded before being entered into EpiData version 3.1. The data were then exported to SPSS version 26 for analysis. Missing values were identified using frequency distributions, and data cleaning was performed by referring to the original coded questionnaires. Descriptive statistics were computed to determine the overall utilization of long-acting family planning methods. Cross-tabulation analysis was performed between the dependent variable and each independent variable. The analyzed data were presented using tables.

Operational Definition

Knowledge: A study subjects who were answered > 50% of correct knowledge questions were classified as had good, <50% of correct knowledge questions were classified as poor according to the number of correct responses to the knowledge questions [32].

Attitude: A study subjects who were answered >50% of attitude questions correctly were classified as had favorable attitudes towards LACs and <50% of attitude questions correctly were had unfavorable attitudes towards LACs according to the number of correct responses to the attitude questions [32].

Practice: Study participants who had knowledge of long-acting contraceptive methods and had ever used them to prevent an unplanned pregnancy were classified as having practiced long-acting contraceptive (LAC) methods. Participants who had never used long-acting contraceptive methods were classified as not having practiced LAC methods (32).

RESULTS

Socio-Demographic Characteristics

A total of 282 respondents participated in the study, yielding a response rate of 100%. Nearly half of the respondents, 136 (48.2%), were aged 27–38 years, while 121 (42.9%) were Protestant. All participants were urban residents. Regarding educational status, 58 (20.6%) were unable to read and write, whereas 85 (30.1%) had completed primary education. The majority of the respondents, 189 (67.0%), were married, and 78 (27.7%) were housewives. Among the husbands of married women, 31 (16.4%) were farmers and 79 (41.8%) were merchants. Concerning household ownership, 147 (52.1%) owned residential houses, 91 (32.3%) owned business premises, and the remaining respondents owned both residential and business properties. Regarding monthly household income, the largest proportion of respondents,160 (56.7%), reported earning between 500 and 5,000 Ethiopian Birr per month (Table 1).

Table 1: Socio-demographic characteristics of the study participants

Characteristics		Frequency	Percent
Age	15-26	112	39.7
	27-38	136	48.2
	39-49	34	12.1
	Total	282	100
Religion	Protestant	121	42.9
	Orthodox	120	42.6
	Others	41	14.5
	Total	282	100
Educational status	Illiterate	58	20.6
	Primary education	85	30.1
	Secondary education	83	29.4
	Higher education	56	19.9
	Total	282	100

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Marital status	Single	63	22.3
	Married	189	67
	Widowed	26	9.2
	Divorced	4	1.4
	Total	***282***	***100***
Occupation	House wife	78	27.7
	Merchant	93	33
	Employed	45	16
	Other	66	23.4
	Total	***282***	***100***
If married, husband's occupation	Farmer	31	16.4
	Merchant	79	41.8
	Employed	52	27.5
	Others	27	14.3
	Total	***189***	***100***
Household own	Residential	147	52.1
	Business	91	32.3
	Mixed	44	15.6
	Total	***282***	***100***
Monthly income	<500	1	0.4
	500-5000	160	56.7
	5000-15000	106	37.6
	>15000	15	5.3
	Total	***282***	***100***

Knowledge of Participants Towards Long-Acting Contraceptive Methods

Among the respondents,203 (72.0%) knew at least one long-acting contraceptive method (LACM). Of these, 120 (59.1%) knew about implants, 5 (2.5%) knew about intrauterine contraceptive devices (IUCDs), and 78 (38.4%) knew about both methods. Regarding knowledge of IUCDs,75 (90.4%) knew that an IUCD provides protection against pregnancy for more than 10 years, 74 (89.2%) knew that fertility returns immediately after its removal, and 67 (80.7%) understood that IUCD use does not interfere with sexual intercourse or sexual desire. Concerning implants, 196 (99.0%) knew that they provide protection for 3–5 years, 187 (94.4%) recognized that insertion and removal require a minor surgical procedure, and 186 (94.0%) knew that fertility returns immediately after implant removal. Overall, 130 (46.1%) of the respondents had good knowledge of long-acting contraceptive methods, whereas 152 (53.9%) had poor knowledge (Table 2).

Table 2: Knowledge of Long Acting of Contraceptives Methods

Characteristics		***Frequency***	***Percent***
Do you know about long-acting Contraceptive methods	Yes	203	72
	No	79	28
	Total	***282***	***100***
If 'yes', which one you know (more than one answer is possible)	Implant	120	59.1
	IUCD	5	2.5
	Both implant and IUCD	78	38.4
	Total	***203***	***100***
IUCD can prevent pregnancies for more than 10 years	Yes	75	26.6
	No	8	2.8
	Not sure	199	70.6
	Total	***282***	***100***

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Implant can prevent pregnancies for 3- 5 years	Yes	196	69.5
	No	2	0.7
	Not sure	84	29.8
	Total	***282***	***100***
Women become pregnant immediately when implant is removed	Yes	186	66
	No	12	4.2
	Not sure	84	29.8
	Total	***282***	***100***
Women become pregnant immediately when IUCD is removed	Yes	74	26.2
	No	9	3.2
	Not sure	199	70.6
	Total	***282***	***100***
IUCD has no interference with sexual intercourse or desire.	Yes	67	23.7
	No	16	5.7
	Not sure	199	70.6
	Total	***282***	***100***
Implants require minor surgical procedure during insertion and removal	Yes	187	66.3
	No	11	3.9
	Not sure	84	29.8
	Total	***282***	***100***
Level of knowledge	Good knowledge	130	46.1
	Poor knowledge	152	53.9
	Total	***282***	***100***

Attitude Towards LACMs

Among the participants, 89 (31.6%) agreed that implant insertion and removal are not painful, while 119 (42.2%) agreed that irregular bleeding associated with implants is not severe. Additionally, 80 (28.4%) agreed that the use of implants and/or intrauterine contraceptive devices (IUCDs) does not cause irregular bleeding. About 106 (37.6%) agreed that using implants and/or IUCDs does not restrict normal daily activities or hard work, whereas 33 (11.7%) considered restrictions on work due to IUCD use to be highly unacceptable. Regarding perceptions of IUCD safety and privacy 42 (14.9%) agreed that an IUCD does not harm the womb, 62 (22.0%) agreed that IUCD insertion does not compromise privacy, and 60 (21.3%) believed that the loss of privacy during IUCD insertion is not shameful. Spousal support for the use of long-acting contraceptive methods (LACMs) was reported by 125 (44.3%) participants. Overall, 202 (71.6%) of the respondents demonstrated a positive attitude toward long-acting contraceptive methods, whereas 80 (28.4%) had a negative attitude (Table 3).

Table 3: Attitude of participants toward LACMs

Characteristics		**Frequency**	**Percent**
Insertion and removal of implant is not pain full	Strongly agree	8	2.8
	Agree	89	31.6
	Neutral	75	26.6
	Disagree	106	37.6
	Strongly disagree	4	1.4
	Total	***282***	***100***
Using implant and IUCD cannot cause irregular bleeding	Strongly agree	3	1.1
	Agree	80	28.4
	Neutral	89	31.6
	Disagree	101	35.8
	Strongly disagree	9	3.2
	Total	***282***	***100***
Using implant and IUCD don't restrict from normal activities/hard work	Strongly agree	26	9.2
	Agree	106	37.6
	Neutral	111	39.4
	Disagree	38	13.5
	Strongly disagree	1	0.4
	Total	***282***	***100***

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Insertion of IUCD doesn't cause lose to privacy	Strongly agree	6	2.1
	Agree	62	22
	Neutral	129	45.7
	Disagree	77	27.3
	Strongly disagree	8	2.8
	Total	***282***	***100***
IUCD cannot harm womb	strongly agree	4	1.4
	Agree	42	14.9
	Neutral	133	47.2
	Disagree	93	33
	strongly disagree	10	3.5
	Total	***282***	***100***
Husband support LACM use	strongly agree	36	12.8
	Agree	125	44.3
	Neutral	97	34.4
	Disagree	23	8.2
	strongly disagree	1	0.4
	Total	***282***	***100***
For me irregular bleeding due to using implant is not severe	strongly agree	6	2.1
	Agree	119	42.2
	Neutral	89	31.6
	Disagree	66	23.4
	strongly disagree	2	0.7
	Total	***282***	***100***
For me loosing privacy during IUCD insertion is not shame full	strongly agree	3	1.1
	Agree	60	21.3
	Neutral	126	44.7
	Disagree	87	30.9
	Strongly disagree	6	2.1
	Total	***282***	***100***
For me by using IUCD devices restricted from different work activity is highly unacceptable	Strongly agree	21	7.4
	Agree	33	11.7
	Neutral	128	45.4
	Disagree	99	35.1
	Strongly disagree	1	0.4
	Total	***282***	***100***
Level of attitude	Favorable attitude	70	24.8
	Unfavorable attitude	212	75.2
	Total	***282***	***100***

Practice Towards LACMs

Among the study participants, 126 (44.7%) had previously used a family planning method. Of these, 102 (81.0%) had used long-acting contraceptive methods (LACMs). At the time of the study, 176 (62.4%) participants were using contraceptives, of whom 149 (84.7%) were using long-acting contraceptive methods. Among the current LACM users, 136 (91.3%) were using implants, while 13 (8.7%) were using intrauterine contraceptive devices (IUCDs). More than two-thirds of the respondents, 194 (68.8%), usually obtained family planning services from nearby health facilities. Regarding preferred child-spacing intervals, 50 (17.7%) preferred a spacing interval of 2 years, whereas 101 (35.8%) preferred an interval of 5 years. Discussion about long-acting family planning methods with family members or relatives was reported by 177 (62.8%) participants. Overall, 94 (33.3%) respondents demonstrated good practice of long-acting contraceptive methods, while 188 (66.7%) had poor practice (Table 4).

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Table 4: Practice of participants toward LACMs

Characteristics		***Frequency***	***Percent***
Have you (your partner) ever used family planning before?	Yes	126	44.7
	No	156	55.3
	Total	***282***	***100***
Have you (your partner) ever used long-acting family planning before?	Yes	102	81
	No	24	19
	Total	***126***	***100***
Have you used family planning recently?	Yes	176	62.4
	No	106	37.6
	Total	***282***	***100***
Have you used long-acting family planning recently?	Yes	149	84.7
	No	27	15.3
	Total	***176***	***100***
If "Yes", which of the method you/your partner used?	Implant	136	91.3
	IUCD	13	8.7
	Total	***149***	***100***
Do you usually access family planning centers in your area?	Yes	194	68.8
	No	88	31.2
	Total	***282***	***100***
How do you prefer to space your children?	every 2year	50	17.7
	every 5 years	101	35.8
	every 12 years	5	1.8
	I don't know	126	44.7
	Total	***282***	***100***
Discussion with family/relative on Long-Acting Family Planning?	Yes	177	62.8
	No	105	37.2
	Total	***282***	***100***
Level of practice	Good practice	94	33.3
	Poor practice	188	66.7
	Total	***282***	***100***

DISCUSSION

This community based cross sectional study identified the knowledge, attitude and practice towards utilization of long-acting contraceptive methods among reproductive age Women in Jinka town, Jinka, Southern Ethiopia region, Ethiopia, 2025.The result of this study showed that among the study participants,203(72%) had known at least one type of long-acting contraceptives methods. About 97.5% of the respondents had ever heard about implants. These findings comparable with the study conducted on use of LAFPMs in Jinka town showed that three fourth (76.1%) of the women had ever heard about implants. Almost two third of women had intention to use LAPMs [18]. This improvement is due to level of awareness which may be explained by advancement of information, education and communication to the community by media and health extension workers.

According to the current finding, concerning the overall level of knowledge about LACMs, 130(46.1%) had good knowledge and the rest 152(53.9%) had poor knowledge. In contrary, a descriptive study that was done in Nigeria. This study that women of reproductive age's knowledge towards long-acting family planning was relatively low, despite the result indicating that all the respondents (100%) had heard of long-acting contraceptive methods, but only 38 (11.7%) had good knowledge of long-acting family planning [26]. This discrepancy may be due to socio economic variations and different awareness creating techniques between communities and health extension workers among different country.

According to the present study, the result shows that most of the participants about 71.6% had positive attitude towards long-acting family planning. Contrary to this result, the

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finding of with a descriptive cross-sectional study conducted in Kenya, using a woman to assess the nature of attitudes associated with the use of long-acting family planning services. The result from this study showed that only 32.0% of women utilized long-acting family planning in Kajiado County. About 38.8% of them had a positive attitude towards long-acting family planning [26]. This difference is may be due to female education strategies and better access the use of communication media.

In contrast to the present findings, a community-based cross-sectional study conducted in Ethiopia assessed the knowledge and attitudes of women of reproductive age toward long-acting family planning methods. A total of 2,891 participants were included in the study. The findings showed that 1,511 (52.3%) of the participants had a positive attitude toward long-acting family planning methods [27]. The higher proportion of women with a positive attitude observed in the present study may be attributed to improved female education, enhanced awareness-creation strategies, and better access to health information through mass communication media.

In the present study, among participants who were currently using contraceptive methods, 149 (84.7%) were using long-acting family planning methods. Among the current users of long-acting family planning methods, 136 (91.3%) were using implants, while 13 (8.7%) were using intrauterine contraceptive devices (IUCDs). In contrast, a study conducted among women of reproductive age in Mizan-Aman Town, Bench-Maji Zone, Southwest Ethiopia, in 2016 reported lower utilization of long-acting family planning methods. Of the 731 women included in the study, 562 (76.9%) were using modern family planning methods, of whom only 133 (18.2%) were utilizing long-acting family planning methods. Among these, 84 (12.2%) were using implants and 12 (1.7%) were using IUCDs [25]. This difference may be attributed to sociocultural differences between the two study areas, differences in sample size, and variations in access to family planning services and awareness programs.

The present study found that, overall, 94 (33.3%) of the participants had good practice regarding long-acting family planning methods. This finding is consistent with a study conducted in Europe, which reported that the practice of long-acting family planning methods among women of reproductive age was relatively low, with only 30% of the participants using long-acting contraceptive methods [28]. This similarity may be attributed to the comparable study designs used in both studies.

In contrast to the present findings, a study conducted in Ethiopia to assess the knowledge, attitude, and practice of long-acting family planning among women of reproductive age reported a higher level of practice. The study found that 50.4% of the respondents demonstrated good practice of long-acting family planning methods despite having relatively low levels of knowledge and less favorable attitudes toward these methods [24]. This discrepancy may be attributed to differences in socio-demographic characteristics, access to long-acting family planning services, and variations in the availability and utilization of health facilities between the two study settings.

Strength

This study provides clear, policy-relevant evidence on the knowledge, attitudes, and practices (KAP) regarding long-acting family planning (LAFP) among reproductive-age women in Jinka Town, generating locally specific data that are useful for regional program planning and the development of tailored interventions. The comprehensive assessment of KAP enables the identification of gaps between awareness and the actual utilization of long-acting family planning methods, thereby guiding targeted intervention strategies. Furthermore, the use of representative sampling, informed consent, trained data collectors, pretested questionnaires, and rigorous quality control procedures enhances the validity and reliability of the findings, allowing them to accurately reflect the target population. Finally, the study provides actionable evidence to inform demand-creation activities, improve family planning counseling services, and strengthen supply-side interventions aimed at increasing the utilization of long-acting family planning methods.

Limitation

The study has several limitations. First, its cross-sectional design does not allow for the establishment of causal relationships between the study variables. Second, there is a possibility of selection bias, particularly if participants were recruited using non-random or facility-based sampling methods. Third, the study relied on self-reported data, which may be subject to recall bias and social desirability bias. In addition, the findings may have limited generalizability beyond Jinka Town. Measurement errors may also have occurred if the data collection instruments were not fully validated. Furthermore, some potential confounding factors, such as partner influence, cultural beliefs, and the availability of family planning services, were not assessed. Finally, the

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absence of qualitative data limited a deeper understanding of the contextual and behavioral factors influencing the utilization of long-acting family planning methods. Therefore, the findings should be interpreted with caution, and future studies employing longitudinal and mixed-methods designs are recommended to provide more comprehensive evidence.

CONCLUSION

The findings of this study indicate that knowledge of long-acting contraceptive methods among reproductive-age women in Jinka Town was relatively low. Overall, 130 (46.1%) of the respondents had good knowledge of long-acting contraceptive methods, while 152 (53.9%) had poor knowledge. Implants were the most commonly known long-acting contraceptive method, reported by 120 (59.1%) of the respondents. Regarding attitudes, the majority of the respondents, 202 (71.6%), had a positive attitude toward long-acting contraceptive methods, whereas 80 (28.4%) had a negative attitude. Concerning practice, 149 (52.8%) of the respondents had a history of using long-acting contraceptive methods, while 133 (47.2%) had never used them. Among those who had used long-acting contraceptive methods, 136 (91.3%) were implant users and 13 (8.7%) were intrauterine contraceptive device (IUCD) users.

Recommendation

Based on the findings of this study, the following recommendations are proposed:

Jinka Town Health Office, the Regional Health Bureau, and non-governmental organizations (NGOs) should continue promoting long-acting family planning methods (LAFPMs) through various mass media and community-based communication channels to increase public awareness.

Jinka Town Health Office and all health facilities providing family planning services should develop and implement comprehensive health education programs, particularly at the community level, to improve women's knowledge, attitudes, and practices regarding long-acting family planning methods.

Health service providers should strengthen awareness-raising activities on long-acting family planning methods through effective Information, Education, and Communication (IEC) and Behavior Change Communication (BCC) strategies. These interventions should address factors that discourage women from using LAFPMs and promote positive attitudes toward these methods. In addition, satisfied users should be encouraged to share their experiences with non-users through community meetings and other appropriate platforms to foster supportive attitudes toward LAFPMs.

Family planning service providers should provide comprehensive counseling on all available long-acting contraceptive methods based on clients' individual needs, preferences, and reproductive intentions. Special emphasis should be placed on counseling women with low educational status to improve their understanding and informed decision-making regarding long-acting contraceptive methods.

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Author Contributions

All authors (B. B., M.G., K.K., and B.B.) equally contributed to the conception of the research problem, and design of the work, data collection, data entry, analysis, and interpretation, and wrote and preparation of the manuscript. All authors read and approved the final manuscript.

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Competing Interests

The authors declare no competing interests.

Data Availability

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

Ethical Consideration

Following the Declaration of Helsinki, ethical approval for this non-clinical trial study was granted by the research ethics review board of Jinka University protocol No 1512/2025. Anofficial letter was written by department of Midwifery to the concerned body. The permission was obtained from Jinka Town administration to conduct the study. All concerned officials at all levels of Jinka Town was communicated and

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informed about the purpose of the study. Informed consent was obtained from each participant before the interview. The confidentiality of responses was maintained throughout the study.

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