

Perceived Susceptibility to Pregnancy, Contraceptive Use and Associated Factors Among College Female Students in Fitcha Town, Oromia, Ethiopia, 2022



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Abstract

Background: Women who choose not to use contraception or who use inefficient methods may be at risk of unintended pregnancy because they mistakenly assume that they will not become pregnant. Despite the wide availability and accessibility of contraceptive methods globally, their use remains low among young women in low- and middle-income countries including Ethiopia. One of the reasons young women have reported their non-use of contraceptive methods is that their perceived susceptibility to pregnancy makes them decide not to use or discontinue contraceptive methods. This study aimed to assess perceived susceptibility to pregnancy, contraceptive use, and associated factors among female college students in Fitcha Town.

Methods: An institution-based cross-sectional study was conducted from March 08 to May 07/2022 among college female students in Fitcha Town. A simple random sampling technique was used to select 419 participants. A pretested structured questionnaire was used to gather the data. Bivariable and multivariable logistic regression analyses were performed using SPSS version 22. Adjusted odds ratio (AOR) and P-value < 0.05, were used to assess the strength and existence of association with the outcome variable.

Results: In total, 419 respondents participated in the study making a response rate of 100%. Approximately 78% (95%CI:64.21,91.79) of the respondents had high perceived susceptibility to pregnancy, and 40.1%(95%CI:34.21,45.99) of the study participants never used contraceptives. Respondents aged 20-24 years (AOR=2.21; 95%CI: 1.19, 4.13) and the number of current sexual partners (AOR=0.041;95%CI:0.02, 0.73) were significantly associated with perceived susceptibility to pregnancy, while marital status (AOR=0.144; 95%CI:0.043, 0.488), Ever had discussed family planning with parents (AOR=7.273;95% CI:1.33,39.86) and contraceptive knowledge (AOR=13.65;95% CI: 2.38,78.21) were significantly associated with contraceptive use.

Conclusion and recommendation: The prevalence of perceived susceptibility to pregnancy was high, and contraceptive use was within the acceptable range when compared with a previous study. There should be work in the area of disseminating reproductive health information by establishing and promoting sexual and reproductive clubs in schools to increase awareness and knowledge of reproductive health and contraceptive methods.

Keywords: Perceived susceptibility; Pregnancy; Contraceptive; College; Ethiopia

Introduction

Contraception is a method of family planning that allows parents to have the number of children they want while also allowing them to plan the spacing and/or delay in their pregnancies [1]. Perceived susceptibility refers to a person's belief about their chances of getting a certain unhealthy condition or disease. People who believe they are at risk for disease, illness, or unfavorable health consequences are more likely to take action to

prevent it from occurring, whereas people who believe they are not at risk or are at low risk are more likely to engage in unhealthy activities [2].

Early and unintended pregnancies result in increased risks of maternal mortality and morbidity, premature births, low birth weight, unsafe abortions, and social consequences such as stigmatization, school dropout, and poverty [3]. Perceptions of

problems becoming pregnant may be more common in low-income countries, where the burden of infertility is disproportionately high and concerns around reproductive potential are tied to cultural expectations of motherhood in three different low-resource settings, we find that perceptions of one's biological likelihood of pregnancy are independently associated with contraceptive use among women at risk of unintended pregnancy. During their reproductive years, women may develop doubts regarding their ability to conceive.

Family planning is one of the targets of universal access to sexual and reproductive health found in the Sustainable Development Goals (3.7 and 5.6), implemented through multi-sector organizations, including donors, the private sector, and the research and development community to enable 120 million additional women and girls to have access to rights-based family planning services and supplies by 2020 [4]. However, according to World Fertility and Family Planning, 2020), only 49% of women aged 15-49 use contraceptive methods. and also, The Ethiopian health sector transformation plan aimed to increase the contraceptive prevalence rate to 55%, reduce the total fertility rate (TFR) to 3, and help an additional 6.2 million women and adolescents with FP services by 2020 [5].

Childbearing at a very young age is associated with an increased risk of complications during pregnancy and childbirth, and higher rates of neonatal mortality [4]. The risk of unintended pregnancy is a major public health problem among young women aged 15-24 years, with several causes and consequences such as unsafe abortion, maternal depression, stress, inadequate prenatal care, and maternal complication [5-7]. Giving birth at a young age is not only a risk factor for pregnancy outcomes but also hurts the future well-being of the mother and newborn [8].

Worldwide about 295,000 women lost their lives during and after pregnancy, and a huge of these deaths (94%) occurred in low-income countries in 2017 [9]. Approximately 14 million unintended pregnancies occur annually in sub-Saharan Africa alone. and young women aged 15-24 years are most vulnerable to unintended pregnancies [10,11]. There is a high prevalence (approximately 70%) of sexually active young women with low utilization of effective contraceptive methods (less than 10%) [12]. Additionally, unmarried sexually active adolescents and young women are likely to have a high unmet need for contraception, which increases the risk of unintended pregnancy [11,13].

Ethiopia's government is implementing youth policies and national adolescent and youth health strategies to support young people by increasing their access to sexual and reproductive health services, including family planning [14]. Despite this in Ethiopia, adolescent, and youth pregnancy is a public health issue and a demographic challenge and also Ethiopian Demographic and Health Survey report revealed that the prevalence of

mistimed and unwanted pregnancies in Ethiopia was found to be 17.00% and 8.00% of pregnancies were mistimed and unwanted, respectively with very low (16%) contraceptive utilization among young women aged 15-24 years old and overall prevalence of contraceptive use is 41% and fertility rate also 4.1 which are far from the set target [14-16].

One of the reasons young women have reported their nonuse of contraceptive methods is that their perceived susceptibility to pregnancy makes them decide not to use or discontinue the use of contraceptive methods [17]. But little research has paid specific attention to determining and identifying how perceived susceptibility to pregnancy determines contraceptive use and what factors affect their perceived susceptibility to pregnancy among college students worldwide and no single study done in Ethiopia so, this study aims to assess the perceived susceptibility to pregnancy, contraceptive use, and associated factors among college female students in Fitch town.

Methods

Study design, area, and period

This institution-based cross-sectional study was conducted in Fitch Town, North Shoa, Oromia Regional State, Ethiopia. Fitch, the capital of this zone, is located 114 km northwest of Addis Ababa. Fitch Town has four urban administrative kebeles. There are two colleges in the town: the Fitch Teacher Training College and Polytechnique College. The total number of female college students was 1289. In the town, there is one governmental general hospital (Salale University comprehensive hospital and two health centers, six medium clinics, four lower clinics, and 16 drug vendors are found. This study was conducted from March 08 to May 07/2022.

Study population

The study populations were all female college students found in Fitch town.

Sample size determination

The sample size was calculated by using the single population proportion formula $[n = (Z\alpha/2)^2 p (1 - p)/d^2]$ by considering the assumption; the prevalence of contraceptive utilization 54.8% [18], 95% confidence interval, 5% margin of error, the Sample size was found to be 419 after considering 10% non-response rate.

Sampling procedure

The total sample size was proportionally allocated to each college and then to each college. Data were collected from 419 female college students selected using simple random sampling methods from their respective departments and years of study (Figure1).

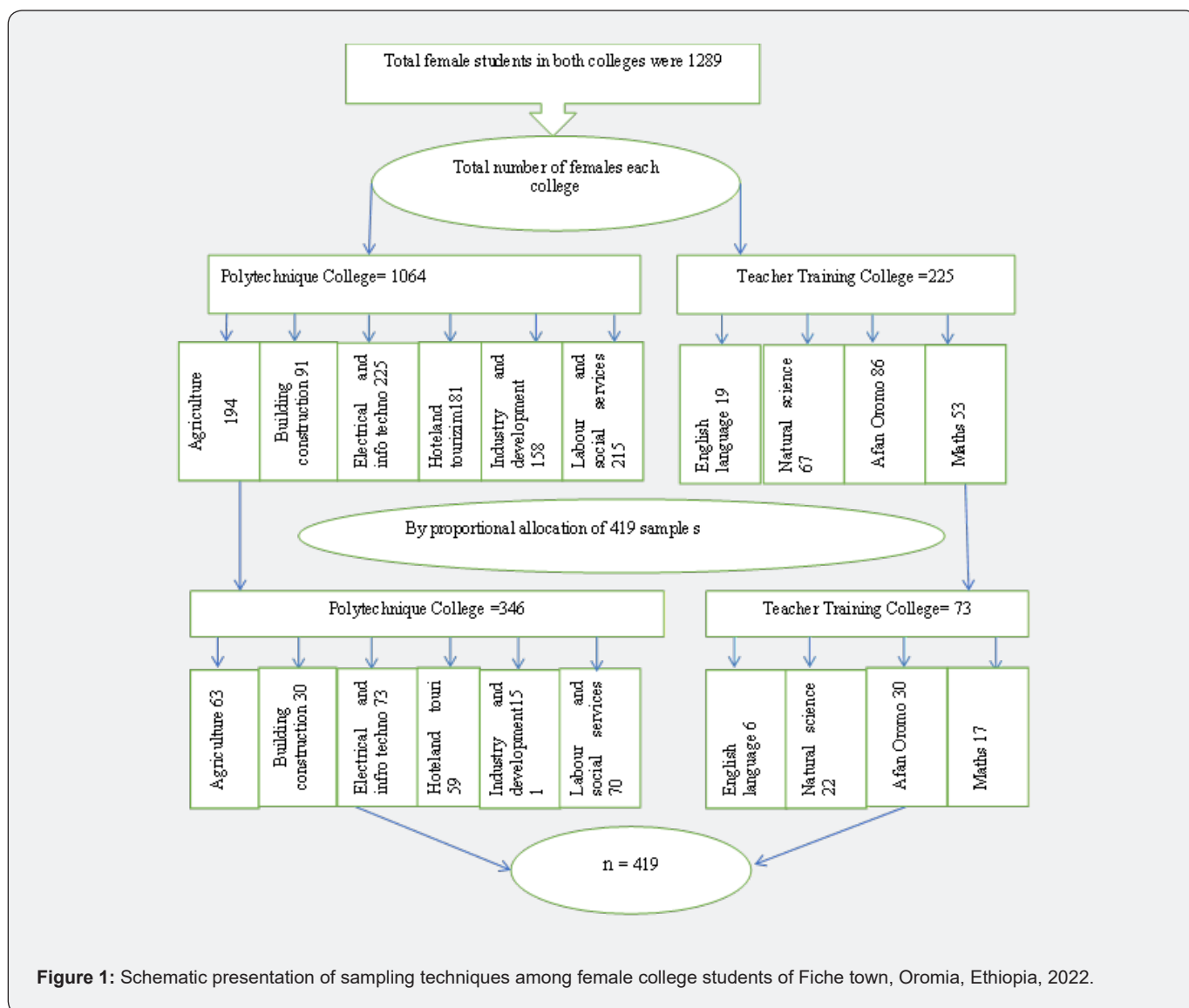


Figure 1: Schematic presentation of sampling techniques among female college students of Fiche town, Oromia, Ethiopia, 2022.

Data collection tools and procedures

Data was collected by using a structured questionnaire that was adapted from a similar study [15,19-21]. The questionnaire was originally developed in English, translated to Afan Oromo, and retranslated to English to check for consistency. The Afan Oromo language questionnaire was used to collect data. One diploma nurse and one midwife were recruited as data collectors and were supervised by an environmental health professional. The Questionnaire had six parts: Part I, sociodemographic variables; Part II, focusing on sexual experience; Part III, pregnancy knowledge assessment-related questions; Part IV, assessment of perceived susceptibility to external influencing factors; and Part V, contraceptive utilization.

Study variables

The dependent variables were contraceptive use and perceived

susceptibility to pregnancy. The independent variables included sociodemographic characteristics (age, residence, marital status, ethnicity, years of study, family occupation, and religion), sexual and reproductive health factors (number of partners, sexual experience, Abortion Unintended pregnancy, age at sexual initiation, and sexual violence), external factors (peer pressure, partner influence, parental influence, and availability of services), and knowledge/individual factors (Information, Fear, Previous side effects, lack of decision, Myth/misconception, Knowledge about contraceptives, and awareness of ovulation period).

Definition of term

Contraceptive use: The use of contraceptive methods to delay pregnancy and spacing/limiting of children in a family through the practice of contraception, or whose sexual partner uses at least one method of contraception regardless of the method used [22].

Current contraceptive uses: Use of any method of contraception within the last 12 months [15].

Sexually active: Respondents who reported having had sexual intercourse, irrespective of their marital status within the last six months [23].

Ever use contraceptives: use any method of contraception at least once during sexual life [15].

Modern contraceptive methods: - Modern methods include male and female sterilization, injectable, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, standard days method, locational amenorrhea method, and emergency contraception [24].

Perceived susceptibility of pregnancy: The perceived susceptibility assessment involved ten items using a 5-point Likert scale (5 =strongly agree, 4=agree, 3= neutral, 2=disagree, 1=strongly disagree); after the maximum value was 50 and the minimum value was 10, the computed result was categorized into highly perceived susceptibility to pregnancy and low perceived susceptibility pregnancy [17].

Highly perceived susceptibility: a score > 25 from a question asked to assess: Perceived susceptibility to pregnancy [22].

Low perceive susceptibility: Score ≤25 from a question asked for an assessment of perceived susceptibility to pregnancy [7].

Data Quality Management

The questionnaire was prepared in English and translated into Afan Oromo. Pretest was conducted on 5% of patents before actual data collection in TVET in Sheraro (D/Tsige) Town. Correction and modification were then performed based on the gaps identified during the pretest. Three days of training were given to the data collectors on the aim of the research, the content of the questionnaire, and the methods of data collection. The questionnaires were self-administered after being filled in

locally prepared boxes to increase the confidentiality of the study participants. The collected data were reviewed and checked for completeness, accuracy, and consistency by a supervisor or researcher.

Data Processing and Analysis

The collected data were entered using Epi-Data version 4.6 and exported to SPSS 23 software for cleaning, recording, categorizing, and analyzing. Bivariable analysis was performed to determine the association between independent and outcome variables. Variables with a P-value of 0.25 during the bivariable analysis, were included in the multiple logistic regression analysis to assess the relative effect of confounding variables. Multicollinearity was assessed to check for correlations among independent variables. The variance inflation factors (VIF) and tolerance tests were below 10 and one, respectively, indicating no multicollinearity. As the outcome variable was categorical, the adjusted odds ratio was calculated using a multivariable logistic regression model. Model fitness was checked using the Hosmer-Lemshow test and had a p-value of 0.102, which shows that the model was fit. After multivariable analysis had been done, the adjusted odds ratio (OR) was used to measure the strength of the association between the dependent variable and the independent variables, while the 95% CI and P-value were used to assess whether the association was significant.

Result

Socio-demographic characteristics of the study participants

A total of 419 female college students participated in the study making a response rate of 100%. More than 87.1% of the respondents were between the ages of 20-24 years with a mean age of 21.27 (±1.79) years. Regarding ethnicity and marital status, the majority of the respondents were Oromo 393(93.8%) and single 367(87.6 %) respectively. Concerning the religion, family occupation, and address of the respondents, the highest proportions were orthodox followers 358 (85.4%), farmers 335 (80%), and rural residents 323(77.1%) respectively (Table 1).

Table 1: Socio-demographic characteristics of female college students in Fiche Town, Oromia, Ethiopia 2022.

Variable	Category	Frequency	Percent
Age category	15-19	54	12.9
	20-24	365	87.1
Ethnicity	Oromo	393	93.8
	Amhara	26	6.2
Religion	Orthodox	358	85.44
	Muslim	10	2.38
	Protestant	47	11.21
	Others	4	0.95

Address	Rural	323	77.1
	Urban	96	22.9
Marital status	Single	367	87.6
	Married	52	12.41
Family Occupation	Farmer	335	80
	Merchant	35	8.4
	Government employee	33	7.9
	Private worker/employee	16	3.8

Sexual and reproductive health history of the respondents

Of 419 respondents, 343(81.9%) reported that had boyfriends, and among those who had boyfriend 90(55.4%) were communicating about sexual issues with their boyfriends. of the total respondents, 230(54.9%) were ever had sexual intercourse and among them, 15(6.5%) started sexual intercourse between the age interval of 10-14 years old with the mean age to start sexual intercourse 17.86(SD±2.32) and among who had been ever had sexual intercourse 39(57%) of them were ever had two or more sexual partner and whereas among who ever had sexual intercourse 151(65.7%) were currently sexually active with the

majority of them 139(92.1%) had only one sexual partner.

Concerning first sexual partners, 109(47.4%) were with their steady friends. Among respondents who ever had sexual intercourse, 68(29.6%) experienced pregnancy, 40(58.8%) were entered unplanned pregnancies and among those unplanned pregnancies, most among them 29(74.4%) of the pregnancy outcomes were weoutcomestions, and 28(90.3%) of them were experienced only one abortion. Regarding communication about contraceptive methods, 179(42.7%) and 174(41.5%) participants had communication (discussion) with their parents and partners about contraceptive methods respectively (Table 2).

Table 2: Sexual and reproductive history of female college students in Fitch town, Oromia, Ethiopia, 2022.

Variables	Category	Frequency	Percent
Ever had boyfriends	Yes	343	81.9
	No	76	18.1
Ever discuss family planning with boyfriends	Yes	174	41.5
	No	245	58.5
Age at first sexual intercourse	14-Oct	15	6.5
	15-19	153	66.5
	20-24	62	27
Ever had sexual intercourse	Yes	230	54.9
	No	189	45.1
Number of sexual partners ever had	Only one	180	43
	Two and above	239	57
Current Sexual intercourse	No	79	34.3
	Yes	151	65.7
Number of current sexual partners	Only one	139	92.1
	Two and above	12	7.9
Ever had pregnancy	Yes	68	29.6
	No	162	70.4
Ever had abortion	Yes	31	45.6
	No	37	54.4
Ever had an unplanned pregnancy	Yes	40	58.8
	No	28	41.2

Result of unplanned pregnancy	Alive baby	8	20.5
	Abortion	29	74.4
	Other	2	5.1
Ever had several abortions	Only one	28	90.3
	Two and above	3	9.7
Ever had discussed family planning with your parents	Yes	179	42.7
	No	240	57.3
Have you ever had sexual communication with boyfriends	Yes	190	55.4
	No	153	44.6
With whom you had sexual intercourse for the first time	Steady Friend	109	47.4
	Causal Friend	48	20.9
	Husband	50	21.7
	Family Members/Relatives	16	7
	Others	7	3

Source of information on contraceptive methods of study participants

The study participants' common sources of contraceptive information were social media, health workers, and school clubs (Figure 2).

Perceived susceptibility to pregnancy and contraceptive use among study participants

After computing and categorizing the respondent's knowledge of contraceptive methods they had About 254(60.6%) of the study participants were knowledgeable about contraceptive methods, whereas the remaining 165(39.4. %) of them were not knowledgeable about contraceptives. Regarding perceived susceptibility to pregnancy after unprotected sexual intercourse, 327 (78%) of the respondents highly perceived susceptibility to pregnancy, while 92(22%) of them were low perceived susceptibility to pregnancy after unprotected sexual intercourse.

Of the total respondents, 168(40.1%) used any contraceptive methods, of whom the majority 69(41.1%) used contraceptive methods always. The most contraceptive method ever used was injectable (38.1%). Regarding contraceptive methods ever used by respondents, most of them 139(82.7%) used short-acting contraceptive methods, 29(17.2%) used long-acting contraceptive methods, and current contraceptive user users69%), with the most method used, 51 (40.2%) were pills, and least method 2(1.6%) was IUCD user.

Regarding the reason for using contraceptives among all contraceptive users most of the respondents 89(53%) used to prevent unwanted pregnancy, 8(4.8%) were to prevent STI infections, and also, regarding the contraceptive methods used among every user users95.8%) were used modern contraceptives, 7(4.19%) were traditional contraceptive methods user, whereas among current contraceptive methods user, 119 (93.7%) were modern contraceptive users, and 7(5.51) were traditional contraceptive users (Table 3).

Table 3: Multivariable logistic regression analysis of selected variable with the perception of susceptibility to pregnancy among college female students Fitch town, Oromia, Ethiopia, 2022.

Variables	Category	Perceived Susceptibility to Pregnancy		AOR (95%CI)	P -Value
		High	Low		
Age category	15-19	34	20	1	
	20-24	293	72	2.212(1.188, 4.117)	0.012
Family Occupation	Farmer	212	62	1	
	Merchant	29	6	1.425(0.555, 3.658)	0.462
	Gov't employee	52	12	0.985 (0.484, 2.006)	0.967
	Private employee	34	12	0.431 (0.134, 1.383)	0.157

Ever discuss family planning with boyfriends	Yes	149	25	1.415(0.774, 2.587)	0.259
	No	178	67	1	
Number of sexual partners ever had	Only one	152	28	1	
	Two and above	175	64	1.724(0.034, 2.875)	0.087
Current Sexual intercourse	No	127	24	1	
	Yes	57	22	2.042 (1.058, 3.942)	0.033
Number of current sexual partners	Only one	120	19	1	
	Two and above	7	5	0.041(0.002, 0.720)	0.029
Ever had abortion	Yes	20	11	0.160(0.040, 0.645)	0.01
	No	34	3	1	
Ever had an unplanned pregnancy	Yes	29	11	0.316(0.079,1.263)	0.103
	No	25	3		
Number of abortions	Only one	18	10	1	
	Two and above	2	1	0.548(0.016, 19.056)	0.739
Ever had discussed family planning with parents	Yes	152	27	1.779 (1.062, 2.979)	0.029
	No	175	65	1	
Who is your first sexual partner	Steady Friend	80	19	1	
	Causal Friend	34	14	0.047 (0.003, 1.795)	0.134
	Husband	42	8	0.266 (0.010, 7.303)	0.434
	Family Member	28	5	1.734(0.101, 29.73)	0.704

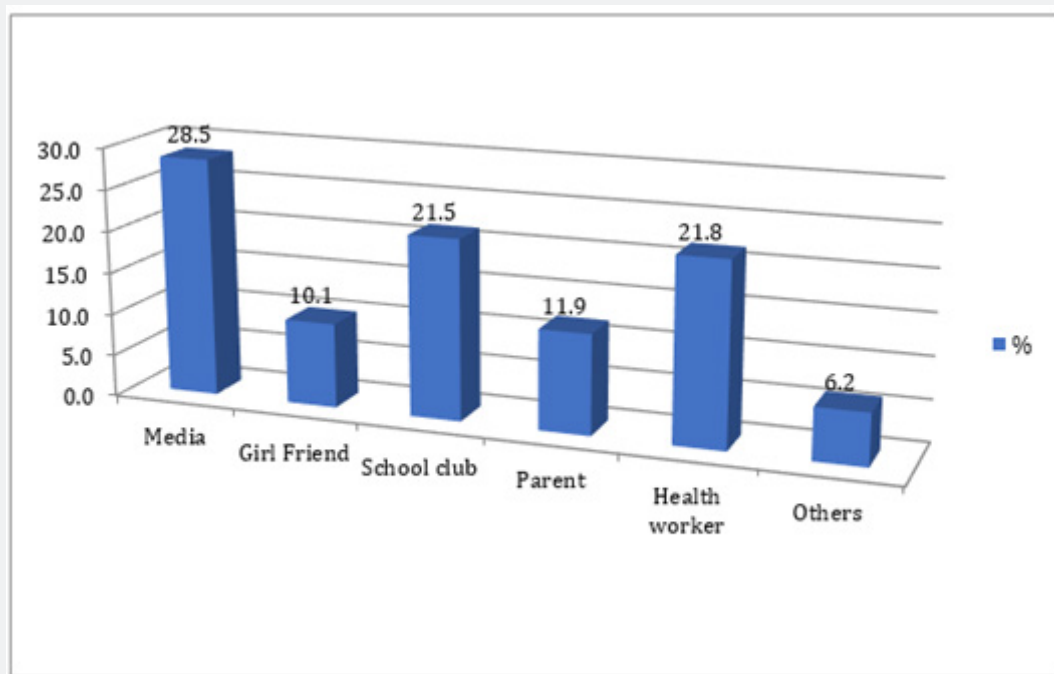


Figure 2: Source of information for female college students about contraceptive methods in Fiche town, Oromia, Ethiopia 2022.

Reason not to use contraceptive methods of study participants

The common reason for not using contraceptive methods

among study participants 28 (40%) was because of embracement to buy/take contraceptive methods from health facilities while 6(8.6%) were afraid of being seen by parents and preferred methods were not available (Figure 3).

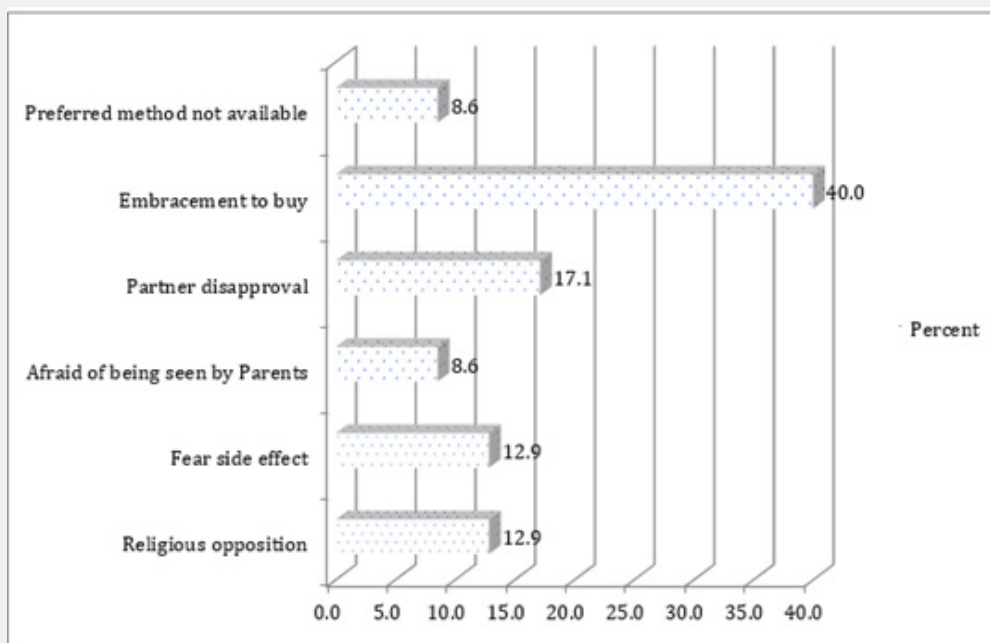


Figure 3: Reason for not to use contraceptive methods among female college students in Fiche town, Oromia, Ethiopia, 2022.

Factors associated with perceived susceptibility to pregnancy and contraceptive use. Factor associated with perceived susceptibility to pregnancy. Respondents aged 20-24 years (AOR=2.21; 95%CI: 1.19, 4.13) and several current sexual partners (AOR=0.041;95%CI:0.02, 0.73) were significantly associated with perceived susceptibility to pregnancy (Table 3), while marital status (AOR=0.144; 95%CI:0.043, 0.488), Ever had discussed family planning with parents(AOR=7.273;95% CI:1.33,39.86) and contraceptive knowledge(AOR=13.65;95%CI: 2.38,78.21) were significantly associated with contraceptive use (Table 4).

Discussion

The study revealed that 78% of study participants were highly perceived as susceptible to pregnancy. This was lower than the study conducted in South Africa which is 86% [25]. But higher than studies done in USA and Veterans which were 64.2% [26] and 60% [22]. respectively. The difference may be due to the source population because, in the USA, the source population was women who had a history of unintended birth, which shows that the most likely reason that victims of unintended birth were related to their level of perception.

The prevalence of ever-contraceptive users among college female students was 40.1%, which was almost similar to the national survey in Ethiopia which is 39.6 % [15], Kenya at 43.0 % [27] among female adolescents and young women in Tanza at 3.6%) [20]. among female university student and a national survey conducted among adolescents and young women in Ghana 43%) [28]. This finding was higher than those studies conducted among college students in West Arsi Zone Ethiopia 33.2%) [21]. Dilla town Ethiopia among secondary and preparatory female students 15.7%) [19]. a community-based based study conducted in Ghana among adolescent mothers (18.0%) [29] and community-based cross-sectional study among adolescents and young women in Republic of the Congo 28.9% [30].

A possible reason for the difference between the current study and previous studies is the differences in sociodemographic characteristics and study settings. For example, there were age and marital status differences in studies done in Dilla to win Ghana, and a study was done in Tigray and the Democratic Republic of the Congo in a community-based setting; the participants differed in accessibility to services among community and college populations). However, the current study’s findings were lower

than the study done in a national survey of Ethiopia 54,8 % [18] and 66%(31) [2]. Dilla University among female students 6.1 % [19], Uganda among female university students 55.1% [31,32], and South Africa 60% [25]. The difference may be due to the

educational level and socio-demographic characteristics in the case of the Ethiopian national survey; most of the participants were married, young women. Therefore, being married or unmarried can lead to differences in contraceptive use.

Table 4: Multivariable logistic regression of selected factors with contraceptive use among female college students of Fitch town, 2022.

Variable	Category	Ever Use Contraceptive		AOR (95%CI)	P-Value
		Yes	No		
Ever discuss FP with sexual partners	Yes	115	59	3.418(0.058, 5.678)	0.091
	No	53	192	1	
Number of sexual partners ever had	Only one	129	51	1	0.101
	Two and above	33	17	7.040(0.224, 11.734)	
Current Sexual intercourse	Yes	119	38	1	0.355
	No	49	30	5.601(0.146, 215.261)	
Age category	15-19	14	40	1	0.941
	20-24	154	211	(0.038, 33.628)	
Marital status	Single	128	239		0.002
	Married	40	12	0.144 (0.043, 0.488)	
Family Occupation	Farmer	83	191	1	0.208
	Merchant	10	25	1.848(0.710, 4.810)	
	Gov't employee	42	22	0.293(0.143, 2.601)	
	Private employee	33	13	0.325(0.133, 2.797)	
Ever had pregnancy	Yes	52	16	0.113(0.006, 2.102)	0.144
	No	110	52	1	
Ever had abortion	Yes	21	10	17.978(0.422,765.63)	0.131
	No	31	6	1	
Ever had an unplanned pregnancy	Yes	28	12	6.687(0.388, 115)	0.191
	No	24	4	1	
Ever had discussed Family planning with parents	Yes	101	78	7.273 (1.327,39.860)	0.022
	No	67	173	1	
Contraceptive knowledge	Knowledgeable	119	135	13.645(2.380,78.212)	0.003
	Non-knowledgeable	49	116	1	
Perception of susceptibility to pregnancy	High perception	142	185	1.771(0.088, 2.883)	0.091
	Low perception	26	66	1	

The current study revealed that the prevalence of current contraceptive use was 69%, which is in line with a study conducted at the national level in Ethiopia [31], Dilla University 64.4 % [19]. However, higher than the study done in Kenya 45% [27]. community-based cross-sectional survey among male and female sexually active youth, Uganda, among female university students 46.6%) [32]. The possible explanatory difference may be due to socio-demographic characteristics, source population,

and sex differences, which can make service utilization differ. Multivariable logistic regression results showed that age and number of current sexual partners were significantly associated with perceived susceptibility to pregnancy.

Participants age group-20-24 years were approximately two times more likely to perceive susceptibility to pregnancy after unprotected sexual intercourse than those age group 15-19 which

is consistent with a study conducted in Nigeria [17]. However, a study conducted on veterans' age showed no association with perceived susceptibility to pregnancy [33]. The possible explanatory difference may be the age difference of the study participants, which is in veterans, and the study was conducted between the age of 20-45 years this may have made no perception differ depending on age and socio-demographic characteristics. Having more than one sexual partner was positively associated with perceived susceptibility to pregnancy compared with having only one sexual partner. Those who had two or more sexual partners were 1.7 times more susceptible to pregnancy compared with the study participant that had only one sexual partner. This finding is similar to that of a previous study conducted in Nigeria [17].

Concerning the factors associated with contraceptive use, this study revealed that the marital status of the respondents was significantly associated with contraceptive use. Unmarried respondents were more likely to use contraceptive methods than married respondents. This is in line with a previous national survey conducted in Ethiopia [18], a study conducted in the Amhara region among female university students [34], and among adolescent girls and young women in Benin [34]; however, this is not similar to the study conducted in Gondar town among female college students [35], and Dilla town secondary and preparatory schools [19], as well as a community-based study conducted in the Tigray region among female students, which showed that contraceptive use among married respondents is more likely to use contraceptive methods than unmarried respondents [36].

The Possible reason for this difference may be the contraceptive method preference, age, and difference in the source population used to assess contraceptive service utilization. For example, a study conducted in Gondar assessed long-acting reversible contraceptives (LARC), whereas the current study assessed all contraceptive methods in adolescent and young female college students. So that married respondents may prefer LARC methods over unmarried respondents, and the study conducted in Dilla town and Tigray region respondents were younger than the current study this may make a difference in contraceptive use (in Tigray region 15-19 and in Dilla town 15-22 years old) in addition in Tigray region study setting was community-based. Another possible explanation may be the difference in married students having regular sexual intercourse compared to their counterparts.

Young women with a relatively good knowledge of contraceptive methods were more likely to use contraceptive methods than those who were not knowledgeable. This finding is consistent with previous national surveys conducted in Ethiopia [37]. Respondents who had been discussing family planning with their sexual partners were more than three times more likely to use contraceptives than their counterparts. These results are supported by a previous study conducted among female college students in the West Arsi Zone [21], Dilla University undergraduate

female students [19], female college students in Gonder town [35], and a study conducted in the Tigray region [36].

This study revealed that the main sources of information on contraceptive methods were media, healthcare providers, and school clubs, which was consistent with a previous study conducted in Dilla among secondary and preparatory schools [19], West Arsi zone college students [21], and the Tigray region [36]. The most common reasons for not using contraceptive methods were embracement of buy/take contraceptive methods, partner disapproval, and religious opposition to contraceptive methods, which was supported by previous findings [20,23]. The common reason for using contraceptive methods among respondents was to prevent unintended pregnancy and birth spacing, which was limited to a study conducted by Dilla Town [19]. at the national level in Ethiopia [18] and Zambia [38].

Conclusion and Recommendation

The prevalence of perceived susceptibility to pregnancy was high and contraceptive use was low, almost within the acceptable range when compared with a previous study. School officials should encourage mini-media programs and establish reproductive health clubs. Information, education, and communication activities regarding the utilization of modern contraceptive methods among adolescents and their importance should be strengthened by the Ministry of Health through mass media messages and encouraging school health programs in which students who have good knowledge, information, and communication about contraceptive methods are utilized. Health providers, particularly those working in college, should provide detailed information about contraceptive methods and increase knowledge and possible side effects since respondents in this study mentioned the reason for not intending to use a contraceptive method. The government and other stakeholders should work to disseminate reproductive health information by establishing and promoting sexual and reproductive clubs at schools to increase awareness and knowledge of contraceptive methods and enhance discussions with friends and parents, which positively impacts contraceptive use. Further studies that use both qualitative and quantitative data collection methods are recommended.

Strengths and weaknesses of the study participants

This study had some limitations that should be considered when interpreting the results. First, since the study was cross-sectional, it was difficult to establish a cause-effect relationship. Second, our findings cannot be generalized to all adolescent girls and young women in the community. There might be a social desirability bias on personal and sensitive issues, and obtaining honest responses among young students might have been difficult and is a limitation of this study although we tried to collect data by self-administered questionnaire with collection in locally prepared boxes to ensure their privacy.

Declarations

Ethical approval

A legal ethical clearance letter from the Institutional Ethical Review Committee of Salale University with the Ethical Approval number SIU 121/2021 was obtained.

Consent to participate

The study participants' confidence was maintained by excluding their names and personal identifiers. They had the right to interrupt the interviews even if they received data that exposed their confidentiality. Finally, the participants were asked about their willingness to participate, and based on their willingness, they were interviewed after completing an oral informed consent form.

Consent for publication

All authors read the manuscript and have provided their consent to publish.

Competing interests

The authors declare that they have no financial and non-financial Competing Interest.

Author contribution

Seyoum Alemu, Degemu Sahlu, and Mulugeta Mekuria participated in the study selection, conceived and designed the study, analyzed the data, interpreted the results, prepared the manuscript, and edited the manuscript.

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Availability of data

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

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