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ASSESSING THE KNOWLEDGE, ATTITUDE AND PRACTICE OF FAMILY PLANNING AMONGST REPRODUCTIVE-AGED WOMEN IN BUEA HEALTH DISTRICT, CAMEROON

***LAYU DONATUS[1], TENDONGFOR NICHOLAS[1], DOHBIT SAMA JULIUS[2] and EGBE THOMAS O[3]**

[1*]Department of Public Health and hygiene, Faculty of Health Sciences, University of Buea, Cameroon (Corresponding author)
[1]Associate Professor, Department of Public Health and hygiene, Faculty of Health Sciences, University of Buea, Cameroon.
[2]Associate professor**,** Senior Lecturer, Department of Obstetrics and Gynecology, Faculty of Medicine, University of Yaounde
[3]Professor of Obstetrics and Gynecology, Department of Obstetrics and Gynecology, Faculty of Health Sciences, University of Buea, Cameroon.

ABSTRACT

Introduction: Most women now prefer a small family size and so there is a growing need for good family planning services for sexually active women. However, the unmet needs for family planning have continually not been met especially in the less developed world. In other to address these unmet needs this study focused on assessing the knowledge attitude and practice of modern contraceptives methods amongst women aged 15 to 49yrs in Buea Health District.

Methodology: A cross-sectional descriptive survey was conducted in the Buea Health District. A multistage sampling technique was used to select participants from households. A structured questionnaire was administered to selected women to collect data on knowledge, attitude, and practice regarding contraceptives. The data was analyzed using SPSS version 28.0.

Results: A total of 958 participants answered the questions of which 97% had incorrect knowledge of contraceptives, 73% had a poor attitude toward contraceptive methods, and 91% of respondents practiced at least a method of contraception. The male condom was the most used contraceptive method (70.49%) followed by female condoms use (7.95%), injectables (3.72%), coitus interruptus (3.63%), implants (2.84%), Morning after pills (1.24%). Diaphragms, IUD, and COC were the least used methods (0.65%, 0.37%, and 0.27%) respectively. Those who did not use any method were 87 (8.83%).

Conclusion: Women of reproductive age in the Buea health district have very poor knowledge and attitude on family planning methods but practice at least one method of contraception. There is a need for health education programs oriented towards the different methods which would enhance a change of attitudes towards family planning.

Keywords: knowledge, attitude, practice, contraceptive, family planning, unmet needs.

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Introduction and Background

Sexually active women are now choosing to have few children and there is a great improvement in overall contraceptive use worldwide [1]. The rate of use of family planning services in the developing world and more particularly in Cameroon remains unsatisfactory [2]. The number of women with an unsatisfied potential demand for contraception is still very high in Cameroon [1,2]. Meeting targets of the Sustainable Development Goals in maternal and neonatal health requires good and consistent use of family planning services.

The adoption of any contraceptive method requires prior knowledge of the method. Good knowledge of the use of family planning methods and their benefits/side effects depends on the effectiveness of the counseling and sensitization of the risk population [1–3]. Also, the perception of family planning by women is dependent on good knowledge and has a great impact on their attitudes and practices [4]. The knowledge attitude and practice play a very important part in addressing the unmet needs of family planning[1–3].

The global population today stands at 7.9 billion and is expected to reach 9 billion by the year 2045 [3]. Uncontrolled population growth has been recognized as the most important impediment to our national development. To develop an intervention to improve the uptake of contraceptive use, it is necessary to identify gaps in the uptake of family planning services. This study, therefore, assessed the knowledge, attitude, and practice of contraceptive use among women of childbearing age in the Buea health districts.

Methodology

Study design

A quantitative cross-sectional survey was conducted to assess the level of knowledge, attitudes, and practices of family planning amongst childbearing age women of the Buea Health District. The data was collected using a questionnaire designed in Kobo Collect from selected households in the seven health areas of the Buea Health District.

Study area and setting

The study area was carried out in the Buea Health District (BHD), in the Southwest region, of Cameroon. Buea is the administrative capital of the Southwest Region of Cameroon. The town is located at the base of Mount Cameroon. It covers a total surface area of 870 km^2 with an estimated population of 180,843 inhabitants in 2021, living in about 37,995 households at the time of the survey (5–7). It has a Regional Hospital (secondary level) which serves as the region's referral hospital, 7 primary care facilities, and a few private hospitals [6]. The BHD consists of 7 Health Areas, namely, Bokwango (13337), Bova (5633), Buea Road (51691), Buea Town (15577), Molyko (20998), Muea (62712), and Tole (10896). Most inhabitants of this division are predominantly youths, given that this district hosts some important companies and higher institutions of learning. These

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include the University of Buea with a population of over 17000 [6]. Also, Maternal and child health indicators from the 2021 Cameroon Demographic Health Survey (CDHS) have shown that the population in the Buea Health District has increased drastically from approximately 18000 in 2010 to 181 843 in 2021 [5]. Most of this population are women and young adolescent girls who constitute more than 65% of the population [6].

Target population

The study population consisted of 958 sexually active women, married or in a consensual union aged 15 to 49 years, resident in the Buea Health District.

Data collection

Structured questionnaires were administered to participants. A questionnaire developed in the KOBO toolbox was administered to selected women who consented to participate in the study. The questionnaires were interviewer-administered in English/Pidgin English by trained data collectors. The Collected data were entered directly into a template created in Kobo Collect. For those who could not use the mobile application, questionnaires were printed, and they filled it and returned to the data collector for input into the kobo toolbox. Hand-filled questionnaires were checked for completeness, errors, and inconsistencies before keying into the Kobo Collect software. The data was exported into a Microsoft Excel spreadsheet to be cleaned/edited and finally analyzed using social science package statistical software.

Data analysis

The data were exported into a Microsoft Excel spreadsheet, cleaned, and analyzed in Social Science Package Statistical (SPSS) version 28.0. The questionnaire was designed in three sections knowledge, attitude, and practice. Each section had a series of questions to be answered. The questionnaire had 8 questions on knowledge, 5 questions on attitudes, and 8 questions on Practice. Those who scored 4 and above had correct knowledge and less than 4 was incorrect knowledge. Those with an attitude score of 3 and above had a good attitude and those with less had a poor attitude. Those with good practice had from 4 and above and those with less than 4 had poor practices

Ethical clearance

Administrative clearance was obtained from the Southwest Regional Delegation of Public Health, the Buea District Health Services, and Directors of hospitals or chief of Center. Participants were informed of the various aspects of the study and were anonymously included in the survey after they had signed the informed consent form. The study was conducted as per the revised Helsinki Declaration.

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Results

We enrolled a total of 958 participants and table 1 below depicts the sociodemographic characteristics. Concerning marital status, most respondents had free union followed by married women with a percentage of 41. And the least were divorced. Many are in a consensual relationship. Religion is highly represented by the Catholics at 43%, Protestants at 41% Muslims at 12%. Regarding the educational level of respondents, the majority had had a tertiary education 53%, 39.7% secondary, 5% attended primary education and 1% has never been to school. Educationally, the majority are those working a skilled job 42% followed by students 25%, unskilled represents 22%, and the respondents who are doing nothing and dependent on their partners 10.4%. (See table 1).

Socioeconomically, most of the respondents earn less than 50000frs monthly representing 50.79%, and 23.8% earn between 50.000 to 100.000frs monthly. The respondents who end above 250,000frs represent 5.6%. Most of the respondent is represented by the age range 24.2%, followed by the younger age 20-25yrs which represents 22%. The minimum age is 15 and the maximum is 49. The average age of the population is 27 years. (See table 1).

Participants from Molyko 242 (23.6%) health area has the highest representation while tole 54 (6%) health area presented with the least participants. Buea Road and Buea town showed a slight disparity of 14% and 13% respectively. The similarity in distribution is seen in Molyko (23.6%) and Muea (23%) and the same pattern of distribution is seen in Bova (8%) and Tole (6%) (seen Table 1).

Table 1: Demographic characteristics of respondents

Variables		Frequency	Percentage (%)
Marital status	Divorced	53	6%
	Free union	511	53%
	Married	394	41%
Religion	Atheist	41	4%
	Catholic	425	43%
	Muslim	105	12%
	Protestant	387	41%
Level of Education	Never been in school	11	1.31%
	Primary	48	5.46%
	Secondary	395	39.69%
	Tertiary	504	53.53%
Occupation	Nothing	98	10.44%
	Skilled job	363	42.32%
	Student	306	25.18%
	Unskilled	191	22.06%

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Revenue	100,001-200,000	102	11.59%
	200,001-250,000	70	8.20%
	50,001-100,000	212	23.84%
	above 250,000	47	5.58%
	Less than 50,000	527	50.79%
Health area	Bokwango	103	11.17%
	Bova	66	7.92%
	Buea Road	135	14.31%
	Buea Town	128	12.99%
	Molyko	242	23.55%
	Muea	230	24.08%
	Tole	54	5.98%
Age Range	[20-25[	264	22.00%
	[25-30[	239	24.20%
	[30-35[	148	17.77%
	[15-20[	125	8.63%
	[35-40[	110	15.43%
	[40-45[	47	7.43%
	[45-49]	25	4.54%

Many respondents who have been pregnant one time were not planned 341 and 129 were planned. The respondent who has been pregnant 2 times, 40 pregnancies not planned. Generally, 57% of pregnancies are unplanned whereas 43% are planned. (See Figure 1)

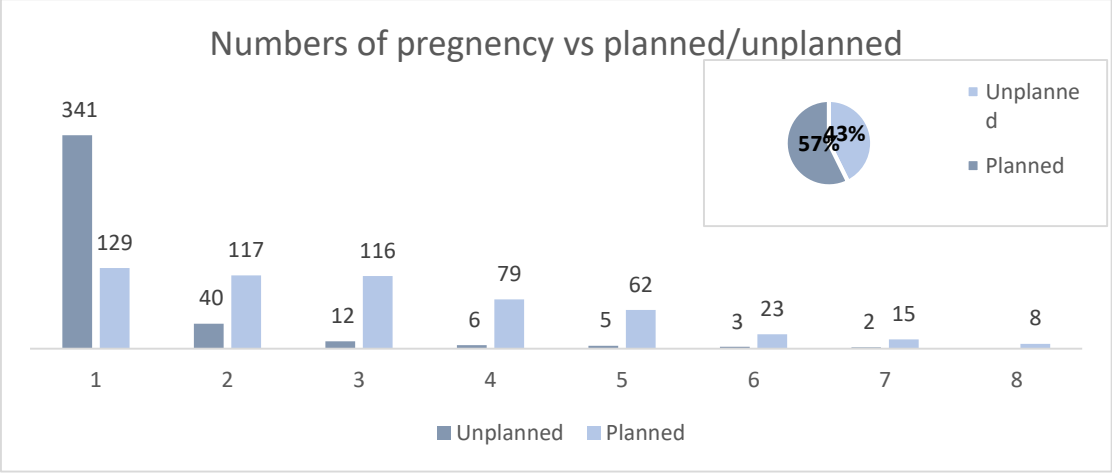

Figure 1: Number of pregnancy Vs planned and unplanned

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Of the respondents,109 were pregnant and the pregnancy was not planned, and the child is not alive. This is within the age grouped 20-25 (57%), 15-20 (24%), 25-30 (17%) and 30-35 (3%). Most children not planned were aborted representing **8.3**%. (See Figure 2)

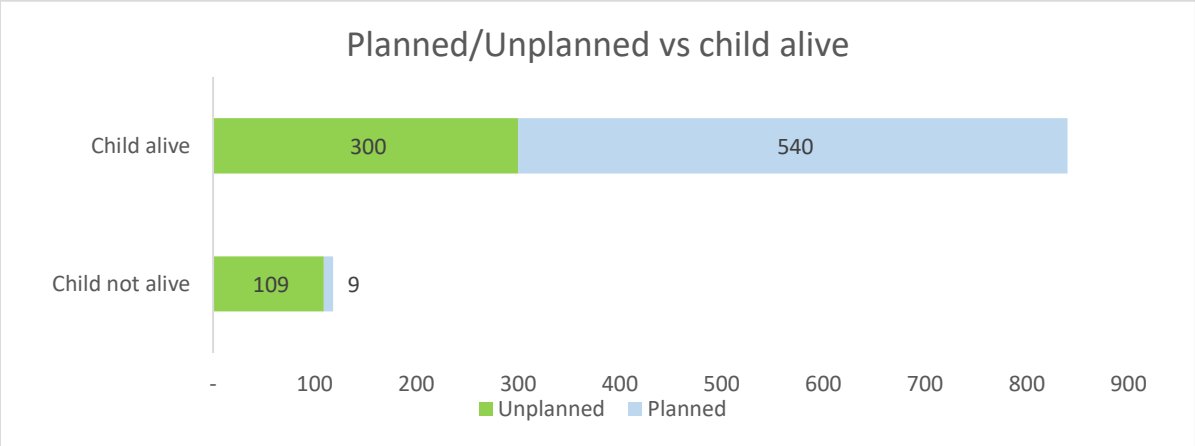

Figure 2: Number of planned/unplanned vs child/children alive

Out of 958 respondents, 744 (77.7%) still desire to have more children (Spacers), whereas 214 (22.3) declared that they want no more children (limiters). Most respondents have undergone surgery 56. % But do not know the type of surgery, followed by Caesarean section 24.9%, 9.8% for appendicitis, 4.6% from Hernia, 2.6% from ruptured ectopic pregnancy, and Gastritis 2.1%. (See Figure 3)

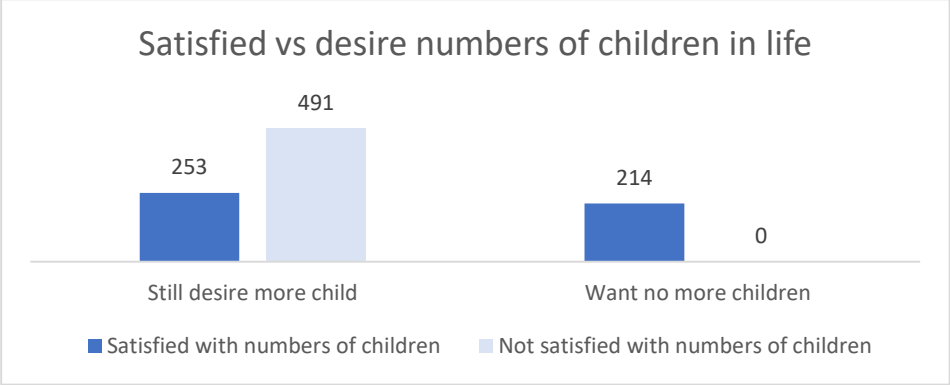

Figure 3: Needs for “spacing” and needs for “limiting”

The respondents revealed that the major source of information concerning family planning is from health personnel with 43.17%, followed by family and friends at 26.27%, Radio/TV/social media at 13.63%, and others from shops at 0.24%. Respondents declared that the best source to get information was from a trained health care

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professional 72.37%. followed by the media 15.54% and lastly from Family relations and friends 12.09%. (See Figure 4).

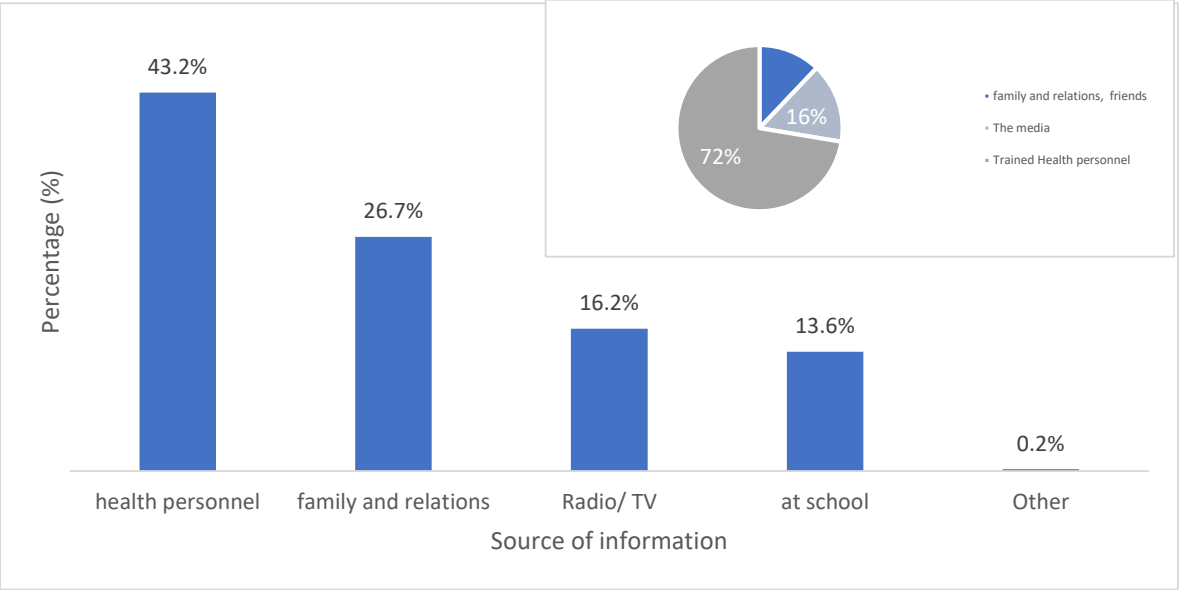

Figure 4: Source of information on family planning

Concerning the reasons participants gave for using family planning 42.52% said limitation of birth, 66% said prevention of unwanted pregnancy, 40.68% said that it's to protect STIs, 44% said was to space birth and 3.66% didn't know why they should use a contraceptive method. Concerning who should use family planning, the majority said unmarried women 42.74%. 27.98% said all sexually active women, 16.28% said married women, and 13% said women who have at least one child. The best responses here were all sexually active women which scored only approximately 28% meaning the majority 72% could not identify who should use family planning.

Concerning the knowledge of family planning methods,94% of the respondents know condom, while only 17% testify they know diaphragms, 13% know about cervical caps, 22% have knowledge of IUD, 14% knows about spermicides, 28% implants, 13% COC, 38% injectables, 9% know of LAM, 11% knows of coitus interruptus. And 4% know other methods. Concerning which of the methods prevent STDs, most of the respondents declared condoms 83%, and the remaining 17% sort to other methods that prevent STDs. It's worth noting that 17 % of respondents lack the understanding that condom prevents STDs including HIV/AIDS.

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As to where contraceptive methods could be gotten, (755) 79% said hospital, 4% from Hawkers, 28% from the Pharmacy, 10% from shops and other sources represents 1%. Most of the respondents got their methods from the hospitals, followed by pharmacies, and then shops. However, most long-lasting reversible methods can only be in hospitals where there are trained health care workers to work provide them.

Of 958 respondents, 97% have incorrect knowledge of contraceptives whereas only 3% of respondents had the correct knowledge of contraceptives.

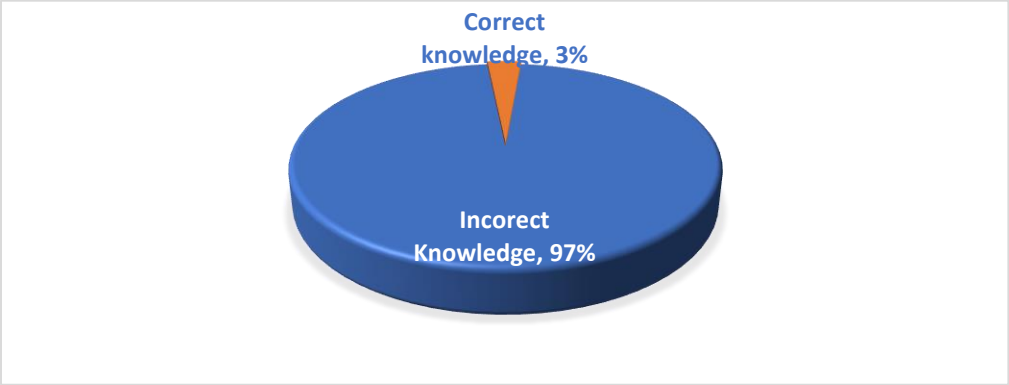

Figure 5: Represents respondents with the correct knowledge and incorrect knowledge

Molyko and Muea are health areas with the highest incorrect knowledge as seen in (Figure 6) below

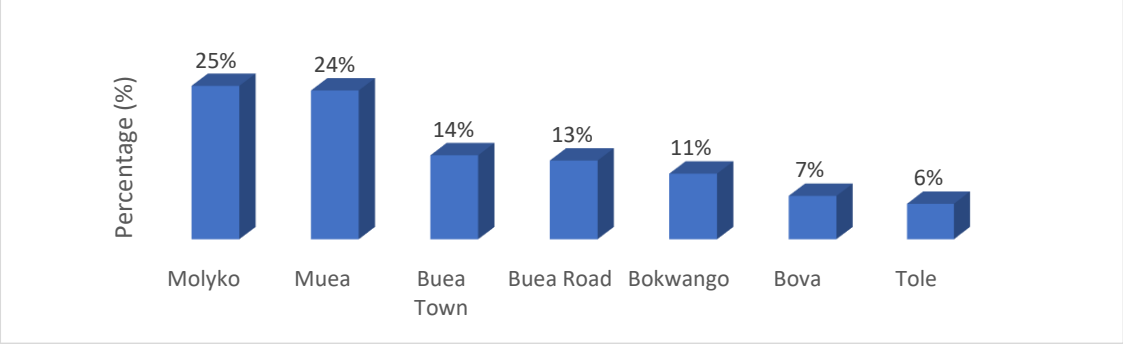

Figure 6: represents respondents' incorrect knowledge by health area.

Respondents' belief system approved of contraception 683 (72.114%) accepted, whereas 275 (27.9%) respondents did not approve of contraception. Reasons for non-approval were related to various reasons. 28% stated that their religion does not allow it, this shows the influence religion has on the respondents to take decisions about their health, 19% revealed that their fear is due to side effects from contraception such as weight gain,

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16.2% revealed that contraception promotes sexual promiscuity, and 13.6% of respondents attributed their disapproval because contraception altered the natural pattern of life. Respondents also gave multiple reasons why their beliefs do not approve of family planning; 4% of respondents gave as reason promoting promiscuity and side effects, while 2.7% of respondents said it's because their religion doesn't allow and because of side effects, also, while 5 % share three reasons as religion does not allow it, sexual promiscuity and that contraception change the natural pattern of life.

Respondents 72% revealed that their partners approved of contraception, 28% revealed that partners do not approve of contraception, while 37 (3.45%) didn't have partners; these are respondents who have a divorce their partners. Concerning how often couples discuss family planning with partners, The figure below shows the representation of responses. Most respondents, 416 have never aborded a discussion on family planning, while 298 0f respondents discuss family planning with their partners, 244 declared to discuss family planning more often with partners majority of whom are using family planning methods. (See Figure 7).

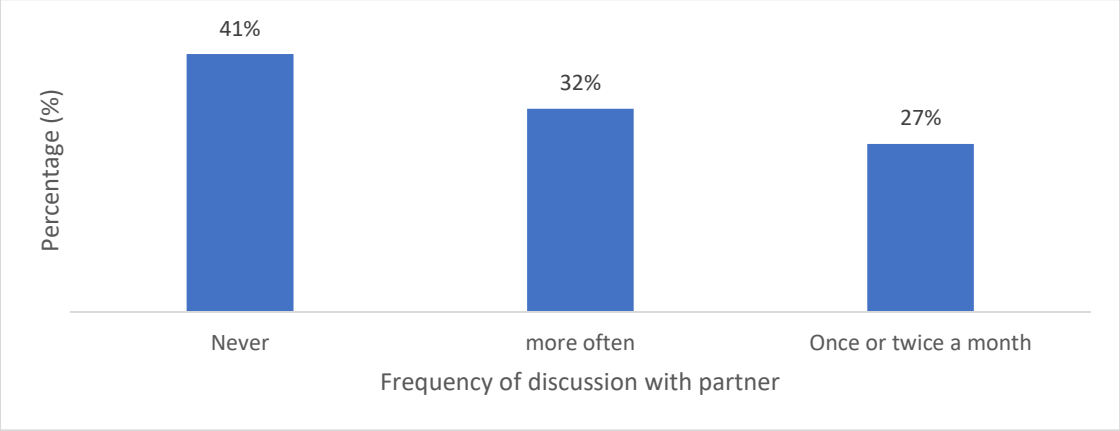

Figure 7: How often respondents discussed family planning as a couple.

The figure below represents the respondents with the correct attitude. Majority of respondents 73% had an incorrect attitude toward contraceptive methods, whereas 27% of respondents had correct attitudes toward contraceptive methods.

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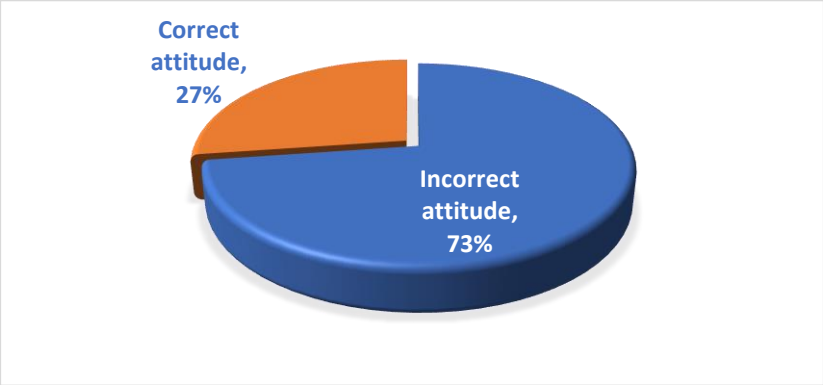

Figure 8: Represents respondents with correct and incorrect attitudes towards contraceptives

The table below shows the various contraceptive methods used by the respondents; The Male condoms are 673 (70.49%) is the highest used, followed by the respondent who said they are not using any of the methods 87 (8.83%), female condoms with 83(7.95%), injectables 33(3.72%), coitus interruptus 33 (3.63%), implants (2.84%), Morning after pills (1.24%) while Diaphragms, IUD and COC are the least used methods (0.65%, 0.37%, and 0.27%) respectively. (Table 2).

Table 2: Showing contraceptive methods used by respondents

Contraceptive methods	Frequency	Percentages
Male Condoms	673	70.49%
None(other methods)	87	8.83%
Female Condoms	83	7.95%
Injectables	33	3.72%
Coitus Interruptus (Withdrawal)	31	3.63%
Implants	24	2.84%
Morning After Pills	15	1.24%
Diaphragms	6	0.65%
IUD	3	0.37%
COC	3	0.27%
Grand Total	**958**	**100.00%**

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Figure 9 below shows the modern contraceptive practice among the respondent. 91% of respondents practice at least a method of contraception, while 9% of the respondents do not practice any contraceptive method. While the most used method by the respondent is the male condom, long-lasting reversible contraceptive methods are timidly used.

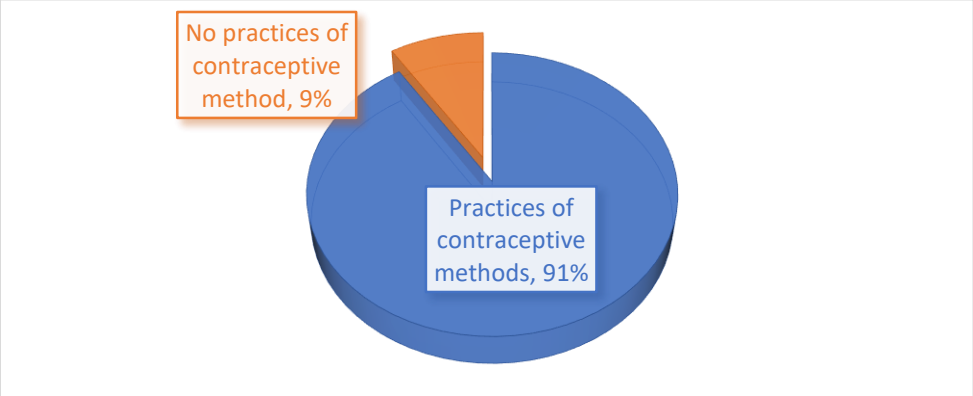

Figure 9: Represents respondents who practice and who do not practice contraceptives.

Discussions

Concerning marital status, most respondents were in free union followed by married women with a percentage of 41. And the least were divorced. Many are in a consensual relationship. Religion is highly represented by the Catholics at 43%, Protestants at 41% Muslims at 12%. Regarding the educational level of respondents, the majority had had a tertiary education 53%, 39.7% secondary, 5% attended primary education and 1% has never been to school. This represents a highly literate community in which education is the key to changing the community mindset. Educationally, the majority are those working a skilled job 42% followed by students 25%, unskilled represents 22%, and the respondents who are doing nothing and dependent on their partners 10.4%. This result is similar to that of a study carried out in Mbouda Cameroon which states in every Catholic Christian-dominated areas family planning is mostly not advised [4,8]. The position of the Catholic church is clear about contraceptives, most of the respondents coming from the catholic background will timidly use contraceptive methods. Socioeconomically, most of the respondents earn less than 50000frs monthly representing 50.79%, and 23.8% earn between 50.000 to 100.000frs monthly. The respondents who end above 250,000frs represent 5.6%. Most of the respondent is represented by the age range 24.2%, followed by the younger age 20-25yrs which represents 22%. The minimum age is 15 and the maximum is 49. The average age of the population is 27 years Most of the respondents are students who still have their studies to achieved influence the unmet needs of family planning, also, more than half of the women are dependent on their partners and their partner's decision to family planning matters Many others studies have reported on similar findings [2,3,9]. Participants from Molyko 242 (23.6%) health area has the highest

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representation while tole 54 (6%) health area presented with the least participants. Buea Road and Buea town showed a slight disparity of 14% and 13% respectively. The similarity in distribution is seen in Molyko (23.6%) and Muea (23%) and the same pattern of distribution is seen in Bova (8%) and Tole (6%). Molyko is highly concentrated because of the university and the fact that most of the respondents are students. This is mostly a residential area with fewer students. Tole has been greatly affected by the crisis ongoing which has caused migration to other health areas for safety.

The study reveals that out of 958 respondents, 97% have incorrect knowledge of contraceptives whereas only 3% of respondents had the correct knowledge of contraceptives. Correct knowledge of contraceptives is sub-optimal. (1,4). Respondent declared that at least in every family there is one unplanned. As the number of pregnancies increases planning is imposed naturally which if considered early will have led to a more productive and quality life. Hence in every family, there is at least one or more unplanned pregnancies. Respondents revealed the Planning of pregnancy and the number of children alive [5]. This is noted of the fact that the majority are very young in marriage and because there are students, and their studies may be at stake, go in for unsafe abortion with various consequences. In every family, there is a least one pregnancy that was not planned. [10]. This implies that respondents' knowledge of family planning methods is very low, only male condoms have a significant significance while long-lasting reversible methods represent little knowledge on it. Many of the respondents need in-depth knowledge of all the available long-lasting reversible methods, their side effects, advantages, and how long they can last.

The figure below represents the respondents with the correct attitude. Majority of respondents 73% had an incorrect attitude toward contraceptive methods, whereas 27% of respondents had correct attitudes toward contraceptive methods. These results are the same as some studies [5,11]. Religious belief has a significant influence on the unmet needs of family planning. This goes a long way to explain the impact of what is preached in the churches about contraceptive methods. The belief system of respondents further amplifies the unmet needs for family planning as women go in for family planning without the knowledge of their partners. As they mostly take pills and injectables. Respondents 72% revealed that their partners approved of contraception, 28% revealed that partners do not approve of contraception, while 37 (3.45%) didn't have partners; these are respondents who have a divorce their partners.

The study reveals modern contraceptive practices among the respondent. 91% of respondents practice at least a method of contraception, while 9% of the respondents do not practice any contraceptive method. So many studies have revealed the same information, many women are practicing family planning but are not doing it right.[1,3,4]. Also, among the various contraceptive methods used by the respondents; The Male condoms are 673 (70.49%) is the highest used, followed by the respondent who said they are not using any of the methods 87 (8.83%), female condoms with 83(7.95%), injectables

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33(3.72%), coitus interruptus 33 (3.63%), implants (2.84%), Morning after pills (1.24%) while Diaphragms, IUD and COC are the least used methods (0.65%, 0.37%, and 0.27%) respectively. While the most used method by the respondent is the male condom, long-lasting reversible contraceptive methods are timidly used [6–9,12]. This implies that most of the respondents continue to use ineffective methods as seen in male and female condoms, coitus interruptus, and morning-after pills. Studies targeting the cost-benefit and acceptance of each of the contraceptive methods should be conducted to address the right message during educative sessions in our settings. These sessions must focus on the advantages of modern contraceptives methods to demystify them and increase thereby their uptake[1].

Conclusion

The correct knowledge concerning the contraceptive was very low. The correct attitude towards modern contraceptives is also poor, however, the practice of family planning is high but not correctly practiced, as many participants used at least a method even though not a long-lasting contraceptive. Consequently, more adapted educational and counseling interventions should be undertaken among women, and family planning messages using Mobile health education to reach all communities to create awareness, especially in hard-to-reach areas. Furthermore, primary health care providers' knowledge and skills must be continuously enhanced and strengthened to deliver the right and sound advice about family planning and contraception. Moreover, more studies dedicated to the thorough investigation of the different reasons for the nonuse of contraception and how these can be addressed, are warranted using mobile health education to determine the impact on unmet needs.

What the study adds

- Examine the level of knowledge attitude and practice in other to provide a community strategy to improve the unmet needs of the population.
- The study also served as a channel of awareness among women of reproductive age in the Buea Health District

Recommendations:

- Advocacy messages on long-term reversible contraceptive messages methods by health care providers will help to clear the air concerning the myth of contraceptives in Buea Health District.
- Mhealth should be used to create awareness packages and to reach a large population with the right knowledge, attitude and practice using mobile health educational programs.

Conflicting interest:

The author declares that there are no conflicting interests

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What is known about the topic?

- The uptake of the family planning is very low in Buea Health District
- The unmet need for modern contraceptives is 21.3% in Buea Health District.
- The population uses fewer effective methods of family planning

List of Abbreviations

AIDS	**Acquired immune deficiency syndrome**
BHD	Buea Health District
CDHIS	Cameroon Demographic Health Information system
COC	Combine Oral Contraceptives
FP	Family Planning
HIV	Human Immunodeficiency Virus
Mhealth	Mobile Health
NGO	Non-Governmental Organization
PR	Prevalence Rate
SDG	Sustainable Development Goals
UN	United Nations

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Figure 5: Represents respondents with the correct knowledge and incorrect knowledge

Figure 6: represents respondents' incorrect knowledge by health area

Figure 7: How often respondents discussed family planning as a couple.

Figure 8: Represents respondents with correct and incorrect attitudes towards contraceptives

Figure 9: Represents respondents who practice and who do not practice contraceptives**.**

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