Study of Women's Knowledge and Information about Family Planning at Al-Kansaa and Al-Salam Hospital In Mosul City

Abstract
Family planning services have potential in China to improve people's lives and economic well-being. Family planning methods have a temporary effect after which the ability to conceive and give birth returns to normal. Contraception can be used based on the desire of both spouses to delay childbearing and to ensure the health of the mother and the fetus, (2013.http://alghad.com). The aim of the study was to assess the level of knowledge of women's perceptions about family planning, and a descriptive study was conducted of (100) married women of childbearing at Al-Khansa Hospital and Al-Salam Teaching Hospital in the city of Mosul, the study results were that most of the Tamm were aged 35 years or more. They forgot about (40%), and female employees the most use of family planning methods by (8%). The study showed that women's knowledge about the female condom was Btseh (19%) and the condom with ballast (27%) by the official intrauterine device, intramuscular injection and the contraceptive pill got the same percentage (41 96), and this indicates that women do not have information about these Means and accordingly, the researchers recommend increasing the eastern revolutions for women and the feature of housewives about the importance of family planning, educating women about family planning methods and the importance of each method and the urge to call, and from the periodic review to the Ummah Planning Center and from the scheduled appointments, with the aim of rationing the health risks for mothers that occur in the timetable and frequent work of the bile Characteristic of very young and old age groups, planning the mortality rate of newborns and providing more opportunity for the mother to remain and breastfeed for a long time

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Introduction

Family planning service are defined as educational comprehensive medical or social activities which enable individuals including minors to determine freely the number and spacing of their children and to select the means by which this may be achieved (https://www.wikipedia.2018).

A number of contraceptive methods are available to prevent unwanted pregnancy there are natural methods and various chemical. Based methods and long acting reversible contraceptive methods such as intra uterine device (I.U.D), in addition to providing birth control male / female condoms it protect against sexually transmitted diseases (STD). other methods (tubal ligation, vasectomy) provide long term contraception. (https://www.wikipedia.2018).

Approximately (222) million women in developing countries would prefer to delay or stop childbearing but are not using any method of contraception family planning reduces the need for unsafe abortion and reinforces people's rights to determine the number and spacing of their children young mothers are likely to be poor, less educated and to live in rural areas. The lifetime risk of maternal death. The probability that a (15) year old girl will ultimately die from a maternal cause- is 1 in 3800 in developed countries but 1 in 150 in developing countries. The studies found almost a third of woman believed that certain methods of contraception could lead to female infertility.

Definitions of terms:

Knowledge :
Awareness and understanding of the facts through the abstract mind, or the way to acquire information by experimenting or interpreting the results of the experiment or by means of reflection on the nature of things.(https://www.wikipedia.2018)

Information:
Information is abroad term that is used inter-changeably according to the context of the conversation and is generally associated with terms such as knowledge, instruction communication. (https://www.wikipedia.2018).

Family planning :
Services are defined as comprehensive social educational activities that enable individuals and their families to freely determine their childbirth, birth spacing and choose the means to achieve this (https://www.wikipedia.2018).

The Aim of the Study:
The present study will attempt to knowledge of information women about family planning in Mosul city.

The objectives of the study:
1. Find out the information of women on the benefits of family planning.
2. Know the best way of contraception for women.
3. The knowledge of the importance of family planning and spacing between the pregnancies in maintaining the health of the mother.
4. Find out the information of women about the importance of contraceptives in improving the economic situation of the family.

Administrative arrangement:
Prior to the collection of jute a formal administrative approval was obtained for this study from the institute higher health professions in Mosul.

Sample of study:
The study was the descriptive study where the study sample was taken to (100) amphors from Al-Khansaa hospital and the Al-Salam hospital in Mosul city. The sample was distributed by a form of two parts of the first part of the public information and separation of the second sector , which represents questions about the subject of research the answer of any question is either (Yes or No) and for the period of 15 February to the 30/march/2019, the statistics of the status used to analyze data settings in the form of preparations and percentages representing data and status in the provisional tables to facilitate their dealings.
Results:

Table (4-1) : Demographic data of sample

<table>
<thead>
<tr>
<th>Age group</th>
<th>Repetition</th>
<th>Relative repetition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>21-25</td>
<td>12</td>
<td>0.12</td>
<td>12%</td>
</tr>
<tr>
<td>26-30</td>
<td>23</td>
<td>0.23</td>
<td>23%</td>
</tr>
<tr>
<td>31-35</td>
<td>25</td>
<td>0.25</td>
<td>25%</td>
</tr>
<tr>
<td>36 and more</td>
<td>40</td>
<td>0.4</td>
<td>40%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Repetition</th>
<th>Relative repetition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>32</td>
<td>0.32</td>
<td>32%</td>
</tr>
<tr>
<td>Employee</td>
<td>68</td>
<td>0.68</td>
<td>68%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational level</th>
<th>Repetition</th>
<th>Relative repetition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reads and written</td>
<td>20</td>
<td>0.2</td>
<td>20%</td>
</tr>
<tr>
<td>Primary</td>
<td>22</td>
<td>0.22</td>
<td>22%</td>
</tr>
<tr>
<td>Medium</td>
<td>5</td>
<td>0.05</td>
<td>5%</td>
</tr>
<tr>
<td>Secondary</td>
<td>13</td>
<td>0.13</td>
<td>13%</td>
</tr>
<tr>
<td>University</td>
<td>39</td>
<td>0.39</td>
<td>39%</td>
</tr>
<tr>
<td>More</td>
<td>1</td>
<td>0.01</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of birth</th>
<th>Repetition</th>
<th>Relative repetition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>65</td>
<td>0.65</td>
<td>65%</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>14</td>
<td>0.14</td>
<td>14%</td>
</tr>
<tr>
<td>Both of them</td>
<td>21</td>
<td>0.21</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home address</th>
<th>Repetition</th>
<th>Relative repetition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country side</td>
<td>29</td>
<td>0.29</td>
<td>29%</td>
</tr>
<tr>
<td>City</td>
<td>71</td>
<td>0.71</td>
<td>71%</td>
</tr>
</tbody>
</table>

Table (4-1) shows -12% of women at the age of 21-25 year and 40% of women in age 36 and more than.
-32% of women in housewife and 68% of women in occupational.
-20% of women she is read and write and 40% of women with the university level.
-65% of woman in type of labor with normal vaginal delivery (N.V.D) and 14% with caesarean section (C/S).
-29% of women live in the country side and 71% of women live in city.
### Table (4-2): Represent the questionnaire questions

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Yes</th>
<th></th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Repetition</td>
<td>Relative repetition</td>
<td>Percentage</td>
<td>Repetition</td>
</tr>
<tr>
<td>1</td>
<td>Do you think the pills are better and fairy way to prevent pregnancy?</td>
<td>40</td>
<td>0.4</td>
<td>60</td>
<td>0.6</td>
</tr>
<tr>
<td>2</td>
<td>Do you think that the (I.U.C.D) are the best and fairy way to prevent pregnancy?</td>
<td>40</td>
<td>0.4</td>
<td>60</td>
<td>0.6</td>
</tr>
<tr>
<td>3</td>
<td>Do you think that the male condom is better and fastening way to prevent pregnancy?</td>
<td>27</td>
<td>0.27</td>
<td>63</td>
<td>0.63</td>
</tr>
<tr>
<td>4</td>
<td>Do you think that the female condom is better and fastening way to prevent pregnancy?</td>
<td>19</td>
<td>0.19</td>
<td>81</td>
<td>0.81</td>
</tr>
<tr>
<td>5</td>
<td>Do you think that the muscular injection is better and fairy way to prevent pregnancy?</td>
<td>40</td>
<td>0.4</td>
<td>60</td>
<td>0.6</td>
</tr>
<tr>
<td>6</td>
<td>Do you think that the calendar method is better fairy way to prevent pregnancy?</td>
<td>41</td>
<td>0.41</td>
<td>59</td>
<td>0.59</td>
</tr>
<tr>
<td>7</td>
<td>Do you think that the vaginal suppositories are better and easier to prevent pregnancy?</td>
<td>27</td>
<td>0.27</td>
<td>73</td>
<td>0.73</td>
</tr>
<tr>
<td>8</td>
<td>Is the way to transcend the slide inside the body better and fastest way to prevent pregnancy?</td>
<td>50</td>
<td>0.5</td>
<td>50</td>
<td>0.5</td>
</tr>
<tr>
<td>9</td>
<td>Do you prevent pregnancy contribute to improving the economic and social situation of the family?</td>
<td>93</td>
<td>0.93</td>
<td>7</td>
<td>0.07</td>
</tr>
<tr>
<td>10</td>
<td>Do you prevent pregnancy helping to maintain the security of the mother through the spacing of the loads?</td>
<td>89</td>
<td>0.89</td>
<td>11</td>
<td>0.11</td>
</tr>
<tr>
<td>11</td>
<td>Does the pills lead to an increase in women's weight?</td>
<td>80</td>
<td>0.8</td>
<td>20</td>
<td>0.2</td>
</tr>
<tr>
<td>12</td>
<td>Is that the use of contraceptives leads</td>
<td>56</td>
<td>0.56</td>
<td>44</td>
<td>0.44</td>
</tr>
</tbody>
</table>
Table (4-2) shows that the highest ratio of (Yes) in the ninth question 93% (Do you prevent pregnancy contribute to improving the economic and social situation of the family?) and lowest ratio in (Yes) in the fourth question 19% (Do you think that the female condom is better and fastening way to prevent pregnancy?). And top ratio for (No) in fourth question 81% (Do you think that the female condom is better and fastening way to prevent pregnancy?) and lowest ration in (No) in the ninth question 93% (Do you prevent pregnancy contribute to improving the economic and social situation of the family?). 42% that women with level of education without the middle of the family in this study.

The paragraph on the type of birth normal or caesarean or both show that the women with normal birth have more information about family planning in the sample of (65%) while the caesarean birth was (14%) and 21% with both of them.

It was that women living in the city have more information about family planning where the ratio was 71%, country side while the percentage was 29%.

Table (4-2) show that in paragraph (1) which is where (do you think the pills are the best way to prevent pregnancy?) the percentage (40%) is that the answer is (Yes) and the percentage of (60%) of (No) this shows that women have information on the use of pills.

The paragraph (2) the proportion of response (No) was (60%) about the way that the intra uterine device is the best while the answer (Yes) (40%) and...
indicates that women have information on the use of intrauterine device and its effect. Paragraph (3) the ratio of response (No) was (63%) was about the male condom is the best way to prevent pregnancy while the answer was (Yes) (27%) and indicates that women have no information about the condoms and the importance of this means.

The paragraph (4) this paragraph shows that the proportion of response (No) was (81%) about the use of the female condom while the answer (Yes) was (19%) and indicates that women have no adequate information about this type of contraception.

The paragraph (5) this paragraph shows that the proportion of the response (No) is (60%) about the use of the muscular injection method and (Yes) was (40%) and this indicates that most women have information about muscular injection method.

The paragraph (6) in the present paragraph, the use of the counting method and account does not represent the best way in women where the answer was (No) (59%) and the answer (Yes) was (41%) and this shows that women do not have enough information about using the means.

The paragraph (7) shows that the proportion of response (No) was (73%) on the vaginal proper way of the best way while the answer (Yes) was (27%) and this indicates the lack of knowledge of women about using the means.

The paragraph (8) shows that the proportion of the response (No) was (50%) and the answer (Yes) was also (50%) that information on the women of these means was equal to the answer to (Yes) or (No).

The paragraph (9) shows that the proportion of response (Yes) was (93%) that women had information on the family planning and its role in improving the economic and social situation of the family while the proportion of the response (No) (7%).

Paragraph (10) the table shows that answer (Yes) is the highest rate (89%) and the women had information on the maintenance of the mother's health through the spacing between the pregnancy and the proportion of the response (No) (11%).

Paragraph (11) the table shows that the answer (Yes) is the highest percentage (80%) and the women had sufficient information about the pills and their role in increasing the weight of women while the proportion of the response (No) is (20%).

Paragraph (12) the table shows that the proportion of the answer is (Yes), the highest percentage was (56%) on the use of contraceptives lead to the infertility in future while the proportion of the answer (No) was (44%).

Paragraph (13) the table shows that the proportion of response (Yes) was (50%) and the proportion of the answer (No) was (50%) and this indicates that women have information on the use of this means with lactating women.

Paragraph (14) shows the proportion of the answer (Yes) was (73%) and this indicates that women in the sample should search have information on the use of intrauterine device and incidence of the uterine bleeding, while the proportion of answer (No) was (27%).

Paragraph (15) the table shows that the proportion of response is (Yes) (88%) on the use of muscular injection, which causes the change of the menstrual cycle, that women have information on the means while the answer (No) was (12%).

**Emergency contraception:**

**Hormonal contraception:**
- Oral contraceptive pill, vaginal ring, injectable contraception, intrauterine contraception (IUC).

**Non-Hormonal contraception:**
- Male condom, sponge diaphragm, vasectomy, female condom, intrauterine contraception (IUC), cervical cap, spermicides, tubal ligation, and tubal occlusion.

**Natural methods:**
- Fertility – Awareness based method
- Abstinence withdrawal (coitus interrupts)
- locational amenorrhea method (LAM).

**Hormonal contraception:**
- Hormonal birth control regulates the change in hormonal levels during a woman's cycle by using different forms of synthetic hormones that mimic the
estrogen and progesterone that is naturally produced in a woman's body.

**Oral contraceptive pill:**
The oral contraceptive pill, also known as birth control pill, is suitable for most healthy women, regardless of age, and can be used long-term. It is one of the world’s most prescribed medications – over (100) million women across the globe rely on it. There are two kinds of oral contraceptives, the combined oral contraceptive (COC), which contains both estrogen and progesterin, and the progestin only contraceptive (POP). The pill is available at pharmacies but requires a prescription.(https://sexandeduca.2016).

Oral contraceptive, commonly known as the pill or OCs, are composed of varying amounts of synthetic estrogen combined with a small amount of synthetic progesterone. The estrogen acts to suppress follicle-stimulating hormone (F.S.H) and luteinizing hormone (L.H.). Thereby suppressing ovulation. The progesterone action complements that of estrogen by causing a decrease in the permeability of cervical mucus, thereby limiting sperm motility and access to ova. (Speroff and Darney, P.D., 1996).

**How does it work?**
The oral contraceptive pill works by preventing the ovary from releasing an ova, thickening the cervical mucus making it difficult for the sperm to reach the ova, and changing the lining of the uterus making implantation difficult. The pill is taken every day, ideally at the same time each day. Traditional pills are set up with pills for three weeks, followed by a pill-free week or a week of placebo pills. Newer pill options have adjusted the regimen to provide effective contraception with lower doses of hormones and as little as two days of placebo to minimize hormone fluctuations and side effects. Typical use failure rate : 90 to 1000 women during first year of use.

**Advantages:**
- Decrease premenstrual symptoms.(https://www.sexandeduca.2016)
- Coitus independent

**Disadvantages:**
- Effectiveness may be reduced by other medication. May cause irregular bleeding or spotting. May cause breast tenderness, nausea or headache. Must be taken every day, at the same time. May increase the risk of blood clots, particularly in women who have certain blood disorders or family history of blood clots.
- Does not protect against (STIs), possible side effects : daily use continual cost. (Hatcher, etal., 1998).

**There are two kinds of oral contraceptive, the combined contraceptive (COC) and the progestin – only contraceptive (POP):**
- combined oral contraceptive (COC) : contains both estrogen and progestin.
- Progestin-only contraceptive (POP):

**Advantages:**
- May be suitable for women who cannot take estrogen.
- May be suitable for breastfeeding women.
- May be for women over (35) years old who smoke.

**Subcutaneous implants:**
Norplant, a sub dermal hormonal implant, is a form of contraception that received U.S food and drug administration (FDA) approval in (1991). Six non-biodegradable statistic implants about the width of pencil lead and filled with levonorgestrel (a synthetic progesterone) are embedded just under the skin on the inside of the upper arm. Once embedded, the implants a paper only as irregular lines on the skin, simulating small veins. For (5) years, the implants slowly release the
hormone sup-pressing ovulation, rapidly moving on ovum through the fallopian tube, stimulating thick cervical mucus, and changing the endometrium so implantation is difficult. (Rosenberg, et al., 1997).

**Advantage:**
Long-term reversible contraceptive is that it offers an effective and reliable alternative to oral contraceptive. The compliance issues associated with daily OCs are eliminated.

The sexual enjoyment is not inhibited as may be the case with condoms, spermicide, diaphragms and natural family planning. Implants can be used during breast feeding without an effect on milk production. Implant can be used safely with adolescents. The rapid return to fertility (about 3 month after removal). (Berenson, et al., 1997).

**Disadvantage:**
Cost, weight gain. Irregular menstrual cycle, which include spotting, breakthrough bleeding, amenorrhea, prolonged periods. Hair loss, Potential depression, Scarring at insertion site. (Haugen, et al., 1996).

**Contraceptive patch:**
It is a (4×4 cm) beige patch that sticks to a women's skin and continuously release the hormones estrogen and progestin into blood stream.

**How does to work?**
- Each patch is worn on the skin for seven days. One patch is worn each week for (3) weeks. The patch should be changed on the same day each week (culled the patch change day). The fourth week is patch free, allowing a period to occur. The patch should never be off more than seven days. Following the seven patch-free days, a new cycle is started when you apply a new patch on your patch change day.

- The patch can be worn on the buttock, stomach, back or upper arm, but not on the breast. It may help to change the location a bit each week. The patch should be applied to clean, dry skin. You should not use any creams or lotion near a patch you are already wearing or where you'll be applying a new one.

- The patch is very "sticky". You can exercise, shower, swim or go in a sauna or hot tub and it still sticks (98%) of the time. Typical use failure rate 90 of 1000 women during first year of use.

**Advantage:**
High effective reversible and safe.
Does not interfere with sex.
May reduce menstrual flow and cramps.
Regulates menstrual cycle.
Decrease premenstrual symptoms.
Reduce the risks of endometrial, ovarian and colon cancers.
Reduces the risk of fibroids and ovarian cysts.

**Disadvantages:**
May cause irregular bleeding or spotting.
May cause breast tenderness, nausea or headaches.
May cause skin irritation.
May be less effective in women who weigh more than (90kg).
Does not protect against (STIs).

**Vaginal ring:**
The vaginal ring is a soft, flexible, clear plastic ring that measures (54mm) is diameter and is inserted into a women's vagina where it slowly releases the hormones, estrogen and progestin for three weeks.

**How does it work?**
The vaginal ring prevents pregnancy primarily by stopping the ovaries from releasing an ova but it may also thicken the cervical mucus (making it harder for sperm to get into the uterus) and make the uterine lining thin. It method of action is very similar to the pill. Typical use failure rate 90 of 1000 women during first year of use.

**Advantage:**
Highly effective, reversible and safe.
May reduce menstrual flow and cramps.
Regulates menstrual cycle.
Decrease premenstrual symptoms.
Reduce the risks of endometrial, ovarian and colon cancers.
Reduce the risk of fibroids and ovarian cysts.
Does not have to e remembered each day.

**Disadvantages:**
May cause irregular bleeding or spotting.
May cause breast tenderness, nausea or headache.
May cause vaginal irritation, discomfort or discharge.
Requires remembering to change the ring once per month.
Does not protect against (STIs).

**Intrauterine contraception (IUC):**
Intrauterine contraceptives (IUCs) are long-acting reversible contraceptive methods that are used by over (150) million women worldwide. They are the most effective forms of birth control available. IUCs are small T-shaped devices that are inserted in the uterus by a health care professional.

One of the most effective methods of contraception available. Typical use failure rate 2 of 1000 women during first year of use.

**How does it work?**
The small cylinder on the IUC contains the hormone levonorgestrel, which is slowly released. The lining of the uterus becomes thinner and the cervical mucus becomes thicker which makes it harder for sperm to enter the uterus.

The IUC is inserted by a health professional. The procedure is fairly simple, does not require anaesthesia, and only takes a few minutes.
Depending on the device, the IUC can remain inserted for 3-10 years before needing to be replaced.

**Advantages:**
Highly effective, reversible and safe.
Long term, forgettable and invisible.
Cost effective.
May be suitable for women who cannot take estrogen.
May be suitable for breast feeding women.
Reduces risk of endometrial cancer.

**Disadvantages:**
Initially, irregular bleeding or spotting may occur.
Expensive.
Some pain or discomfort during insertion.
Rare risks with the insertion could include infection perforation of the uterus or expulsion of the IUC.
Does not protect against (STIs)

**Injectable contraception:**
Injectable contraception, also known as the birth control shot, is a highly effective and reversible methods of contraception. The injection contain a progestin, but does not contain estrogen. It is administered four times a year, so it may be a good choice for women who have trouble following a daily, weekly, or monthly routine.

**How does it work?**
The injection is given by a health-care professional in the muscle-commonly in upper arm or buttocks, of a woman, every 12 to 13 weeks (four times a year).
The progestin hormone prevents the ovaries from releasing an ova. It also thickens the cervical mucus making it difficult for sperm to reach the ova and changes the lining of the uterus making implantation difficult. Typical use failure rate 60 to 1000 women during first year of use. (https://www.sexandeduca2016).
Injection of med Roxy progesterone acetate (Depo-provera) inhibits ovulation, alters the endometrium and changes the cervical mucus. Side effects are irregular (M.C), headache, weigh gain and potential depression (Cromer, etal.,1996).

**Advantage:**
Highly effective and long lasting.
Safe convenient and discreet.
Does not interfere with sex.
Effectiveness in not affected by most medications.
May be suitable for women who cannot take estrogen.
May be suitable for breast feeding women.
May be suitable for women over the age of 35 who smoke.
Reduces or eliminates periods.
Reduces menstrual cramps.
Reduces the risk of endometrial cancer and fibromas.
May improve symptoms of endometriosis and chronic pelvic pain.
May decrease the incidence of seizures in women who have epilepsy.

**Disadvantages:**
Initially, irregular bleeding is the most common side effect.
Less / lighter bleeding to on periods.
Heavier and more frequent bleeding, including spotting in between periods.
Causes a decrease in bone mineral density which may return to normal when a woman stops using the injection.
May be associated with change of appetite and/or weight gain in some women.
Some women may have hormonal side effects, acne, headaches, breast sensitivity, mood issues/depression and a change in sex drive.
It can take a longer time to get pregnant after getting your last shot for some, it can be approximately 6 to 10 months after the last injection for the ovaries to start releasing ova again.
Must be administered by a health care professional every 3 months.
Does not protect against (STIs).

Non-Hormonal contraception:
Non-hormonal birth control can involve creating a barrier between sperm and the ova, changing the chemistry in the reproductive tract or combination of both methods.
Non-hormonal contraception include, male condom, sponge-diaphragm, vasectomy, intrauterine contraception (IUC), female condom, cervical cap, spermicides, tubal location and tubule occlusion.

Male condom:
Male condoms are inexpensive, readily available without a prescription and used only at the time of sexual activity and effective for preventing most sexually transmitted infections (STIs).
A condom is a latex rubber or synthetic sheath that is placed over the erect penis before coitus. It prevent pregnancy because spermatozoa are deposited not in the vagina but in the tip of the condom.

How does it work?
The condom is worn over the penis during sexual activity. It should be put on before any skin to skin genital contact occurs.
The condom acts as a physical barrier preventing direct contact between the penis and the vagina.
It prevents the exchange of body fluids and also traps the sperm in the condom so it cannot fertilize the ova.
The condom is thrown away after intercourse, a new one must be used for each repeated act of intercourse.
Typical use failure rate 180 of 1000 women during first year of use. Perfect used failure rate 20 of 1000 women during first year of use.

Advantages:
Widely available without a prescription.
Inexpensive, safe and effective.
Protect against most (STIs).
Non-latex options available for those with latex allergies or sensitivities.
Both partners participate in their use, shared responsibility.
Hormone-free.
May decrease the risk of cervical cancer.
May help the wearer avoid premature ejaculation.
May be used with other contraception methods to increase their contraceptive effectiveness.

Disadvantages:
Must be available at time of sexual activity.
Must be stored and handled properly be sure to check the expiration date.
May reduce sexual spontaneity.
May slip or break during intercourse.
May reduce sensitivity for either partner.
May interfere with the maintenance of an erection.
People with latex allergies of latex sensitivity cannot use latex condoms, but may be able to use non-latex condoms.
Requires participation of both partners.

Female condom:
The female condom is a soft, loose fitting, seamless nitrile polymer sheath containing two flexible rings. One at each end it is inserted into the vagina before sex and work by holding in the sperm, preventing it from entering the vagina.

How does it work?
The female condom is a barrier contraception method, preventing contact between the sperm and the vagina.
The external ring at the open end of the condom site outside the vagina, providing some protection, the internal ring at the closed end of the condom is inserted into the vagina and helps to keep it in place.
The sheath is coated on the inside with a silicon-based lubricant. It can be placed in the vagina up to 8 hours before sexual intercourse.
A new female condom should be used for each repeated act of sexual intercourse. typical use failure rate 210 of 1000 women during first year of use. Perfect use failure rate 50 of 1000 women during first year of use.
Advantages:
Protect against both pregnancy and (STIs).
The woman has control and autonomy in placing the condom.
Can be used by people with latex allergies.
Can be used with oil-based lubricants.
Male partner may find it more comfortable and less constricting than male condoms.
The internal and external rings of the female condom may increase sexual stimulation.
Available at pharmacies without a prescription.

Disadvantages:
Some women may have trouble inserting it correctly.
More expensive than male condom.
Potential challenges include slippage and breakage.
The ring on the female condom may cause discomfort during sex.
Female condoms may be noisier than male condom during sex.

Contraceptive sponge:
The contraceptive sponge is small, disposable, polyurethane foam device that is placed in the vagina. It fits over the cervix to provide a physical barrier to prevent sperm from entering. The sponge also contains a spermicide, which help to absorb and trap sperm.

How does it work?
The contraceptive action of the sponge is primarily provided by the spermicide, which is slowly released over a period of (24) hours. The spermicide absorbs and traps the sperm and destroys the sperm cell membrane. The sponge itself also provides a physical barrier to prevent sperm from entering the cervix. The sponge can be inserted into the vagina by the women using it up to (24) hours before intercourse.

On side has a concave dimple that first over the cervix. The other side has a loop to facilitate removal. The sponge comes in one size only and is available in pharmacies without a prescription. Protection begins immediately when inserted and lasts for (24) hours even with repeated acts of intercourse. It should be left in the vagina for at least (6) hours after the last act of intercourse but should not remain in the vagina for more than (30) hours total.

Typical use failure rate porous women 240 of 1000 women during first year of use.

Advantages:
It offers a barrier method and spermicide in one. Provides 12 hour protection, and doesn’t need to be replaced for repeated sex during this time enhances the effectiveness of other form of contraception such as condoms no hormones. Available at pharmacies without a prescription.

Disadvantage:
Increases the risk of vaginal and cervical irritation or abrasions, which increases the risk of transmission of (HIV). Some women may have trouble inserting it correctly. Does not protect against STIs. Higher failure rate compared to other types of contraception.

Cervical Cap:
The cervical cap is a deep silicone cap that fits against the cervix and prevent sperm and bacteria from entering. A cervical cap is made of soft rubber, shaped liked a thimble, and fits snugly over the uterine cervix. The lowest reported failure rate of the cervical cap is 8% although the typical rate of failure is estimated to be as high as 18%. (Hatcher, etal, 1998).

How does it work?
The cervical cap serves as a physical barrier between sperm and the cervix. It should always be used with a gel that immobilizes or kills sperm. The gel forms a physical cellulose barrier in front of the cervix and lowers the pH of the vaginal fluid thereby inhibiting sperm motility.
The cap can be inserted into the vagina by the women using it up to 2 hours before having sex. The gel should be reapplied, using and applicator for each repeated act of intercourse or after 2 hours has passed. It should be left in the vagina for at least 6 hours after intercourse but should not remain in the vagina for more than 48 hours total. Cervical caps can be purchased online or from a pharmacy with
a prescription. It should be replaced every year.(https://www.sexandeduca2016)

**Advantages:**
Non hormones.
Can be used by woman who are breast feeding.
Available in three different sizes.

**Disadvantages:**
Higher failure rate compared to other types of contraception.
Increased risk of recurrent urinary tract infection.
Increased risk of toxic shock syndrome.
Some women may have trouble inserting it correctly.
Gel must be reapplied after each act of intercourse.
A poor fit of silicone allergy will prevent some women from using the cap.
Does not protect against (STIs).

**Diaphragm:**
The diaphragm is a cap made of latex or silicone and nylon that covers the cervix and prevent sperm from entering. The diaphragm should always be used with a gel, which is placed inside the diaphragm to immobilize or kill sperm.(https://www.sexandeduca2016)

**How does it work?**
The diaphragm serves as physical barriers between sperm and the cervix. It should be used with gel that immobilizes or kill sperm. The gel forms a physical cellulose barrier infront of the cervix and lowers the pH of the vaginal fluid thereby inhibiting sperm motility.
The diaphragm can be inserted into the vagina by the women using it up to 2 hours before having sex. It should be left in the vagina for at least 6 hours after intercourse but should not remain in the vagina for more than 24 hours total. If there is repeated intercourse within the first 6 hours more gel should be inserted with an application (the diaphragm should not be removed).(https://www.sexandeduca2016)

**Side effect of diaphragm:**
Users of diaphragm may experience a higher number of urinary tract infections (UTIs) than nonusers probably because of pressure on the urethra diaphragm may not be effective if the uterus is prolapsed, retroflexed or ante flexed to such a degree that the cervix is also displaced in relation to the vagina.(https://www.sexandeduca016)

**Advantages:**
Non hormones.
Can be used by women who are breast feeding.
The diaphragm is one size and fits most women.
Available at pharmacies without a prescription.

**Disadvantages:**
Higher failure rate compared to other types of contraception.
Increased risk of recurrent urinary tract infection.
Increased risk of toxic shock syndrome.
Some women may have trouble inserting it correctly.
Water- based gel must be reapplied after each act of intercourse.
A latex or silicone allergy will prevent some women from using the diaphragm.

**Spermicides:**
A chemical called nonoxynol-9 comes in the form of cream (only for use with diaphragm), gel, foam film or suppository.

**How does it work?**
Nonoxynol-9 is a surfactant that destroys the sperm cell membrane. Spermicides are available at pharmacies without a prescription, in the form of cream, gel, film or suppository. Spermicidal film must be inserted into the vagina at least 15 minutes before intercourse. It will melt and disperse. If more than 3 hours have passed before intercourse another film must be inserted. Spermicide foam is inserted into the vagina using an applicator. it is effective immediately and for up to one hour after insertion. It must be applied again for each act of intercourse.

Vaginal spermicides are among the least effective of all contraception options.
Failure rates in the first year of use vary from 18% with perfect use to 28% with typical use. Spermicides should be used with another barrier method of contraception, such as a diaphragm or sponge.

**Advantages:**
- No hormones.
- When used with another barrier method effectiveness increase.
- May also protect against bacterial infections and pelvic inflammatory disease. (https://www.sexandeduca2016)

**Disadvantages:**
- Not highly effective.
- Using spermicide can be messy.
- Must be inserted right before sex because it's only effective for one hour.
- May irritate the entrance of the vagina or the tip of the penis.
- May increase risk of HIV transmission.
- Does not protect against (STIs). (https://www.sexandeduca2016)

**Surgical methods of reproductive life planning:**
Surgical methods of reproductive life planning include sterilization (atubal ligation procedure for women and vasectomy for men).

**Vasectomy:**
Male sterilization by vasectomy is a permanent surgical procedure to close or block the vas deferens (the tubes that carry sperm to the penis). Since it is permanent this option is especially for those who have decided that their family is complete or that they don't want to have children. Compared to tubal ligation, vasectomy is safer, more effective less expensive and less invasive.

**How does it work?**
In a vasectomy procedure the vas deferens is partially removed or blocked, so that no sperm is released to fertilize the ova. Using local anaesthesia a health professional will reach the vas deferens either by making a small incision on the skin of the scrotum (conventional vasectomy) or by making a small puncture on the skin of the scrotum (no-scalpel vasectomy). Another form of contraception is require until a semen analysis shows no sperm.

Although vasectomy is highly effective, failure do occur and can occur many years after the procedure – for every 100 women who rely on vasectomy for contraception 2 women will become pregnant.

**Advantages:**
- Safe and highly effective.
- Simple procedure no follow up required (aside from sperm analysis).
- Does not interfere with sex.
- No hormones.
- Discreet and cost – effective.
- Does not affect sexual function.
- Less invasive and fewer complications than female sterilization.
- No significant long – term side effects.
- Allows the male partner to assume some responsibility for contraception.

**Disadvantages:**
- Permanent and irreversible.
- Risk of having regrets later on.
- Not effective immediately must use another contraception.
- Method for 3 months and do a follow up sperm.
- Analysis that shows no sperm are present in the semen.
- Rarely the vas deferens could reconnect by themselves.
- Possible short – term surgery related complications, pain , bleeding, vasovagal reaction, infection at site of incision, bruising and swelling of the scrotum.
- Does not protect against (STIs). (https://www.sexandeduca2016)

**Tubal ligation and tubal occlusion:**
Female sterilization by tubal ligation is a permanent surgical procedure where the two fallopian tubes which transport the ova from the a varies to the uterus get disconnected. Tubal ligation is considered permanent because reversing is costly difficult and not guaranteed. Female sterilization by tubal occlusion is a permanent procedure where a micro insert is placed into each of the fallopian tubes. The micro-inserts work with your body to form a natural barrier that keeps sperm from reaching the ova prevent pregnancy. (https://www.sexandeduca2016)

**How does it work?**
There are few of one – day surgeries procedures for female sterilization which is performed by a gynecologist.

**Tubal ligation:**
Laparoscopy using a general anesthesia the doctor will make small incision over the abdomen and either clip burn or remove the fallopian tubes.

**Tubal occlusion:**
Hysteroscopy using only local anesthesia a gynecologist will put micro- insets in your fallopian tubes through a vaginal approach. It takes 3 months for this method to be effective at which time a confirmation (e.g. x-ray, ultrasound) is done to make sure the tubes are fully blocked. (https://www.sexandeduca2016)

**Contraindication to laparoscopy:**
Are an umbilical hernia because bowel perforation might result and extensive obesity which would probably require a full laparotomy to allow adequate visualization.

A number of women develop vaginal spotting, intermittent vaginal bleeding and severe lower abdominal cramping after tubal ligation (post tubal ligation syndrome). Removing the fallopian tubes appears to relieve the symptoms tubal ligation is associated with a decreased incidence of ovarian cancer. (https://www.sexandeduca2016)

**Advantages:**

No incision or scar (specific to tubal occlusion with micro - inserts). Can be safely performed in an outpatient setting (specific to tubal occlusion with micro – inserts).

**Disadvantages:**
Permanent and irreversible. Risk of having regrets later on. Not effective immediately when micro - inserts are used must use another contraception method for 3 months and do a follow up confirmation and test (e.g X-ray, ultrasound) that shows if tubes are fully blocked (specific to tubal occlusion with micro-inserts).

Possible short-term surgery related complication pain, bleeding, infection at the incision site trauma to adjacent organs in the abdomen. Possible procedure-related complications during and following the micro-inserts placement pain, cramping and vaginal bleeding (specific to tubal occlusion with micro-inserts).

Risk of ectopic pregnancy if failure occurs. Rarely skin of not being able to put in the micro-inserts or of them slipping out (specific to tubal occlusion with micro-inserts).

Follow up may be required (X-ray) (specific to tubal ligation). Rarely the fallopian tubes could reconnect by themselves (specific to tubal ligation).

Does not protect against (STIs).

**Fertility awareness methods (natural family planning):**
Fertility awareness or natural family planning methods rely on periods of temporary abstinence or temporary contraceptive use and require and understanding of the changes that occur in a woman's ovulatory cycle. With fertility awareness couples determine fertile days and abstain from sex or use a birth control method during these days. They are then free to go without contraception during the rest of the month. (Hatcher, etal., 1998).

Natural methods of birth control do not involve medications or devices to prevent pregnancy but rather rely on behavioral practices and / or making observations about a woman's body and menstrual cycle. (https://www.sexandeduca2016)

Natural methods include fertility – awareness based methods , withdrawal (coitus interrupts), locational amenorrhea method (LAM), abstinence.

**Fertility - awareness based methods:**
Ovulation is the time during a woman's menstrual cycle when she is most likely to get pregnant. Contraception can occur when sexual intercourse takes place during the fertile window from 5 days before to 1 day following ovulation. Fertility awareness based methods (FABs) rely upon avoiding unprotected sex during this fertile window. (https://www.sexandeduca2016)

How does it work?
When using fertility awareness based methods the first thing to do is to become familiar with your menstrual cycle. There are several methods to determine when ovulation occur. Measuring your basal body temperature every day and charting it on a special form. Checking your urine with ovulation kit to measure the (L.H) hormone. Observing changes in your cervical mucus using an app to follow the calendar method and track your menstrual cycle and ovulation, or a combination of all of these methods. Using these methods you can calculate your fertile window and then avoid having sex during this time. 24 out of every 100 couples who use fertility awareness-based methods each year will have a pregnancy based on typical use.

Advantages:
Safe, little cost, non-hormones, No side effects, These methods are considered natural, allows you to learn about your own body.

Disadvantages:
This method is the least effective in preventing pregnancy. Requires a lot of practice to learn how to use this method correctly. It can be tricky because not all menstrual cycles are regular. Can be challenging to avoid sex at certain time. Requires both partners to be full committed to using the method. Does not protect against (STIs).

Lactation Amenorrhea Method (LAM):
Lactation amenorrhea method (LAM) is used by a woman who has just given birth and is exclusively breast feeding, this method is highly effective for the first six months after childbirth provided the woman breast feeds the baby at least every four hours during the day and every six hours through the night and that her menstrual period has not yet returned. After six months fertility may return at an time.(https://www.sexandeduca2016)
As long as a woman is breast feeding an infant there is some natural suppression of ovulation use of lactation as a birth control method is not reliable enough to be dependable because women may ovulate but not menstruate while breast feeding the fact they have not had menstrual period after childbirth does not ensure that they are not fertile after 6 months they should be advised to choose another method.

How does it work?
The hormones that trigger lactation (producing breast milk) interfere with the release of the hormones that ligger ovulation. The more you nurse your body the less likely you are to ovulate about 2 out of 100 women who used continuous breast feeding will became pregnant in the first six months, based on typical use.

Advantages:
It is a natural way to prevent pregnancy after giving birth, safe and convenient, no cost, breast feeding has many other advantages for the mother and the baby.

Disadvantages:
Effectiveness is limited to only 6 months following childbirth, may be difficult for some to exclusively breast feed and not use any formula. Breast feeding may reduce vaginal lubrication when a woman is having sex. Does not protect against (STIs).

Withdrawal (Coitus interrupts) :
Withdrawal also known as the pull out method is an attempt to avoid having any sperm ejaculated into the vagina or on the vulva during sex. The male withdraws his penis from the vagina and away from the external genitalia of the female partner prior to ejaculation. Both partners must be in agreement on this method and must be prepared to deal with an unplanned pregnancy, with can occur in 1 out of 5 users.(https://www.sexandeduca2016)

How does it work?
During sex the male withdraws his penis from the vagina and away from the external genitalia of the female partner prior to ejaculation. It can be difficult and both partners have to be really careful because right before ejaculation there is some fluid released from the penis that contains sperm.
Withdrawal is a risky method about 22 out of 100 women use the withdrawal method will become pregnant in a year.

Advantages:
It is considered a natural method. No cost. Safe and convenient. No hormones. It is immediate for partners who have entered
into a sexual act without having an alternative method. No consultation or prescription required.

**Disadvantages:**
It's not easy it takes a lot of self – control. It is a risky practice – even if man pulls out in time pregnancy can still happen. Does not protect against (STIs).([https://www.sexandeduca2016](https://www.sexandeduca2016))

**Calendar (P rhythm) method:**
The calendar method requires a couple to abstain from coitus on the days of a menstrual cycle when the woman is most apt to conceive (3 to 4 days before and after ovulation). To plan for this a woman should keep a diary of six menstrual cycles. To calculate "safe" days subtract 18 from the shortest cycle documented. This number represent her first fertile day. She subtracts 11 from her longest cycle. This is her last fertile day. If she had six menstrual cycles ranging from 25 to 29 days, her fertile period would be from the 7th day (25-18) to the 18th day (29-11) to avoid pregnancy, she would avoid coitus during these days. (Hatcher, et al., 1998).

**Abstinence:**
Abstinence refers to not having sex. There are many forms of sexual abstinence but in terms of using this as a method of contraception it means avoiding vaginal intercourse. This type of abstinence can be effective for preventing unwanted pregnancy while allowing a couple to be involved in other forms of closeness, but it has a significant failure rate.

**How does it work?**
Choosing not to have sex may seem to be the most certain way to prevent pregnancy. It takes a very high level of self-control and communication between partners. If abstinence is used as a contraception method both partners must make sure to avoid any contact between the penis and the vagina and also be cautious not to have the pre-ejaculated or ejaculate come in close contact with the vagina.

**Advantages:**
Theoretically the most effective method of contraception. Safe and no cost. No side effects.

**Disadvantages:**
Can be challenging over time. Partners are unprepared if a change of mind suddenly occurs. Requires both partners to be fully committed to using the method.

**Conclusion:**
The results indicated that there was insufficient information for women about the use of condoms. The study showed that women did not have information about vaginal suppositories. In addition, the results indicated that women had little information about intramuscular injection and use of intra uterine device and birth control pills.

**Recommendations:**
1- Increasing educational courses for women, especially housewives, on the importance of family planning.
2- Educate women about family planning methods and the importance of each method and side effects of each method.
3- Publishing posters and instructions on family planning and educating women about the use of all means in villages and rural areas.
4- Urge women on periodic review to family planning centers as scheduled.

**References:**
https://www.wikipediawho.int.2018/02/08