

Study of women's reproductive health knowledge, awareness, and attitudes in Borgaon Village, Wardha District.

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2.Omit full stop from the title

Abstract:

Background: Reproductive health is defined as a state of complete physical, psychological, and social contentment, free of sickness, as well as the functions and activities of the reproductive system. Sexual and reproductive health care, which includes HIV/AIDS, includes the prevention and treatment of sexually transmitted diseases (STDs). The reproductive health care system aids in the right diagnosis, treatment, and management of illness urgent conditions.

Aim: Aim was to study about knowledge, awareness and attitude towards reproductive health of women in Borgaon Village of Wardha District.

Methodology: Personal interview and wellstructured questionnaires was framed for women of 20 – 45 years of age groups from Borgaon village. Data was collected. Verbal consent of the subject was taken before interview. **Result:** As per the statistics, 78% women were use sanitary pads though 55% women were still used napkins & cottons due to lack of awareness, shyness & low economic condition. 82% women were aware about contraception but still 59% women preferred to use it, because they were worried about its side effects. It was found that, when women came across any gynecological problem only 67% of them had quick approach to doctor. 76% women thought about the need of learning reproductive knowledge. **Conclusion:** It was concluded that we still need to aware the society about reproductive health of women because whole society should be well known about the measures to be taken and how to act wisely to deal with a woman suffering from any illness regarding reproductive health.

Comment [D2]: 3.The researchers should add the background or rationale of the study instead of these hypothetical sentences/ words from secondary sources.

Comment [D3]: 4.Add The in front of aim.

Comment [D4]: 5.Add name of the country

Comment [D5]: 6.Is the instrument of data collection interview schedule or questionnaire? Not clear.

Comment [D6]: 7.Grammatical mistake

Keywords: Knowledge, Women, Reproductive health, Awareness, Attitude

Introduction:

Reproductive health is defined as a state of complete physical, psychological, and social contentment, free of sickness, as well as the functions and activities of the reproductive system. Sexual and reproductive health care, which includes HIV/AIDS, includes the prevention and treatment of sexually transmitted diseases (STDs). The reproductive health care system aids in the right diagnosis, treatment, and management of illness urgent conditions.

According to the World Health Organization (2017), period after childhood and before adulthood is known as adolescence. Human growth and development occur around 10 to 19 years of age. The adolescence is further classified into three phases that are early 10 to 13 years of age, mid 14 to 15 years of age & late i.e. 14 to 19 years of age. Somatic and mental development of girl for safe motherhood is nothing but the period of adolescence. Overall adolescent health is covered under reproductive health. [1]

From past few years it is noticed that the effect of occupational exposure on women's reproductive health is great. Earlier studies only focused on health of fetus instead of reproductive health of women. But now, it is found that reproductive toxins lead to hormonal imbalance resulting in disturbed menstrual cycle, ovulation and fertility rate of women. So, the attention is shifted towards occupational health hazards among pregnant women and fetus. [2]

Comment [D7]: 8.The Introduction lacks sufficient literature to prove the rationale of the study
9.The researchers should focus on the statement of the problem from world, regional and local perspective respectively.
10.The authors must also be aware about plagiarism.

Comment [D8]: 11.Rephrase the sentence and add citation.

Stress is one of the major issues in the society and it is always found that women are highly exposed to mental, physical as well as physiological stress. Mental i.e. psychological stress has great impact on reproductive health of women. Because stress produces the generation of ROS means Reactive Oxygen Species and leads to oxidative stress (OS). This oxidative stress affects health of ovary, quality of oocytes and ultimately results in disorders of reproductive health of women. Shatavari i.e. *Asparagus racemosus* is widely prescribed ayurvedic medication to tackle stress induced reproductive health disorders. Shatavari is known as rasayana drug and also counts in major health tonics. [3]

Menstruation is the unique concept in women. Beginning of menstruation is noticeable changes occur in girl during her adolescent years. Still menstruation is considered as something dirty and unclean in our society. Ultimately response towards menstruation depends upon the knowledge and the awareness of the people. Though menstruation is purely a natural process some misconceptions lead to adverse health outcomes. During menstruation maintaining hygiene is a very important factor because it results in reproductive tract infection (RTI). Now a days many women are suffering from various types of RTI and its complications. Also, many pregnant mothers transmitted it to their offspring due to lack of knowledge. [4]

Socio economic status and education both are very crucial factors to determine women's health. Rather focusing only on disease, it is very important to report and realize these factors which influence reproductive health consequences and women's health seeking behavior at community level. [5]

Menstruating girls feel shame, fear and confusion in school due to gender discriminatory nature of teachers, so they are unable to handle the protection, dignity and privacy of their menstruation. Due to lack of sufficient information, lack of social support, shortage of facilities for water & waste disposal girls are facing many challenges during their menstruation. Columbia University and United Nations Children's Fund (UNICEF) organized the "Menstrual Hygiene Management in Ten" in New York in October 2014 for 10 years to overcome barriers facing by school going girls. [6]

Nearly any one is conscious of the extremely bad reproductive health situation in women. The needs for reproductive health care are broad. Nevertheless, development of reproductive health care is not a trouble-free objective in society. Perspective which is widely accepted and socially integrated is very important for any inculcative initiative in the reproductive health care zone. The perspective should have a better way of understanding the current place of women in society and what they really deserve and desire. [7]

Physiological fact which naturally occurs in adolescent girl and premenopausal women is called as menstruation. Sanitary products used by women and adolescent girls to collect the blood during menstruation which can be changed in privacy according to need is nothing but menstrual hygiene management. It also includes washing the body with help of water & soap, and proper disposal of menstrual management material. [8]

School going girls age between 16 to 20 years from south Africa are found to be affected with sexually transmitted diseases, HIV and teenage pregnancy. Study shows that women suffering from HIV are four times that of men of same age. Not seeking proper care let them untreated which ultimately lead to pelvic inflammatory diseases i.e. PID and high risk of

ectopic pregnancy. Early pregnancy hampers their schooling, proper employment and earning sources.

In the last few years, it is found that incorrect social and behavioral factors lead to dangerous reproductive health outcomes. Due to lack of parental care and low economic condition young women are suffering from many reproductive health issues. Relationship play important role in maintaining proper reproductive health. Problems such as HIV positive partner, difference in age among sexual partners i.e. with a male partner who is older, multiple partners are more prone to disorders of reproductive system. [9]

Intimated partner violence affects mental as well as physical health of women leads to multiple abortions, accidental pregnancy and reduce sexual autonomy. Intimated partners violence leads victim to impaired lifestyle. Anxiety and depression are found to be very common in women suffering from intimated partner violence. There is great impact of violence on pregnant women. There may be risk of neonatal death, pre-term delivery, low birth weight of infants as well as affected breast feeding. Gynecologists noticed that patients are not easily disclosing intimated partner violence and avoid to take treatment for the same. Educating and empowering women can help them to overcome violence. Improving their social and economic status is needful. There is need to protect women from intimated partner violence. [10]

Girls and women having low income are less aware about hygienic practices & lack of suitable materials use for menstrual hygiene management. Menstruation is usually surrounded by shame, silence as well as social prohibition. In religious countries it is found that normal activities and freedom is restricted due to menstruation. Such as, cooking food, performing religious rituals, interacting with people, drinking milk, etc limitations found in many cultures. [11]

Assessment of the awareness regarding reproductive health among women in the rural population and to study their attitudes towards reproductive health is the main motto of the study. Because in India, there is insufficiency of such type of studies, mainly in rural areas. Organizing health education programs and providing health care facilities will improve their reproductive health. We can help women by providing them with educationists, policy makers and health care workers.

Objectives:

1. To analyse the knowledge of women about reproductive health.
2. To assess the awareness of women about reproductive health.
3. To know the attitude of women about reproductive health.

Materials and Methods:

Study design:

Cross-sectional observational study was undertaken in the community. Based on a well-structured questionnaire, **personal interviews** with women aged 20 to 45 were conducted. Personal interviews were conducted in the Wardha District's Bargaon Village.

Comment [D9]: 12. How the unit of analysis and population of the study was chosen is not clear.

13. I will request the authors to rethink about study design and data collection tool
N.B. the study design may be survey and the data collection tool may be interview schedule (According to the representation of data and the nature of the sample)

Questionnaires administered by an interviewer were used to assess socio-demographic characteristics, knowledge, and awareness of reproductive health in women. Before the interview, the subject gave his or her verbal consent.

Study setting:

Study was conducted in Borgaon Village of Wardha District.

Sample Size:

100

Study Type:

Cross sectional Observational study

Duration of Study:

6 months

Inclusion Criteria:

Women between the ages of 20 years and 45 years are included.

Exclusion Criteria:

Women below the age of 20 years and over the age of 45 years are exempt.

Ethics&dissemination:

Ethics approval was obtained from Institutional Ethics Committee, Mahatma Gandhi Ayurveda College, Hospital & Research Centre, Salod (H), Wardha 442001. (Ref. No. MGACHRC/IEC/2020/13, dated 06/05/2020)

Strength and Limitation:

We tried to educate and aware as much women as possible about reproductive health so that they won't face any problem. If they come across any problem regarding reproductive health in future, will be able to successfully deal with it.

Observations&Results

Observation is noted and presented in the form of charts. During the survey, 100 women aged 20 to 45 years were interviewed, and their responses were collected.

Table 1: Age of the respondents

Age (in years)	Percentage of respondents
20 – 25	30
26 – 30	31
31 – 35	14
36 – 40	15

Comment [D10]: 14. why did the researchers choose the specific study area? Show the reasons. 15. Add the name of the country

Comment [D11]: 16. add population of the study before sample selection 17. the procedure of selecting sample is not mentioned here e.g. purposive sampling or simple Random sampling

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Comment [D15]: 21. the researchers can edit the tables shown in Table 1 22. omit the symbol of % from everywhere of the study and replace it with Percent. 23. Edit the title of all tables and make it Phrase representation like table 1 24. the title of the charts is not clear or why these charts had been used in this study and in which segment it is represented is totally absent. 25. avoid to use question pattern to represent title of the chart and omit ? mark form all the charts

41 – 45 years	10%
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Table 1: shows that 30% of women are between 20 - 25 years of age. 31% of women are between 26 - 30 years of age. 14% of women are between 31- 35 years of age. 15% of women are between 36 - 40 years of age. 10% of women are between 41 - 45 years of age.

Table 2: percentage of respondents according to religion

Religion	Percentage of respondents
Hindu	65%
Muslim	13%
Buddhist	22%

Table 2: shows that 65% of women belongs to Hindu religion. 13% of women belongs to Muslim religion. 22% of women belongs to Buddhist religion.

Table 3: Percentage of respondents according to the age of menarche

Age of menarche	Percentage of respondents
Before 12 years	9%
12-15 years	61%
16-19 years	30%
Above 20 years	0%

Table 3: shows that age of menarche of 9% of women were before 12 years. 61% of women were 12 to 15 years. 30% of women were 16 to 19 years. 0% of women were above 20 years. Out of which 57% of women were married and 43% of women were unmarried.

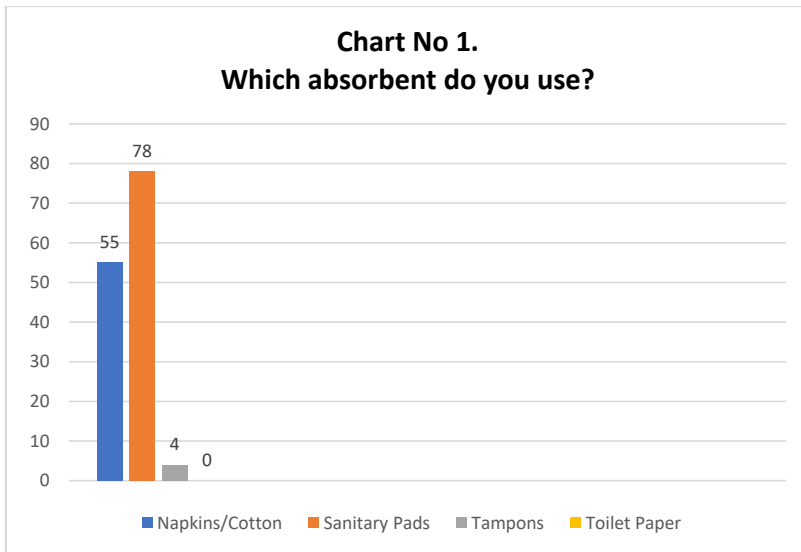
Table 4: Respondent's awareness regarding reproductive health

Sr. No.	Questions	Yes	No
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1.	Do you know about burning sensation during urination?	81%	19%
2.	Do you know about abnormal vaginal discharge?	70%	30%
3.	Do you know about genital injury?	62%	38%
4.	Do you know about Abdo-pelvic pain?	63%	37%
5.	Do you know about itching in genitalia?	79%	21%

Table 5 :Menstrual history

SR. NO.	Questions		
1.	Nature of pain	Painful 60%	Painless 40%
2.	Regularity	Regular 74%	Irregular 26%
3.	No. of days you are menstruating	<3 days 11%	3- 5 days 63%
		5-7 days 24%	>7 days 2%
4.	Does your menstruation hamper your daily activity?	Yes 54%	No 46%



As per the statistics, **Chart No 1.** Shows that 78% women were use sanitary pads though 55% women were still used napkins & cottons due to lack of awareness, shyness & low economic condition & 4% of women were using tampons. Not a single woman were known about toilet paper.

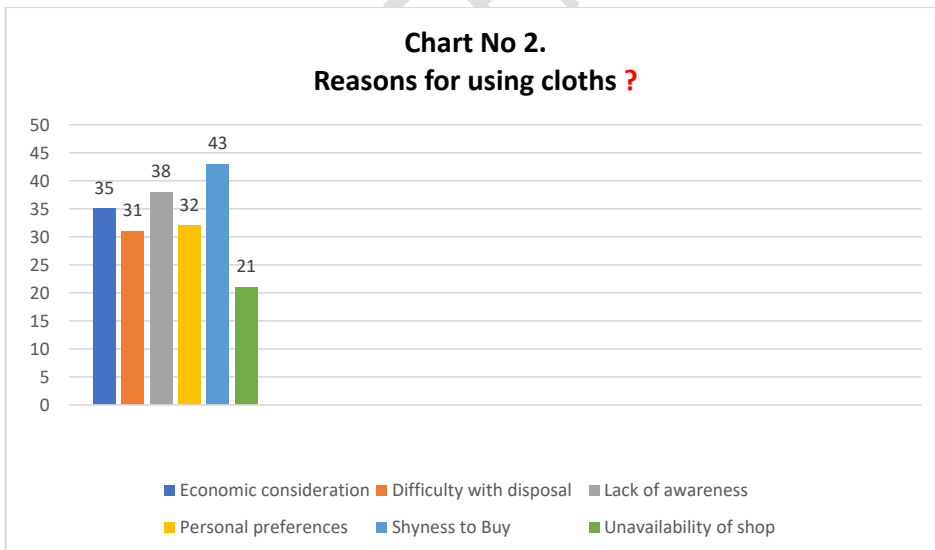


Chart No 2. Shows that 35% of women were using cloths due to low economic condition. 31% women were using it due to difficulty with disposal. It is found that due to lack of awareness 38% of women were using cloths. 32% of women were using cloths because

of their personal preferences. 43% of women were using cloths due to shyness to buy & 21% of women were facing problems like unavailability of shop in their locality.

It is found that 83% of women were responded that knowledge of contraception is necessary. 5% of women thought that there is no need of contraceptive knowledge. 12% of women responded may be.

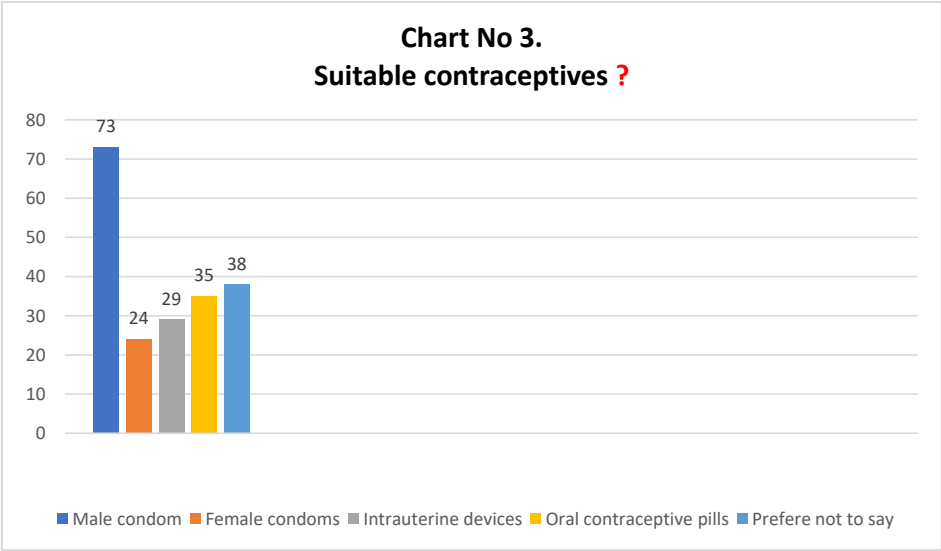


Chart No 3. Shows that 73% women were thought that male condom is suitable contraceptive. Only 24% women were responded to female condom. 29% women were thought that intrauterine devices are the best. 35% of women go for oral contraceptive pills. 38% women were preferred not to say.

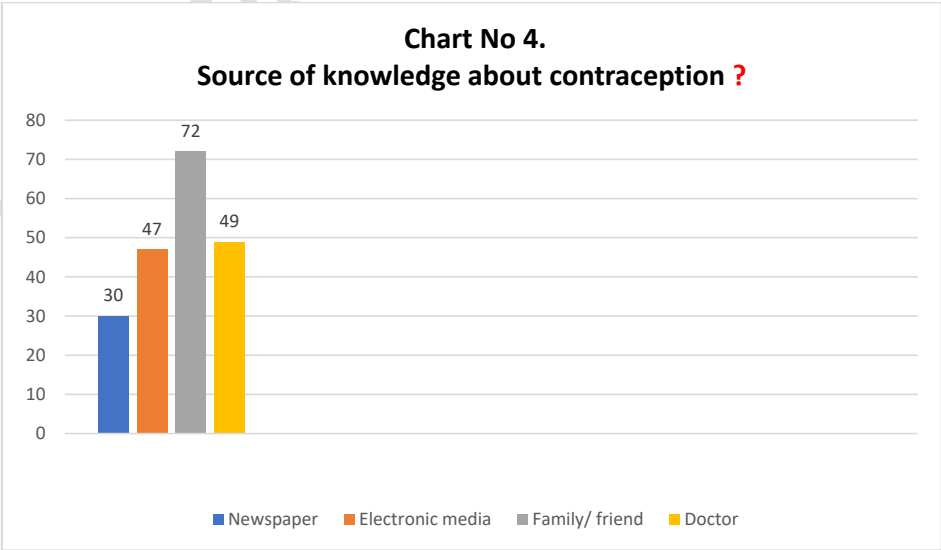


Chart No 4. Shows that 30% women got knowledge of contraception from newspaper. According to 47% women electronics media were good source. It is found that women from village got their maximum knowledge from family & friends due to lack of exposure. 49% of women responded that their source of knowledge were doctors.

It is observed that 59% of women were preferred to use contraception. 25% of women were not preferred to use contraception. 16% of women responded may be.



Chart No 5. Shows that 31% of women were thought that occasionally, sex does not lead to pregnancy. 21% of women were thought that contraceptive strategies are too costly to purchase. 22% of women were worried about adverse reactions. 28% women responded that their spouses do not want contraception to be used. 26% of women were responded that contraceptives are inconvenient to buy. 22% of women don't even knew the method to use the contraceptives.

It is noticed that 71% of women were known about sexually transmitted disease. 19% of women were don't know about sexually transmitted diseases. 10% of women responded may be.

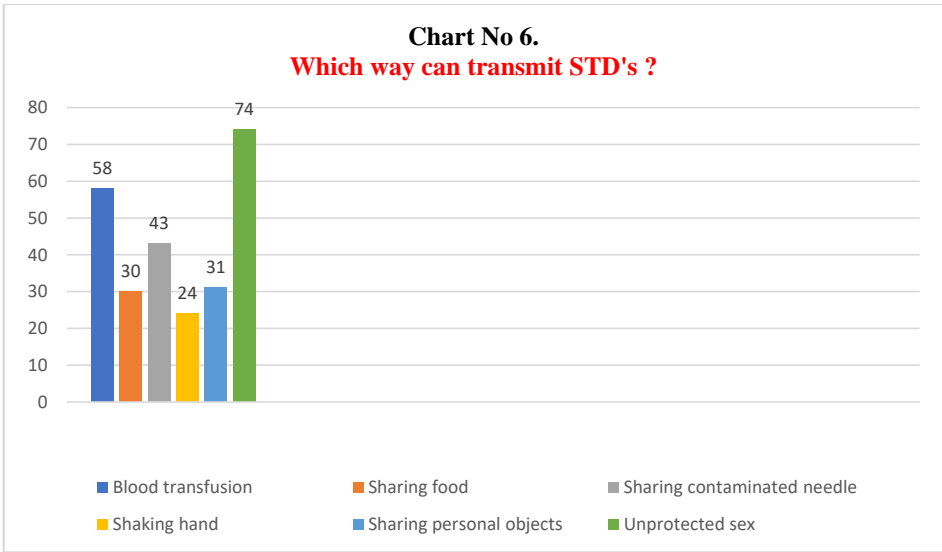


Chart No 6. Shows that 58% of women thought that STD's can be spread through blood transfusion. 30 % of women were thought sharing food can transmit STD's. 43% of women responded to sharing contaminated needles. Shaking hand can transmit STD's were answer of 24% of women. 31% of women thought that sharing personal objects can be the reason behind STD's. 74% of women responded to unprotected sex.

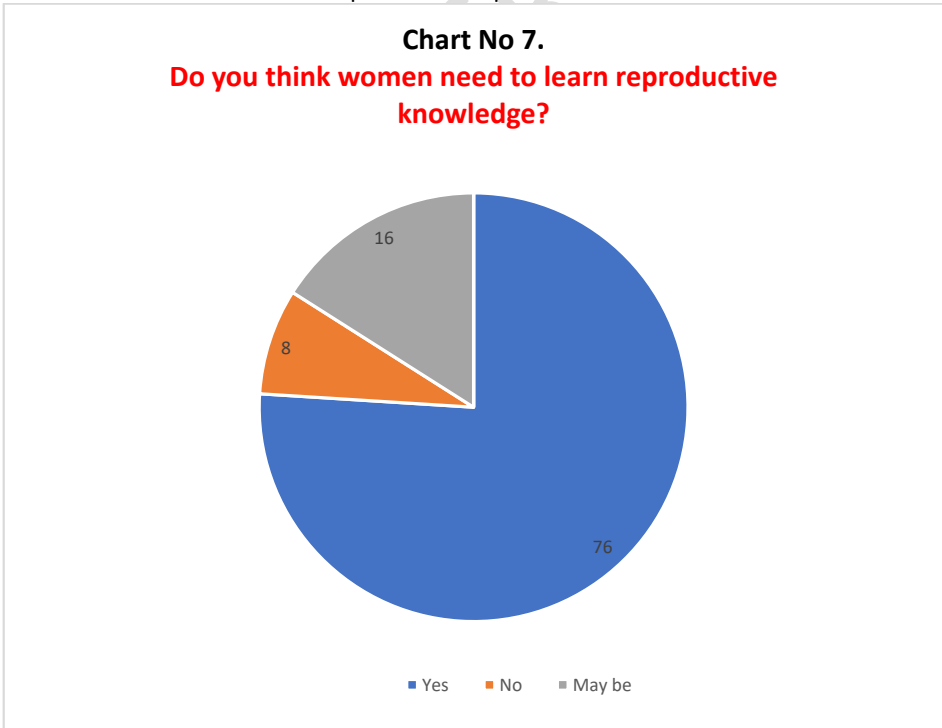


Chart No7. Shows 76% women thought that there is need of learning reproductive knowledge. Still 8 % of women thought that there is no need of learning reproductive knowledge. 16% of women responded may be.

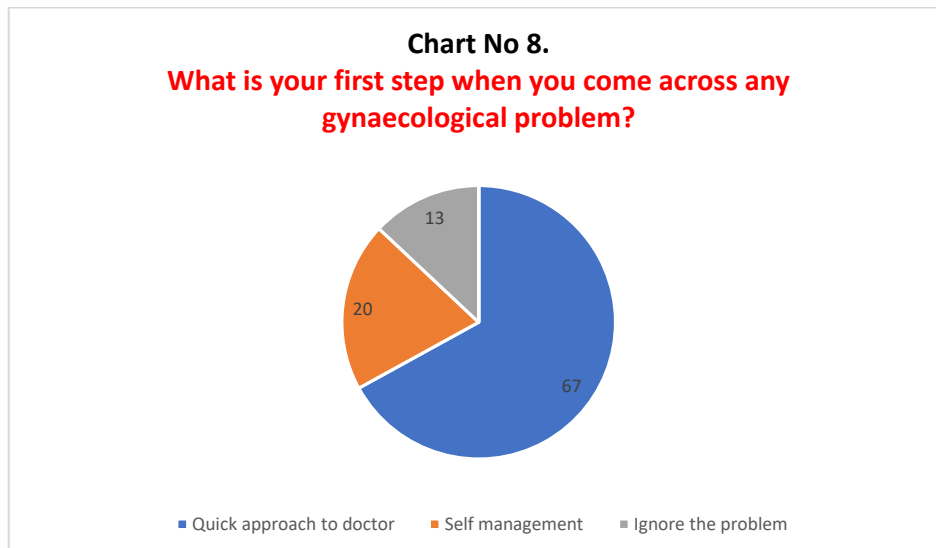


Chart No 8. Shows that when women came across any gynecological problem only 67% of them had quick approach to doctor. 13 % of women ignored the problem. 20% of women were managed by themselves.

Discussion:

This study shows that menstruating women ranged in age from 12 to 19 years, whereas Hatwar, V.'s study revealed that the menstruating girls ranged in age from 12 to 16 years. [12]

In this study, it is found that 73% women were thought that male condom is suitable contraceptive. Only 24% women were responded to female condom. 29% women were thought that intrauterine devices are the best. 35% of women go for oral contraceptive pills. 38% women were preferred not to say. An equivalent study done by Simbar, M. reveals that only 48% of participants were using condoms. [13]

In this study it is stated that 76% women thought that there is need of learning reproductive knowledge. Still 8 % of women thought that there is no need of learning reproductive knowledge. 16% of women responded may be. Study done by Simbar, M. shows that majority of study subjects believed that awareness of reproductive health is beneficial, but they thought that programmes were insufficient. [13]

In this study, it is reported that 78% women were use sanitary pads though 55% women were still used napkins & cottons due to lack of awareness, shyness & low economic condition & 4% of women were using tampons. Not a single woman was known about toilet

paper, similar study by Nagaraj showed that only 26.3% of study subjects were using sanitary pads. This difference might be due to better awareness & availability of sanitary pads in their respective areas. [14]

This study shows that 30% women got knowledge of contraception from newspaper. According to 47% women electronics media were good source. It is found that women from village got their maximum knowledge from family & friends due to lack of exposure. 49% of women responded that their source of knowledge were doctors. Similar study conducted by Abajobir observed that key source of knowledge was health practitioners for reproductive health. [15]

In this study 31% of women were thought that occasionally, sex does not lead to pregnancy. 21% of women were thought that contraceptive strategies are too costly to purchase. 22% of women were worried about side effects. 28% women responded that their spouses do not want contraception to be used. 26% of women were responded that contraceptives are inconvenient to buy. 22% of women don't even know the method to use the contraceptives. Similarly study conducted in east gojjam zone by abajobir, rural adolescents noticed that poor knowledge and peer pressure, husband opposition prevented participants from accessing contraceptive methods. [15]

According to Ayurveda, rasadhatu i.e. plasma accounts the formation of raja i.e. menstrual blood and the main cause for the vitiation of rasa dhatu is mithyaahar i.e. unwholesome diet. Dieting is trending now a days, this also leads to nutritional deficiency & further contributes in reproductive problems. Recent days, to make food look good and taste better, irrational combinations of food i.e. viruddhaahar are made. This leads to impotency i.e. shandhya as stated by Acharya Charaka. It is clear that diet & life style of person had great impact on the health of ovum & sperm. Mental stress leads to rasavahastrotodusthi which ultimately results in sterility. In 1991, total fertility rate is 3.6 which declines to 2.9 in 2008, this clearly shows that effect of changed life style & diet habits. Ayurveda recommended good lifestyle practices for maintaining proper reproductive health such as performing yoga & pranayama which gives you peace of mind, panchkarma is an incredibly efficient way of balancing and rejuvenating all body tissues to operate optimally [16]. Many studies on maternal and reproductive health issues have been reported [17-19]. Pusdekaret. al. reflected on rates and risk factors for preterm birth and low birthweight in the global network sites in six low- and low middle-income countries [20]. Bausermanet. al. reported about maternal mortality in six low and lower-middle income countries [21]. Chaudhary et. al. assessed the family planning knowledge, attitude and practice among women of reproductive age from rural area of Central India [22]. Damkeet. al. reported on bacterial vaginosis among women of reproductive age using contraceptive methods [23-25]. Unnikrishnanet. al. assessed awareness and uptake of maternal and child health benefit schemes among the women attending a district hospital in coastal South India [24]. Studies on gaps in antenatal care and reproductive health services were reported [26-30].

Conclusion:

It was concluded that we still need to aware the society about reproductive health of women because whole society should be well known about the measures to be taken and how to act wisely to deal with a woman suffering from any illness regarding reproductive

Comment [D16]: 26. the summary of the findings of the study must be demonstrated in this section.
27. the authors have not represented any concern of the society in result section so this type of hypothetical sentences must be avoided.

health. Along with personal hygiene, proper disposal of absorbent used is also important. Periodic

reproductive health checkup should be recommended to all women. It should be followed by proper treatment of the women.

Recommendations:

Health education is an important factor in improving awareness and practices related to menstruation. Therefore, a properly planned health education needs to be provided to all adolescent girls and women by governmental and non-governmental organizations. In order to crack social inhibitors and empower young teenage girls with proper awareness, all mothers need to be informed about menstruation and menstrual hygiene practices. It is also essential to involve lady teachers in schools for sustained health awareness programs in schools.

NOTE:

The study highlights the efficacy of "Ayurveda" which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical science and can be utilized partially if found suitable.

REFERENCES:

1. Gaferi SM, Al-Harbi MF, Yakout SM, Soliman AT. Knowledge, attitude and practice related to reproductive health among female adolescents. *Journal of Nursing Education and Practice*. 2018;8(8):53-65.
2. Figà-Talamanca I. Occupational risk factors and reproductive health of women. *Occupational medicine*. 2006 Dec 1;56(8):521-31.
3. Pandey AK, Gupta A, Tiwari M, Prasad S, Pandey AN, Yadav PK, Sharma A, Sahu K, Asrafuzzaman S, Vengayil DT, Shrivastav TG. Impact of stress on female reproductive health disorders: Possible beneficial effects of shatavari (*Asparagus racemosus*). *Biomedicine & Pharmacotherapy*. 2018 Jul 1;103:46-9.
4. Jr, B. F. P. ., & Federico R. Tewes. (2021). What attorneys should understand about Medicare set-aside allocations: How Medicare Set-Aside Allocation Is Going to Be Used to Accelerate Settlement Claims in Catastrophic Personal Injury Cases. *Clinical Medicine and Medical Research*, 2(1), 61-64. <https://doi.org/10.52845/CMMR/2021v1i1a1>
5. Dasgupta A, Sarkar M. Menstrual hygiene: how hygienic is the adolescent girl?. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*. 2008 Apr;33(2):77.
6. Van den Broek NR, White SA, Ntonya C, Ngwale M, Cullinan TR, Molyneux ME, Neilson JP. Reproductive health in rural Malawi: a population-based survey. *BJOG: an international journal of obstetrics and gynaecology*. 2003 Oct 1;110(10):902-8. Jodand, K. and Yerpude, P., 2011.
7. Sommer M, Caruso BA, Sahin M, Calderon T, Cavill S, Mahon T, Phillips-Howard PA. A time for global action: addressing girls' menstrual hygiene management needs in schools. *PLoS medicine*. 2016 Feb 23;13(2):e1001962.

Comment [D17]: 28. the researchers must focus on the findings to suggest any policy or recommendation. The recommendation segment is well written but they should reflect the findings not another issues.

8. Daniel, V. ., & Daniel, K. (2020). Diabetic neuropathy: new perspectives on early diagnosis and treatments. *Journal of Current Diabetes Reports*, 1(1), 12–14. <https://doi.org/10.52845/JCDR/2020v1i1a3>
9. Jogdand K, Yerpude P. A community based study on menstrual hygiene among adolescent girls. *Indian Journal of Maternal and Child Health*. 2011 Jul 1;13(3):1-6.
10. Dube S, Sharma K. Knowledge, attitude and practice regarding reproductive health among urban and rural girls: A comparative study. *Studies on Ethno-medicine*. 2012 Aug 1;6(2):85-94.
11. Galappaththi-Arachchige HN, Zulu SG, Kleppa E, Lillebo K, Qvigstad E, Ndhlovu P, Vennervald BJ, Gundersen SG, Kjetland EF, Taylor M. Reproductive health problems in rural South African young women: risk behaviour and risk factors. *Reproductive health*. 2018 Dec;15(1):1-0.
12. Sarkar NN. The impact of intimate partner violence on women's reproductive health and pregnancy outcome. *Journal of Obstetrics and Gynaecology*. 2008 Jan 1;28(3):266-71.
13. Budhathoki SS, Bhattachan M, Castro-Sánchez E, Sagtani RA, Rayamajhi RB, Rai P, Sharma G. Menstrual hygiene management among women and adolescent girls in the aftermath of the earthquake in Nepal. *BMC women's health*. 2018 Dec;18(1):1-8.
14. Daniel, V., & Daniel, K. (2020). Perception of Nurses' Work in Psychiatric Clinic. *Clinical Medicine Insights*, 1(1), 27-33. <https://doi.org/10.52845/CMI/20v1i1a5>
15. Hatwar V, Chaple JN. Awareness and practices regarding menstrual hygiene among adolescent girls residing in the village of Rasulabad in Wardha district. *Journal of Indian System of Medicine*. 2020 Jan 1;8(1):29.
16. Simbar M, Tehrani FR, Hashemi Z. Reproductive health knowledge, attitudes and practices of Iranian college students. *EMHJ-Eastern Mediterranean Health Journal*, 11 (5-6), 888-897, 2005. 2005.
17. Nagaraj C, Konapur KS. Effect of health education on awareness and practices related to menstruation among rural adolescent school girls in Bengaluru, Karnataka. *International Journal of Preventive and Public Health Sciences*. 2016 Jan 30;2(1):18-21.
18. Abajobir AA, Seme A. Reproductive health knowledge and services utilization among rural adolescents in east Gojjam zone, Ethiopia: a community-based cross-sectional study. *BMC health services research*. 2014 Dec;14(1):1-1.
19. Daniel, V., & Daniel, K. (2020). Exercises training program: It's Effect on Muscle strength and Activity of daily living among elderly people. *Nursing and Midwifery*, 1(01), 19-23. <https://doi.org/10.52845/NM/2020v1i1a5>
20. Kale VS. Modern Life Style (Mithyachaara) Effect On Female Reproductive Health: An Ayurvedic Perspective.
21. Kalambe, M., M. Jungari, A. Chaudhary, A. Kalambe, and D. Shrivastava. "Palm CoeinFigo Classification System for Causes of Abnormal Uterine Bleeding (Aub) in Non Gravid Women of Reproductive Age Group in a Peri Urban Tertiary Care Hospital." *International Journal of Current Research and Review* 12, no. 15 (2020): 128–33. <https://doi.org/10.31782/IJCRR.2020.121523>.
22. Patel, A.B., C.M. Bann, A.L. Garces, N.F. Krebs, A. Lokangaka, A. Tshetu, C.L. Bose, et al. "Development of the Global Network for Women's and Children's Health Research's Socioeconomic Status Index for Use in the Network's Sites in Low and Lower Middle-

- Income Countries." *Reproductive Health* 17 (2020). <https://doi.org/10.1186/s12978-020-01034-2>.
23. Patel, A.B., E.M. Simmons, S.R. Rao, J. Moore, T.L. Nolen, R.L. Goldenberg, S.S. Goudar, et al. "Evaluating the Effect of Care around Labor and Delivery Practices on Early Neonatal Mortality in the Global Network's Maternal and Newborn Health Registry." *Reproductive Health* 17 (2020). <https://doi.org/10.1186/s12978-020-01010-w>.
 24. Pusdekar, Y.V., A.B. Patel, K.G. Kurhe, S.R. Bhargav, V. Thorsten, A. Garces, R.L. Goldenberg, et al. "Rates and Risk Factors for Preterm Birth and Low Birthweight in the Global Network Sites in Six Low- and Low Middle-Income Countries." *Reproductive Health* 17 (2020). <https://doi.org/10.1186/s12978-020-01029-z>.
 25. Bauserman, M., V.R. Thorsten, T.L. Nolen, J. Patterson, A. Lokangaka, A. Tshetu, A.B. Patel, et al. "Maternal Mortality in Six Low and Lower-Middle Income Countries from 2010 to 2018: Risk Factors and Trends." *Reproductive Health* 17 (2020). <https://doi.org/10.1186/s12978-020-00990-z>.
 26. Choudhary, A., M. Nakade, and D. Shrivastava. "Family Planning Knowledge, Attitude and Practice among Women of Reproductive Age from Rural Area of Central India." *International Journal of Current Research and Review* 12, no. 14 Special Issue (2020): 2–7. <https://doi.org/10.31782/IJCRR.2020.0207>.
 27. Damke, S., D. Chandi, and R. Fule. "Study of Bacterial Vaginosis among Women of Reproductive Age Using Contraceptive Methods in a Tertiary Care Hospital." *Journal of Krishna Institute of Medical Sciences University* 9, no. 2 (2020): 22–27.
 28. Unnikrishnan, B., P. Rathi, R.M. Sequeira, K.K. Rao, S. Kamath, and K.K. Maria Alfam. "Awareness and Uptake of Maternal and Child Health Benefit Schemes Among the Women Attending a District Hospital in Coastal South India." *Journal of Health Management* 22, no. 1 (2020): 14–24. <https://doi.org/10.1177/0972063420908371>.
 29. Khatib, N., Q.S. Zahiruddin, A.M. Gaidhane, L. Waghmare, T. Srivatsava, R.C. Goyal, S.P. Zodpey, and S.R. Johrapurkar. "Predictors for Antenatal Services and Pregnancy Outcome in a Rural Area: A Prospective Study in Wardha District, India." *Indian Journal of Medical Sciences* 63, no. 10 (2009): 436–44. <https://doi.org/10.4103/0019-5359.57643>.
 30. Dakhode, S., A. Gaidhane, S. Choudhari, P. Muntode, V. Wagh, and Q.S. Zahiruddin. "Determinants for Accessing Emergency Obstetric Care Services at Peripheral Health Facilities in a Block of Wardha District, Maharashtra: A Qualitative Study." *Journal of DattaMeghe Institute of Medical Sciences University* 15, no. 1 (2020): 1–6. https://doi.org/10.4103/jdmimsu.jdmimsu_209_19.