

Attitude and Knowledge towards Preconception Health among Reproductive-Age Women in Pune City

Nikita Chandan Muthiyan¹, Rima Musale²

¹Intern Department of Physiotherapy, Tilak Maharashtra Vidyapeeth Pune.

²Associate Professors, Department of Physiotherapy, Tilak Maharashtra Vidyapeeth. Pune

Corresponding Author: Nikita Chandan Muthiyan

DOI: <https://doi.org/10.52403/ijhsr.20220410>

ABSTRACT

Background: This study aimed to evaluate the knowledge and attitude towards preconception health among reproductive age group women in Pune city.

Objective: To assess the knowledge and attitude towards preconception health among reproductive-age women in Pune city by using a self-made questionnaire.

Methodology: The cross-sectional study was designed to do this study; a self-made questionnaire was made and circulated in the form of Google forms. A self-made questionnaire was created, with three sections: section a demographic data, section B questions about preconception health knowledge, and section C questions about preconception health attitude.

Permission was taken from the concerned ethical committee and Google forms were distributed through social media to females of reproductive age, and data was collected and analysed. Interpretations and conclusion were recorded.

Results: Findings of this study showed that the mean score for knowledge is 76.34% and attitude is 84.7%.

Conclusion: The study showed a positive attitude and knowledge of preconception health with the women in the research data set.

Keywords: Preconception health, Knowledge, Attitude, Reproductive age women.

INTRODUCTION

Preconception health is a woman's health before being pregnant. ⁽¹⁾ Preconception means before convening. Health is defined as "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" ⁽²⁾. There is basic 3 Dimensions of health: physical, mental, and social. There are many more dimensions such as spiritual, emotional, vocational, and political components that could be included. Before conception, women's health is recognized as a vital window with profound and long-term consequences across the reproductive life course, influencing

fertility, pregnancy outcomes, and immediate and long-term health implications for both women and future generations. ⁽³⁾ As about 40% of all pregnancies worldwide are unplanned, preconception health is relevant for every one of reproductive age; for women as well as their Partners. ⁽⁴⁾ It consists of preventive, promotional, or curative health and social interventions prior to pregnancy. It's also referred to as the three months preceding and the following conception. ⁽⁵⁾ It entails understanding how certain health conditions and risk factors may affect a woman or her unborn child if she becomes pregnant.

The importance of preconception health care has received increased emphasis, it is unclear how knowledgeable women are regarding preconception health. ⁽⁶⁾ Experience or education can help you learn about preconception health. Information can be found through books, newspapers, radio stations, television, the Internet, and medical professional consultations. According to studies, women who receive prenatal care have higher knowledge and frequently engage in risk-reduction practices. Preconception therapy can help you avoid having a bad pregnancy.

The benefit of preconception health is the improvement of public health which is achieved by improving individual health. The main goal of preconception health is to provide health promotion, screening, and interventions for women of reproductive age to reduce risk factors that might affect future pregnancies.

METHOD

The cross-sectional study was designed to do this study, a self-made questionnaire was made and circulated in the form of Google forms. A self-made questionnaire was created, with three sections: section A demographic data, section B questions about preconception health knowledge, and section C questions about preconception health attitude.

RESULT

Table 1: Knowledge regarding preconception health

	Yes	Yes (%)	No	No (%)
Do you think any comorbidities (e.g.: - diabetes, high BP, PCOS/PCOD, etc.) affect preconception health?	129	59.4%	88	40.6%
Do you think a continuous number of working hours affects your preconception health?	151	69.9%	66	30.4%
Do you think sleeping pattern affects preconception health?	180	82.9%	37	17.1%
Do you think small breaks while working is important?	207	95%	10	5%
Is exercise important before conceiving?	188	86.6%	29	13.4%
Do you think smoking, alcohol consumption, tobacco chewing affect preconception health?	206	94.9%	11	5.1%
Do you feel drained out, fatigued, or low on energy?	100	46%	117	54%

Interpretation:

Table 1 shows that 59.9% of females think that comorbidities affect preconception health, 86.6% of females believe that exercise before conceiving is

The questionnaire was validated by the ethical committee and the professors of Tilak Maharashtra Vidyapeeth and suggested changes were made accordingly.

Google forms were distributed through social media to females of reproductive age, and data was collected and analyzed. Interpretations and conclusions were recorded.

MATERIALS REQUIRED:

Google form, internet, phone/tab/pc.

INCLUSION CRITERIA:

1. Age group 18-35.
2. Females residing in and around Pune
3. Females who were willing to participate.

EXCLUSION CRITERIA:

1. Females who were not willing to participate.
2. Females who were not comfortable with the language.
3. Females who don't have Compatible devices to fill the form.

SAMPLE SIZE:

The study had a total of 217 participants, which exceeded the target sample size of 200. The identities and data provided by all participants have been kept confidential.

important, 94.4% of females strongly believe that addictions affect preconception health. The mean score for knowledge towards preconception health is 76.34%.

Table 2: Do you experience any of the following?

Do you experience any of the following	Number of participants	Number of participants (%)
Depressed	39	13.4%
None of the above	83	28.6%
Mood swing	117	40.3%
Low on self-confidence	50	17.2%
Anxiety	1	0.3%

Interpretation:

Table 2 shows that 13.4% of females feel depressed, 17.2% of females feel low on confidence, 40.3% females feel mood swings, 0.3% females feel anxiety and 28.6% feels none of the symptoms.

Table 3: Attitude about preconception health.

	Yes	Yes (%)	No	No (%)
Are you aware of preconception health?	153	70.50%	64	29.50%
Do you think it is important to consult Gynaecologist prior to the planning of preconception	191	88.10%	26	11.90%
Do you think preconception health programs will help in improving your pregnancy health?	199	91.70%	18	8.29%
Do you think being overweight or underweight puts you at risk for problems during pregnancy?	192	88.50%	25	11.50%

Interpretation:

Table 3 shows that 70.5% of females have a good attitude towards preconception health, 88.1% of females think that taking consultation of a gynecologist is necessary before conceiving, 91.7% of females believe that preconception health program will be beneficial for preconception health, 88.5% of females think that weight affects preconception health. The mean score for awareness about preconception health is 84.7%.

DISCUSSION

The present study was conducted to find the knowledge and attitude towards preconception health in reproductive age women in and around Pune city. Preconception health refers to a woman's overall health before becoming pregnant. 217 samples were selected according to the inclusion and exclusion criteria. All participants were circulated with a self-made questionnaire in the form of Google form.

34.1% of females belong to the 18-21 years age group, 41.9% of females belong to the 22-25 years age group, 12% of females belong to the 26-29 age group, and 12% belong to the 30-35 years age group. Age 18 years to 35 years was included as it is a reproductive age group and most of the females plan to conceive in this age period.

13.4% of females belong to an underweight category, 61.3% of females belong to a normal category, 17.5% females belong to the overweight category and 7.8% females belong to the obese category.

59.9% of females think that comorbidities affect preconception health, 86.6% of females believe that exercise before conceiving is important, 94.4% of females strongly believe that addictions affect preconception health. The mean score for knowledge towards preconception health is 76.34%.

Being overweight or obese is becoming increasingly common among women of reproductive age. And being underweight is linked to low birth weight and preterm delivery. Common comorbidities such as high blood pressure, diabetes, sleep apnea (pauses or reduced breathing during sleep), and polycystic ovary syndrome (PCOS), which can cause reduced fertility or failure to achieve pregnancy, are associated with being overweight or obese. During pregnancy, overweight women are at increased risk of sugar intolerance (gestational diabetes), pregnancy-related high blood pressure, losing a pregnancy (miscarriage), birth before some 40 weeks (preterm birth), and congenital birth defects such as neural tube and heart defects, and gastrointestinal malformations. Including heavy blood loss at the time of giving birth. (7)

76% of females were unmarried and 24% females were married from which 82.9% have not yet conceived, 7.4% females have conceived once, 7.8% females have conceived twice, 0.5% females have conceived thrice and 1.4% females have conceived 5 or more than 5. The study shows that 34.1% of females are working, 55.3% of females are students, and 10.6% of females are homemakers. It has been shown in the table in detail.

57.6% of females are vegetarian, 0.9% females are nonvegetarian, 40.6% females are mixed, 0.5% female females are vegan and 0.4% females are eggitarian in their dietary habits.

The concept that nutrition in early life and prenatal nutritional environments impact both short and long-term health consequences of the offspring, is underpinned by the “Developmental Origins of Health and Disease” hypothesis, coined back in the 1990s⁽⁸⁾

Table 2, shows that 13.4% of females feel depressed, 17.2% of females feel low on confidence, 40.3% of females feel mood swings, 0.3% of females feel anxiety and 28.6% feels none of the symptoms

According to Robbins, et.al (2014) a study conducted says that Non-Hispanic whites reported the highest prevalence (85.0%) of having adequate emotional and social support, followed by other races/ethnicities (74.9%), Hispanics (70.5%), and non-Hispanic blacks (69.7%).⁽⁹⁾

Table 3 shows that 70.5% of females have a positive attitude towards preconception health, 88.1% of females think that taking consultation of a gynecologist is necessary before conceiving, 91.7% of females believe that preconception health program will be beneficial for preconception health, 88.5% of females think that weight affects preconception health. The mean score for awareness about preconception health is 84.7%. Hence the study says that maximum females are aware of preconception health.

CONCLUSION

The study showed 76.34% of knowledge and 70.5% of positive attitude of preconception health with the women in the research data set.

ACKNOWLEDGMENT

I'd like to express my respectful thanks and profound gratitude to my guide Dr. Rima Musale who guided and supported me in this study, as well as all of the participants who helped make this study possible.

Funding: No funding source.

Conflict of Interest: None declared

Ethical Approval: The study was approved by the Institutional Ethics Committee of Tilak Maharashtra Vidyapeeth.

REFERENCES

1. Posner SF, Johnson K, Parker C, Atrash H, Biermann J. The national summit on preconception care: a summary of concepts and recommendations. *Maternal and Child Health Journal*. 2006 Sep 1;10(1):199-207.
2. World Health Organization. (2006). Constitution of the World Health Organization– Basic Documents, Forty-fifth edition, Supplement, October 2006.
3. The Lancet. Campaigning for preconception health. *Lancet (Lond. Engl.)* 2018, 391, 1749. [CrossRef]
4. Shawe J, Patel D, Joy M, Howden B, Barrett G, Stephenson J. Preparation for fatherhood: A survey of men's preconception health knowledge and behaviour in England. *PLoS One*. 2019;14(3):e0213897. Published 2019 Mar 20. doi:10.1371/journal.pone.0213897.
5. Olowokere, A. E., Komolafe, A., & Owofadeju, C. (2015). Awareness, knowledge, and uptake of preconception care among women in Ife Central Local Government Area of Osun State, Nigeria. *Journal of Community Medicine and Primary Health Care*, 27(2): 83-92.
6. Coonrod DV, Bruce NC, Malcolm TD, Drachman D, Frey KA. Knowledge and attitudes regarding preconception care in a predominantly low-income Mexican American population. *American journal of*

- obstetrics and gynecology. 2009 Jun 1;200(6):686-e1.
7. Opray N, Grivell RM, Deussen AR, Dodd JM. Directed preconception health programs and interventions for improving pregnancy outcomes for women who are overweight or obese. *Cochrane Database of Systematic Reviews*. 2015(7).
 8. Barker DJ. The origins of the developmental origins theory. *J Intern Med* 2007; 261:412–417
 9. Robbins CL, Zapata LB, Farr SL, Kroelinger CD, Morrow B, Ahluwalia I, D'Angelo DV, Barradas D, Cox S, Goodman D, Williams L. Core state preconception health indicators—pregnancy risk assessment monitoring system and behavioral risk factor surveillance system, 2009. *Morbidity and Mortality Weekly Report: Surveillance Summaries*. 2014 Apr 25;63(3):1-62.

How to cite this article: Muthiyan NC, Musale R. Attitude and knowledge towards preconception health among reproductive-age women in Pune city. *Int J Health Sci Res*. 2022; 12(4): 85-89. DOI: <https://doi.org/10.52403/ijhsr.20220410>
