

# A Study to Evaluate the Effectiveness of Selected Interventions on Preconception Care Among Women Workers in Indore. Madhya Pradesh.

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## Introduction

Healthy women, healthy mothers and healthy children are the goal of preconception care. Preconception care is appropriate for every woman of reproductive age who is capable of becoming pregnant, regardless of whether she intends to get pregnant or not. Preventive and management strategies are used to identify and reduce biological, behavioural, and social hazards.

Most pregnant women wait until the middle of the first trimester to seek prenatal care and counselling. When organogenesis has reached that point, the client's lifestyle, both healthy and unhealthy, may have had an impact. People who are educated about preconception care are more likely to change their behaviour and alter their risk factors. Preconception counselling should be offered to all women of childbearing age, with a focus on those who plan to get pregnant in the near future and elementary school students.

Preventative measures should begin before an incident occurs. Young women, rather than women who are married, need to be educated about preconception care in order to allow themselves plenty of opportunity for preparation. Many people, including men, healthcare practitioners, youth leaders/community volunteers, and delivery places such primary health care clinics, industries/community centres are involved in providing effective preconception care. If we wish to minimise maternal and neonatal mortality and enhance women's health, we must start with women's outreach and education. The earlier preconception care is addressed, the more likely it is that women will approach pregnancy in the best possible health and have a healthy baby.

In her clinical practise, the researcher discovered that women in rural areas were far less likely than those in urban areas to obtain preconception care. Most women who didn't get prenatal care thought it was unnecessary, according to a new study. Women's knowledge about preconception care is still not widely available. As a result, the researcher felt compelled to share preconception care information with women in rural areas who might otherwise have no access to it. For that reason, this study aims to raise awareness among women as to how they can protect themselves against potential health issues.

## Methodology

This study used a quasi-experimental non-equivalent control group design as its research strategy. The research was done in Indore, Madhya Pradesh, at two small-scale industries. Employees in the age range of 19 to 21 were selected to be the control group in the study. Non-probability purposive sampling was used to choose 100 women (50 from each environment) for the study. A systematic knowledge questionnaire and a modified 4-point Likert scale were designed to examine women's attitudes toward preconception care.

By employing both descriptive and inferential statistical methods, the data was examined. For the study of female demographics, frequency and percentage distribution were employed. The pre- and post-test knowledge and attitude levels of women in the experimental and control groups were assessed using the mean and standard deviation. Women in the experimental and control groups were compared using paired and unpaired t-tests to see how their knowledge and attitudes about preconception care differed prior to and after the test period. The

post-test level of knowledge and attitude toward preconception care among women were correlated using the correlation coefficient. Women's knowledge and attitude scores were compared using an ANOVA to determine the relationship between certain demographic characteristics and the mean differences in both scores.

### Results and discussion

Statistical analysis of female demographics in both the experimental and control groups Participant characteristics in both the experimental and control groups were similar: 45 percent were under the age of 21, 57 percent had received only primary education, 77 percent were Hindu, and 61% had grown up in a nuclear family Ninety-eight percent of those who participated did not engage in any detrimental behaviour. Women's knowledge and attitudes about preconception care were examined before and after the test to see if there was a difference between the two groups.

Women in both the experimental and control groups were tested on their knowledge of preconception care prior to participating in the test. When it came to preconception care knowledge, 68 percent of those in the experimental group had insufficient knowledge, 18 percent had moderately adequate information, and 20 percent had adequate knowledge, whereas in the control group 62 percent had insufficient knowledge, 18 percent had moderately adequate information, and 20 percent had adequate knowledge

Women in the experimental and control groups had different levels of knowledge about preconception care after taking the post-test. According to the findings, 87 percent of the experimental group possessed adequate knowledge and 13 percent possessed moderately adequate information, whereas 75 percent of the control group possessed inadequate knowledge, 10 percent possessed moderately acceptable knowledge, and 15 percent possessed adequate understanding of preconception care.

Before taking part in the study, women in both the experimental and control groups expressed generally positive attitudes of preconception care (67 percent in the former and somewhat negative in the latter) (66 percent in the latter).

Women in the experimental group (88 percent) had a moderately favourable attitude toward preconception care at the time of the post-test, whereas women in the control group (67 percent) had a moderately favourable attitude toward preconception care.

Female participants in the experimental and control groups were evaluated for their knowledge of preconception care both before and after the test was conducted. Prior to testing, the mean was 9.12, and after testing, the mean was 13.22, with a standard deviation of 2.43, resulting in a mean of 13.22. It was determined that there was a statistically significant difference ( $p < 0.001$ ) between the two groups when the table value was greater than that obtained by the formula "t."

Averaging 8.87 points and a standard deviation of 3.41 points before testing, the control group had a score of 8.87 and a standard deviation of 3.41 points after testing; the experimental group's score increased to 8.11 points and a standard deviation of 4.29 points after testing. A calculated t value of 1.33 was used, which was lower than the value in the table, to illustrate that in the control group, there was no statistically significant difference between pre- and post-test levels of knowledge.

Women in both the experimental and control groups were asked about their thoughts toward preconception care both before and after the trial was conducted. The experimental group had a pre-test mean of 22.15 and a post-test mean of 33.36, with a standard deviation of 5.12, while the control group had a mean of 22.15 and a standard deviation of 5.12, respectively. An  $p < 0.001$  indicates that there is a statistically significant difference between two groups. The t-value that was determined was 8.99, which was higher than the value in the table.

The pre-test mean for the control group was 21.12 with a standard deviation of 4.12, while the post-test mean was 23.48 with a standard deviation of 4.88. The calculated t-value indicated that there was no statistically significant difference between the two groups, with the p-value less than 0.001 for the difference between them.

Women of reproductive age in the United States were studied in order to determine their knowledge and views about preconception care, according to Raja (2019). Eighty-nine percent of those who participated in the survey believed that increasing preconception health is beneficial to pregnancy. More information about preconception

healthcare was sought after by 77% of individuals who responded to the survey question. There is a need for preconception education, and there is widespread agreement that good preconception health has a positive impact on pregnancy, as evidenced by a knowledge score of 76 percent.

A significant improvement in women's knowledge and attitudes about preconception care was found as a result of the study's multimedia training package, according to the researchers' findings. It was discovered by Trupti (2011) that a nurse intervention module helped to raise the level of awareness about preconception care among 186 women in Belgaum, India. Purposeful sampling was utilised in place of random sample in this study. According to the findings of the study, 87 percent of participants lacked enough understanding on preconception care, and the module demonstrated a significant improvement in knowledge.

Specifically, the experimental group's post-test mean knowledge and attitude scores for preconception care were 11.87 points and 8.11 points, respectively, with a mean value of 11.87 points and a standard deviation of 3.56 points for the experimental group. The findings demonstrated that the association between knowledge and attitude was moderately strong, with a p-value less than 0.001 ( $r = 0.48$ ), and that the relationship between knowledge and attitude was reasonably strong.

The correlation between post-test mean knowledge and attitude toward preconception care in the control group was 2.11 with a standard deviation of 1.09 for knowledge and 0.99 with a standard deviation of 1.74 for attitude. According to the calculated correlation coefficient ( $r$ ), which was -0.022, there was no statistically significant association between knowledge and attitude. The null hypothesis N02 was rejected in the experimental group but accepted in the control group because there was no significant relationship between pre- and post-test knowledge and attitude toward preconception care among women in the experimental and control groups at the 0.05 level.

While statistically significant relationships between demographic variables were found among women in the experimental group, the mean differential knowledge score among women revealed a low statistically significant relationship with the source of information and a low statistically significant relationship with religious affiliation.

In the control group, the mean differential knowledge and attitude scores of women were not statistically linked with any of the chosen demographic variables. Therefore, the null hypothesis (N03), which stated that "there is no statistically significant association between selected demographic variables and the mean differed level of knowledge and attitude regarding preconception care among women in experimental and control groups at the level of 0.05," was accepted for the demographic variables religion and information source in the experimental group but rejected for the other demographic variables.

## Conclusion

In this study, we looked at the impact of a multimedia educational package on women's attitudes and knowledge about preconception care. According to the study results, women in the experimental and control groups differed significantly in their knowledge and attitudes towards preconception care after being given a multimedia educational package.

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