



A Quasi experimental study to assess the Selected Interventions on Knowledge and attitude regarding Preconception Care Among Women Working small scale Industries in Indore.

¹Mrs. Prerna Abhilasha Gore, ²Prof. Dr. Jinu K Rajan

¹Research Scholar, Malwanchal University, Indore.

²Research Supervisor, Malwanchal University, Indore.

Introduction

Preconception care aims to promote healthy pregnancies, which in turn results in healthy mothers and children. Preconception care is recommended for every woman of reproductive age who has the physiological capacity to carry a pregnancy to term, regardless of whether or not the woman plans to have children in the foreseeable future. In order to recognise and lessen the impact of biological, behavioural, and social risks, preventive and management strategies are implemented.

The majority of women who become pregnant wait until the first trimester's middle to start receiving prenatal care and counselling. When organogenesis has progressed to that point, the client's lifestyle, both healthy and unhealthy, may have had an effect, depending on the nature of the impact. People who receive education about preconception care have a greater chance of changing their behaviours and reducing the factors that put them at risk. Preconception counselling should be made available to all women of childbearing age, with a particular emphasis placed on young children and young women who anticipate becoming pregnant within the next few years.

Before an incident takes place, preventative measures need to be put into action. Young women, as opposed to married women, are the ones who need to be educated about preconception care in order to give themselves plenty of time to get ready for motherhood. Effective preconception care requires the participation of a large number of individuals, including men, medical professionals, youth group leaders and other community volunteers, and delivery locations, such as primary health care clinics, industries, and community centres. Reaching out to women and educating them should be our first priority if we want to reduce the mortality rate for mothers and newborns and improve the health of women. The earlier in a woman's reproductive life that preconception care begins, the higher the likelihood that she will go into her pregnancy in the best possible health and give birth to a healthy child.

The researcher found that the likelihood of women in rural areas receiving preconception care was significantly lower than the likelihood of women in urban areas receiving such care during the course of her clinical practise. A new study found that the majority of women who did not get prenatal care did so because they believed it to be unnecessary. There is still a lack of widespread access to information for women regarding preconception care. As a consequence of this, the researcher felt compelled to disseminate information about preconception care to women living in rural areas who might not have had access to it in any other circumstance. As a result of this, the purpose of this study is to educate women about the various ways in which they can safeguard themselves against the development of potential health problems.

Methodology

The research strategy that was utilised in this investigation was a quasi-experimental non-equivalent control group design. The study was carried out in Indore, which is located in Madhya Pradesh, at two different small-scale industries. The control group for the research project consisted of workers who fell into the age range of 19 to 21 years old. Purposive sampling that did not rely on probability was used to select one hundred women for the study (fifty from each environment). In order to investigate the perspectives that women hold regarding preconception care, a comprehensive knowledge questionnaire and a modified 4-point Likert scale were developed.

The data were analysed using a variety of statistical approaches, including descriptive and inferential methods. The utilisation of frequency analysis and percentage distribution was seen in the research on female demographics. We used the mean and standard deviation to evaluate the pre- and post-test knowledge and attitude levels of the women who participated in the experiment and those who served as the control group. A comparison was made between women in the experimental group and those in the control group using paired and unpaired t-tests to determine whether or not the women's knowledge and attitudes regarding preconception care changed before or after the test period. The correlation coefficient was used to examine the relationship between the post-test level of knowledge that women possessed and their attitude toward preconception care. A one-way analysis of variance (ANOVA) was used to determine the relationship between certain demographic characteristics and the mean differences in the scores obtained from the knowledge and attitude tests administered to women.

The Results as Well as The Discussion

An examination through the lens of statistics of the characteristics of the female population in both the test and the control groups. Both the experimental group and the control group had participants with the following similar characteristics: 45 percent of the population was under the age of 21, 57 percent had only completed primary education, 77 percent identified as Hindu, and 61 percent had been raised in a nuclear family. A total of 98% of those who took part in the study did not engage in any behaviours that could be considered harmful. In order to determine whether or not there was a distinction between the two groups of women, their pre- and post-test knowledge and attitudes regarding preconception care were compared and contrasted.

Prior to taking part in the study, all of the women in the experimental group, as well as the control group, were quizzed on their knowledge of preconception care. When it came to their knowledge of preconception care, 68 percent of those in the experimental group had insufficient information, 18 percent had moderately adequate information, and 20 percent had adequate knowledge. On the other hand, 62 percent of those in the control group had insufficient information, 18 percent had moderately adequate information, and 20 percent had adequate knowledge.

After taking the post-test, it was found that the women in the experimental group and the control group had significantly different levels of knowledge regarding preconception care. According to the findings, 87 percent of those in the experimental group had adequate knowledge, while only 13 percent had information that was moderately adequate. In contrast, 75 percent of those in the control group had inadequate knowledge, 10 percent had knowledge that was moderately acceptable, and 15 percent had an adequate understanding of preconception care.

Before taking part in the study, the majority of the women in both the experimental group and the control group had positive attitudes toward preconception care (67 percent in the experimental group and somewhat negative in the control group) (66 percent in the latter).

At the time of the post-test, eighty-eight percent of the women in the experimental group had a moderately favourable attitude toward preconception care, whereas only sixty-seven percent of the women in the control group had a moderately favourable attitude toward preconception care.

Both before and after the experiment was carried out, the female test subjects in both the experimental and control groups had their knowledge of preconception care assessed. The mean was 9.12 before the testing, and it was 13.22 after the testing, with a standard deviation of 2.43; this resulted in a mean of 13.22. When the "t" value obtained by the formula was lower than the table value, it was determined that there was not a statistically significant difference between the two groups. This was determined by using the p-value of 0.001.

The control group's score increased to 8.87 points and a standard deviation of 3.41 points after the test, while the experimental group's score decreased to 8.11 points and a standard deviation of 4.29 points after the test. Before the test, the control group's average score was 8.87 points, while the experimental group's score was 8.11 points with a standard deviation of 3.41 points. To demonstrate that there was not a statistically significant difference between pre-test and post-test levels of knowledge in the control group, a calculated t value of 1.33 was used, which was lower than the value in the table. This was done by using a value that was lower than the value in the table.

Before and after the trial was carried out, questions concerning preconception care were posed to the women who participated in either the experiment or the control group in the study. The experimental group had a mean of 22.15 before the test and a mean of 33.36 after the test, with a standard deviation of 5.12; in comparison, the control group had a mean of 22.15 before the test and a standard deviation of 5.12 after the test. A statistically significant difference between the two groups can be inferred from a p value of 0.001, as shown here. The t-value that was found to be 8.99, which was greater than the value that was shown in the table, was determined.

Before the test, the average score for the control group was 21.12, and the standard deviation was 4.12. After the test, the control group's average score was 23.48, and the standard deviation was 4.88. The t-value that was calculated indicated that there was not a statistically significant difference between the two groups, which was supported by the fact that the p-value for the difference between them was less than 0.001.

According to Raja, research was conducted in the United States on women of reproductive age to determine the level of information they possessed and their perspectives on preconception care (2019). Ninety-one percent of those who took part in the survey held the belief that improving one's health prior to becoming pregnant is beneficial to the resulting pregnancy. Seventy-seven percent of people who responded to the survey question indicated that they would be interested in receiving additional information regarding preconception healthcare. The knowledge score of 76 percent demonstrates that there is a need for preconception education, and there is widespread agreement that good preconception health has a positive impact on pregnancy. This can be seen from the fact that there is a need for preconception education.

According to the findings of the researchers, the multimedia training package that was used in the study led to a significant improvement in both the knowledge and attitudes of the women who participated in the study regarding preconception care. Trupti (2011) found that a nurse intervention module helped to raise the level of awareness about preconception care among 186 women in the city of Belgaum, which is located in the Indian state of Maharashtra. In this particular investigation, a method known as "purposeful sampling" was used rather than "random sampling." The findings of the study indicated that 87 percent of participants did not have a sufficient understanding on preconception care; however, the module demonstrated a significant improvement in participants' levels of knowledge.

With a mean value of 11.87 points and a standard deviation of 3.56 points for the experimental group, the post-test mean scores for knowledge and attitude regarding preconception care were 11.87 points and 8.11 points, respectively, for the experimental group. According to the findings, the correlation between knowledge and attitude was reasonably strong, as indicated by a p-value that was lower than 0.001 ($r = 0.48$), and the findings also demonstrated that the association between knowledge and attitude was reasonably strong.

In the control group, the correlation between post-test mean knowledge and attitude toward preconception care was 2.11, with a standard deviation of 1.09 for knowledge and 0.99, with a standard deviation of 1.74, for attitude. Both variables had standard deviations. There was not a correlation between

knowledge and attitude, as shown by the calculated correlation coefficient (r), which was -0.022 . This indicates that there was no statistically significant association between the two. Because there was no significant relationship between pre- and post-test knowledge and attitude toward preconception care among the women in the experimental and control groups at the 0.05 level, the null hypothesis N02 was rejected in the experimental group but accepted in the control group. This was due to the fact that there was no significant difference in the two groups' pre- and post-test knowledge and attitudes toward preconception care.

Although statistically significant relationships between demographic variables were found among the women in the experimental group, the mean differential knowledge score of the women revealed a low statistically significant relationship with the source of the information and a low statistically significant relationship with their religious affiliation. This was in contrast to the findings regarding the relationships between demographic variables.

The control group's women's mean differential knowledge and attitude scores were not statistically linked with any of the selected demographic variables. This was the case in the group that served as the control. 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. This was because the null hypothesis (N03) stated that "there is no statistically significant association between selected demographic variables and the mean differed level of knowledge and attitude

Conclusion

In this study, we investigated how the presentation of preconception care information via a multimedia educational package affected the attitudes and levels of knowledge held by women. After receiving a multimedia educational package, the women in the experimental group significantly outperformed those in the control group in terms of their knowledge of and attitudes toward preconception care, as shown by the findings of the study.

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