

“EFFECTIVENESS OF PRE-CONCEPTION COUNSELING AND EXPLORE THE CONCEPT REGARDING PRE-CONCEPTUAL COUNSELING AMONG ELIGIBLE COUPLE IN SELECTED AREAS OF VADODARA.- A MIXED METHOD APPROACH”

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ABSTRACT

BACKGROUND OF THE STUDY: Pre-conception counseling is the process of communication in that an appointment with the health care professional specially midwife for making plan for future pregnancy. In this study an evaluative research approach with mixed method research approach in that convergent parallel design was used, data was collected from 30 eligible from selected areas of vadodara. Self structured questionnaires used to assess the of eligible couple regarding pre-conception counseling and interview question used for assess the explore concepts of eligible couple regarding pre-conception counseling. The investigator obtain written consent from the concerned authority before the study. Result of the study show that pre-conception counseling is effective to improve the knowledge regarding pre-conception counseling among eligible couple.

MATERIAL AND METHOD: in this research study a mixed method approach with one group pre test post test was used and in the qualitative phenomenology research design was used. The sampling technique was non probability purposive sampling technique was used to collect the 60 sample of eligible couple who are living in selected areas of vadodra. data was collected by administering self structured knowledge questionnaire. Data was analyzed by using descriptive and inferential statistic. **RESULT:** The result from the quantitative study with the regard to the pre test assessment, the (76.66%) eligible couple was having poor level of knowledge, (23.34%) were having average level of knowledge, while in the post test 56.34% eligible couple having average knowledge, and 46.66% having good knowledge .no body was found poor knowledge. The obtained pre-test mean score was 8.24 and after providing pre-conception counseling, it increase up to 20.13, the mean difference between pre test and post test is 11.85. the pre test SD was 2.518 and post test SD 1.953 the obtained Z value was -6.693 and P-value < 0.001 (to be precise P-value = 2.18×10^{-11}) when tested at 5% level of significance. Therefore, we can conclude that the difference in Pre and Post knowledge level is highly statistically significant and pre-conception counseling was effective so that H1: There will be a significant difference between pre-test and post-test knowledge regarding pre conception counseling among eligible couple in selected areas of vadodara was accepted.

The pre test knowledge score with socio demographic variable not associated, hence H2 is failure to accept. For the qualitative study the study revealed that out of 10 questions, 2 questions were not clearly answered. Rest of the 8 questions majority participant has response positively.

Gave individual counseling to couple to clear their doubt improve their concept regarding pre-conception care.

DISCUSSION AND CONCLUSION: The purpose of the study to evaluate the effectiveness of preconception counseling of eligible couple and to evaluate the explore concepts of eligible couple regarding pre-conception counseling among 30 eligible couple. The findings of the study conclude that majority of couple were having inadequate level of knowledge. The preconception counseling was effective among eligible couple in improving knowledge regarding pre-conception counseling.

Keywords: effectiveness, knowledge, explores concepts, pre-conception counseling, and eligible couple.

INTRODUCTION

Pre-conception counseling is a process of communication in which couple counseled about pregnancy, its course and outcome before the actual time of conception that is known as a preconception counseling⁽¹⁾ The preconception period is often defined as the three months before conception, possibly because this is the average time to conception for fertile couples⁽²⁾ When a couple is seen and counseled about pregnancy, its course and outcome before actual conception is preconception counseling⁽³⁾ pre conception care focuses on long- term as well as short-term improvement in pregnant women and offspring health through counseling and intervention⁽⁴⁾, world health organization (WHO) defines it as the provision of biomedical, behavioral and social health intervention to women and couple before conception occurs⁽⁵⁾. as an increase proportion of use medication in reproductive women ,some medication are examined for possible teratogenic effect so that women should discuss all usage of medication with their doctors or health care provider⁽⁶⁾

In this preconception counseling included some criteria that are given below:

Overweight(Body mass index, above 30): Obesity in pregnancy is associated with the increase risk during pregnancy that include gestational hypertension, gestational diabetes, congenital heart diseases that may develop in fetus, that also increase the risk during deliveries and increase risk of complication during delivery. Women who is having BMI greater than 30 should have high risk of chronic diseases like heart diseases, hypertension, gestational diabetes mellitus that are additional complication in pregnancy characterized by obesity. In this counseling ask to reduce weight and inform about the risk associated with obesity. Advice them to consult with dietician for maintain weight⁽⁷⁾. Women are obese have most likely have difficulty in conception because of insulin resistance and oligomenorrhea. Weight loss and medication can reduce risk⁽⁸⁾

Underweight :Women with underweight who have BMI less than 18 may be have high risk of nutritional deficiencies that will lead to increase risk of low birth weight in the fetus and preterm labor⁽⁹⁾.

Smoking:Use of separate and tobacco during and before pregnancy that will lead to intrauterine growth retardation, preterm labor, abruption placenta and low birth weight baby. In this counseling offered to stop smoking for reduce perinatal mortality and low birth weight. Advice to stop smoking before and during pregnancy if they are having habit of smoking and women is counseled about secondhand smoking can impact of both fertility and perinatal period.⁽¹⁰⁾

Alcohol Use: Alcohol is a most hazardous during pregnancy. Use of alcohol during and before pregnancy can lead to fetal alcohol syndrome and fertility problems, spontaneous abortion. Couple who having a habit of alcohol should advice to stop alcohol if they are planning for pregnancy. Use of alcohol in pregnancy result in neuropsychological effect on newborn. in preconception counseling counselor should prior inform about the issue in pregnancy due to alcohol⁽¹¹⁾

Genetic Disorders: History of genetic disorder in families should be referred for genetic counseling in that counselor discuss the risk of transmit disorder to the newborn. Counselor educate couple on disorder might be impact fertility⁽¹²⁾

Folic Acid: Folic acid tablet is most important before and after 3 month of pregnancy. Use of folic acid tablet before 3 month that will help to prevent neural tube defect. Women who are in the reproductive that are also prescribed folic acid tablet for reduce risk of anemia.

Early use of folic acid tablet that prevent neural tube defect in children. Women who are in reproductive

age should be prescribed folic acid tablet during preconception period and also prescribed throughout the pregnancy⁽¹³⁾

Healthy diet: Diet is most important during and before time of pregnancy. What women can drink and eat before and during pregnancy that will provide main source of nutrition to her baby so that mother must take diet before and during pregnancy that include variety of beverages and food like fruits, green leafy vegetable, milk, dry fruit etc. for giving proper nourishment to the fetus that is important for growth and development of fetus.⁽¹⁴⁾

Fertile period: As describe in the book of obstetrics that a women is not equally fertile thought-out her menstrual cycle period. Only in the middle of her menstrual cycle most the day of 14 nth have an greater chance to conceiving baby. Average duration of “fertile period” is unknown. Some knowledge regarding fertile period is require in order to specify the relationship of intercourse frequency for conception or educate about risk of contraceptive failure. In this study preconception counseling provide information fertile period⁽¹⁵⁾

Prevention HIV/STD Diseases: Before pregnancy women should be evaluated for HIV risk and those who had positive must be treated. Women with high risk of HIV should be counseled and educate about risk of transmission, educate about reduction of transmitted by proper management and advice to take medical management throughout the pregnancy.⁽¹⁶⁾

Substance Use: Use substance during pregnancy is have risk of neonatal abstinence syndrome, placental abruption (cocaine), low birth weight, maternal morbidity such as hemorrhage, and fetal and infant mortality. Couple should be educated about the perinatal risk and advice them to stop using drugs before and during pregnancy if they are using⁽¹⁷⁾

OBJECTIVES OF THE STUDY

- To assess and compare pre-test and post-test level of knowledge regarding pre-conception care among eligible couple.
- To evaluate the effectiveness of pre-conception counseling.
- To associate the selected demographical variable with mean differed of pre test level of knowledge score regarding pre-conception counseling among eligible couple.
- To explore the concepts regarding pre conceptual counseling among eligible couple.

MATERIAL &METHODS: the research convergent parallel design was used for assess the knowledge and explore concepts regarding pre-conception counseling among eligible couple. The pilot project was conducted at the vrundavan areas of vadodara. Te main study was conducted different areas of vadodara from 23th November 2020. The study protocol was approved from ethical committee of sumandeeep vidyapeeth institutional ethical committee. Data collection permission obtain from the district health officer informed consent taken from eligible couple. The data collection tool include three section socio-demographic variable, structured questionnaire and interview question. And in the data collection by eligible couple age between 20-30 year are selected for the study. Data were analyzed by using SPSS-22 software. descriptive and inferential statistics were used to analyze the data.

RESULTS:

The result from the quantitative study with the regard to the pre test assessment, the (76.66%) eligible couple was having poor level of knowledge,(23.34%) were having average level of knowledge, while in the post test 56.34% eligible couple having average knowledge, and 46.66% having good knowledge .no body was found poor knowledge. The obtained pre-test mean score was 8.24 and after providing pre-conception counseling, it increase up to 20.13, the mean difference between pre test and post test is 11.85. the pre test SD was 2.518 and post test SD 1.953 the obtained Z value was -6.693 and P-value < 0.001 (to be precise P-value = 2.18×10^{-11}) when tested at 5% level of significance. Therefore, we can conclude that the difference in Pre and Post knowledge level is highly statistically significant and pre-conception counseling was effective so that H1:There will be a significant difference between pre-test and post-test knowledge regarding pre conception counseling among eligible couple in selected areas of vadodara was accepted.

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FREQUENCY AND PERCENTAGE OF DISTRIBUTION OF SAMPLE, ACCORDING TO THEIR SOCIO-DEMOGRAPHIC VARIABLE. N=60

The frequency distribution of demographic variables. The participants were mostly in the age group of 26-30 years (50%) and 21-25 years (45%). About 50% of family income was more than Rs.15, 000 while little more than 38% has a family income between Rs.10, 000 to Rs.15, 000. Religion-wise, the participants were 90% Hindus, and the rest 10% were Muslims. About 45% were graduates while 28% were post-graduates. The proportion of occupation of the subjects was 40% in jobs, almost 32% were housewives, while 20% were in business. About 60% of couples were married from 1 to 3 years while the rest 40% couples were married from 4 to 6 years. Around 63% were vegetarians while the rest were mixed-vegetarians. When habits were observed, about 73% did not have any bad or harmful habits. There were 13% who smoked and 8% who chewed tobacco. It was also observed if the participants were suffering from any disease conditions and it was found that almost 83% did not have any such conditions and were healthy. About 7% and 3% suffered from diabetes and hypertension. The maximum (52%) subjects were in the weight group of 51-60 kg followed by the 40-50 kg group (33%). Similarly, for the height group, the maximum (53%) was in the 161-170 cm group followed by the 151-160 cm group (38%).

Distribution of pre-test knowledge score of eligible couple regarding pre-conception counseling according to their categories. N=60

findings illustrate that the majority eligible were having poor knowledge (76.66%) In the pre-test where as only (23.34%) were in the average knowledge regarding pre-conception counseling

Distribution of post-test knowledge score of eligible couple regarding pre-conception counseling according to their categories. N=60

The findings reveals that majority of eligible couple were in the average(53.34%) having average knowledge and (46.66%) eligible were in the good level of knowledge regarding pre-conception counseling.

ANALYSIS AND INTERPRETATION OF EFFECTIVENESS OF PRECONCEPTION COUNSELING AMONG ELIGIBLE COUPLE. N=60

Wilcoxon Signed-Rank Test was used to check effectiveness of pre-conception.

A non-parametric test called Wilcoxon signed-rank test was carried to check the difference in the ordinal data of knowledge level of Pre and Post data of 60 participants.

The result of the test as shown in the tables above concludes that of the 60 participants, 55 showed an increase in knowledge level while 5 did not show any improvement. The Wilcoxon Z-value = - 6.693 and P-value < 0.001 (to be precise P-value = 2.18×10^{-11}) when tested at 5% level of significance. Therefore, we can conclude that the difference in Pre and Post knowledge level is highly statistically significant.

So that H1: There will be a significant difference between pre-test and post-test knowledge regarding pre conception counseling among eligible couple in selected areas of vadodara was accepted.

ANALYSIS OF QUALITATIVE DATA

Qualitative Analysis: (n = 30 couples)

For qualitative study, conducted interview to explore concepts of eligible couple regarding pre-conception counseling.

According to the response of the participant towards pre-conception counseling, it was categorize by the proportion of the responses recorded.

Result:

The study reveled that out of 10 question , 2 question were not clearly answered. Rest of the 8 questions majority participant have response positively.

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DISCUSSION:

Present study was conducted to assess Effectiveness of pre-conception counseling and explore the concept regarding pre-conceptual counseling among eligible couple in selected areas of Vadodara, Gujarat The present study addressed to assess the knowledge and perception on pre-conception counseling among eligible couple of selected areas of Vadodara.

In this study total 60 samples (30 eligible couple) participated. Related to the findings on knowledge in this study majority of sample 73.66 had poor and 24.34 %had average knowledge in pre-test after counseling

the post test revealed that the majority 53.34% sample had average knowledge and 46.66 had good knowledge regarding pre conception counseling and in the qualitative study revealed that out of 10 questions, 2 questions were not clearly answered. Rest of the 8 questions majority participants have responded positively.

Similar type of the research study done by **Harelick et al., (2011)** among 340 women in USA with the aim of assessing knowledge and behaviors regarding preconception care. Questions focused on health behaviors and conditions, knowledge of risk factors, and recommendations of health care providers. Outcomes include the prevalence of risk factors and correlations between the presence of a risk factor and either a respondent's knowledge or a health care provider's recommendation. The study concluded that innovative programs and support systems are required to encourage women to adopt healthy behaviors throughout the childbearing years¹¹

CONCLUSION:

The study concluded that majority were had poor knowledge in pre-test after implication of pre-conception knowledge of couple were improved. So that there is a greater demand to improve knowledge regarding pre-conception counseling.

The midwives have a vital role to work with the eligible couple to build their knowledge, understanding and decision-making regarding preconception care.

The extended and expanded role of a nurse that emphasizes that activity which promotes the health and prevents complication. Hence nurses could play key role for increasing knowledge and exploring concepts regarding pre-conception counseling and stimulates desirable response among eligible couple.

Ethical approval:

Since the study involved human subjects, a formal ethical approval received from Sumandeep Vidyapeeth institutional ethical committee.

Informed Consent:

Informed consent was obtained from participants and assured for anonymity.

Conflict of Interest:

The authors declare no conflict of interest.

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