EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME (STP) REGARDING PRE-NATAL FACTORS CAUSING MENTAL DISORDERS IN OFFSPRING AMONG FEMALE ADULTS

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Abstract

There is evidence that health care during pregnancy is a crucial component in ensuring a safe delivery. The main objective of the study was to assess the level of knowledge regarding prenatal factors causing mental disorders in offspring among female adults and to enhance the knowledge about prenatal factors. Quasi Experimental research design with one group pretest-posttest without control group study was conducted at Mandhana, G.T, Road Kanpur. Thirty female adults selected as sample by using non-probability convenient sampling technique. The tools used to collect the data were socio demographic pro-forma and closed ended knowledge questionnaire regarding prenatal factors causing mental disorders in offspring and structured teaching programme. Collected data was analyzed by using descriptive and inferential statistics. Findings of the study revealed that in pretest, most of respondents (86.66%) had average knowledge, 13.33% had good knowledge whereas in posttest, 50% had good knowledge and 50% had average knowledge revealing effectiveness of the teaching programme. There is need to educate the female adults who are in reproductive age group about the prenatal factors to prevent the occurrence of mental disorders and other congenital anomalies in offspring.

Key words: Structured Teaching Programme, Knowledge, Prenatal Factors, Mental Disorders, Offspring, Female adults.

INTRODUCTION

Health is man's greatest possession for it lays a solid foundation for his happiness. Good health is very essential for the growth of a person. Good health is a prerequisite to human productivity and development.[1] "Health is a state of complete physical, mental and social well being not merely the absence of disease or infirmity".[2] An individual is said to be mentally healthy when there is a state of balance between the individual and the surrounding world, a state of harmony between oneself and others.[3] A mentally healthy person has the ability to make adjustment, sense of personal worth, able to solve the problem, has sense of responsibility, lives in a world of reality and lead a well balanced life. But when there is maladjustment it leads to mental illness and it can be defined as mental and behavior disorder characterized by alteration in thinking, mood and associated with personal distress and impaired functioning.[3]

There are many causes of mental disorders among which one is prenatal factor. Prenatal factors are known to have adverse consequence on fetal development and there is increasing affect on the mental health of offspring. Prenatal factors may also cause or develop mental disorder in the fetus.[4] Prenatal factors have been showing a rising problem all over the world including India. In today's life every person is busy and living a stressful life and they are not aware about their lifestyles, eating habits, bad habits (smoking,

alcohol, tobacco chewing etc.) that may affect their offspring.

In India, the prevalence of mental disorder in children is 12.8% and 30.7% people are depressed. The rate of Mental Retardation is 3-4 per 1000 children. Females must be aware of these prenatal factors which may cause adverse effects on their offspring and prevent these effects. Therefore this study aims at presenting relevant data of the existing knowledge of female adults regarding pre-natal factors causing mental disorders in offspring.[5]

Objectives:

1. Assess the pre-test knowledge scores regarding pre-natal factors causing mental disorders in offspring among female adults
2. Assess the post-test knowledge scores regarding pre-natal factors causing mental disorders in offspring among female adults.
3. Assess the effectiveness of structured teaching programme regarding pre-natal factors causing mental disorders in offspring among female adults.
4. Find out association between post-test knowledge scores regarding pre-natal factors causing mental disorders in offspring among female adults with their selected demographic variables.

Hypotheses:

H_1: The mean post-test knowledge score is higher than the mean pre-test knowledge score regarding prenatal factors causing mental disorders in offspring among female adults.

H_2: There is significant association between post-test knowledge scores regarding pre natal factors causing mental disorders in offspring among female adults with their selected demographic variables.

Methodology :

A quasi experimental research design with one group pretest posttest design study was conducted where evaluative approach was used to collect data. The study was conducted in Mandhana rural area, Kanpur, Uttar Pradesh, India. Thirty female adults in the age group of 18-45 years who fulfilled the sampling criteria were selected as sample by using non-probability convenient sampling technique. The research tools used to collect the data consisted of closed ended knowledge questionnaire regarding prenatal factors causing mental disorders in offspring and structured teaching programme on the prenatal factors causing mental disorders in offspring.

Data Collection Procedure: A formal ethical clearance certificate was obtained from the research ethical committee. Then the formal permission from the Primary Health Centre, Chaubeypur and Sub Centre, Mandhana, Kanpur, Uttar Pradesh was obtained and informed consent was taken from the participants after explaining the purpose of study. The investigators gathered all the participants and data on pre test knowledge was collected within 40 minutes and then teaching programme was conducted with the help of LCD which took approximately one hour. Both were done on 23.06.2013. The investigators conducted posttest on the same samples using same questionnaire on 30.06.2013. Data were coded and analyzed by using descriptive and inferential statistics.

Results:

Description of Demographic Variables of Sample.

Majority of respondents (33.33%) were between 18-25 years of age group and it was observed that as age increases sample number decreases.

Majority of respondents (73.33%) were married. All the respondents (100%) belonged to Hindu religion. Majority (46.66%) were graduates and 66.66% were home makers. Most of the respondents (73.33%) belonged to nuclear family. Highest percentage (36.66%) had no children. Around 50% of respondents had monthly income between Rs. 1000 – 5000. Respondents were found less in higher income group. Only 15 % of them were aware of mental illness from parents, media and health workers, 10% had family history of mental disorders. No respondents attended any educational programme on prenatal factors causing mental disorders in offspring.

Table 1: Distribution of female adults according to their pretest and post test levels of knowledge.

During pretest, majority of respondents (86.66%) had average knowledge and 13.33% had good knowledge whereas during posttest, 50% of them had good knowledge and 50% had average knowledge. (Fig. 1).

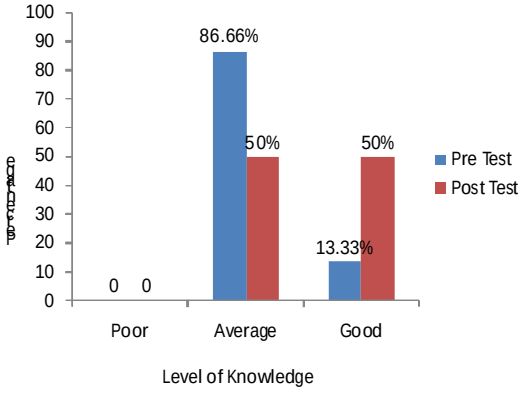

Fig. 1: Comparison of pre-test and post-test knowledge scores among female adults

Table No. 1: Area wise comparison of the pre-test and post-test knowledge scores among female adults.

(N=30)

Sr. No.	Area	Max Score	Pretest		Pretest		
			Mean	Mean%	Mean	Mean%	Difference in mean %
1.	Introduction	7	4.2	6.0	5.16	73.8	13.8
2.	Genetic factors	7	2.93	41.85	426	60.95	19.1
3.	Viral Infections	1	0.53	53.3	0.03	63.33	10
4.	Environmental factors	1	0.2	2.0	0.466	46.6	26.6
5.	Emotional factors	2	0.9	4.5	0.96	45.7	0.7
6.	Malnourishment	2	1.23	61.5	1.4	70	8.5
7.	Endocrine factors	2	1.66	8.3	1.8	90	7
8.	Metobolic factors	1	0.73	7.3	1	100	2.7
9.	Physical factors	4	2.3	57.5	3.46	58.66	1.1
10.	Intoxication	4	2.5	62.5	3.03	75.82	13.23
11.	Other factors	9	50.33	55.92	6.5	72.22	16.3
	Overall	40	21.6	54	26.73	66.82	12.82

Comparison of pre test and post test mean % of knowledge scores shows that the highest difference was 27 % for metabolic factors and more or less similar % of difference was for knowledge on environmental factors showing highest effectiveness. However, the lowest difference was found 0.7% and 1.1% for emotional factors and physical damage respectively. Hence, it can be interpreted that during post test in all the areas, there was increase in the knowledge. (Table No. 1)

Table No. 2: Comparison of Range, Median, Mean, Standard deviation, Mean difference, and Paired t test of pretest and posttest knowledge scores.

Test	Range	Median	Mean	SD	Mean%	Mean Difference	Paired 't' test value
Pre-test	14-29	22	21.6	4.13	54	5.13	6.25
Post-test	20-37	26.5	26.73	4.36	66.82		

* *t* (table) = 2.76 (P>0.01); 2.05 (P>0.05); df-29

Hypotheses were tested to find out significant difference between pre and post test knowledge scores and between post test knowledge scores

and selected demographic variables.

H_1: The mean post-test knowledge score is higher than the mean pre-test knowledge score regarding prenatal factors causing mental disorders in offspring among female adults.

The Paired 't' test value of pre-test and post-test knowledge scores was 6.25 which was more than *'t'* table value at 0.01 level (2.76) and 0.05 level (2.05) respectively which reveal that after implementation of teaching programme there was significant change in level of knowledge among the respondents (Table No. 2.)

H_2: There is significant association between post-test knowledge scores regarding pre natal factors causing mental disorders in offspring among female adults with their selected demographic variables.

There was no significant association between the post-test knowledge and selected demographic variables of female adults revealing the effectiveness of teaching programme on the enhancement in the knowledge of the participants regarding prenatal factors causing mental disorder in offspring. (P>0.05)

Discussion:

It was observed that the female adults under study were in early adulthood and belong to low socio-economic status might be related to rural area. In India, rural area people are poorer than the urban area. The pre-test knowledge was average for most (86.66%) of participants which was more or less similar to the findings of Guilford WH, Downs KE, Royce TJ.[7] The post-test knowledge scores showed that there was increase in knowledge in all the areas. Fifty percent of female adults had good knowledge and 50% had average knowledge which show the effectiveness of teaching programme and it was more or less similar to the findings of the study conducted by Guilford WH, Downs KE, Royce TJ. The results of the study revealed that Costa Rican women scored higher than Panamanian women in most areas of knowledge in prenatal health care. Only country of origin and educational level were significant factors in determining knowledge of prenatal care. However, country of origin was a stronger predictor of knowledge of prenatal care than was having completed high school.[7]

Significant difference was found between the pre and post test knowledge scores of the participants. Hence, the null hypothesis was rejected at 0.05 level and research hypothesis was accepted.

However, there was no significant association between the post test knowledge scores and demographic variables. Hence, the null hypothesis was accepted at 0.05 level of signification and research hypothesis was rejected. The findings of the present study were consisting with the findings of similar study conducted by Stefansdottir V, Skirton H, Jonasson K, Hardardottir H, Jonsson JJ conducted a study to assess pregnant women's knowledge and understanding of first trimester prenatal screening and to evaluate the impact of a new information booklet. The study concluded that various factors, e.g. experiential knowledge, education and information about prenatal screening affect the likelihood of participation in prenatal screening programs. More information results in better knowledge and higher uptake rate.[7] A study on promoting health knowledge through micro-credit programmes among poor women in rural Bangladesh was conducted. Findings revealed that the socio-demographic factors such as the age of the woman, land ownership of the family and occupation of husband had no association with the prevalence of maternal knowledge. The knowledge was much

greater among credit forum participants than non-participants, although exposure to the media and the education of women had also played a significant role in raising the level of knowledge.[8]

Implications :

The study will be useful to teach mothers in rural area.

Students can utilize this module to educate women who are in reproductive age.

The findings are also useful for the health workers, social workers and ASHA to educate women to prevent the occurrence of mental disorders in offspring.

Conclusions:

From the findings, it is concluded that the female adults had average knowledge during pre test and there was increase in knowledge during post test might be due to the knowledge gained during the teaching programme which shows the structured teaching programme was effective in enhancing the knowledge of female adults regarding pre-natal factors causing mental disorders in offspring. There is need to educate the female adults who are in reproductive age group about the prenatal factors to prevent the occurrence of mental disorders and other congenital anomalies in offspring.

Recommendations :

- The study can be replicated on a large sample in different parts of the country to generalize the findings
- Comparative study can be conducted to access a knowledge of female adults in urban and rural areas.
- The present study was conducted only for educated woman. However, the study can be conducted on both educated and uneducated women.

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