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Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding the Importance of Folic Acid Supplements in the Prevention of Neural Tubal Defect among Early Adulthood Girls in Selected Colleges of Vadodara

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Abstract: **Folate is a water soluble vitamin & more effective when started from 1st 3 month before the conceptional & after 3 month of conception recommendation dose will enhancing the health of pregnant mother with prevention of congenital anomaly of NTD in new born infant. Aims & Objectives: To assess the effectiveness of planned teaching programme on knowledge regarding the importance of folic acid supplements in the prevention of neural tubal defect among early adulthood girls in selected colleges of Vadodara." Methods: An evaluative research approach with pre-experimental one group pre-test post-test design was used. Sample was selected by using Quota sampling technique. Data was collected by using self-structured knowledge questionnaire. The data was tabulated and analyzed in term of objectives of the study, using descriptive and inferential statistics. Results: the mean post-test knowledge score (21.48) also was higher than the mean pre-test score (10.22). It was found that calculated value 30.14 was much higher than the tabulated' value- at 0.05% level of significance. The chi-square value shows that there is a significant association between knowledge of early adulthood girls with selected demographic variables such as age and type of family and stream of education. There is no significant association between religion and living area. Conclusion: The study finding revealed that planned teaching program was highly effective in improving knowledge of early adulthood girls.**

Keywords: **Effectiveness, planned teaching programme, importance of folic acid, neural tube defect, early adulthood girls.**

1. INTRODUCTION

Mother is a one who nurture the fetus in her womb for the 9 months bring the joy to new life with all of sacrifices she bears the unbearable pain and delivered the new born. A pregnancy and motherhood are developmental milestone that are highly emphasized our culture. Motherhood traditionally considered near life & almost sacred state and bring completes to the women's in her life.[1] Birth defect are also called "congenital anomalies" or "congenital deformity." Meaning of congenital refers to present at birth. The world "anomalies" and "abnormalities" mean that there is a problem present in a baby world health statistics 2008; about 260,000 national death worldwide caused by congenital anomalies. According to reported about 71 percentage neonatal death caused congenital deformity. The most common birth defects is Neural tube defect (NTD_S). That are causes infant mortality and serious diability.[2] The United States and according to the guideline to

the public health Service all women who are going to be conceive they should take 400 microgram of folic acid daily to prevention NTDs. Result of the survey shows that overall up to 70 percentage of cases of NTD can be prevented in the Periconceptional mother with proper intake of folic acid. [3] Annually worldwide an estimated 300,000 or more babies are born with spinal bifida and anencephaly. In the United States reported birth prevalence rates vary from 4 to 10 per 10,000 live births. Some studies in countries such Ireland, United Kingdom, China, Hungary, Mexico and India (3.9 to 9 per1000) has reported higher rates.[4] Neural tube defect are the congenital malformation of the CNS resulting from a defective closure of neural tube during early embryogenesis between 3rd and 4th week of intra uterine life. It involve the defect in the skull, vertebral column, the spinal cord and other portion of CNS. It occurs in about 1 to 5 per 1000 live births. Risk in second sibling is high. The defect is usually obvious at birth and varies in severity from spina bifida occulta to anencephaly.[5]

OBJECTIVES OF THE STUDY:

1. Assess the existing knowledge regarding the importance of folic acid supplements in the prevention of neural tubal defect among early adulthood girls.

2. Determine the effectiveness of planned teaching programme on knowledge regarding the importance of folic acid supplements in the prevention of neural tube defect among early adulthood girls.

3. Find out the association of pre-test knowledge score with selected demographic variable.

HYPOTHESIS:

H1- There will be a significant difference between the pre-test and the post-test knowledge score regarding the importance of folic acid supplement in the prevention of neural tube defect among early adulthood girls.

H2- there will be a significant association between pre-test knowledge score with selected demographic variables.

2. METHODOLOGY

RESEARCH APPROACH:

Evaluative research approach.

RESEARCH DESIGN:

Pre-experimental one group pre-test post-test research design.

VARIABLES UNDER THE STUDY:

Independent variable. In this study independent variable is planned teaching programme on knowledge regarding importance of folic acid supplement in the prevention of neural tube defect.

Dependent variable:-In this study, depended variable refers to the knowledge of early adulthood girls regarding importance of folic acid supplement in the prevention of neural tube defect.

RESEARCH SETTING:

Navrachna University of Tandalja Vadodara.

POPULATION:

early adult hood girls studying in arts, commerce and science colleges.

SAMPLE AND SAMPLING TECHNIQUE:

the sample of the study comprised of 90 early adulthood girls studying in arts, commerce and science colleges of Vadodara. In this study Quota sampling technique was used.

DATA COLLECTION TECHNIQUES AND TOOLS:

data collection was self-structured knowledge questionnaire.

DATA COLLECTION TOOL:

Section 1:- the demographic variable such as age, religious, living Ares, types of family, stream of education.

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Section 2:- it is consist of 31 questions knowledge regarding importance of folic acid supplements in the prevention of neural tube defect among early adulthood girls in selected colleges of Vadodara.

Inclusion criteria:

- Who are willing to participate in the study
- Early adulthood girls (17-25yrs)

Exclusion criteria:

- Who are already participated in this type of study.
- Who are attended the medical related course.

3. RESULTS

FINDING ARE ORGANIZED IN THE FOLLOWING SECTION:

SECTION A: description of the samples according their demographic characteristics:

Demographical variables including age, religion, living area, type of family, stream of education. Data shows that highest percentage (82.22%) of early adulthood girls was in the age group of 17-19 year and maximum percentage (16.66%) were in the group of 20-22 year and least (1.12%) were in the group of 23-25 year. Data indicate that highest percentage (74.44%) of early adulthood girls belong to Hindu religion and maximum percentage (18.90%) early adulthood girls belong to Muslim religion and (3.33%) were belongs to early adulthood girls belong to Christian and other religion. Data shows that highest percentage (85.55%) of early adulthood girls belong to urban area and maximum percentage (14.45%) early adulthood girls belong to rural area. Data shows that highest percentage (70%) of early adulthood girls belong to nuclear Family and maximum percentage (30%) early adulthood girls belong to joint family. Data shows that equal percentage of responded in stream of education which include arts (33.33%) commerce (33.33%) science (33.33%).

SECTION B: - Distribution of Mean, SD, And Mean Percentage of Pre-Test or post-test Score of Knowledge Early Adulthood Girls:

Distribution of the pre-test knowledge score of importance of folic acid supplement prevention of neural tube defect among early adulthood girls with their mean, standard deviation, and mean score percentage. The overall mean score is 10.22 and standard deviation 2.54 in the different aspect of knowledge regarding importance of folic acid supplement in the prevention of neural tube defect among early adulthood girls. Data shows that distribution of the post-test knowledge score of importance of folic acid supplement prevention of neural tube defect among early adulthood girls with their mean, standard deviation, and mean score percentage. The overall mean score is 21.48 and standard deviation 2.09 in the different aspect of knowledge regarding importance of folic acid supplement in the prevention of neural tube defect among early adulthood girls.

Distribution of pre-test level of knowledge score of early adulthood girl based on their knowledge categories:

S.NO.	Knowledge level	Respondents	
		frequency	Percent
01	Inadequate knowledge	72	80%
02	Moderate knowledge	18	20%
03	Adequate knowledge	0	0%
TOTAL		90	100%

Distribution of post-test level of knowledge score of early adulthood girl based on their knowledge categories:

S.NO.	Knowledge level	Respondents	
		Number	percent
01	Inadequate knowledge	0	0%
02	Moderate knowledge	42	46.66%
03	Adequate knowledge	48	53.33%
TOTAL		90	100%

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SECTION C:

Distribution of pretest and posttest knowledge score of samples according to the knowledge:

Variable		Mean	Mean difference	Std. deviation	t-value
Knowledge regarding importance of folic acid supplement prevention of neural tube defect	Pre – test	10.22	11.26	2.54	30.14
	Post – test	21.48		2.09	

SECTION: - D:

TABLE:-3 Association between pre-test knowledge of the early adulthood girls with selected socio-demographic variable.

S.no.	Variable	0-11	12-21	x^2	D.F.	Level of significant
01	**Age (in years)**			8.159	2	8.159 > 5.99 S
	17-19	57	17			
	20-22	15	0			
	23-25	0	1			
02	**Religion**			2.043	3	S 2.043 < 7.82 **NS**
	Hindu	52	15			
	Muslim	15	2			
	Christian	3	0			
	Other	2	1			
03	**Living area**			1.439	1	1.439 <3.84 **NS**
	Urban	60	17			
	Rural	12	1			
04	**Types of family**			9.643	1	9.643 >3.84 **S**
	Nuclear	45	18			
	Joint	27	0			
05	**Stream of education**			8.750	2	8.750 > 5.99 **S**
	Arts	25	5			
	Commerce	28	2			
	Science	19	11			

4. DISCUSSION

The aim of study was to assess the effectiveness of planned teaching programme on knowledge regarding the importance of folic acid supplements in the prevention of neural tubal defect among early adulthood girls. It was found that the early adulthood girls had inadequate knowledge related to importance of folic acid supplement in the prevention of neural tube defect after the planned teaching program there was significant improvement in the knowledge of early adulthood girls.

Different study shows that importance of folic acid supplement in the prevention of neural tube defect. Interpersonal connections can have on increasing awareness, knowledge, and consumption of folic acid.[6] the fortification of wheat flour and/or rice with folic acid, which has resulted in reduction the prevalence of neural tube defects. The risk factors of neural tube defects and propose preventive measures to decrease the number of neonates with neural tube defects.[7] Women's Awareness of Periconceptional Use of Folic Acid Before and After Their Antenatal Visits in large teaching hospital in the UK.[8] Knowledge regarding folic acid deficiency was low along with the poor attitude. Education status plays important role in preventing micronutrient deficiency.[9] folic acid supplementation has importance on pregnancy on pregnancy outcome such as prevention of birth, still birth, the mean birth weight. Thus, a significant reduction was seen in the incidence of megaloblastic anaemia.[10] The women take healthy diet then the women not need to take compliment folic acid in the form of medication Young age and low education were factors associated with low likelihood of taking folic acid. It seems that different and more efficient actions are needed if a more substantial proportion of women and their fetuses are going to benefit from the knowledge that folic acid supplementation in the periconceptional period can prevent NTD.[11]

5. CONCLUSION

The present study assessed the effectiveness of planned teaching programme on knowledge regarding the importance of folic acid supplements in the prevention of neural tubal defect among early adulthood girls has inadequate knowledge related to importance of folic acid supplement in the prevention of neural tube defect diseases in the pre-test. After the planned teaching program there was significant improvement in the knowledge of early adulthood girl

REFERENCES

[1] Marlow R. Dorothy, Barbara E. Redding, text book of pediatric nursing, 6th edition, Mosby publishers, 1998, page no. 33-35.

[2] "Prevention of neural tube defect by global library: prevention and treatment of various neural tube defect".

[3] Kulkarni ML, Mathew MA Ramachandran B. High incidence of neural tube defect in south India.2007, page no .49-52.

[4] Slevnsen, Folate intake during periconceptional period. Journal of Maternal and Child Health Nursing, 2008, Volume 11, Issue 4, page no.21-27.

[5] Clement TEXT BOOK ON NEUROLOGICAL & NEUROSURGICAL NURSING first edition 2015 ISBN: 978-93-5152-298-0 Jaypee Brothers medical publishers page no. 309-310.

[6] Flores AL Isenburg J, Hillard CL Folic Acid Education for Hispanic Women: The Promotora de Salud Model. 2017 Feb; 26(2):186-194. doi: 10.1089/jwh.2016.6116. Epub 2017 Jan 9. PMID: 28067585 PMCID: PMC5299051 DOI: 10.1089/jwh.2016.6116.

[7] Kondo, A., Matsuo, T., Morota, N., Kondo, A. S., Okai, I., and Fukuda, H. (2017) Neural tube defects: Risk factors and preventive measures. Congenital Anomalies, doi: 10.1111/cga.12227. PMID:28425110

[8] Maher, Mark, and Remon Keriakos. "Women's Awareness of Periconceptional Use of Folic Acid Before and After Their Antenatal Visits." Clinical Medicine Insights. Women's Health 7 (2014): 9–15. PMC. Web. 1 Sept. 2017.

[9] Hisam A, Rahman MU, Mashhadi SF. Knowledge, attitude and practice regarding folic acid deficiency; A hidden hunger. Pakistan Journal of Medical Sciences. 2014;30(3):583-588. doi:10.12669/pjms.303.4716.

[10] Lassi ZS[1], Salam RA, Haider BA, Bhutta ZA. 2013 Folic acid supplementation during pregnancy for maternal health and pregnancy outcomes. PMID:23543547DOI:10.1002/14651858.CD006896.Pub2

[11] Sjurdur F. Olsen and Vibeke Kildegaard Knudsen Folic acid for the prevention of neural tube defects: Sjurdur F. Olsen and Vibeke Kildegaard Knudsen Food and Nutrition Bulletin, vol. 29, no. 2 (supplement) © 2008.