



EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PRECONCEPTION CARE AMONG ADOLESCENTS

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ABSTRACT

Unwanted teenage pregnancy, sexually transmitted diseases, HIV/AIDS, substance abuse and other problems in adolescents necessitates the need for programmes designed to improve their preconceptional health. The objective of the study were: a) Determine the existing knowledge of adolescents regarding preconception care b) Develop and administer a planned teaching programme on preconception care among adolescents. c) Evaluate the effectiveness of planned teaching programme on preconception care among adolescents. The conceptual framework for the study was developed based on 'Becker's health belief model'. Quasi- experimental one group pre-test post -test design was used for collection and analysis of data. Multistage random sampling technique was used to select 120 adolescents from selected colleges.

Result showed that the overall mean percentage of knowledge score had improved from 39.05% in pre-test to 74.45% in post-test and the mean percentage of effectiveness was 35.40%. Inferential statistics using paired 't' test showed a very highly significant difference ($t=31.861$, $P<0.005$) between pre-test and post-test knowledge scores of adolescents.

Key words

Planned teaching programme (PTP); preconception care; adolescents.

INTRODUCTION

Adolescents are the future parents. Adolescence is regarded as a unique phase of human development. It is a period of sexual maturity that transforms a child to a biologically mature adult capable of sexual reproduction & potential consequences of that sexual activity.

There are approximately 10 million pregnant adolescents and adolescent mothers throughout India at any given time¹. Each year around 20 million young women aged between 15-19 years undergo unsafe abortions which results in 78,000 deaths worldwide.²

Compared to adult women, childbearing during adolescence poses greater risk to the mother and the newborn. Fertility during this period contributes to maternal morbidity and mortality, high incidence of low birth weight babies and neonatal morbidity and mortality.³

Every women of child bearing age should be viewed as a potential mother. Therefore

identify and treating risk factors and providing anticipating guidance with emphasis on healthy lifestyles may be the key to improve health of next generation (Freda, 1993)⁴

Majority women who become pregnant do not seek prenatal care and advice until the middle of the first trimester. By that time organogenesis is well advanced and it may have been affected by the client's life style, both healthy and unhealthy. The target clientele for preconception advice should be all individuals of reproductive age, particularly women who are contemplating a pregnancy in the near future and teenage school children ⁵

A study on 'effectiveness of planned teaching programme on knowledge regarding selected area of safe motherhood among the female pre-university students showed the findings that gain in knowledge in this area was comparatively less than other areas and the researcher concluded that there is much scope for improving knowledge in the area of preconceptional health⁶.

The objectives of the present study were as following

- Determine the existing knowledge of adolescents regarding preconception care among adolescents.
- Develop and administer a planned teaching programme on preconception care
- Evaluate the effectiveness of the planned teaching programme on preconception care among the adolescents.

MATERIALS AND METHODS

Design

A quasi- experimental study with one group pre-test post -test design was used

Pretest (X) $\xrightarrow{\text{Treatment PTP}}$ Post -test (Y)

Setting

The study was conducted in three selected degree colleges in Manglore city.

Sample

One hundred and twenty students who met inclusion criteria

- Studying in selected degree colleges, Mangalore
- In the age group of 17-19 years
- Willing to participate and available during the period of study.

Multistage random sampling technique was used to select the sample for the study.

Tools to assess knowledge of adolescents on preconception care

A structured knowledge questionnaire was used which has two parts.

Part I

Consists of demographic variables such as age, sex, religion, type of family, family income, residential area, previous awareness & source of information about preconception care.

Part II

Consists of 38 items related to preconception care which are divided into section A, section B and section C

Section A - had seven items regarding the concept of preconception care

Section B - had 20 items regarding preconceptional promotion of health

Section C - had eleven items concerning the prevention of teratogenic exposure.

The planned teaching programme was developed by the investigator. The method of instruction adopted was lecture cum discussion using powerpoint. After the pretest on the same day PTP was administered. Post - test was done on fifth day using same questionnaire.

Validity & reliability

Content validity of the tool was ascertained in consultation with the experts in the field of nursing, obstetrics & gynaecology. Reliability of tool was tested by test retest method using Karl Pearson's correlation formula. ($r = .916$, $P < .001$). Tool was found to be reliable.

Plan for data analysis

Frequency & percentage distribution of demographic data was done. The pre-test and post-test scores of knowledge regarding preconception care was analysed using paired 't' test.

RESULTS

Part I: Percentage distribution of demographic variables of adolescents :

Most of the students belonged to the age of 18 years (50%), (36.77%) of subjects belongs to 19 years and only (13.33%) of the sample were in the age of seventeen years. (60%) of the sample were females & (40%) were males. Religion wise (97.5%) of sample were Hindus. Christians and Muslims were very less (1.61 % & 0.83 % respectively). Majority of the subjects were from urban community & (33.33%) of the subjects were from rural area. (75%) of the respondents were from nuclear families & only twenty five percent from joint family. Respondent's mothers educational status reveals that forty five percentage of mothers had primary education only. Secondary level educated mothers were about (25.84%) & mothers with PUC level education (14.17%) uneducated mothers constitute (8.33%), graduate & post graduate mothers were only 5.83 percentage & professionals were very less (0.83%). Majority adolescents (83.33%) had no awareness regarding preconception care and only (16.67%) of adolescents had some awareness regarding the topic. In that five percent got information through health professionals and also five

percentage from mass media. From parents, grandparents & friends (6.67%) of sample got the information regarding preconception care

Part II

Analysis of pre-test knowledge of adolescents on preconception care

Table -I

section - A Level of Knowledge of Adolescents on Preconception Care

n=120

Level of Knowledge	Range of Scores	Percentage of score	Number of Response	Percentage
Poor	0-9	0-25	2	1.67
Average	10-19	26-50	114	95.00
Good	20-29	51-75	4	3.33
Very good	30-38	76-100	0	0
		Total	150	100

Section - B

Area wise mean, SD & mean percentage of knowledge scores of adolescents on preconception care

Table -2

Area-wise Mean, SD and Mean percentage of knowledge scores of adolescents on preconception care

Knowledge area	Maximum Possible score	Mean score	SD	Mean %
a. Concept of preconception care	7	3.08	1.16	44.00
b. Preconceptional promotion of health	20	7.93	1.89	39.65
c. Prevention of teratogenic exposure	11	3.83	1.45	34.82
Total	38	14.84	2.92	39.05

Section- C

Item- wise analysis of correct responses of adolescents on preconception care

Table -3

SL NO	Itemwise distribution of percentage of correct responses of adolescents on 'concept of preconception care'	No.of correct response	Percentage
1.	Conception means fusion of sperm and ovum to form zygote	37	30.83
2.	Preconception care is the care and advice for future parents	58	48.33
3.	Teenage is the most suitable age for providing preconception care	78	65.00
4.	Preconception care helps to reduce birth defects	45	37.5
5.	The first few weeks after conception is critical because of the organogenesis of foetus	19	15.83
6.	Risk assessment and health promotion are the components of preconception care	42	35
7.	Preconception care will help to ensure safe motherhood	91	75.83

Table - 4

SL NO	Itemwise distribution of percentage of correct responses of adolescents on 'preconceptional promotion of health'	No.of correct response	Percentage
8.	Balanced diet contains carbohydrate, protein, fat, vitamins and minerals	61	50.83
9.	Energy requirement for adolescent in the age group of 17-19 years is 2001-2800 Kcal	22	18.33
10.	Energy producing foods are rich in fat and carbohydrate	28	23.33
11.	Milk, egg and pulses are rich in protein	83	69.16

12. Neural tube defect can be prevented by folic acid supplementation during reproductive age	23	25.19
13. Menstruation can cause Iron loss in adolescent girls	40	33.33
14. Body requirement of Calcium and Phosphorus can be obtained from cow's milk	79	65.83
15. BMI Means weight in kilogram divided by height in meter squared	15	12.5
16. BMI sixteen shows underweight	61	50.83
17. Menstrual hygiene is important because of the chance for the growth of bacteria in the presence of blood	31	25.83
18. Before eating food and after passing urine and stool hands should be cleaned with soap and water	73	60.83
19. Teenage pregnancy should be avoided because of their physical and mental immaturity	81	67.5
20. Marriage between relations should be avoided because it can cause genetic abnormality in foetus	49	40.83
21. Most suitable age for pregnancy is 20-35 years	67	55.83
22. The best method for prevention of unplanned pregnancy is contraceptives	54	45
23. For calculating the expected date of delivery, women should know the first day of last menstrual cycle	48	40
24. Regular exercise helps to attain physical and psychological wellness	45	37.5
25. Brisk walking and yoga are the best moderate exercises	62	51.67
26. Preconceptional medical consultation is essential for family with genetic abnormality	14	11.67
27. Preconceptional medical check-up is a must for girls with foul smelling vaginal discharge, hypertension and diabetes	16	13.33

Table - 5

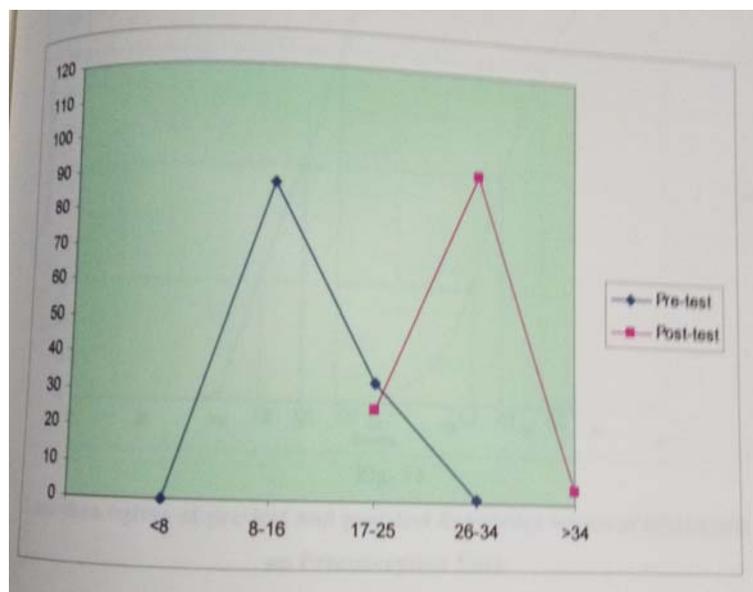
Item wise Distribution of percentage of correct responses of Adolescents on 'Prevention of Treatogenic Exposure'

SL NO	Item	No.of correct response	Percentage
28.	Teratogens can cause foetal developmental abnormality	29	24.17
29.	Teratogenic exposure is more hazardous during 17-56 days after conception	13	10.83
30.	X-ray, some of the medicines, pesticides are the common teratogens	63	52.5
31.	Intensity of teratogenic effect depends upon strength, area and time of exposure	30	25
32.	Abnormally small sized head and eyes of foetus can be caused by maternal alcoholism	25	20.83
33.	Smoking and alcoholism can reduce normal sperm count in male	28	23.33
34.	Sharing of needles among drug abusers can predispose to HIV infection	54	45
35.	Avoiding contact with cat and its litters can prevent teratogenicity due to Toxoplasma	20	16.67
36.	Swelling of testis, genital ulcers, pus in urine are common manifestations of STD in man	55	45.83
37.	Use of condom is the best method for prevention of HIV/STD transmission	82	68.33
38.	Mother-to-child transmission of HIV infection can be prevented by early detection and treatment of the mother	60	50

Part III

Evaluation of the effectiveness of PTP on preconception care for adolescents & testing of Hypothesis

A. Comparison of pre-test and post- test knowledge scores of adolescents on preconception care.



B. Testing of Hypothesis

Ho: There is no significant difference between the pre-test and post-test knowledge scores of adolescents regarding preconception care.

paired 't' test was used to analyse the difference in knowledge scores of adolescents in the pre test and post-test regarding preconception care. The calculated 't' value was greater than table value in all sections. Therefore null hypothesis was rejected & research hypothesis was accepted. Findings revealed that there was very highly significant difference ($t = 31.861$, $P < 0.005$) between pre-test & post-test knowledge scores of adolescents regarding preconception care.

DISCUSSION

The findings of the present study showed that majority (95%) of the sample had only average knowledge regarding preconception care whereas 1.67 % of the respondents had poor level of knowledge regarding the topic. Findings also revealed that 3.33 % of respondents had good knowledge & none of them had very good knowledge regarding preconception care.

Area- wise analysis of knowledge scores of adolescents showed that the highest mean percentage (44%) was found in the area of concept of preconception care with a mean & SD of 3.08 ± 1.16 and least percentage of knowledge score (34.82%) was obtained in the area of prevention of teratogenic exposure with a mean and, SD of 3.83 ± 1.45 . In the area of preconceptional promotion of health the mean percentage was 39.65% with a mean &

SD of 7.93 ± 1.89 . Findings of present study are consistent with the findings observed by another study among female pre-university students which revealed that in the area of preconceptional health the mean percentage of pre-test knowledge scores was 43.75% with a mean & SD of 3.5 ± 1.20

The findings of mean, SD & mean percentage of knowledge scores in the pre-test and post-test revealed that the mean percentage in the pre-test was 39.05 with the mean and SD of 14.84 ± 29.2 , where as post-test mean percentage was 74.45% with mean & SD of 28.28 ± 3.4 . This finding showed high effectiveness (35.44%) of planned teaching programme. This finding is consistent with another study finding which showed that mean percentage of the pre-test score in the area of preconceptional health was 43.75% with mean and SD of 3.5 ± 1.20 where as post-test mean percentage in this area was 76.25% with mean & SD 6.1 ± 0.88 . This revealed a high effectiveness (32.5%) of planned teaching programme in the area of preconceptional health.

CONCLUSION

Planned teaching programme was very highly effective in improving the knowledge of the adolescents on preconception care.

REFERENCE

1. Ministry of Human Resource Development, Department of Education. Selected educational statistics. New Delhi : Government of India; 1999
2. Nair CKC. Adolescent sexual and reproductive health. Indian paediatrics 2004; 41: 7-13
3. Nanda AR. Addressing the reproductive health needs of adolescents in India: directions for programmes. New Delhi : Ministry of Health and family Welfare; 2001
4. Perry S E, Wong DL. Maternal child Nursing. 1st ed. St. Louis : Mosby; 1998
5. Alexander J, Levy V, Roch S. Midwifery practice. London : Macmillan press ; 1996
6. Varalakshmi K. An evaluative study on the effectiveness of planned teaching programme on knowledge regarding selected areas of safe motherhood among the female second year pre-university students. Unpublished M.Sc Nursing Thesis : University of MAHE; 1998
7. Cefalo R C, Moos MK. Preconceptional health care : a practical guide. 2nd ed. St. Louis : Mosby ; 1988.
8. Summers L, Price R. Preconception care : An opportunity to maximize health in pregnancy. J Nurse Midwifery 1993 Jul-Aug; 38(4): 188-98.
9. www.unfpa.org/swp/2003/english/chi/-25k
10. www.hsph.harvard.edu/takmi/rp139.pdf
11. <http://www.foresight-preconception.org.uk/summaries/frames/genurin-nf.html>