

A CROSS SECTIONAL STUDY TO ASSESS THE EFFECTS OF HEALTH EDUCATION ON MATERNAL AND CHILD HEALTH OF AN URBAN CITY OF CENTRAL INDIA

Obstetrics & Gynaecology

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ABSTRACT

BACKGROUND: Education is a key determinant of fertility and infant health. Increasing girl's education decreases fertility rate, improves maternal health and child health.

MATERIALS AND METHODS: Cross Sectional study conducted on 500 women of age group 15-55 years having at least one child, from urban area of Indore city. Written Informed consent was obtained from study participants. Data collected and analyzed with appropriate statistical test.

RESULTS: In present study we found only 15% of the women were graduate and above. 48% didn't use any contraceptive method. 74% do not exercise. 88% have toilet facility at their home. 60% use sanitary pads. 65% had complete ANC visits, 90% consult a doctor for their children. 45% of the children were supervised by their mother during study

CONCLUSION: From our study significant association was observed that women education is inversely proportional to no. of children, directly proportional to ANC, child caring and her child's education.

KEYWORDS

Children's Health, Education, Women

INTRODUCTION

Women education plays major role in determination of fertility and infant health. It has impact on various aspects of life. First, education raises a woman's permanent income through earnings, her position in family, decision making, fertility option. Second, woman's education is causally connected to her mate's education, so family income is raised. Third, education may improve an individual's knowledge of, information regarding, fertility options and healthy pregnancy, family health and positive environment for family members.¹⁻⁶ It is also stated that increasing girl's participation in school over time decreases fertility rate, access to education improves maternal health, has positive effect on infant and child health, and education boosts women's earning power.⁷

If the females of family are educated then it is more likely to understand about the health of family members and have knowledge about the diseases and there prevention also. They are more conscious about the health of children and understand the importance of early intervention in form of consultation with doctor and proper treatment for required duration. They understand the importance of safe water and sanitation as household priorities.⁸ Education has positive impact on overall family in terms of income, health, and knowledge, and their influence on fertility decisions in the specific country context.⁹

Educated women have higher position in their family and they have less desire to have many children also they understand the importance of education so their children also engaged in education and it will help for future generation to come out the high fertility and to improve the quality of life.^{4,10}

Female literacy in Madhya Pradesh is 69% as per 2011 census and maternal and child health condition is not good as in Madhya Pradesh. Infant mortality is high, maternal mortality is high and also total fertility rate in comparison to national standards. So we aim to study the assessment of relation in between the mother education and its effect on her health as well as children health and education through this research.

METHODOLOGY

Cross Sectional observational study was conducted on randomly selected 500 women of age group 15-55 years having at least one child, from urban area of Indore city of Madhya Pradesh. Simple random sampling technique was used for selection of participants. Written Informed consent was obtained from study participants. For data collection pre designed, pre tested, semi structured questionnaire was used. The data collected were analyzed through percentages and frequencies in which the data were presented in table formats, charts which were obtained using excel and some using SPSS -22 (statistical package for social science). Study duration was 6 months, from 01 August 2017 – 01 January 2018. Appropriate statistical test was

applied and p value considered significant when it is < 0.05 .

RESULTS

Community based cross sectional study was conducted on 500 women of age group 15-55 years having at least one child, of urban areas of Indore city, 70% of the women of study group were less than 40 years. We compare the factors under study with women education and associations found between women's education and the following factors.

TABLE 1: Educational status of study participants

LABELS	NUMBERS	PERCENTAGE
ILLITERATE	90	18
PRIMARY	70	14
MEDIUM	135	27
HIGH SCHOOL	130	26
GRADUATE	65	13
BEYOND	10	2
Grand Total	500	100

Only 15% of the women had education of graduation and beyond

Table 2: Response on, number of children alive

NO. OF CHILDREN	n	PERCENTAGE
1	60	12
2	240	48
3	140	28
>3	60	12
Grand Total	500	100

More the education lesser the no of children

Table 3: occupation status of mother

LABELS	NUMBERS	PERCENTAGE
working women	135	27
working(not always)	65	13
housewife	260	52
self employed	40	8
Grand Total	500	100

52% of the women were housewife

Higher the education, more likely the women is employed in other occupation than being a housewife

Table 4: participants' age at marriage

AGE (OF MARRIAGE)	FREQUENCY	PERCENTAGE
<18	145	29
18-21	210	42

22-25	125	25
>25	20	4
Grand Total	500	100

71% of women were married at age of ≤ 21 years

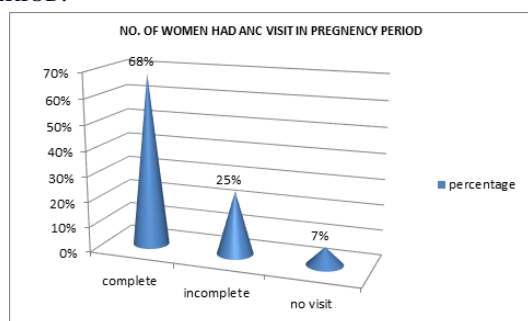
Table 5: Response for contraceptives used by study participants

TYPE OF CONTRACEPTIVE	FREQUENCY	PERCENTAGE
NOTHING USED	240	48
BARRIER METHOD	65	13
CUT	85	17
OCP	85	17
ABORTION	25	5
Grand Total	500	100

Table 6: ATTITUDE OF WOMEN TOWARD SEEKING MEDICAL TREATMENT

ATTITUDE	FREQUENCY	PERCENTAGE
DO NOTHING	20	4
PHYSICIAN CONSULT	295	59
SELF MEDICATION	80	16
QUACK	105	21
Grand Total	500	100

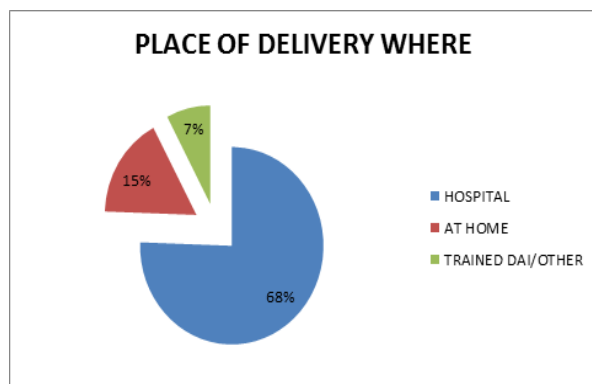
Fig 1: NO. OF WOMEN HAD ANC VISIT IN PREGNENCY PERIOD:-



Here complete means at least 4 mandatory visits

Test –spearman correlation- significant with women education (p value- .050) Educated women more likely to have complete anc visits Only 65% of the women had complete anc visits during pregnancy

FIG 2: PLACE OF DELIVERY WHERE:-



Test applied-kruskal-wallis test-not significant 85% of women had their delivery in presence of a skilled personnel

OTHER FINDINGS:

- 74% of women do not exercise, educated women are more likely to exercise than uneducated women
- Only 60% of the women use sanitary pad during their menstruation
- 79% of children were completely immunized
- 90% of the women seek medical attention for child illness
- Educated women are supervise their children education more promptly
- 86% of women had their 1st child within 3 years of marriage
- 60% of the women had gap of <3 years b/w 1st and 2nd child

Table 7: Significant associations found between women's education and the following factors

S. NO.	ASSOCIATION OF WOMEN EDUCATION WITH VARIOUS FACTORS	P-VALUE	TEST APPLIED
1	NO. OF LIVE CHILDREN	.001	SPEARMAN CORRELATION
2	WOMEN'S OCCUPATION	.020	KRUSKAL-WALLIS TEST
3	AGE AT TIME OF MARRIAGE	.000	One -WAY ANOVA
4	EXERCISE	.001	MANN-WHITNEY U TEST
5	PRDODUCT USED DURING MENSTRUATION	.000	KRUSKAL-WALLIS-TEST
6	ANC VISITS	.050	SPEARMAN CORRELATION
7	SUPERVISION OF CHILD'S STUDY	.000	KRUSKAL-WALLIS TEST

DISCUSSION

In present study we found that 70% of the women of the study group were <40 years. Only 15% of the women had education of graduation and beyond. 40% of the women had >2 children. 52% of the women were housewife. 71% of the women were married at the age of ≤ 21 years, of which 29% were married at age of <18 years which is illegal by law, as of today. 86% of the women had their 1st child within less than 3 years of marriage. 60% of the women had gap of less than 3 years between 1st and second child. 48% of the women didn't use any contraceptive method for birth spacing. 74% of the women do not exercise. 31% of the women are addicted to one or other substance, of which majority used to chew tobacco. 41% of the women do not consult any professional doctor when they fall ill. 35% of the women had 1 or other chronic disease. 88% women have toilet facility at their home. Only 60% of the women use sanitary pads during menstruation. Only 65% of the women had complete ANC visits (minimum 4) during their pregnancy. 85% women had their delivery in presence of skilled personnel. 22% of the women had 1 or other child who died less than 1 year of age. 79% of the children of these women were completely immunized. 90% of the women consult a professional doctor when their children fall ill. Only 45% of the children were supervised by their mother during study, of which only 15% we self-taught by the mother.

From our study significant association was observed that women education is inversely proportional to no. of children, directly proportional to better education and regular exercise; and women education is directly proportional to ANC, child caring and her child's education.

Which are similar to that one found in study by Gakidou, Emmanuela et al.⁸ And also in the study by done by Population reference bureau in US¹¹, which were education inversely proportional to fertility rate, directly proportional to income potential and maternal health.

Similarly it is observed that education of women has positive impact on fertility gap more education leads to more income and more healthy children. Educated women want fewer children, control birth better and more better quality of life in family. New birth control methods are better adopted by educated women in comparison to uneducated women.⁹

Study by McCrary and Royer¹² stated that Women having any education and especially those having secondary education or more have hold on fertility preferences in there family, have decision making power in choosing a spouse, marriage at higher age leads to decrease in number of children in family.

CONCLUSION

The following positive associations were found between women's education and the following factors.

HIGHER THE EDUCATION:

- Lesser the number of children the women bears.
- More likely the women are employed in other occupation, than being a housewife.
- Married off at a later age.
- More likely to exercise than uneducated women.

- More chances of using sanitary pad during menstruation.
- More likely to attend complete ANC check-ups during her pregnancy.
- More concerned, therefore more likely to supervise her child's study.

So we conclude it that women education play vital role in overall health development of her as well as their children.

DECLARATION

CONFLICT OF INTEREST: Nil

FUNDING: Nil

ETHICAL CONSIDERATION: Written informed consent was obtained from study participants

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