

ANTENATAL PERIOD: AN EDUCATIONAL OPPORTUNITY

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ABSTRACT

In this study the impact of an educational programme during antenatal period was evaluated. Pregnant women attending the antenatal clinic formed the study material. The first 100 mothers who were not given health education served as controls. The subsequent 201 cases constituted the study group and were given health education on certain aspects of maternal and child care. The control and study groups were well matched for age, parity, education, income and number of antenatal visits. The results indicated that the mothers in study group gained statistically significant knowledge regarding the purpose of antenatal care, hematinics and tetanus toxoid vaccination. The awareness regarding breast feeding and its advantages also increased significantly in the study group. The knowledge about individual vaccine especially measles and DPT was poor which increased significantly after the educational intervention in the study group. It is recommended that the antenatal period should be optimally utilized to impart health education on the various aspects of maternal and child health.

Keywords: Antenatal period, Health education.

The conventional school and college education might prepare young women for certain careers but not for parenthood. The basics of child rearing are traditionally learnt by the mothers from their elders, neighbors and other members of the community. Very often these traditional practices prove to be harmful. The responsibility of educating the prospective mothers lies with the health personnel coming into contact with them. It has been said that through educating a mother, we educate a family, a community and the whole nation.

Antenatal period is an opportune time to utilize for health education. Colle *et al.* have suggested that while the pregnant women are waiting in the antenatal clinic, every attempt should be made to give health education to these women, either collectively or by one to one talk(1). In the busy antenatal clinics, the obstetricians and other health personnel while imparting the necessary obstetric care, often overlook the health education aspect.

The present study was conducted to evaluate the impact of an educational programme during the antenatal period on the knowledge regarding maternal and child care.

Material and Methods

The study was conducted over a

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period of one year. The pregnant women attending the antenatal clinic of Christian Medical College, Ludhiana formed the study material. The first 100 cases, who were not given health education, served as controls. The routine antenatal advice was given to the control mothers. The study group, comprising of 201 pregnant women, was given education on the various aspects of maternal and child care during the antenatal period in small groups or one to one talk. The control and study mothers were well matched in terms of age, education, income and number of antenatal visits.

Mothers were interviewed twice with a questionnaire. The first interview (Pre-test) was taken during the first antenatal visit and the second one (Post-test) after the delivery.

Results

At pre-test, the mothers who were

aware of the purpose of antenatal care was 54% and 68.2% in control and study groups, respectively. At post-test, there was a significant increase in the mothers of study group knowing the purpose while the control group did not show any change. A majority of the women were already aware of the need to take more food during pregnancy and both study and control groups showed a significant increase (*Table I*).

It is also seen that both control and study groups had a significant increase in the knowledge of mothers regarding the need for tablets during pregnancy. However, the number of women knowing the purpose of these tablets increased significantly only in the study group. Similarly a significant number of mothers only in the study group gained knowledge about breast care during pregnancy.

Table II shows that many of the

TABLE I-Various Aspects of Antenatal Care

Item	Control		Study	
	Pre	Post	Pre	Post
a. Purpose of antenatal care	54 (54)	62 (62)	137 (68.2)	163** (81.1)
b. diet during pregnancy	94 (94)	100* (100)	192 (95.5)	201* (100)
c. Need for tablets	74 (74)	98* (98)	191 (95)	201* (100)
d. Purpose of tablets	13 (13)	19 (19)	33 (16.4)	141* (70.2)
e. Breast care during pregnancy	15 (15)	18 (18)	37 (18.4)	152* (75.6)

Figures in parentheses are percentages

* P <0.05.

women knew about the need of injection during antenatal period in both groups. The number became cent per cent at post-test. Knowledge regarding the name of injection increased significantly for both study and control groups at post-test. Only in the study group, after the health education, a significant positive change from 30.8% to 88.6% was seen regarding the purpose of the injections.

Table III shows that at pre-test, 50% mothers in the control and 45.8%

mothers in the study group knew that breast feed should be the first feed which increased to 98% in control and 99.5% in study group, both of which were statistically significant ($p = <0.001$). A good proportion of mothers in the control (25%) and study groups (32.8%) were of the opinion that honey should be the first feed, which in the post-test decreased to 1% and 0.5%, respectively. Very few mothers in both the groups preferred water, top feeds and ghutti as the first feed.

TABLE II-Knowledge Regarding Tetanus Toxoid

Item	Control		Study	
	Pre	Post	Pre	Post
a. Need for injection	93 (93)	100* (100)	197 (98)	201 (100)
b. Name of injection	62 (62)	100* (100)	154 (76.6)	201* (100)
c. Purpose of tetanus toxoid	25 (25)	34 (34)	62 (309)	178* (88.6)

Figures in parentheses are percentages

* $p < 0.05$.

TABLE III-Knowledge About Breast Feeding

Item	Control		Study	
	Pre	Post	Pre	Post
a. Breast feed as the 1st feed	50 (50)	98* (98)	92 (45.8)	200* (99.5)
b. Time of the 1st feed should be early	29 (29)	78* (78)	55 (27.4)	187* (93)
c. Duration of breast feeding	63 (63)	85* (85)	119 (59.2)	169* (84.1)

Figures in parentheses are percentages

* $p < 0.01$.

It is also seen that in the pre-test, only 29% control and 27.3% study group knew that the first feed should be given within 2-3 hours after birth. After the delivery, at post-test, both the groups showed a significantly increased awareness regarding early feeding ($p < 0.001$). On being questioned about duration of breast feeding in pre-test, 63% mothers in the control group and 59.2% mothers in the study group answered that breast feeding should be given for 6-12 months and in the post-test this rose to 85% in control ($p < 0.001$) and 84.8% in study group ($p < 0.001$); both of which were statistically significant.

It was a pleasant surprise to observe that the advantages of breast feeding as listed in *Table IV* were well known to mothers of both study and control groups at the first interview itself. At

post-test, the number of mothers in the study group, knowing the advantages increased further and this change was statistically significant.

Table V shows that only 20% of control and 32% study group mothers knew about measles vaccine. A similar status was seen for DPT also. In contrast about two thirds of them knew about polio vaccine in both the groups. At post-test, the number of mothers knowing about each individual vaccine increased significantly for the study group. In the control group also, an increase was noted at post-test although the percentages for DPT and measles were lower as compared to the study group, and the increase in knowledge about DPT was not even statistically significant.

Discussion

In the present study, pediatricians

TABLE IV-Advantages of Breast Feeding Over Bottle Feeding

Item	Control		Study	
	Pre	Post	Pre	Post
a. Healthier	99 (99)	99 (99)	197 (98)	200 (99.5)
b. Closer link	96 (96)	99 (99)	196 (97.5)	201* (100)
c. Less infection	92 (92)	98 (80)	193 (91.0)	200* (99.5)
d. Right amount	89 (89)	93 (93)	183 (96.0)	200* (99.5)
e. More convenient	85 (85)	92 (92)	177 (88)	194* (96.5)
f. Better for shape	61 (61)	60 (60)	130 (64.7)	151* (75.1)

Figures in parentheses are percentages.

* $p < 0.05$.

TABLE V-Knowledge Regarding Immunization

Item	Control		Study	
	Pre	Post	Pre	Post
BeG	41 (41)	88* (88)	98 (48.8)	177* (88.1)
OPV	66 (66)	97* (97)	131 (65.2)	19 (4.4)
DPT	27 (27)	35 (35)	57 (28.4)	116* (57.7)
Measles	20 (20)	40* (40)	65 (32.3)	131* (65.2)

Figures in parentheses are percentages.

* $p < 0.01$.

gave health education to a group of mothers during the antenatal period and the response to this intervention was evaluated during the immediate post-partum period by a single person. As is seen from the results, the mothers in the study group had acquired a significant knowledge. Thus the antenatal visits of the mothers were utilized as a period for health education and awareness. Although the control mothers had started the antenatal care significantly earlier as compared to the study group, the knowledge of the study group at the post-test was better showing that the intervention was an important factor.

More than half of the mothers in the control and two thirds in the study group already knew that the purpose of attending an antenatal clinic is for care of both the mother and the baby. The number of mothers knowing the correct answer increased significantly in the study group at post-test whereas there

was no significant change among controls. Most of the mothers in control and study group were aware that they should eat more during pregnancy. After the intervention, the number reached 100% for both groups.

Although the knowledge regarding the need for tablets during pregnancy was uniformly high, very few mothers were aware of its purpose. This is not surprising since all antenatal women are routinely prescribed hematinics but the purpose is not explained. An awareness regarding the usefulness of tablets is likely to lead to proper utilization. Similar responses were obtained for knowledge regarding the tetanus toxoid vaccination during pregnancy. A poor awareness regarding tetanus toxoid was also reported from a KAP study done in Ludhiana in 1987(2).

Breast care during pregnancy is often overlooked leading to feeding and other problems in the post-natal period.

A very poor awareness on this aspect was noted in this report. However, the study group mothers showed a significant increase after the educational programme.

We noted a significantly improved knowledge regarding breast feeding and its advantages in the study group. The findings of the present report corroborate the recommendations of Hardy(3). Wiles (1984) also concluded that anticipatory guidance in the form of prenatal breast feeding education leads to maternal reports of success in breast feeding(4). In a similar study, Sacks *et al.* found that many of the respondents were aware of the advantages of breast feeding(5). The Indian Academy of Pediatrics recommends that pediatricians should actively co-operate with their obstetric colleagues in spreading information on breast feeding to all mothers during the antenatal and postnatal period(6). The International Federation of the Obstetrics and Gynaecology recommendations also state that knowledge regarding breast feeding should be a part of all pregnancy related services(7).

For higher compliance of various immunization programmes, increased awareness and a felt need in the community are very essential. It was seen in the present study that knowledge of individual vaccines was poor especially for measles and DPT. Polio was known to almost two thirds of the mothers in both groups. Sharma and Lahori also reported ignorance regarding BCG and DPT vaccines(8). In a study from Bangladesh, a still lower knowledge of 15% for BCG, 2% for DPT, 3% for polio and none for measles have been reported(9).

Fulginiti recommends that parents should be educated about each vaccine and the role it plays in the well-being of their child(10). In the present study, after the educational intervention, improvement in knowledge about individual vaccines was significant. Promila has also reported that health education definitely decreased the ignorance regarding the vaccine preventable diseases(11). Khanom and Salahuddin also noted improvement after an intervention with an education programme(9).

In conclusion, the antenatal mother proved to be a receptive pupil. It is recommended that the antenatal period should be optimally utilized to impart health education on the various aspects of MCH. As the knowledge and attitudinal changes required are of a larger magnitude than a hospital and involve the community at large, mass media like television should also be utilized for creating better general and social awareness.

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