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Impact of a Birth Training Programme on Knowledge and Anxiety among Expectant Couples in a Selected Hospital, Bangalore

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Abstract--Pregnancy and childbirth are major event which happens in the life of a woman. Fear and anxiety are very common in couples. Feelings of protectiveness towards the partner and child also can be anxiety producing for the expectant father. Each task depicts the inherent change in both structure and function of the male's family role which is influenced by society and the family unit. A birth training programme was conducted among expectant couples and assessed their knowledge and anxiety level in a selected hospital Bangalore. By purposive sampling technique 20 couples were selected and allotted into experimental and control group. Knowledge and anxiety of mothers and their husbands were assessed. Findings revealed that there was a significant difference in knowledge between experimental and control group ($p < 0.001$) mothers and husbands. There was a significant difference in anxiety level between experimental and control group ($p < 0.001$) mothers and husbands. The study reveals that a training programme to be conducted for a couple

in order to help them to manage and face the pregnancy period and labour process without anxiety and fear.

Keywords---Knowledge, Anxiety and expectant couple.

Introduction

Childbirth fear and anxiety is unique to woman. About 20% of low-risk pregnancies in western countries reported intense childbirth fear and 6 % to 10 % are seriously incapacitated by childbirth fear (Eriksson et al.,2006). A Brazilian cohort with 865 pregnant women reported prevalence of stress and distress varying from 22.1 to 52.9% (Rondo et al., 2003). A study was conducted in antenatal clinics of three south – Bangalore private hospitals, 113 first time expectant fathers who were accompanying their low risk primigravidae partners participated. The results revealed that a larger proportion (78.4%) of firsttime expectant fathers suffered from Tokophobia (Ganapathy. T, 2015)

A randomized controlled clinical trial done to identify the effect of life stylebased education on the father's anxiety and depression during pregnancy and postpartum periods. There was a significant decrease in depression (adjusted difference: -1.6;95% CI -2.8 to -0.5), state anxiety (-5.7; -8.6 to -2.9) and trait anxiety (-5.0; -7.8 to -2.2) in the intervention group. The research results indicated the positive impact of training on prenatal and postnatal depression and anxiety in fathers (Charandabi SM et al, 2017).

Antenatal education is offered to pregnant women in most high-income countries, more recently also to expecting fathers. Antenatal education has the overall aim of providing expecting parents with strategies for dealing with pregnancy, childbirth and parenthood. More specific aims include influencing health behaviour, increasing confidence in women's ability to give birth, informing about pain relief, and promoting breastfeeding. NHS policy is to increase engagement with fathers and encourage them to be involved in maternity care in order to improve overall family support

Material and Materials

Experimental research design was used for the study. Institutional ethical committee approval was obtained, the study was conducted among expectant couples who attended the antenatal OPD in a selected hospital,, Bangalore. Primi gravida mothers who were between gestational week 28weeks to 36 weeks and their husbands who accompanied them were selected. By purposive sampling technique 20 couples were selected based on inclusion and exclusion criteria and randomly allocated (10 each) into experimental and control group. Following tools were used for the study. Section I: Baseline proforma to collect the baseline variables, Section II: Structured knowledge questionnaire to assess the knowledge of couple regarding birth preparation which includes diet, stages of labour, pain relief measures, exercises, breast feeding techniques, newborn care and father's role. Section III: STAI scale to assess the state and trait anxiety.

Study was conducted in three phases. In the first phase the purpose of study was explained to the subjects and written consent was obtained. Baseline variables were collected by using baseline proforma. Knowledge was assessed by using knowledge questionnaire and anxiety was assessed by using STAI scale. In the second phase Birth training programme was administered to the experimental group. Antenatal mother and husband were given training one to one basis with power point and demonstration. Routine care was given to the control group. In the phase three Knowledge and anxiety were assessed using knowledge questionnaire and STAI scale among the couples in both experimental and control group after one month.

Results and Discussion

Findings revealed that mean difference of pre and post knowledge score was 7.5 and there was a significant difference in knowledge scores of mothers in experimental group ($P < 0.001$). Mean difference of state and trait anxiety score was -13.9 and there was a significant difference between pre and post anxiety score of mothers ($P < 0.001$). Pre and post mean difference of knowledge of husbands was 7.5, state anxiety was -12.2 and trait anxiety was -13.2. There was a significant difference in knowledge score, state anxiety and trait anxiety of husbands ($P < 0.001$).

Results revealed that the post test mean difference of knowledge, state anxiety and trait anxiety of mothers 6.4, -13.2 and -12.9 respectively. Post test mean difference of knowledge, anxiety state and trait of husbands were 4.5, -12.2 and -12.9 respectively. There was a significant difference in knowledge between the experimental and control group ($p < 0.001$) and also there was a significant difference in anxiety between the experimental and control group ($p < 0.001$). Present study was supported by the study which was conducted among expectant fathers on anxiety in Taiwan. 87 expectant fathers were selected and education was given. The effect of childbirth program was significant for the postnatal level of anxiety ($F = 3.38, P = 0.001$) (Li HT et al, 2009)

A study conducted to investigate the effects of antenatal education on birth fear, depression, anxiety, stress, childbirth self-efficacy, and mode of delivery in primiparous pregnant women. 120 antenatal mothers were selected and 112 were evaluated after education. Pregnant women in the antenatal education group were given two 2-hr sessions (240 min) twice a week for 4 weeks. It was found that those in the antenatal education group had less birth fear, depression, anxiety, and stress symptoms and increased childbirth self-efficacy compared to controls ($P < 0.05$). Those in the antenatal education group had significantly lower postnatal birth fear, depression, anxiety, and stress symptoms compared to controls ($P < 0.001$). (SayhenCankaya and Bulent Simsek- 2020), this study is also supporting the present study saying that antenatal preparation helps the mothers to face the childbirth with less anxiety.

**Table 1: Comparison of pre and post knowledge scores in experimental group of mothers
n=10**

Knowledge	Maximum Score	Range	Mean	SD	Mean difference	Paired 't' test	P-value
Pre test	25	10-16	12.7	1.8	7.5	18.7(df=9)	< 0.001
Post test	25	17-22	20.2	1.8			

Table 1 shows that there is a significant difference between pre and post knowledge scores.

**Table 2: Comparison of pre and post Anxiety scores in experimental group of mothers
n=10**

Anxiety	Mean (Max.score=80)	SD	Mean difference	Paired 't' test	P-value
State anxiety					
Pre test	39.1	3.2	-13.9	11.8 (df=9)	< 0.001
Post test	25.2	3.3			
Trait anxiety					
Pre test	38.4	3	-13.9	14 (df=9)	< 0.001
Post test	24.5	2.1			

Table 2 shows that there is a difference between pre and post state and trait anxiety score in experimental group

**Table 3: Comparison of pre and post knowledge scores in experimental group of husbands
n=10**

Knowledge	Maximum score	Range	Mean	SD	Mean difference	Paired 't' test	P-value
Pre test	25	7-10	8.5	1	7.5	22(df=9)	< 0.001
Post test	25	15-17	16	0.9			

Table 3 shows there is an improvement in post knowledge score than pre knowledge score among husbands

**Table 4: Comparison of pre and post Anxiety scores in experimental group of husbands
n=10**

Anxiety	Mean (Max.score=80)	SD	Mean difference	Paired test	't'	P-value
State anxiety						
Pre test	37.7	3	-12.2	15.8 (df=9)		< 0.001
Post test	25.5	4				
Trait anxiety						
Pre test	38	4.1	-13.2	14.2 (df=9)		< 0.001
Post test	24.8	3.3				

Table 4 shows that there is a significant difference between pre and post state and trait anxiety score among husbands

**Table 5: Comparison of post test scores of knowledge and anxiety of mothers
n= 20**

Variables	Group	Mean (Post test)	SD	Mean difference	Independent 't' test	P-value
Knowledge	Experimental group (n=10)	20.20	1.814	6.4	4.812	< 0.001
	Control group (n=10)	13.80	3.795			
Anxiety State	Experimental group (n=10)	25.20	3.327	-13.2	-7.000	< 0.001
	Control group (n=10)	38.40	4.949			
Anxiety Trait	Experimental group (n=10)	24.50	2.068	-12.9	-8.089	< 0.001
	Control group (n=10)	37.40	4.600			

Table 5 shows there is a significant difference in the post knowledge and anxiety score between mothers of experimental and control group

**Table: 6 - Comparison of post test scores of knowledge and anxiety of husbands
n= 20**

Variables	Group	Mean Post test	SD	Mean difference	Independent 't' test	P-value
Knowledge	Experimental group (n=10)	16.00	.943	4.5	9.000	< 0.001
	Control group (n=10)	11.50	1.269			

Anxiety State	Experimental group (n=10)	25.50	3.979	-12.2	-6.028	<0.001
	Control group (n=10)	37.70	5.012			
Anxiety Trait	Experimental group (n=10)	24.80	3.259	-12.9	-6.999	<0.001
	Control group (n=10)	37.70	4.832			

Table 6 shows there is a significant difference in the post knowledge and anxiety score between husbands of experimental and control group

Conclusion

The findings of the study revealed that educating the couple during the antenatal period helps them to understand better about care during pregnancy, after childbirth and the newborn care. Parental classes should be arranged for all the couples during their antenatal visits.

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Conflict of interest

Conflict of interest is declared none.

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