An exploratory study to assess the Family support and its effect on Outcome of Pregnancy in terms of Maternal and Neonatal health in a selected Hospital, Ludhiana Punjab

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Abstract : Family, an important unit of support for every individual in dealing with stress. Women with high stress level prior to pregnancy and low support had the highest rate of gestation, infant complications, complications of pregnancy and emotional disequilibrium. Individuals who receive more support from several sources experience different level of satisfaction. The aim of the study was to explore family support and its effect on outcome of pregnancy in terms of maternal health during pregnancy and neonatal health. Purposive sampling method was used tocollect the data from 80 postnatal mothers who were admitted in the postnatal unit of CMC & Hospital, Ludhiana. They were interviewed related to the four areas of support -emotional, informational, social and financial support during pregnancy with the structured questionnaire and observational checklist. The conceptual framework of the study was based on the Roy adaptation model. The result of the study revealed that the emotional support for the mothers during pregnancy was more as compared to the other areas. Maternal and neonatal health outcome was good with no complications. There was a significant positive relationship between family support and outcome of pregnancy

Key words :
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Introduction

The primary focus of the pregnancy experiences, as viewed by the health care providers, friends, family of the expectant parents, is centered on the physical changes of the women health status. But the changes during pregnancy and the birth of the baby often trigger major psychological responses of expectant parents as it is an emotional experience. Since emotional well-being is known to influence physical well- being so

any plan for the women's care during pregnancy must include an assessment of her psychological response[1].

A family centered approach encourages family participation. The family in its individual, earliest origin began as a reproductive or biological association but later on it became the source of support to the individual in every walk of life.Similarly family support reduces the stress of pregnant mother also. [2]

Support takes a variety of forms. The presence of strong social support system was associated positively with the expectants mother's attachment to fetus.It suggests that constant human support may be of real benefit to women during labour[3]

Support during labour with the mothers has been significantly effective in reducing the duration of labour, use of pain relieving drugs and with greater number of normal deliveries and better Apgar scores.Individuals who receive more support from several different sources experiences different level of support satisfaction than persons who receive support from only one source. Studies have generally shown that the effects of social support during parturition reduces the maternal and infant morbidity with fewer perinatal complication including caesarean section, shorter duration of labour and fewer infants admitted to neonatal intensive care [4]

The association between the prenatal stress, infant birth weight and gestational age at birth indicated increase of prenatal life event stress .Psychosocial, predictors of birth weight and length of gestation also found that women with more social resources had higher birth weight babies and those with more stress had more premature deliveries[5] .

Child abuse were most strongly correlated with a history of lack of social support, recent life stressors, psychiatric disturbance in the mother and an unwanted pregnancy; poor relationship between the mother and parents, low self-esteem in the mother and lack of attendance at prenatal classes.Postpartum depression was most strongly associated with poor marital adjustment, recent life stressorss[6]

Postpartum depression is associated with depression in the antenatal period. Low income urban women found that instrumental support was a stronger predictor of health and depressive symptoms than emotional support. Unemployment of all household members was associated with the double risk of preterm birth. On the other hand, rural residents were more likely to be negatively affected by emotional stressors, such as loneliness from loss or isolation from friends and loved ones. Research has shown that women who had the continuity of supportive caregivers have considerably better outcomes in terms of reduced intervention, including reduced rate of lower Apgar scores; fewer intubations and resuscitations; fewer episiotomies and increased levels of satisfaction[7]

Increase of prenatal life event stress was associated with decrease in infant's birth weight; hence maternal prenatal stress factors are significantly associated with infant birth

weight and with gestational age at birth.Focusing on socioeconomic, social support, desirability of pregnancy, nutrition, substance use, religion, acculturation, and prenatal care.The superior outcomes diminish with the process of acculturation as the individual adapts to her new cultures.[8]Hence the need was felt to study the impact of family on pregnancy outcome.

Objective

- To assess the family support during pregnancy
- To determine the relationship with family support and outcome of pregnancy

Material and Methods

The study was conducted at the postnatal unit of Christian Medical College & Hospital, Ludhiana,which was one of the leading mission hospitals with 657 bed capacity,distinguished primary, secondary and tertiary institution of Northern India contributing to patient care, medical education, research projects and referral services. The Obstetrics and Gynecology Department has both outpatient as well as the inpatient facilities. The bed strength of the Antenatal and postnatal ward is 50,Labour room of 20 beds. Inpatient services and delivery are conducted with a well-functioning health care team, dedicated services to the mothers and neonates. An Exploratory research approach was adopted for the study. Purposive sampling technique was used to select the sample. Based on the objectives of the study and review of literature, interview scheduleto assess family support was prepared. It had four areas of family support –emotional, informational, social and financial. A checklist for assessing the maternal and neonatal health was also developed. The tool was validated by experts from field of Obstetrical and Gynecology, Medicine, Maternal & Child Health Nursing and Pediatric Nursing. Reliability of the tool was calculated by using spearman-Brown's Prophecy Formula. The reliability of the family support tool was 0.70 and outcome of pregnancy in terms of maternal and child health was 0.83.Data was analyzed using descriptive and inferential statistics.Roy's Adaptation Model was used as the conceptual framework of the study as according to Roy, each person is affected by stressors in the environment called stimuli. Stimuli are of three types: focal stimuli, contextual stimuli and residual stimuli. The focal stimuli are the change that immediately confronting the person and demand attention and these requires an adaptive response. In the present study, the focal stimuli are the family support in which postnatal mothers had received the support in different areas (emotional, informational, social and financial) from the environment throughout the pregnancy. Total 80 mothers were interviewed as per interview schedule and the maternal and neonatal health outcome was assessed through the checklist. Informed consent was taken from the participant after explaining them the purpose of study.

Results

Table 1 shows the demographic characteristics of the postnatal mothers. 62.5% of the mothers were in the age group of 21-25 yrs. All the mothers were literate and 40% of themwere of graduate and as regard to religion 63.75% mothers belongs to Hindu religion and 31.2% were from sikh religion. Two third (66.2%) of the mothers were from joint family and another 27.5% were from nuclear family. Only 25% mothers were working and 75 % were housewives.

Majority (90%) of the mothers reside in urban area. Family income of 71% mothers were in the range of Rs 5001/- to Rs. 10000/-. More than half (58%) mother did not have any child while 32% had one child and 8.7% had two or more children

Table 2 shows the family support. The overall mean support score was 162.67 out of total 188 score i.e., 86.52%.

That means high level of family support was available to mothers. According to the areas of family support, the mean percentage score of informational support was 91.08% followed by emotional upport of 51.01 (90.75%) , social support of 29.31 (73.27%) and financial support 0f 27.90 (87.18%) hence in all the areas mother received high level of support.

Table 1: Socio demographic profile of the mothers N = 80

Socio demographic profile	n(%)
Age	
21-25 yrs	50 (62.5)
26-30yrs	25 (31.5)
31-35 yrs	5(6.0)
Education	
Primary	5 (6.2)
Matric	20 (25.0)
10+2	23 (28.8)
Graduate & above	32 (40.0)
Religion	
Hindu	51 (63.8)
Sikh	25 (31.2)
Christian	4(5.0)
Occupation	
Housewife	60 (75.0)
Service Holder	11 (13.7)
Business	9 (11.3)
Type of Family	
Nuclear	22 (27.5)
Joint	53(66.3)
Extended	5(6.2)
Place of residence	
Rural	8 (10.0)
Urban	72 (90.0)
Family Income	
Rs. 5001-10000	57 (71.3)
Rs. 10001-15000	18 (22.5)
Rs. 15001 & above	5 (6.2)
No of children	
No child	47 (58.8)
One Child	26 (32.5)
Two Child & above	7 (8.7)

Table 2: Family Support received by mothers

Family support	Max. Score	Mean Score (%)
Emotional	60	54.45 (90.75%)
Informational	56	51.01 (91.08%)
Social	40	29.31 (73.27%)
Financial	32	27.90 (87.18%)
Total	**188**	**162.67(86.52%)**

Table 3 revealed that the outcome of pregnancy in terms of maternal and neonatal health. Among the postnatal mothers, 75% of the mothers had good outcome of maternal health, 25% mother had average maternal health output and no mothers had below average maternal health output.As per the neonatal health outcome 70% of the neonates had good outcome of neonatal health, 26.3% had average neonatal health output and 3 (3.7%) had below average neonatal health output.

Table 3 : Outcome of Pregnancy in Terms of Maternal and Neonatal Health

Outcome	Score percentage	Max.Score	n (%)
Maternal health		41	
Good	>75%	>31	60 (75)
Average	51 – 74%	21-30	20 (25)
Below Average	<50%	<20	-
Neonatal health		15	
Good	>75%	>11	56 (70.0)
Average	51 – 74%	8.0-10	21 (26.3)
Below Average	<50%	<7	3 (3.7)

Table 4 Depicts different aspects of maternal health output. It shows mothers with good outcome of maternal health having hemoglobin level of 10-13mg/dl ,(52.5%) were having gestational age of > 38 weeks,(62.5%) were in normal progress of labour. Majority (92.5%) of the mother had no complications and 45% of the mothers were discharged within 3-5 days. Emotional status of 88.7% mothers was happy and only 9(11.3%) mothers were sad.

Table 4: Pregnancy Outcome in Terms of Maternal Health

Maternal Health	n (%)
Hemoglobin	
<10 mg/dl	19 (23.8)
10-13mg/dl	42 (52.5)
>13mg/dl	19 (23.7)
Gestational age	
<36wks	2 (2.5)
36-37wks	5 (6.3)
37-38wks	23 (28.7)
>38wks	50 (62.5)
Progress of labour	
Prolonged	18 (22.5)
Normal	62 (77.5)
Emotional status	
Sad	9 (11.3)
Happy	71 (88.7)
Complications	
Sepsis	4 (5.0)
PPH	2 (2.5)
Nil	74 (92.5)
Discharge	
>5 days	8 (10.0)
3-5 days	36 (45.0)
< 3 days	36 (45.0)

Table 5 depicts the pregnancy outcome in terms of neonatal health. It reveals that 60% of the neonates were full term born, majority (90.0%) were having Apgar score in the range of 7-10, nearly half (47.5%) had birth weight between 2500-3500gms and 72.5% were having the head circumference of 33-35 cm.

Table 5: Pregnancy Outcome in terms of Neonatal Health

Neonatal Health	n (%)
Birth	
a) Preterm	32 (40.0)
b) Term	48 (60.0)
Apgar score	
a) 4-6	8 (10.0)
b) 7-10	72 (90.0)
Weight	
a. < 2500gm	18 (22.5)
b. 2500-3500gm	38 (47.5)
c. > 3500gm	24 (30.0)
Length	
a. <42cm	1 (1.2)
b. 42-47cm	30 (37.5)
c. >47cm	49 (61.3)
Head Circumference	
a. <33cm	20 (25.0)
b. 33-35cm	58 (72.5)
c. >35cm	2 (2.5)

Table 6 depicts that the relationship between the family support and its effect on outcome of pregnancy in terms of maternal and neonatal health. The mean family support was 162.67 (86.52%) and the mean maternal health outcome was 32.48 (79.2%).The relationship between the family support and maternal health outcome were found significant as evident from the 'r' value of 0.99.The mean family support was 162.67

(86.52%) and the neonatal health outcome was 11.7 (78.2%). The relationship between the family support and neonatal health outcome was found significant as evident from the 'r' value of 0.97

Table 6: Correlation between Family Support and Outcome of Pregnancy in Terms of Maternal Health & Neonatal Health

Variables	Mean (%)	Coefficent Correlation (r)
Family Support	162.67 (86.52)	
Maternal Health Outcome	32.48 (79.20)	0.99
Neonatal Health Outcome	11.70 (78.20)	0.97

Discussion

Support may help an individual gain, regain, or use personal strength during difficult adaptive periods which demand more energy and resource, thus it can be expected to affect health during pregnancy. Social support serves as an environmental mediator and influences a woman's experiences and the outcome of pregnancy. For instance, it would be idealistic and inappropriate to consider family as a "support system" in every situation. Further it has been stated that having support is one thing; being satisfied with it is another [9]

In the present study,it was found that the mean percentage score 91.08% of informational support was the highest support of the postnatal mothers during pregnancy in rank as compare to other areas of support such as emotional (90.75%), Social (73.27%) and Financial (87.18%). During labour,support system was a multi-dimensional concept and larger networks of providers i.e. spouse/partner/husband/ friends, family members, relatives. The main source of emotional support during labour was from midwives.A similar study on Husbands support and its effect on outcome of pregnancy among postnatal mothers reveals that majority (65.34%) of respondents husband gave good emotional (84%),social (73.34%),economical (57.33%) and informational (41.34%)support during pregnancy [10]

In the present study, 75% of the mothers had good outcome of maternal health having hemoglobin level of 10-13mg/ dl, 52.5% were gestational age of >38 weeks, 62.5% were in normal progress of labour. Majority (92.5%) of the mother hads no complications and 45% of the mothers were discharged before 3 days and another 45% were discharged within 3-5 days. And 60% of the neonates were born term, majority 90. 5% were having Apgar score of 7-10 range, 47.5% had birth weight between 2500-3500gms and 75.5% were having the head circumference of 33-35 cm. Similar results are found in the study done on having a support person from early labor until after

childbirth (such as doula, nurse, midwife, or childbirth educator) has a proven, positive effect on childbirth[11]

In the present study the correlation ship between the family support and outcome of pregnancy in terms of maternal health (0.99) and neonatal health (0.97) revealed that there was a strong positive relationship. Similar studies shows that women who have continuous one - on - one support are more likely to give birth without pain medication and are less likely to describe their birth experience negatively. Although there is not a proven direct connection between continuous support and less labor pain, having a support person does help mother feel more control and less fearful, which are strong elements of mental pain control.Women who were accompanied by partners and assigned a midwife during labour received less epidural anesthesia, analgesia and general anesthesia; had fewer episiotomies; and had a greater sense of control during labour compared with women permitted accompaniment by partners but not assigned midwives. Similar study was conducted to assess the effectiveness of comfort measures during labour for natural childbirth. Statistical findings show that 76% of the mothers who adopted breathing control and physical relaxation ended up with normal delivery where as in control group 40% and the remaining had different frequency of occurrence in percentage i.e. for episiotomy, tears, forceps, vacuum extraction and caesarean section. The condition of infants at birth finding shows that 92% of the infants whose adopted comfort measures cried soon after birth[12]

The low level of support received or perceived by the postnatal mothers during pregnancy were more likely to have low birth weight, preterm labour, bleeding, low maternal weight gain, infection, anemia. The evidence for the effectiveness of support (social, emotional, informational and economical) during pregnancy in decreasing perinatal health problems and experiencing positive health outcome. Lack of support or other factors had a significant relationship or direct effect on maternal and neonatal health but support system is a multi-faceted concept that has been difficult to conceptualize,defines and measure. So many other factors have also direct or indirect effect on the postnatal mothers during pregnancy which are associated outcome of pregnancy.

Hence it is recommended that same study can be carried out in large population areas with different setting and it can also be conducted in experimental study comparing the support group and non-support groups of mothers in different states.

References

1. Mc Nicholas SL.s, Social Support and Positive Health Practices,Journal Nursing Research 2002, Nov; 24(1):23-30
2. Mechanic D, Factors associated with the maintenance of Positive Health Behavior. Preventive Medicine, 1980, Nov;9(6):805-14
3. Brown MA ,Social Support during Pregnancy: A One-dimensional or Multi Dimensional Construct,Nursing Research, 1986, 35(1): 4-9

4. Cranley MS,Roots of Attachment: The Relationship of Parents with their Unborn, Birth Defects Origin Article Serial, 1982, 17(6):59-83.

5. Feldman P, Rini CK, Woo G, Dunkel-Schetter C, Social Support from Family at Prenatal care of Rural Women,American Journal Community Health , 2002 ,27(6):89-98

6. Nichols, Francine, M ,Maternal New Born Nursing ,Nippon KoshuEiseiZasshi, First edition, 1997, Sauders Company, Tokyo, 55.

7. Wilson LM, Reid AJ, Midmer DK, Biringer A, Carroll JC, Stewart DE., Antenatal Psychosocial Risk Factors Associated with Adverse Postpartum Family Outcomes,CMAJ. 1996, 154(6):785-99

8. Page RL , Positive Pregnancy Outcomes in Mexican Immigrants: What can we learn?Obstetric, 2004, Nov-Dec;33(6):783-90

9. Brown MA, Marital Support during Pregnancy, Journal of Obstetric Gynecology and Neonatal Nursing. 1986, 15(6):475-483

10. Baby Bini, An exploratory study to assess the Husbands' support and its effect on outcome of pregnancy in terms of maternal and neonatal health among the postnatal mothers admitted in a Selected Hospital, Ludhiana, Punjab, Unpublished Master of Nursing Thesis,BabaFarid University of Health Sciences,Faridkot,Punjab, 2001.

11. Kathe Gallagher, Msw Continuous Support during Childbirth,Health wise for every Health Decision, Dec 19, 2005.

12. Susan, K.K. Effectiveness of Comfort Measures during labour for Natural Childbirth, M.N. Thesis, R.A.K. College of Nursing, University of Delhi. 1976.