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RESEARCH ARTICLE

A study to examine the relationship between mothers' psychosocial status and pregnancy outcome

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Introduction: Pregnancy is the most wonderful experience of a woman's life. A mother's physical fitness is just as important as her mental health. A non-experimental and correlational study was conducted to examine the relationship between mothers' psychosocial status and pregnancy outcome among 50 antenatal mothers in their third trimester.
The aim: of the study is to assess the psychosocial status of antenatal care (ANC) mothers, assess the pregnancy outcome, and find out the correlation between psychosocial status and pregnancy outcome.
Result: In this study, using the ALPHA scale to assess the psychosocial status of antenatal mothers, the majority of them had a higher psychosocial score, and some had a middle psychosocial score, but none had a low psychosocial score.
Conclusion: From this study, we conclude that there was an association between psychosocial status and pregnancy outcome.

Keywords: psychosocial status, pregnancy outcome, mother, pregnancy, ANC

Objectives of the study

The following are the objectives of this study:

1. To assess demographic variables among the mothers.
2. To assess the psychosocial status of the antenatal mother.
3. To assess the pregnancy outcome.
4. To investigate the relationship between psychosocial status and pregnancy outcome.

Introduction

Pregnancy is the most wonderful experience of a woman's life. It is also one of the most important transitional phases, during which the mother has mixed feelings of joy and anxiety. Any problem during this phase may have a direct effect on the mother and the fetus.

Maternal physiological changes in pregnancy are the adaptations that a woman's body undergoes during pregnancy to accommodate the growing embryo or fetus. These physiologic changes are entirely normal and include behavioral (brain), cardiovascular (heart and blood vessels), hematologic (blood), metabolic, renal (kidney), posture, and respiratory (breathing) changes. Increases in blood sugar, breathing, and cardiac output are all expected changes that allow a pregnant mother's body to facilitate the proper growth and development of the embryo or fetus during the pregnancy. The pregnant mother and placenta also produce many other hormones that have a range of effects during the pregnancy (1).

Limitations of the study

The limitations of the study are as follows:

- The study only includes antenatal mothers.

- The study is limited only to mothers with gestational ages of 32 to 40 weeks admitted to selected hospitals.
- The study is limited to only 50 subjects.

Sampling technique

According to Polit and Beck (2), sampling refers to the process of selecting a portion of the population that represents the entire population.

In this study, sampling was done in stages as listed hereunder:

- One hospital was selected for the study.
- A non-probability, purposive sampling technique was used to select the final study subject. All ante- natal mothers in their third trimester admitted to the selected hospital were included in the study.

Sample size

The sample consists of a subset of the units that comprise the population. The total number of antenatal mothers in their third trimester selected for the study was 50.

Calculation of the sample size:

The sample size was calculated based on the following formula:

$$n = \frac{Z^2 pq}{E^2}$$

where n = required sample size

z = confidence level at 95% (standard value of 1.96).

p = estimated prevalence = 25%.

q = 100 – 25 = 75

$$E = \frac{\text{absolute precision rate}}{(13)^2}$$

$$= 13\% = (1.96)^2 \times (25)\,(75)$$

$$= \frac{3.8416 \times 1875}{169}$$

$$= \frac{7203}{169}$$

$$= 42.62$$

$$\text{Attribution rate} = 42.62 + 4.2$$

$$= 46.82$$

i.e., approximately 50.

Therefore, the sample size will be 46.82 (42.62 + 4.2).

Hence, approximately the sample size for this study will be 50.

TABLE 1 | Socio-demographic data.

Parameters		No. of cases	Percentage (n = 50)
Age (Years)	≤20	7	14
	21–25	27	54
	26–30	16	32
Occupation	Housewife	50	100
Type of families	Joint	28	56
	Nuclear	22	44
Gravida	G1	28	56
	G2 and above	22	44
Gestational age (Wks)	<37	6	12
	37 and above	44	88

TABLE 2 | Psychosocial status of antenatal mothers.

Psychosocial scores	No. of cases	Percentage
20–46 (low)	0	0
47–73 (some)	12	24
74–100 (high)	38	76
Total	50	100

TABLE 3 | Pregnancy outcome-wise distribution.

Parameters		No. of cases	Percentage (n = 50)
Modes of delivery	Caesarean	8	16
Normal	42	84	
Conditions of baby	Good	44	88
	Very good	6	12
Moods of mother	Happy	43	86
	Very happy	7	14
Conditions of mother	Good	49	98
	Very good	1	2
Breast feeding	Yes	50	100
Started immediately	No	0	0
Family feelings	Happy	37	74
	Very happy	13	26

Analysis and finding

1. Description of subjects (antenatal mothers with 32 to 40 weeks of gestation) according to demographic characteristics by percentage.

Table 1 deals with the demographic data of third trimester antenatal mothers with regard to age, occupation, type of family, gravidity, and gestational age.

- **Age:** A total of 54% (majority) of antenatal mothers are between the ages of 21 and 25, 32% are between the ages of 26 and 30, and 14% are in the age group of 20.

TABLE 4 | Modes of delivery.

Modes of delivery	Psychosocial Scores			
	20–46 (low)	47–73 (some)	74–100 (high)	Total
Caesarean	0	4	4	8
Normal	0	8	34	42
Total	0	12	38	50

TABLE 5 | Association between the condition of baby and psychosocial score in the study group.

Conditions of baby	Psychosocial scores			
	20–46 (low)	47–73 (some)	74–100 (high)	Total
Good	0	9	35	44
Very good	0	3	3	6
Total	0	12	38	50

TABLE 6 | Association between the mood of the mother and her psychosocial status.

Moods of mother	Psychosocial scores			
	20–46 (low)	47–73 (some)	74–100 (high)	Total
Happy	0	8	35	43
Very happy	0	4	3	7
Total	0	12	38	50

TABLE 7 | Relationship between the mother's condition and the psychosocial score.

Conditions of mother	Psychosocial scores			
	20–46 (low)	47–73 (some)	74–100 (high)	Total
Good	0	12	37	49
Very good	0	0	1	1
Total	0	12	38	50

TABLE 8 | Association between family feelings and the psychosocial score.

Family feelings	Psychosocial scores			
	20–46 (low)	47–73 (some)	74–100 (high)	Total
Happy	0	6	31	37
Very happy	0	6	7	13
Total	0	12	38	50

- **Occupation:** The majority of all the antenatal mothers were housewives, i.e., 100%.
- **Type of family:** Findings regarding type of family were that 56% of the antenatal mothers were from joint families and 44% of the antenatal mothers were from nuclear families.
- **Gravida:** 56% of the antenatal mothers were primigravida, while 44% of the antenatal mothers were multigravida.
- **Gestational age:** The majority (88% of antenatal mothers) were gestational ages 37 and above, while only 12% were gestational ages of < 37.

2. Description of subjects (antenatal mothers with 32–40 weeks of gestation) to assess the psychosocial status of antenatal mothers.

Table 2 deals with psychosocial status of antenatal mothers.

- Table 2 shows that the majority of 38 antenatal mothers (76%), had a higher concern psychosocial score, while 12 antenatal mothers (24%), had some concern psychosocial score.

3. Description of subjects (antenatal mothers' 32–40 weeks of gestation) according to pregnancy outcome- wise distribution of cases.

Table 3 deals with the pregnancy outcome-wise distribution.

Mode of delivery: A total of 84% of the mothers have normal vaginal deliveries, while 16% of the mothers deliver by caesarean section.

Condition of baby: The conditions of 88% of the babies were good, while 12% were very good.

Mood of mother: A total of 86% of the mother's mood was happy after delivery, while 14% of the mother's mood was very happy after delivery.

Condition of mother: A total of 98% of the mother's condition was good after delivery, while 2% of the mother's condition was very good after delivery.

Breast feeding started immediately: A total of 100% of the mothers started breast feeding immediately after delivery.

Family feeling: After the mother's delivery, 74% of families reported being happy, with 26% reporting being extremely happy.

4. Description of subjects (antenatal mothers' 32–40 weeks of gestation) according to the association between mode of delivery and psychosocial score.

Fisher's exact test, P = 0.082.

Table 4 deals with the modes of delivery.

Table 4 reveals a link between mode of delivery and psychosocial score.

Normal delivery: The majority, i.e., 34 mothers, had nor- mal vaginal delivery, and their psychosocial score was between 74 and 100. It demonstrates increased concern about the pregnancy outcome, whereas eight mothers had normal vaginal deliveries and their psychosocial score indicated some concern about the pregnancy outcome.

Caesarean section: Caesarean section delivered, the mother's score expressed higher concern about the pregnancy outcome in 4 cases, while in the other 4 cases, the score was lower.

5. Subjects were described (antenatal mothers 32–40 weeks of gestation) based on the relationship between baby condition and psychosocial score.

Fisher's exact test, P = 0.14.

Table 5 deals with the association between the conditions of baby and psychosocial scores in the study group.

- The majority, i.e., 35 babies, had good conditions and their mother's psychosocial score was higher, while 9 babies' conditions were good and their mother's psychosocial score was some.
- Three babies' conditions were very good, while the mother's psychosocial score was some.

6. Subjects were described (an antenatal mother's 32–40 weeks of gestation) based on the relationship between the mother's mood and psychosocial score.

Fisher's exact test, P = 0.048.

Table 6 deals with the association between the mood of the mother and her psychosocial status.

- Table 6 shows that the majority of the 35 mothers' psychosocial scores were happy; however, the 8 mothers' psychosocial scores were very happy; however, they expressed some concern about the pregnancy outcome.
- The third mother's psychosocial score was extremely positive; it is higher, whereas the fourth mother's psychosocial score was extremely positive; it is some.

7. Description of subjects (an antenatal mother's 32–40 weeks of gestation) according to the association between the condition of the mother and the psychosocial score.

Fisher's exact test, P = 1.

Table 7 examines the relationship between the mother's condition and the psychosocial score.

- Table 7 shows that the majority of 37 mothers' conditions were good, and their psychosocial scores were high, whereas the condition of 12 mothers was good, but their psychosocial score was low.
- The very good condition of the mother's psychosocial score was higher in one case.

8. Description of subjects (an antenatal mother's 32–40 weeks of gestation) according to the association between family feeling and psychosocial score

Chi-square = 4.73, P = 0.03.

Table 8 deals with the association between family feelings and the psychosocial score.

- According to Table 8, the majority of 31 mother's family feelings were happy, and their psychosocial score was high, whereas the majority of six mother's family feelings were happy, but their psychosocial score was some.
- Very happy mother's family feelings and psychosocial score was high in 7 cases and some in 6 cases.

Conclusion

The findings of our study support the conclusion that there was a link between psychosocial status and pregnancy outcome in the current study. All of the antenatal mother's psychosocial scores were in the higher range. The antenatal mother's psychosocial score was mixed. None of them were thought to have a low psychosocial score. This was seen when the questionnaire was given to them and filled out by them.

The mother's emotional state during the antenatal period, as well as the postnatal outcome, is determined by her psychosocial status.

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