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A CROSS SECTIONAL STUDY TO ESTIMATE THE POSTNATAL PROBLEMS AMONG POSTNATAL MOTHERS OF NORTH CHENNAI

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Abstract

Introduction : The puerperal period is a continuum with changes taking place, both physically and emotionally, following the period of pregnancy and eventual delivery. Postpartum problems are one of the leading causes of mortality and morbidity after delivery. There could be a range of problems such as backpain, leg pain, tiredness, postpartum depression, puerperal sepsis, sleep disturbances etc. This study aimed to study the prevalence rate of postnatal problems among postnatal mothers of North Chennai.

Methodology: This cross-sectional study was carried out in Naravarikuppam PHC, Padianallur PHC, RSRM Hospital, a tertiary lying in health centre working in co-ordination with Government Stanley Medical College, Chennai using the data collected from 150 mothers which was conducted during the study period of August to November 2021. The data were collected using pre-tested semi- structured questionnaire designed for the study. Data was entered in Microsoft Excel and analysed in SPSS 16 version. Univariate analysis (Chi Square test) was used to find out association between independent and dependent variable. Odd's ratio was calculated with 95% confidence interval to find strength of association. $P < 0.005$ was considered as statistically significant.

Results: Among 150 mothers 104(69%) had vaginal delivery and 46(31%) had caesarean delivery. Among various postpartum problems fever is the most common among postnatal mothers and is statistically significant. No significant difference was found to exist between mode of delivery and prevalence of postpartum problems except for leg pain which was found to have higher association with caesarean section (56.5%). The prevalence of tension, lack of concentration, irritation was found to be 13% in mothers who had caesarean delivery whereas the prevalence of above problems was found to be lesser in vaginal delivery.

Conclusion: This study illustrated that fever was the most common postnatal problems among postnatal mothers and leg pain was found to be higher in caesarean section. At the end of the study, the mothers were made aware of postpartum problems and were educated about the importance of postpartum care that should be given after delivery.

Keywords: Postnatal problems, mode of delivery, North Chennai.

INTRODUCTION

The puerperal period is a continuum with changes taking place both physically and mentally, following period of pregnancy and eventual delivery. The care of pregnant women does not end with delivery of child. In order to escape from immediate risks, remote gynaecological problems associated due to neglect during puerperium adequate care is needed during postnatal period.¹ But the coverage at global level ranges from 5-35%² only which needs a lot of attention to prevent immediate and remote problems associated with pregnancy. Postnatal period is defined here as the first six weeks after birth. During this period, a woman is adapting to multiple physical, social, psychological changes. She is recovering from childbirth, adjusting to changing hormones and learning to feed and care for her new born.³ Fourth trimester can present considerable changes for women including lack of sleep, fatigue, pain, breastfeeding difficulties, stress, depression, psychosis, lack of sexual desire, sexual incontinence (4,5, 6), substance dependence, intimate partner violence and other

concerns.

In India, promotion of maternal and child health has been one of the most important objectives of Family Health programme. This had given importance in five-year plans. In minimum needs programme (1974-1979), Child Survival and Safe Motherhood(CSSM 1992-1993), Reproductive and Child Health(RCH programme 1997), Reproductive and Child Health(RCH phase 2 2005), Reproductive, Maternal, New-born, Child and Adolescent Health(RMNCH+A 2013) continuum of care, the integration of maternal health, child health, nutrient services, family planning services were made. According to American College Of Obstetricians and Gynaecologists(ACOG), postnatal care



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should become an ongoing process rather than a single encounter with services and support tailored to each woman's individual needs. The American College Of Obstetricians and Gynaecologists (ACOG) recommends that timing of postnatal visit be individualized and woman centred. Care would ideally include an initial assessment, either in person or phone within the first 3 weeks postpartum to address acute postpartum issues. The initial assessment should be followed up with ongoing care as needed concluding with comprehensive woman visit no later than 12 weeks after birth.⁷ Insurance coverage policies should be aligned to support this tailored approach to fourth trimester care policy and postpartum care.

OBJECTIVES

- To estimate the postpartum problems in mothers within four months of delivery residing at Naravarikuppam, Padianallur, Chennai.
- To estimate the association between mode of delivery and postpartum problems.

METHODS

The study was performed after obtaining the institute permission.

STUDY DESIGN : A Cross sectional study

STUDY PLACE :

RSRM is a tertiary lying in health centre working in co-ordination with Stanley Medical College. Padianallur PHC is one of the primary health centres near Chennai city. It is a semi urban area with four subcentres having population of 22894 (in 2020). It has 15 ICDS centres each covering 2000-3500 population.

STUDY PERIOD : 4 months (July to November 2021)

STUDY POPULATION :

All postnatal mothers residing at Naravarikuppam, Padianallur, RSRM Hospital, Chennai.

INCLUSION CRITERIA :

1. Those mothers who have given consent to the study.
2. All postnatal mothers within four months after delivery.

EXCLUSION CRITERIA :

All postnatal mothers who are not within four months after delivery.

SAMPLE SIZE : From 150 mothers data will be collected.

SAMPLING METHOD : Purposive sampling method.

QUESTIONNAIRE USED:

After obtaining written and informed consent from the subjects, information will be collected using pre-tested, semi-structured questionnaire. The questionnaire consists of

basic demographic details of the study group such as name, age, sex, education, socio economic status, mode of delivery, difficulty in micturition, back ache, leg ache, fever, lack of concentration, irritation, tiredness, sleep disturbances.

DATA COLLECTION METHOD:

- The mothers who are within four months after delivery will attend the immunization clinic to immunise their children. These mothers will be selected and data will be collected.
- At the start of the study, the purpose of the study will be explained to each mother.
- Postpartum mothers will be educated about the importance of postpartum care that should be given after delivery.

DATA ANALYSIS:

After collecting, the data will be compiled in Microsoft Excel sheet. Analysis will be done using Statistical software SPSS version.¹⁶ All continuous variables will be expressed as Mean and Standard deviation. All categorical variables will be expressed as percentages and proportions. Univariate analysis (Chi Square test) was used to find out the association between independent and dependent variable. Odd's ratio was calculated with 95% confidence interval to find strength of association. The test will be considered significant if $P < 0.05$ at 95% confidence interval.

RESULTS

Total no of postnatal mothers enrolled in the study was 150.

Table 1: Demographic profile of study population

Variable	Number (n=150)	%	
Age of women	15-24	32	21.3
	25-34	72	48.0
	35-49	46	31.0
Family Type	Nuclear	81	54.0
	Extended	69	46.0
Religion	Hindu	122	81.33
	Christian	17	11.33
	Muslim	11	7.33
Age at time of marriage	<18 years	67	45.0
	>18 years	83	55.3
Age at the time of first child	<18 years	48	32.0
	>18 years	102	68.0

The demographic profile of the participants is shown in table 1. Majority of the participants were in the age group of 25-34 years. 54 % of them belong to nuclear family. Majority (81.33%) of them were Hindu, 45% of them were married

before 18 years, 32% of them are having a first child before completion of 18 years.

Table 2: Education status and socio-economic class of study participants

Variable		Number(n=150)	Percentage
Educational status of women	Illiterate	10	7.0
	Primary	36	24.0
	Middle	38	25.3
	High school	26	17.3
	Higher secondary	25	16.7
	Graduate	15	10.0
Socio economic status (Modified Prateek Scale)	Class I	15	10.0
	Class II	22	14.7
	Class III	21	14.0
	Class IV	72	48.0
	Class V	20	13.3

Table 2 shows that postnatal mothers 25% of them were studied up to middle class. Higher proportion (48%) belonged to Class IV socio economic class.

Table 3: Postnatal mothers and their mode of delivery

Age of mothers	Mode of delivery	
	Vaginal	Caesarean
15-24	42(28%)	8(5.3%)
25-34	46(30.66%)	23(15.33%)
34-49	16(10.66%)	15(32.6%)
Total	104	46
Percentage	69%	31%

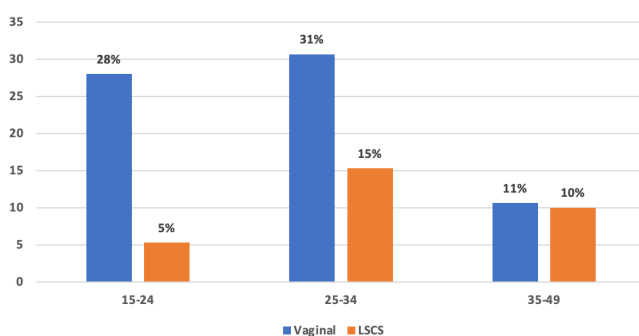


Figure 1: Age of mothers and mode of delivery

In a study population 104(69%) mothers delivered through vaginal delivery; majority belonged to 25-34 years. Remaining 46(31%) mothers had caesarean delivery.23% of them belonged to 25-34 years.

Table 4: Postnatal mothers and their problems

Mode of delivery	Vaginal	Caesarean
Difficulty in micturition	16 (15.4%)	3 (6.5%)
Back pain	58 (55.7%)	32 (69%)
Leg pain	39 (37.5%)	26 (56.5%)
Fever	15 (14.42%)	16 (34.78%)
Tension	12 (11.5%)	6 (13%)
Lack of concentration	6 (6%)	6 (14%)
Irritation	13 (12.6%)	6 (13%)
Sleep disturbances	41 (27.33%)	21 (45.6%)

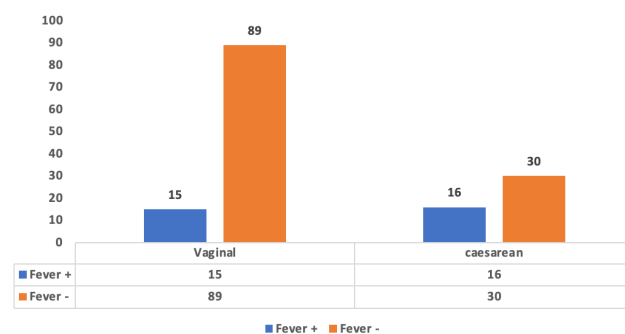


Figure 2: Mode of delivery and fever

Table 5: Association of mode of delivery with postnatal problems

Mode of delivery	Vaginal n=104	Caesarean N=46	Chi square value	p value
Difficulty in micturition	16 (15.4%)	3 (6.5%)	2.2566	0.132
Back pain	58 (55.7%)	32 (69%)	2.52	0.111
Leg pain	39 (37.5%)	26 (56.5%)	4.688	0.301
Fever	15 (14.42%)	16 (34.78%)	8.05	0.004*
Tension	12 (11.5%)	6 (13%)	0.0684	0.793
Lack of concentration	6 (6.3%)	6 (14%)	2.2293	0.129
Irritation	13 (12.6%)	6 (13%)	0.0085	0.926
Sleep disturbances	41 (39.4%)	21 (45.6%)	0.51	0.474

DISCUSSION

- Among 150 mothers studied, 19(12.7%) had difficulty in micturition while the remaining 131 mothers had not experienced such difficulty. Among 104 mothers who had vaginal delivery 16(15.4%) had difficulty in micturition. Out of 46 mothers who had caesarean delivery, 3(6.5%) had difficulty in micturition.
- Out of 150 mothers studied, 90(60%) mothers had complaints of back pain. Among 104 mothers who had normal vaginal delivery, 58(55.7%) mothers had back pain. Of the 46 mothers who had caesarean delivery 32(69%) had back pain. In our study postnatal back pain is not associated with elective or emergency caesarean section nor with assisted or spontaneous vaginal delivery. A cohort study conducted by Patel RR et al indicated that back pain was very common with a prevalence of 80% at 32 weeks antenatally. Postnatally, back pain affected 68% of women at 8 weeks and 60% at 8 months. Very similar patterns were observed at 8 months.
- Among 104 mothers who had normal vaginal delivery, 39 (37.5%) mothers experienced leg pain. Among 46 mothers who had caesarean delivery, 26 (56.5%) mothers were found to have similar complaints. In a population-based cohort study by Nelson Piercy C. The first 6 weeks postpartum was found to be associated with a 22-fold increase in risk, with the peak occurring in the first 3 postpartum. Increased age was found to be associated with venous thromboembolism during postpartum and outside of pregnancy, but not during antepartum.
- In a cohort study conducted in 600 Finnish speaking women, it was found that persistent pain one year after delivery was significantly more common after caesarean section than after vaginal birth. The persistent pain was mild in 55% of the patients in both groups, and intense or unbearable for four caesarean sections and six vaginal births. Persistent pain was significantly more common in women with previous pain ($P=0.013$), previous back pain ($P=0.016$), and any chronic disease ($P=0.016$). The women with persistent pain recalled significantly more pain on the day after caesarean section ($P=0.004$) and vaginal birth ($P=0.001$) than those who did not report persistent pain.
- In the study population, 31 (20.6%) mothers had fever in the early postpartum period. Among 104 mothers who had delivered through vaginal delivery, 15 (14.42%) experienced fever. Among 46 mothers who had caesarean delivery 16(34.78%) had fever.
- In the study group of 150 mothers, only 19 (12.7%) were found to get irritated often. And only 18 (12.7%) complained of becoming tensed easily. In a qualitative study

of depressive symptoms and well-being among first-time mothers conducted by Lynne A et al, ten to 15% of women experience postpartum depression. First-time mothers are particularly at risk. The qualitative study aimed to gain insight in terms of why some women find the transition of becoming a mother to be so emotionally taxing that they feel some level of depressed mood, while others feel mostly content after having a baby. Two approaches to motherhood emerged, which we refer to as 'relaxed' and 'controlled'. These approaches influenced how the mothers had envisioned the postpartum period, their need for mastery and how they experienced it emotionally. Social support and managing breastfeeding stood out as important with regard to well-being and depressive symptoms.

- In the study population, out of 46 mothers who had caesarean delivery, the prevalence of tension, lack of concentration, irritation was found to be 13%. Among 104 mothers who had vaginal delivery, the prevalence of above problems was found to be lesser.
- Out of mothers 62 (41.3%) reported that they had disturbances during sleep. Among 104 mothers who had vaginal delivery, 41 (39.4%) were found to have sleep disturbance. Among 46 mothers who had caesarean delivery, 21 (45.6%) had experienced sleep disturbance. It is found that no significant relation exists between mode of delivery and sleep disturbances

CONCLUSION

Fever was the most common postnatal problems among postnatal mothers and was statistically significant ($p=0.004$) and leg pain was found to be higher in caesarean section(56.5%). At the end of the study, the mothers were made aware of postpartum problems and were educated about the importance of postpartum care that should be given after delivery. The postpartum check-up and counselling regarding family planning, child care, breast feeding has to be improved for effective services and reduction of problems during postpartum period.

SUMMARY

This study was a cross sectional study done in RSRM Hospital and 2 Primary Health Centers (Naravarikuppam, Padianallur) near Chennai city with the objective of studying the postpartum problems among nursing mothers within 4 months of delivery. In the study population, 104(69%) mothers delivered through Normal vaginal delivery. Remaining 46(31%) mothers had Caesarean delivery.

- Of the 150 mothers, 19 (12.7%) had difficulty in micturition

while 131 mothers had not experienced any such difficulty. Of the 19 mothers who had difficulty in micturition, 16 had given birth through vaginal delivery and three had given birth through caesarean section. In the study population, 31(20.6%) mothers had fever in the early postpartum period. Other 119 (79.3%) mothers had not experienced fever.

- Among 150 mothers, 55(36.7%) mothers had experienced tiredness.
- Out of 150 mothers studied, 90 (60%) mothers had experienced backpain. Among 104 mothers who had normal vaginal delivery, 58 (55.7%) mothers had backpain. Among 46 mothers who had caesarean delivery, 32 (69.5%) mothers had backpain.
- Out of 150 mothers, 57(38%) and 32(21.3%) reported that they had complaints of leg pain and pelvic pain respectively. Among 104 mothers who had normal vaginal delivery, 39 (37.5%) mothers had leg pain. Among 46 mothers who had caesarean delivery, 26 (56.5%) of them had leg pain.
- Only 19(12.7%) were found to get irritated often and Only 18(12.7%) complained of becoming tensed easily.
- Out of 46 mothers who had caesarean delivery, the prevalence of tension, lack of concentration, irritation was found to be 13%. Among 104 mothers who had vaginal delivery, the prevalence of above problems was found to be lesser.
- Out of 150 mothers, 62(41.3%) reported that they had disturbances during sleep.
- Among 104 mothers who had vaginal delivery, 41(39.4%) were found to have sleep disturbance and 21(45.6%) mothers had experienced sleep disturbance among 46 who had caesarean delivery.

LIMITATIONS

- The postpartum problems within four months after delivery were studied but the intensity of the problems was not studied extensively. This may need further studies. Various problems such as puerperal sepsis, postpartum depression, fatigue, sleep disturbances, deep vein thrombosis were studied. Other problems like breast soreness, postpartum haemorrhage was not studied.
- The study population is not representative of the entire population because it comprised people from low socio-economic class.
- Some confidential data was not available.
- As this is purposive sampling done at immunisation session, mothers with problems may not be turned out to the session who may be mixed. Hence underestimation of problem is present.

RECOMMENDATIONS

- The mothers should be made aware of the possible problems during the postpartum period. They should be advised to report immediately on developing any symptoms suggestive of these problems.
- The health personnel should be motivated and proper training should be given to make recommended postpartum visits after delivery in order to reduce the high prevalence of these problems and to improve the postpartum services.
- Education about nutrition, Family planning, immunization and child care should be given to all mothers during their antenatal and postpartum period.

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CONFLICT OF INTEREST : Nil

REFERENCES

1. Int.J Gynae Col Obset 2011 Nov 17 (epub ahead of print) Perinatal complications and caesarean delivery among foreign born and Australian born women in Western Australia.
2. 22% of new mothers in India suffer from postpartum depression: WHO by Medha Baranwal
3. Postnatal care- Charlotte Warren, Pat Dally, Lalla Toure, Pyande Mongi
4. Aber C, Weiss M, Fawcett Contemporary women's adaptation to motherhood: the first 6 to 8 weeks postpartum. Nurs Sci Q 2013; 26: 344-51.
5. Burgio KL, Zyczynski H, Lacher JL, Richter HE, Redden DT, Wright KC, Urinary incontinence in the 12-month postpartum period. Obset Gynecol 2003; 102:1291-8
6. DeClercq ER, Sakala C, Corry MP, Applebaum S, Herrlich A. Major survey findings of listening to mothers: new mothers speak out: report of national surveys of women's childbearing experiences conducted October- December 2012 and January- April 2013. J Perinat Edu 2014; 23:17-24.
7. Haran C, VanDriel M, Mitchell BL, Brodribb WE. Clinical guidelines for postpartum women and infants in primary care- a systematic review.
8. Acta Obstet Gynecol Scand 2007; 86(II): 1322-7 Epub 2007 Sep 4 Is operative delivery associated with postnatal backpain at 8 weeks and 8 months? A cohort study. Patel RR, Peters TJ, Murphy P.