

STUDY OF UTILIZATION OF POSTNATAL CARE SERVICES IN TRIBAL AREA, MAHARASHTRA

Kalpalata A Bhisare, Gautam M Khakase

Department of Community Medicine, Shri Vasanttrao Naik Government Medical College, Yavatmal, Maharashtra, India

Correspondence to: Kalpalata B Sare (kalpalata06@gmail.com)

DOI: 10.5455/ijmsph.2014.170920142

Received Date: 29.01.2014

Accepted Date: 17.09.2014

ABSTRACT

Background: The postpartum period, or puerperium, starts about an hour after the delivery of the placenta and includes the following six weeks. Care during the puerperium is often described as the "Cinderella" of maternity care. In developing countries, the need for care and support after birth was, until recently, less well recognized. Despite its importance, this period is generally the most neglected.

Aims & Objectives: To study factors influencing utilization of health services in postnatal period in study area.

Materials and Methods: It is a community based, cross sectional study, carried out in a primary health center of Thane district, Maharashtra. Data was collected by using standard validated questionnaires, based on District level household survey (DLHS) of Reproductive and child health (RCH) Round II, Phase II, 2004 woman's questionnaire. It was suitably modified to meet objectives of study and was pilot-tested.

Results: 28 study subjects received home visit during postnatal period. Out of 28, 4 received 2 postnatal visits. 16 study subjects went to primary health center or sub center for postnatal check-up. 28 mothers didn't feel the need for postnatal check-up. 15 women said that they were not informed by ANM about postnatal care, otherwise they would have gone for it.

Conclusion: Working women utilized the postnatal service more. This may be because working women are able to spend for travelling expenses for going to primary health center.

Key Words: Home Visits; Postnatal Care; Postpartum; Maternal Health; Utilization

Introduction

The postpartum period, or puerperium, starts about an hour after the delivery of the placenta and includes the following six weeks. Postpartum care should include the prevention and early detection and treatment of complications and disease, and the provision of advice and services on breastfeeding, birth spacing, immunization and maternal nutrition.^[1] Care during the puerperium is often described as the "Cinderella" of maternity care. Rates of provision of skilled care are lower after childbirth than during pregnancy or childbirth, even though both the risks for illness and the potential to improve longer-term outcomes are as great.^[2] Postpartum care for the mother has conventionally focused on routine observation and examination of vaginal blood loss, uterine involution, blood pressure and body temperature. Similarly, postnatal care for the baby has conventionally focused on cord care, hygiene and weight monitoring and feeding and/or immunizations, without systematic, comprehensive assessment and care of newborns.^[3] 70% women receive no postpartum care in six weeks following Delivery" (Family Care International 1998b).^[4] Estimates by WHO, UNICEF and UNFPA for the years 1990, 1995 and 2000 indicate that more than half a

million women die every year from complications of pregnancy and childbirth, of which 40% occurs in Asia and more than 50 million women suffer from poor reproductive health and serious pregnancy-related illness and disability.^[5] Over 70% of all babies, born outside the hospital, do not receive any postnatal care. For all home births, a visit to a health facility for postnatal care as soon as possible after birth, is recommended. In high mortality settings, and where access to facility based care is limited, WHO and UNICEF recommend at least two home visits for all home births: the first visit should occur within 24 hours from birth, and the second visit on day 3. If possible, a third visit should be made before the end of the first week of life.^[6] Ensuring mothers are aware of the health benefits of breastfeeding, reducing the risk of sudden death syndrome, and assessing women for postnatal depression - are among measures which services can take to improve the quality of postnatal care.^[7] Reported national coverage of postpartum care for mothers ranged from 5% to 100%, and postnatal care for infants from 6% to 100%. Actual coverage of early home visits for postnatal care is low, with only four countries having over 50%.^[8] Mothers should be encouraged to attend the postnatal examination as failure to do so, because it could affect future pregnancies.^[9] The early postpartum

period is an appropriate time for a woman to consider her contraceptive needs. Women require adequate information, support and advice to make informed decisions about methods and timing of birth control.^[10] WHO recommends that women who have delivered in a health facility, should receive PNC for at least 24 hours after birth. If a birth is at home, the first postnatal contact should be as early as possible within 24 hours of birth. Three additional PNC contacts are recommended on day 3, between days 7–14 after birth and 6 weeks after birth.^[11] There are few data on early postnatal care specifically, but clearly many women do not receive optimal care. Many women who give birth in facilities, are discharged within hours after childbirth, without any indication about where they can obtain further care or support.^[3] Understanding the factors that influence care-seeking behavior for postpartum services in India is vital to improve quality of care and designing appropriate interventions. Our study tried to elucidate these factors in the rural district of Thane, India. The principal objective of study was to assess the socio-demographic profile of beneficiaries of post natal services and to study factors influencing utilization of health services in postnatal period at PHC.

Materials and Methods

This was a community based, cross sectional study, carried out from May 2008 to April 2009, in a primary health center in the tribal area of Thane district which is a rural field practice area for Seth G.S. medical college, Mumbai and serves a population of 30,745. All the married women who have delivered a baby within 3 months, and residing in study area, were included. Unmarried mothers, divorcee and nonresident women of study area were excluded from the study. Ethical clearance was obtained from ethics committee of Seth G.S. medical college, Mumbai.

Sampling Technique: Multistage with simple random sampling. First stage: all 8 sub centers were selected. Second stage: villages in each sub center were randomly selected. Third stage: married women who have delivered a baby within 3 months were randomly selected.

Sample Size Calculation: The total population of PHC was 30745. Total live birth in previous year = 639, Birth rate at PHC was 21%. Expected no of pregnancies was calculated for each sub center using formula - Expected number of ANC's in one year = Birth rate x

population/1000+10% (pregnancy wastage).^[12] Total expected no of pregnancies in PHC in a year was 831. 10 % of expected no. of pregnancies in a year were taken as a sample from each sub center. So average of all sub-centers = 83. Considering no response of study-subjects, additional sample of 15% was taken. So 15% of 83 = 12.45. Therefore, 83+12.45=95.45. So, on an average 100 was taken as a sample size.

Table-1: Population and birth rate in different sub centers

Sub center	Population	Birth rate of sub center	Expected no. of pregnancies (X)	10% of X
A	5091	23.96	134.17	13.42
B	4101	28.52	128.65	12.86
C	4439	27.48	134.17	13.42
D	5084	21.63	120.95	12.09
E	3243	25.9	92.38	9.24
F	2739	22.63	68.17	6.82
G	3164	23.7	82.47	8.25
H	2884	22.19	70.38	7.04
Total	30745	24.50	831.34	83.14

Anganwadi from pada or village randomly selected from a sub center was visited. Rapport was built with anganwadi workers. Number & details of women who had < 3 months old baby was taken from anganwadi register and houses of women were visited with the help of anganwadi assistant. Interviews of women were conducted after taking informed consent. Data was collected by using standard, validated questionnaires based on district level household survey (DLHS) reproductive and child health (RCH) round II, phase II, 2004 woman's questionnaire.^[13] It was suitably modified to meet objectives of study and was pilot-tested.

Statistical analysis was done by using SPSS version 16 software. Descriptive statistics for Socio-demographic factors was done. Cross tabulation to find association between different variables by using Chi-square test and Fisher's exact test wherever applicable. P value of <0.05 was taken as significant.

Results

91% women were Hindu. 6 % women were Muslim followed by 3% being Buddhists. Almost half (51 %) were from scheduled Tribes, while 36% were OBC, followed by 3 % Scheduled castes. 10% were from other castes. 75 % mothers were in 18-25 years age group. 25% women were in "25 year's & above" age group. Majority of mothers were housewives. 10 mothers were working. 70 % mothers were literate. 28 mothers received primary education while 35 received secondary education. 7 women received education up to higher secondary.

Table-2: Reasons for not going to primary health center for postnatal care services

Single most reason for not utilizing PNC services	N	%
don't want to go out of home with such a small baby	1	1.20
far from home	8	9.50
gone to mother's place	11	13.10
gone to private as baby was delivered there	2	2.40
nobody listens to you	2	2.40
not felt need for PNC check up	28	33.40
not told by ANM about PNC visits	15	17.90
proper care not given	2	2.40
Total	84	100.00

Table-3: Association between socioeconomic class of study subjects and Utilization of PNC services

Socio economic Class	Utilization of PNC services		Total
	Yes	No	
Middle Class	1 (3.70%)	26 (96.30%)	27 (100.00%)
Lower class	15 (20.50%)	58 (79.50%)	73 (100.00%)
Total	16 (16.00%)	84 (84.00%)	100 (100.00%)

$\chi^2: 7.045; df: 1; P \text{ value: } <0.01(\text{Fisher's Exact Test}) \text{ Significant}$

Table-4: Distribution of study subjects according to whether they have received PNC Care

Postnatal Care Service Element	Yes	No	Total
Examined after delivery	27	73	100
Health message given	40	60	100
Breastfeeding	37	63	100
Immunization of baby	35	65	100
Care of baby	33	67	100
Told about complication for baby	20	80	100
Told about complication for mother	16	84	100
Personal hygiene	31	69	100
Family planning	19	81	100
Told about follow up visits	20	80	100

30% of mothers lived in nuclear families. 48% of mothers belong to joint families while 22% lived in three generation families. 8 women were having illiterate husbands. Husbands of 37 women received primary education while husbands of 41 women were received secondary education. 14 of them were having husbands educated up to higher secondary & above. Husbands of 46 study subjects were working as unskilled worker. Husbands of 48 study subjects were semiskilled workers. Husbands of 3 women were doing skilled job. Husband of another 3 women were doing clerical job. 49 respondents were primipara, followed by 45 study subjects who were multipara. 6 study subjects were grand multipara. All mothers were registered for ANC care during pregnancy, at sub center or PHC during their last pregnancy. 58 women were registered during first trimester. 37 women were registered during second trimester. 5 women were registered during third trimester. In 91 cases, type of delivery was full term normal delivery (FTND). While in 8 study subjects, type of delivery was caesarian section. Only in one case, delivery was by forceps. Birth weight of babies was taken in 84% cases.

60% mothers were aware of PNC services. 16 mothers

utilized PNC services on their own, while remaining 84 % did not utilized PNC services available at PHC. 28 mothers received home visit during postnatal period. Out of 28, 4 received 2 postnatal visits, while remaining 24 received only one visit. Most of the visits were after 15 days to one month after delivery. 16 mothers went to PHC or sub center for postnatal checkup. 54 mothers received PNC care directly from primary health center, or through home visits, or during anganwadi visit by ANM. 27 mothers were examined during PNC visits. 40 mothers received health message regarding various issues during PNC visits. 37 study subjects received advice regarding breastfeeding. 35 mothers received advice about immunization of baby. 33 mothers received advice regarding care of baby. 20 mothers received information regarding any complication to the baby. 16 women were given information about complications of pregnancy for the mother. 31 study subjects received advice on personal hygiene. 19 mothers were advised about family planning & contraception. 20 mothers were told about follow up visit. 28 mothers didn't feel the need for postnatal checkup. 15 women said that they were not informed by ANM about postnatal care, otherwise they would have gone for it. 11 mothers were 'mothers at home'. 2 women went to private clinics for post natal check-up. One woman didn't want to go out of home with small baby. 2 women said that proper care was not given, and remaining 2 said that nobody listens to you in primary health center.

3 (18.8%) mothers, who utilized PNC services at PHC, were illiterate. 13 (81.2%) mothers, who utilized PNC services at PHC, were literate. The association between educational status of mothers and utilization of PNC services was not found to be significant. 15 (20.5%) women, who received recommended antenatal services, utilized postnatal services. 1 (3.7%) woman, who didn't receive recommended antenatal services, utilized postnatal services. This shows, those women who received recommended antenatal services, also utilized post natal services more, as compared to those, who did not received recommended antenatal services.

12 (13.3%) housewives utilized PNC services, whereas 4 (40.0%) working women utilized PNC services. Association between occupation of study subjects and utilization of postnatal services was found to be significant. 68.80% primipara utilized postnatal care services, whereas, only 31.20% multipara utilized the same. However, association of parity with utilization of postnatal care was not found to be statistically

significant.

15 (20.5%) women from lower socioeconomic class utilized PNC care at PHC. Only one (3.7%) women from middle socioeconomic class utilized PNC care at PHC. Majority of women, who utilized PNC services from PHC, were from lower socioeconomic class, as compared to middle class. The association between socioeconomic class of study subjects and utilization of PNC services was found to be statistically significant. 13 (81.2%) women who utilized PNC services, were aware of PNC services at PHC. While 3 (18.8%) women who utilized PNC services, were not aware of PNC services at PHC. The association between awareness & utilization of PNC services in study subjects was found to be statistically significant.

Discussion

Only 5% mothers received postnatal checkup within 2 days of delivery which is very low compared to, 75.5% in DLHS 3 Maharashtra findings and 36.4% in NFHS-3 findings.^[13,14] Similar findings were seen in a study by M Sami et al at Bangladesh where only 5.5% of mothers received postnatal care within 48 h and 14% within 1 week after giving birth.^[15] Most of the home visits were after 15 days to one month after delivery in this study, which is very low compared to DLHS 3 Maharashtra, where postnatal Checkup within 2 weeks after delivery was 79.7%.^[13] Outcome of pregnancy in this study was 8% abortion, which is higher as compared DLHS 3 Maharashtra, which reported 4.8% spontaneous abortions. In present study 6% were stillbirth at previous pregnancy, which is higher as compared DLHS 3 Maharashtra, reporting 1.4% still births. 82% were live birth in present study is lower to findings of DLHS 3 Maharashtra reporting 90.9% live births.^[13] In this study only 54% mothers received PNC care during their last pregnancy, a similar finding seen by Mai Do et al. where reporting 48.8% PNC utilization.^[16] But it was 30.1% in a study by Sneha Singh et al in Murshidabad, and 34% in a study by Sulochana Dhakal et al.^[17,18] Education of mothers found to have no effect on utilization of PNC services in this study in contrast to findings by Sneha Singh et al, where education of parents affect utilization of PNC services.^[17] A significant relationship between mothers' education and utilization of postpartum care services was found Kabuya Aminahin at Uganda.^[19] Utilization of Recommended ANC care has found to affect utilization of PNC services positively - similar finding were seen in a study by M Sami et al. and Sulochana

Dhakal et al.^[15,18]

Majority (20.5%) of women utilizing PNC services from PHC, were from lower socioeconomic class, compared to middle class (3.7%). Socioeconomic class of mothers was found to affect utilization of PNC services at PHC. Awareness was found to affect utilization of PNC services positively in mothers - a similar finding by Kabuya Aminahin was reported by a study at Uganda, where lack of adequate knowledge and information about services was contributors to the poor utilization of PNC services^[19]. Most of the women, who availed antenatal, intranatal and postnatal services at primary health center, were from lower socioeconomic class, which may be due to economic reasons and accessibility. However, limitations of study were lack of authenticity of the information given by the respondents, which could not be done, as the records were either incomplete or poorly maintained. A better approach to study this aspect would be the observation technique. However, we could not do this due to feasibility and privacy issues.

Conclusion

Working women utilized the postnatal service more. This may be because working women are able to spend for travelling expenses for going to primary health center. It is felt that awareness and availing of postnatal service is still very less in the women.

Most women in rural area are not aware of importance of postnatal examination. They don't feel need for postnatal care. This aspect of maternity care is still neglected. Efforts should be made to educate the pregnant women regarding importance of postnatal care during antenatal visits.

References

1. Safe Motherhood. In: Postpartum Care of Mother and Newborn: a practical guide. Maternal and newborn health: Safe motherhood unit Division of reproductive support. WHO. Geneva. 1998. Available from: URL: http://www.who.int/maternal_child_adolescent/documents/who_rht_msm_983/en/
2. Promoting Effective Perinatal Care: Essential Antenatal, Perinatal and Postpartum Care. Training modules. WHO. 2002. Available from: URL: http://www.euro.who.int/_data/assets/pdf_file/0013/131521/E79235.pdf
3. WHO Technical Consultation on Postpartum and postnatal care. Department of Making Pregnancy Safer. World Health Organization. Available from: URL: http://whqlibdoc.who.int/hq/2010/WHO_MPS_10.03_eng.pdf
4. United Nations Millennium Development goals. Available from: URL: www.un.org/millenniumgoals
5. World Health organization: Making pregnancy safer; Millennium

- Development Goal 5. 2008. Available from: URL: http://www.who.int/making_pregnancy_safer/topics/mdg/en/index.html
6. WHO-UNICEF Joint Statement on Home Visits for Newborn Care: Maternal, newborn, child and adolescent health. World Health Organization. Available from: URL: http://www.who.int/maternal_child_adolescent/topics/newborn/postnatal_care/en/index.html
 7. National Institute for Health and Clinical Excellence (NICE). Standardizing postnatal care for mothers and babies. 2008. Available from: URL: <http://www.nice.org.uk/newsroom/news/StandardisingPostnatalCareMothersBabies.jsp>
 8. Informal Meeting on provision of home-based care to mother and child in the first week after birth. Follow-up to the Joint WHO/UNICEF Statement on home visits for the newborn child MEETING REPORT 8-10 FEBRUARY 2012.
 9. Promoting Effective Perinatal Care: Essential Antenatal, Perinatal and Postpartum Care. Training modules. WHO. 2002. Available from: URL: http://www.euro.who.int/_data/assets/pdf_file/0013/131521/E79235.pdf
 10. The National Collaborating Center for Primary Care (NCCPC) And Royal College Of General Practitioners. Postnatal care, Routine postnatal care of women and their babies. 2006. Available from: URL: <http://www.nice.org.uk/nicemedia/live/10988/30146/30146.pdf>
 11. WHO 2013: Programming Strategies for Postpartum Family Planning
 12. Government of Maharashtra. Ministry of Health And Family Welfare. Primary Health Center, Medical Officer's Training Module.
 13. District Level Household and Facility Survey under Reproductive and Child Health Project (DLHS-3): 2007-08. Ministry of Health and Family Welfare. International Institute for Population Sciences. Available from: URL: <http://www.rchiips.org/PRCH-3.html>
 14. National Family Health Survey (NFHS-3) 2005-2006. National Fact Sheet India, International Institute for Population Sciences. Ministry of Health and Family Welfare. Available from: URL: <http://www.rchiips.org/nfhs/factsheet.shtml>
 15. Anwar I, Sami M, Akhtar N, Chowdhury ME, Salma U, Rahman M, et al. Inequity in maternal health-care services: evidence from home-based skilled-birth-attendant programmes in Bangladesh. *Bull World Health Organ* 2008;86:252-9.
 16. Do M, Hotchkiss D. Relationships between antenatal and postnatal care and post-partum modern contraceptive use: evidence from population surveys in Kenya and Zambia. *BMC Health Serv Res* 2013;13:6.
 17. Tuddenham SA, Rahman MH, Singh S, Barman D, Kanjilal B. Care seeking for postpartum morbidities in Murshidabad, rural India. *Int J Gynaecol Obstet* 2010;109:245-6.
 18. Dhakal S, Chapman GN, Simkhada PP, van Teijlingen ER, Stephens J, Raja AE: Utilisation of postnatal care among rural women in Nepal. *BMC Pregnancy Childbirth* 2007, 7:19.
 19. Aminah K. Factors determining utilization of postpartum care services in Uganda. UDHS 2006. Available from: URL: <http://docs.mak.ac.ug/sites/default/files/Amnah%20Grand.doc>

Cite this article as: Bhisare KA, Khakase GM. Study of utilization of postnatal care services in tribal area, Maharashtra. *Int J Med Sci Public Health* 2014;3:1487-1491.

Source of Support: Nil

Conflict of interest: None declared

IJMSPH