

INCREASING POSTNATAL CARE OF MOTHERS AND NEWBORNS INCLUDING FOLLOW-UP CORD CARE AND THERMAL CARE IN RURAL UTTAR PRADESH

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BACKGROUND

The Government of India has recommended that all mothers and newborns receive three postnatal (PNC) checkups within 42 days of delivery as follows: first within 48 hours, second between 3-7 days and the third within 42 days of delivery.¹ DLHS-3 (2007-08) data for rural UP show that 34 percent of women reported receiving a postnatal check-up within two weeks of delivery.² More newborns who were delivered in an institution (65 percent) received a check-up within 24 hours as compared to newborns delivered at home (54 percent)^a NFHS-2 (1998-99) and NFHS-3 (2005-06) data also show low rates of postnatal check-ups within seven days of delivery.

With regard to cord care, NFHS-3 and DLHS-3 data show that the practice of clean cord-cutting was almost universal in rural UP; 95-98 percent of women reported that a sterilized blade was used to cut the cord. However, several studies have reported the application of various substances, such as ghee (*clarified butter*), turmeric, linseed oil, mustard oil and powders and ointments provided by local health care providers to hasten the healing of cord stump.^{3,4}

The World Health Organization has recommended thermal control as one of the essential components of newborn care.⁵ While thermal care is important for all newborns, it is especially critical for low birth-weight (LBW) or preterm infants as they are at risk of acquiring hypothermia,

^aUnless otherwise indicated, data from NFHS-2, NFHS-3 and DLHS-3 presented in this article are based on an analysis, conducted by the Population Council, of currently married women aged 15-34 in rural UP who had given birth in the three years preceding the survey.

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a potentially fatal condition where the newborn's normal body temperature falls below 36.5° C. Studies indicate that in home deliveries, the incidence of hypothermia is particularly high, ranging between 39-49 percent.^{6,7} Effective thermal control for newborns involves the prevention of heat loss and the promotion of heat gain. In large hospitals hypothermia is managed by keeping the newborn in an incubator; however, in resource-constrained rural areas, such services may not be available in health facilities such as PHCs, or during home deliveries. In these settings, adopting simple practices such as delaying the first bath of the newborn for 5-6 days and providing skin-to-skin care (STSC) are effective practices to prevent hypothermia.

Skin-to-skin care (STSC) also known as Kangaroo Mother Care (KMC), entails continuous and prolonged skin-to-skin contact between the mother and the baby; that is, placing the naked baby firmly on the mother's bare chest in an upright position and breastfeeding the baby frequently and exclusively, or almost exclusively. Studies indicate that STSC is a better way to keep newborn warm than wrapping the baby in a warm cloth or similar other methods.⁷

OBJECTIVES

In October 2009, the Population Council conducted a formative study in rural UP with the following objectives:

- (a) to explore the current status and postnatal care practices for mothers and newborns including care seeking for complications.
- (b) to identify the barriers and factors facilitating the adoption of healthy postnatal care practices.
- (c) to identify programmatic and behavior change communications (BCC) initiatives that could accelerate the adoption of healthy postnatal care practices.

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METHODOLOGY

The formative study was conducted in two phases. First, a survey was conducted covering 4,754 households, 4,472 currently married women aged 15-34 years who had delivered a child in the last three years, 2,274 husbands, 2,372 mothers-in-law, 289 ASHAs, 284 AWWs, 161 ANMs, 316 local private practitioners, 251 panchayat members (including Village Health and Sanitation Committee members) and staff at 144 government health facilities (PHCs and CHCs) from 225 villages in 12 districts spread across the Western, Central and Eastern regions of UP. In the second phase, 308 in-depth interviews were conducted with family-level, health care providers and panchayat members to complement the information gathered in the quantitative survey. The qualitative study was conducted in 24 villages: eight villages each from three districts, one district from each of the three regions. Details of the study design and data collection methods have been discussed in the introduction to this journal.

KEY FINDINGS

Status

Cord care

Only 17 percent of all women reported that they did not apply anything on the cord stump. Regional variations were evident: more women from the Central region (27 percent) as compared to the Eastern (12 percent) and Western (10 percent) regions of UP had applied substances on the stump. The place of delivery appears to have a positive influence on follow-up cord care. A slightly higher percentage (24 percent) of women who delivered in an institution as compared to those who delivered at home (15 percent) did not apply anything on the

cord stump but left it to heal on its own (z test, p<0.001).

About half the women and 46 percent of mothers-in laws reported that they applied oil, mainly mustard oil, on the cord stump for faster healing in all the three regions of UP. One woman mentioned:

“We applied mustard oil on the cord stump to prevent infection [pakta nahi hai]...if no mustard oil is put then the cord stump could get infected”.

Another woman echoed similar belief and said:

“For 8 days, mustard oil was put 5- 6 times a day....if not put then it will get infection and not heal [pak gayi]...dhankun [cord cutter] advised us to apply mustard oil...”

Apart from the family members, a few frontline health workers also were found to have the belief that something needs to be applied on the cord stump for faster healing, though majority, 60 percent of ASHAs (N=289) and about 81 percent of ANMs interviewed (N=161) mentioned that they advice women not to apply anything on the cord stump as a follow up care. Rest of ASHAs had advised to apply substances such as oil (13 percent), talcum powder (13 percent), and antiseptic cream (9 percent), certain solution provided by ANM at the facility (10 percent) and other miscellaneous substances (10 percent) as follow up care.

Bathing the newborn

As discussed earlier, delaying the first bath of the newborn for few days is one of the methods of thermal care. However, the formative study reveals that 52 percent of women had bathed the newborn within two hours of birth and 16 percent had bathed the newborn within 24 hours of birth. Only 32 percent of women had bathed the newborn one or more days after birth. In 15 percent of cases bathing was delayed for a week. More women (52 percent) from the Eastern region of UP as compared

to the Western (29 percent) and Central (30 percent) regions bathed the newborn immediately after birth (Table 1). Findings also reveal that institutional delivery has a significant impact on delaying initiation of newborn bathing. More women who delivered in an institution (24 percent of 1,980 women) as compared to those who delivered at home (7 percent of 2,492 women) delayed bathing the newborn for a week (z test, p<001). Conversely, 51 percent of women who delivered in an institution as compared to 82 percent of women who delivered at home reported bathing the newborn within 24 hours.

Time of initiation after delivery	West	Central	East	UP
Immediately	29	30	52	37
Within 2 hrs	24	11	9	15
Within 2-4 hrs	8	12	11	10
Within 5-24 hrs	7	8	4	6
After one or more days	32	39	24	32
Total	1,516	1,471	1,485	4,472

Most frontline workers (86 percent of ASHAs, 96 percent of ANMs and 79 percent of AWWs) reported that cleaning the newborn with a dry cloth is better than bathing the newborn after birth. The major disadvantage of immediate bathing, as reported by 70-73 percent of AWWs and ASHAs, was that “the baby becomes cold”. About one-fourth of ASHAs (26 percent) and AWWs (23 percent) believed that the “baby can die” if bathed immediately. These findings indicate that frontline health workers are aware of the desired practice of not bathing the newborn immediately; however, they have not been successful in translating this knowledge into a practice within the community.

The study findings shows that community members and frontline health workers appreciate the need to keep the newborn warm immediately after birth, and various practices are adopted for newborn

thermal care in the community. The method of thermal control most often mentioned by frontline workers (75 percent or more) was wrapping the newborn in a thick/warm cloth which is also the most prevalent practice in the community. Far fewer (one-third) frontline health workers mentioned skin-to-skin contact, and less than 10 percent mentioned delaying the first bath as methods to keep the newborn warm (Table 2). Other methods of thermal care mentioned were to keep the room heated after delivery, to massage the newborn with mustard oil and to breastfeed the baby frequently.

Method	ASHA	ANM	AWW
Delaying first bath for few days	6	12	4
STSC	38	34	29
Wrapping baby in a warm cloth	77	77	75
Keep room heated after delivery	15	23	24
Massaging baby with oil	13	9	13
Breastfeeding every 1-2 hours	5	8	1
Total	289	161	284

Note: Percentages may not add to 100 because of multiple responses.

Most mothers and mothers-in-law (93 percent and 82 percent, respectively) reported that they had covered or wrapped the baby with thick or woolen cloth or massaged the baby with mustard oil to keep the newborn warm. One woman said:

“My child was wrapped in a blanket to keep it warm.”

Another woman reported:

“...the naini did a mustard oil massage to keep the baby warm.”

Skin-to-skin care (STSC)

The vast majority (91 percent) of all women (N=4,472) were not aware of

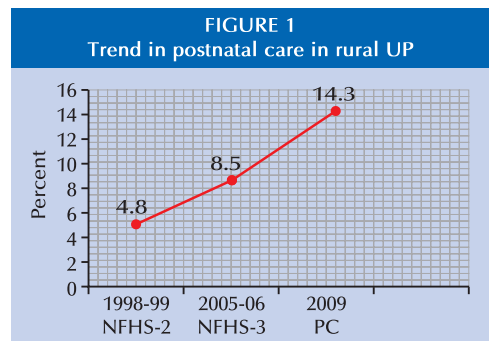
STSC. Even when the STSC technique was explained to them, they said they were not aware of the method. A typical response by women was:

“I do not know about keeping the baby on my skin or chest to keep it warm. My baby was wrapped in a towel to keep him warm.”

Among women who were aware of STSC (N=387; 9 percent), 70 percent practiced it for their last child, and 37 percent practiced it correctly.

Postnatal care

Findings from the formative study show that of the total women interviewed (N=4,472), 84 percent did not receive a postnatal check-up, irrespective of place of delivery. However, 47 percent of women were aware that women need a check-up within a week of delivery. Figure 1 shows the trend in postnatal care (that is, women who received a check-up within seven days of delivery) in UP.



Note: Includes women who received a postnatal check-up from a health provider within seven days of delivery.

NFHS-2 (1998-99) data show that only 5 percent of rural women received a postnatal check-up from a health provider within seven days after delivery in a facility or at home for their last birth; this increased to 9 percent in NFHS-3 (2005-06). Data from the formative study by the Population Council (2009) show that despite the Janani Suraksha Yojana (JSY) the percentage of

women who seek a postnatal check-up is still very low-14 percent- irrespective of place of delivery.⁸

Among women, and mothers-in-law and husbands of women who had not sought postnatal care, the majority of women (N=3,774; 73 percent), mothers-in-law (N=1,764; 80 percent) and husbands (N= 1,416; 80 percent) reported that they did feel that a postnatal check-up was necessary because everything was normal and the woman and newborn had not faced any problems (Table 3). Other reasons, such as examined by elders, no provider came home for check-up, distance to the facility and perceived cost of PNC, were also reported, though not as frequently.

TABLE 3
Reasons for not seeking a routine postnatal check-up as reported by women, mothers-in-law and husbands (percent)

Reasons	Women	Mothers-in-law	Husbands
Everything was normal	73	80	80
Felt it was not necessary	37	31	18
Family felt not needed	15	16	17
Examined by elders	2	4	9
No provider came home for check-up	1	1	4
Facility too far	4	2	3
Costs too much	9	6	16
Total	3,774	1,764	1,416

Note: Percentages may not add to 100 because of multiple responses.

BARRIERS

Lack of awareness on cord care among women and family

Lack of awareness among women and family of the possible adverse effects of applying various substances on the cord stump as follow up care is an important barrier to healthy cord care practices. This belief among families is reinforced by the fact that some frontline health workers,

especially ASHAs, who maintain close contact with women and their families also believe that something needs to be applied to hasten healing of the cord stump.

Perception that an un-bathed newborn is impure

The main reason for bathing a newborn immediately after birth, as reported by 60 percent of mothers-in-law, is to clean the child's body; 42 percent of mothers-in-law also believed that a newborn baby is "impure" and hence needs to be bathed immediately. A similar pattern of responses was observed in all three regions.

Few frontline health workers (3-13 percent) mentioned that bathing the newborn immediately after birth is good for the newborn. Among health workers who perceived that a newborn should be bathed immediately, the reasons most commonly reported were "bathing cleans the baby" and removes "impure blood" from the baby. One ASHA said, for example:

"The baby is bathed immediately after birth because the child comes out from the stomach and is dirty with impure blood."

Misconceptions regarding the consequences of not bathing the newborn

In-depth interviews reveal that women and family members believe that if not bathed, the baby will smell, develop skin problems and the dirt on the body could cause infections. A typical quote that highlights women's misconceptions regarding the consequences of not bathing the newborn immediately is as follows:

"The baby was given a bath to remove the 'rusi' [dirt and vernix] from its body. The 'rusi' cannot be removed by just cleaning with a cloth; bathing is necessary to remove it."

"If not bathed, there will be a foul smell from the baby's body. When the baby is in the mother's womb, 'paet ki gandagi' [dirt inside the womb] comes onto the baby's

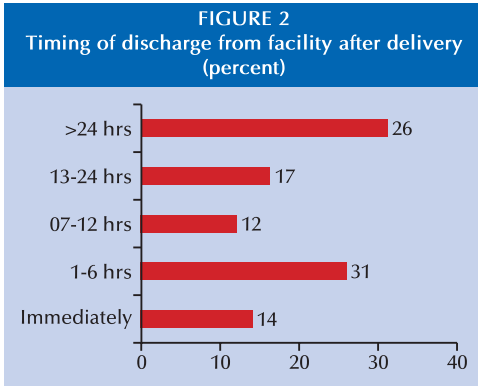
body. ...so the baby smells bad after birth... This dirt could cause skin infections if the child is not bathed."

Lack of awareness among women and frontline health workers regarding STSC

Frontline health workers' lack of correct knowledge of STSC is another barrier in counseling women and their families on STSC. Only 32-36 percent of ASHAs and ANMs could correctly explain how STSC is practiced. Two-thirds of ASHAs described several inaccurate methods of practicing STSC, including 18 percent who described the method as keeping the newborn on the mother's clothed chest and covering the child with a cloth.

Low postnatal check-ups due to early discharge from the facility

Findings from the formative study show that 14 percent of women who had an institutional delivery were sent home directly from the labor room while 31 percent were discharged within 6 hours (Figure 2). Only 26 percent stayed for more than a day at the facility after delivery, if the delivery was instrument assisted. For example, one woman mentioned:



"I was shifted home directly from the labor room 3 hours after delivery. They gave me one injection before and another one after delivery. No injections were given to my baby. No one advised me to come back for any check-up."

Further analysis indicates that in the case of more than two-thirds of women (69 percent), either doctors at the facility or other providers such as ANMs advised women to go back home soon after delivery. In only 31 percent of cases, women reported that either they or their family members took the decision to seek discharge within 6 hours of delivery. In-depth interviews with providers such as ASHAs revealed that early discharge from the facility is mainly due to lack of beds and other essential amenities at the facility, particularly electricity. Due of lack of electricity supply, even 24*7 facilities cannot function effectively for more than 5-6 hours a day. The facility survey of 140 health facilities (90 PHCs, 50 CHCs) reinforces these observations.⁸ The main reason for families requesting early discharge is the absence of social support at home to take care of their children or the cattle in their farm.

Lack of adequate advice on postnatal care before discharge

Among women who delivered in a facility, 68 percent reported examination of the newborn, 65 percent mentioned examination of the mother, and 62 percent said that BCG and polio drops for newborn were given as part of postnatal check-up. However, further analysis of the data shows that women were not given adequate advice on other important components of postnatal care such as the need to return for routine check-ups. Only half (50 percent) of women were advised either before delivery or during their stay at the facility about the various aspect of breastfeeding, such as to breast feed the newborn within an hour; just 39 percent were advised on techniques of breastfeeding; 55 percent were told not to discard colostrum; and 51 percent were advised on the immunization schedule.

However, further analysis of the data shows that women were not given advice on other important components

of postnatal care by PHC staff including the need to return for routine check-ups, thermal care and family planning, especially the lactational amenorrhea method (LAM). One woman mentioned:

“I left the facility three hours after my delivery since the nurse told me to go...no one at the PHC told me about the need to go back for a check-up”

The study shows there are discrepancies in the responses of ASHA and ANM and women/ mothers-in-law regarding postnatal check-ups. While the majority of ANMs (90 percent) and almost half the ASHAs (42 percent) reported that they advised women about the need for a postnatal check-up within seven days, most women reported that they did not receive any such advice from any of the frontline health workers.

An analysis of women's responses on the advice given by ASHAs reveals that ASHAs concentrate primarily on issues for which they receive performance-linked payments, such as institutional delivery, three ANC check-ups and immunization. Interviews with ASHAs (N=289) show that 83 percent perceive achieving these incentivized components as their main role. For example, one ASHA said:

“My main roles as ASHA are to help make health plans, accompany women for delivery at the institution and spread information related to immunization.”

Lack of awareness of danger signs for mothers and newborns after delivery

Severe pain in the abdomen or tenderness followed by heavy vaginal bleeding and high fever were the most frequently mentioned health complications a woman can face after delivery by women, mothers-in-laws and husbands. Very few mentioned other complications or danger signs (Table 4).

TABLE 4
Awareness of maternal complications following delivery as reported by women, mothers-in-law and husbands (percent)

Danger signs	Women	Mothers-in-law	Husbands
Heavy vaginal bleeding	51	50	43
Abdominal pain/tenderness	74	75	60
High fever	47	48	54
Pus/foul smelling vaginal discharge	9	9	4
Severe headache or blurred vision	14	11	23
Convulsions or fits	3	3	9
Retained placenta	4	6	4
Red painful area or lump in the breast	1	2	2
Total	4,472	2,372	2,274

Note: Percentages may not add to 100 because of multiple responses.

A similar response pattern was observed among ASHAs, indicating that frontline health workers themselves have very limited knowledge of maternal complications following delivery. For example, 49 percent of ASHAs and 44 percent of AWWs were aware that a normal newborn baby becoming drowsy or unconscious is a danger sign. Among ANMs, poor sucking and feeding (67 percent) followed by difficulty in breathing or fast breathing (53 percent) and diarrhea (44 percent) were the most commonly reported danger signs. Knowledge of other danger signs that are equally dangerous was reported by a lesser number of ASHAs, ANMs and AWWs.

Due to limited awareness of danger signs or the serious consequences that may follow, treatment seeking in general is not immediate. For example, 7 percent women reported that their newborn had diarrhea or difficulty in breathing, 8 percent mentioned the newborn was low birth weight and another 5 percent said that their baby became drowsy and unconscious or had poor sucking or breastfeeding. Among the 993 women whose newborn

had experienced any problems, 53 percent sought treatment from a private facility 17 percent from public facility, while about 25 percent had either given home treatment or did not seek any treatment. Among those who sought any treatment, 33 percent reported that they sought treatment within a day of noticing the danger signs while 16 percent waited for two days more to seek treatment. About 5 percent sought treatment only when the newborn's condition had become worse.

Lack of perceived need for postnatal care among women and families

Only 40 percent of women who delivered at home and 56 percent of those delivered in a facility reported that women need a check-up within a week after delivery. For example, one woman said:

"I did not feel the need to get any check within seven days after delivery, everything was fine..."

As discussed earlier, majority of husbands and mothers-in-law also gave the same reason for no postnatal check-up for their daughter-in-law or wives. Perceived high cost of PNC was also reported by a few husbands (16 percent) as the reason for not availing a postnatal check-up.

FACILITATING FACTORS

To identify the various determinants of postnatal care, a logistic regression was carried out taking cord care, thermal care (bathing after 24 hours of birth) and postnatal check-up within 7 days as dependent variables. The key factors identified are discussed below.

Contact with ASHA to improve cord care practices

Contact with the ASHA has a significant impact on healthy cord care practices. Significantly more women who were contacted by the ASHA did not apply anything on the cord stump as compared to

those who had not met the ASHA during their pregnancy ($p < 0.01$). Results from the logistic regression show that women who met the ASHA were slightly more likely (22 percent) to leave the cord stump to dry on its own without applying anything on it ($OR = 1.22$, $p < 0.05$) than others. Other independent variables like caste, standard of living index, women's education or exposure to mass media did not show any significant influence on cord care practices.

Contact with ASHA/ANM to delay bathing

As in cord care, contact with the ASHA/ANM has a significant influence on newborn bathing practices. The analysis shows that women who had met the ASHA/ANM during the antenatal period were significantly more likely ($OR = 1.43$, $p < 0.001$) than those who had no contact with the ASHA/ANM to delay newborn bathing for 24 hours. Women who delivered in a health facility were four times more likely ($OR = 4.28$, $p < 0.001$) to have delayed newborn bathing as compared to women who delivered at home without skilled assistance. In case of home deliveries assisted by a skilled birth attendant, women were one and a half times more likely ($OR = 1.53$, $p < 0.05$) than those who did not have skilled assistance to delay newborn bathing. These findings highlight the importance of institutional delivery in promoting newborn thermal care and related newborn health behaviors. Exposure to mass media was another factor that had same positive influence in delaying the bathing of newborn ($OR = 1.28$, $p < 0.01$).

Religious rituals and influence of village priests

As mentioned earlier, one-third of women had delayed newborn bathing for one day or more while about 14 percent had delayed bathing for a week. The qualitative study reveals that in some cases newborn bathing is not delayed due to health considerations but because the

village pundit selects an auspicious date when the newborn is to be ritually bathed for the first time. A woman said:

“The baby was bathed on the third day on the advice of the family pundit. My father-in-law called the pundit; the pundit gave us the date and time for bathing the baby.”

Although ritual bathing of the newborn is not extensively followed in rural UP, some families in all three regions of UP reported the practice. BCC efforts could build on this religious practice to encourage women to delay the initiation of newborn bathing.

Willingness to practice STSC

Observations from in-depth interviews reveal that most women, if informed of the correct method of STSC, would be willing to adopt the practice with their next baby. For example, a woman said:

“I am not aware of the kangaroo mother care method [kangaroo vidhi]. I will do it if I am told about it. I would have no difficulty practicing kangaroo vidhi.”

Another woman said:

“If I have more children then I will follow ‘kangaroo vidhi’...”

Women's willingness to adopt STSC is corroborated by the finding that two-thirds of women who were aware of STSC had indeed adopted the practice.

Moreover, in the context that most women and mothers-in-law believe that keeping the newborn warm is important, and had adopted various methods to keep the newborn warm, counseling efforts could effectively build on their willingness to promote the adoption of STSC.

Background Characteristics of women who had postnatal check-ups

In case of postnatal check-ups, background characteristics of women

such as standard of living index (OR=1.33, p<0.05) and education of women (OR=1.94, p<0.05) were found to be significant predictors of PNC check-ups. Findings also show that lower parity women are more likely to seek postnatal care than higher order parity women (4 or more children) (OR=1.28, p<0.05) (Table 5).

TABLE 5
Results from the logistic regression analysis on postnatal check-ups within 7 days of delivery

Variable	Category	Odds Ratio
Caste	SC/ ST [®]	--
	OBC	0.91
	General	1.04
Standard of Living Index	Low [®]	--
	Medium	1.22
	High	1.33*
Education of women	No education [®]	--
	Primary	1.01
	Secondary	1.33*
	Higher	1.94*
Children ever born	≥4 [®]	--
	3	1.06
	2	1.36*
	1	1.28*
Number of ANC	No ANC [®]	--
	<3 ANC	1.48**
	≥ 3 ANC	2.64**
Advice on PNC during ANC	No [®]	--
	Yes	2.37**
Exposure to mass media	No exposure [®]	--
	Any of 3 media	1.02
	All 3 media	1.58*
Place of delivery & duration of stay at facility	Home delivery [®]	--
	Sent home immediately or stayed up to 12 hours	2.09**
	13-23 hrs	2.54**
	>24 hrs	7.75**

Note: Dependent variable: PNC check-up within 7 days of delivery (Yes=1, No=0); [®]Reference category *p<0.05; **p<0.001.

ANC visits and advice during ANC

Logistic regression analysis shows that ANC visits and receiving advice on PNC during ANC visits have a significant impact on this behavior. For example, data here show that those who had at least three ANC check-ups (OR=2.64, p<0.001) and those who received advice on postnatal check-ups during ANC (OR=2.37, p<0.001) were

two and a half times more likely to seek postnatal check-ups than others (Table 5).

Place of delivery and duration of stay at the facility

Findings from the formative study show that women who delivered in a facility, irrespective of whether they were discharged immediately or within 24 hours, were twice as likely to seek postnatal care (OR=2.54, $p<0.001$) and those who stayed for more than 24 hours after delivery in a facility were eight times more likely to go back for PNC check-ups (OR=7.75, $p<0.001$) as compared to those who had a home delivery (Table 5). This indicates that efforts to increase institutional delivery will have an indirect impact on postnatal care for mothers and newborns. In contrast, immediate or early discharge would amount to a missed opportunity to provide postnatal advice and care.

Postnatal home visit by ASHA

Mandatory postnatal home visits by ASHAs to reinforce messages on postnatal care are required to motivate families to adopt healthy maternal and newborn care behaviors. Most (81 percent) of the ASHAs interviewed reported that they do home visits to examine women in the postnatal period. These visits could be used as an important opportunity to counsel women on the importance of routine postnatal check-ups within seven days of delivery. These home visits could also be used as an opportunity to identify danger signs among newborns and make an immediate referral to a qualified doctor.

IMPLICATIONS FOR THE BCC STRATEGY

Audience segmentation

Findings indicate that special attention needs to be given to women and their family members who are less educated, and women of higher parity. Messages that are specifically focused on this group would help to reach the unreached.

Comprehensive postnatal counseling module

The study shows that frontline health workers need further technical training to provide integrated counseling on all aspects of postnatal care. They also need training in counseling skills and should be provided counseling aids to make their counseling effective. Some barriers to the adoption of healthy postnatal care practices are embedded in the cultural practices and the perception of impurity. Changing such behaviors is not only difficult, but also demands an understanding of the cultural context and the active involvement of community leaders such as the opinion leader, religious leaders or similar other influential people in the village.

Further, supportive supervision by ANMs to frontline health workers should be oriented to provide routine comprehensive postnatal counseling immediately before delivery, with adequate emphasis on thermal care, demonstration of STSC, and routine postnatal check-up within seven days of delivery. This would positively contribute towards the care seeking behavior of women and their families. In addition, it is important to make women and their families aware of the benefits of postnatal check-ups. Focused messages that directly link postnatal check-ups with the safety and survival of mothers and newborns are essential to promote the uptake of postnatal care among women and their families.

Partnering with pundits

Study findings indicate that immediate bathing is necessary partly because of the concept of impurity of the child after birth. However, the study also indicates that the families depend on the pundit to select an auspicious date for newborn bathing. Advocacy with religious leaders to select an auspicious day for the ritual bathing of the newborn a week after birth could be an important strategy to promote thermal care.

Communication channels

Mass media, especially DD and radio, could be effectively utilized to create awareness regarding the importance of routine postnatal care. IPC by frontline health workers during ANC visits and during home visits by the ASHA are other important opportunities to provide demonstrations on STSC and focused messages on healthy cord care practices, teach women and families to identify danger signs of mothers and newborns following delivery, and to emphasize the need for routine postnatal check-ups even if the delivery is normal and the mother and newborn are doing fine. Pictorial presentations on the walls of the waiting area and/ or registration area in PHCs explaining the multiple benefits of delaying the first bath for the newborn as well as how to practice STSC could be effective in building awareness among both women and their family members. Simultaneously, at the program implementation level improvement in terms of more number of beds at the facility is required to increase the duration of stay at the facility after delivery.

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