



## Newborn Care Practices and Self-Efficacy among Bangladeshi Mothers

### การปฏิบัติการดูแลการรักแรกรักษาและสมรรถนะแห่งตนของมารดา ชาวบังคลาเทศ

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#### บทคัดย่อ

การดูแลการรักแรกรักษาของมารดาเป็นการปฏิบัติที่สำคัญในการดูแลสุขภาพทารก ป้องกันการเจ็บป่วยและลดอัตราการเสียชีวิตของทารกแรกรักษา การศึกษาเชิงพรรณนาแบบหาความสัมพันธ์ครั้งนี้มีวัตถุประสงค์เพื่อศึกษาระดับของการปฏิบัติการดูแลการรักแรกรักษาและสมรรถนะแห่งตนในการดูแลการรักแรกรักษาในมารดาชาวบังคลาเทศ กลุ่มตัวอย่างทั้งหมด 105 คน เป็นมารดาที่ให้การดูแลการรักแรกรักษาที่บ้านและนำมารักษาตัวที่ศูนย์การให้ภูมิคุ้มกันในโรงพยาบาลลิวี่พะ夷์โคมิลา เมื่อ石榴กอยุ 6-8 สัปดาห์ รวบรวมข้อมูลระหว่างเดือนพฤษภาคมถึงมิถุนายน 2558 เครื่องมือที่ใช้ในการรวบรวมข้อมูลคือแบบสอบถามการปฏิบัติการดูแลการรักแรกรักษาของมารดาและสมรรถนะแห่งตนในการดูแลการรักแรกรักษาซึ่งแปลเป็นภาษาบังคลาเทศโดยผู้วิจัย ผ่านการตรวจสอบความถูกต้องของเนื้อหา และได้ค่าความเชื่อมั่นเท่ากับ .87 และ .81 ตามลำดับ วิเคราะห์ข้อมูลโดยใช้สถิติพรรณนาและสัมประสิทธิ์ความสัมพันธ์ของสเปียร์แมน

ผลการศึกษาพบว่า กลุ่มตัวอย่างมีการปฏิบัติการดูแลการรักแรกรักษา อยู่ในระดับปานกลาง ร้อยละ 88.57 โดยมีคะแนนเฉลี่ยเท่ากับ 83.20 และส่วนเบี่ยงเบนมาตรฐานเท่ากับ 6.55 และ ร้อยละ 68.57 มีคะแนนสมรรถนะแห่งตนในการดูแลการรักแรกรักษาอยู่ในระดับปานกลาง โดยมีคะแนนเฉลี่ยเท่ากับ 57.15 ส่วนเบี่ยงเบนมาตรฐานเท่ากับ 5.88 สมรรถนะแห่งตนในการดูแลการรักแรกรักษาของมารดา มีความสัมพันธ์ทางบวกอย่างมีนัยสำคัญทางสถิติกับการปฏิบัติการดูแลการรักแรกรักษาของมารดา ( $r = .55$ ,  $p < 0.000$ )

ผลการศึกษาครั้งนี้เป็นข้อมูลพื้นฐานให้พยาบาลนำไปใช้ส่งเสริมการปฏิบัติการดูแลการรักแรกรักษาและสมรรถนะแห่งตนในการดูแลการรักแรกรักษาของมารดาชาวบังคลาเทศต่อไป

**คำสำคัญ:** แนวทางปฏิบัติในการดูแลการรักแรกรักษา, สมรรถนะแห่งตน, และ

#### Abstract

The newborn care practice of mothers is a crucial issue for a newborn's health status in order to reduce newborn morbidity and mortality. This descriptive correlational study aimed to examine the level of newborn care practices and self-efficacy, and the relationship between newborn care practices and self-efficacy among Bangladeshi mothers. The subjects were 105 mothers who

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วันที่รับบทความ 8 พฤษภาคม 2558 วันที่แก้ไขบทความ 30 พฤษภาคม 2558 วันที่ตอบรับบทความ 5 กุมภาพันธ์ 2559

provided newborn care at home and took their baby to receive vaccinations at an immunization center in Comilla Medical College Hospital when their baby was 6-8 weeks old. Data collection was carried out from May to June, 2015. The research instruments included the Newborn Care Practices of Mothers (NCPM) questionnaire and the Perceived Maternal Parenting Self-Efficacy (PMP S-E) tool, which were translated into Bangla by the researcher and were confirmed for validity by the experts. Their reliability coefficient was .87 and .81 respectively. Data were analyzed by using descriptive statistics and Spearman correlation coefficient.

The findings revealed that: all of sample showed newborn care practices at a moderate level (88.57%) with a mean score of 83.20 (SD = 6.55). Self-efficacy on newborn care score was at a moderate level (68.57%) with a mean score of 57.15 (SD = 5.88). Self-efficacy on newborn care had a statistically significant positive relationship with newborn care practices ( $r = .55, p < 0.000$ ).

The results of this study can be used by nurses in order to promote newborn care practices and self-efficacy regarding newborn care among Bangladeshi mothers.

**Keywords:** *newborn care practices, self-efficacy, mother.*

### Background and Significance

The first four weeks of life of an infant are considered the neonatal period. Appropriate newborn care is unique important for healthy life and development of a newborn, especially for saving newborn life. Globally, about 4.5 million or 75% of all under five deaths occurred within the first year of life (World Health Organization [WHO], 2015). Most of the newborns died occurred in developing countries where delivery conducted at home and by unskilled health workers (WHO, 2012). In Bangladesh, neonatal mortality rate was reported 27/1,000 live births (The World Bank, 2016). Newborn care in Bangladesh is fully dependent on newborn family especially on mother, and other female relatives (Darmstadt, Syed, Patel, & Kabir, 2006). However their harmful practices of mothers/relatives on newborn care such as improperly wrapped immediately after birth, delayed

initiation of breastfeeding, started prelacteal feeding, and using oil massage, affect newborn's health (Hoque, Khan, Begum, Chowdhury, & Person, 2011). To reduce neonatal mortality rate, and achieve Millennium Development Goals 4 (MDG4) for reduce child mortality, Bangladesh government had taken various strategies since 1990. The strategies which contribute in neonatal care included antenatal care coverage, intrapartum care, postnatal care, and newborn care. In these aspects, women counsel about essential newborn care, postnatal care, and early initiation of breast feeding. Prepare trained skill birth attendants to ensure skill hand delivery (Chowdhury, Banu, Chowdhury, Rubayet, & Khatoon, 2011).

Newborn care practices contribute to reduce neonatal morbidity and mortality. This care include five essential aspects as follows: 1) Keeping the newborn warm, 2) Breastfeeding,

3) Caring of the newborn hygiene, 4) Taking the newborn to get immunization and 5) caring during illness (Hoque et al., 2011). The study in Bangladesh showed that all home delivery places were not heated and 56% of newborns wrapped within 10 minutes after birth. Regarding breastfeeding, 52% of mothers who had home deliveries took initiation of breast feeding within one hour of birth. In the aspect of caring of the newborn hygiene there is limited information about Bangladeshi mothers. In term of caring during illness, Bangladeshi mothers have poor ability to identification of newborn signs of sickness and provided inappropriate care for sick newborn (Hoque et al., 2011). Concerning immunization, about 91% of Bangladeshi mothers completed newborns recommended vaccination (Government of the People's Republic of Bangladesh, 2014).

Mother's newborn care practices were influenced by their self-efficacy (Marsh et al., 2002). Self-efficacy is an individual's idea about his or her ability to complete a particular task (Bandura, 1997). In context of newborn care, self-efficacy of mothers is the important factors to pursue newborn care practices of mothers. Some mothers may feel capable to perform complex of maternal tasks, others may have weak expectations of their ability on newborn care (Barnes & Adamson-Macedo, 2007). Thus, self-efficacy is one of direct predictors of specific positive parenting practices (Coleman & Karraker, 1998), including maternal newborn care.

Barnes and Adamson-Macedo (2007) stated four aspects of maternal self-efficacy: (1) care taking procedures (2) evoking behaviors (3)

reading behaviors, and (4) situational beliefs. The study by Shorey, Chan, Chong, & He (2015) found that mothers perceived moderate level of self-efficacy. Moreover, self-efficacy of mothers has been shown as a direct effect on the quality of newborn care. High self-efficacy of mother is related to their sensitivity, warmth (Teti & Gelfand, 1991) and responsiveness of the mothers (Stifter & Bono 1998). In addition, self-efficacy was found significant positive related with parenting practice ( $r = .62$ ,  $p < 0.01$ ) on infant and toddler care (Chaisom, Yenbut, Chontawan, Soivong, & Patumanond, 2010).

Health care system in Bangladesh is mainly curative. Preventive aspect is not yet fully established; as a result some inappropriate newborn care practices were observed. There is not clear evidence on self-efficacy and newborn care practices of Bangladesh mothers. Therefore, it is needed to explore self-efficacy and newborn care practices among the mothers. Information from the study may provide better understanding and contribute to nursing practice in order to improve newborn care practices of the mothers.

### Objectives of the study

The study aimed to examine the level of newborn care practices and self-efficacy, and the relationship between newborn care practices and self-efficacy on newborn care among Bangladesh mothers.

### Conceptual framework

The conceptual framework of this study is based on literature review regarding newborn

care practices and self-efficacy among Bangladeshi mothers. Newborn care practices of mothers are consisted (1) keeping the newborn warm, (2) breastfeeding, (3) caring of the newborn hygiene, (4) taking the newborn to get immunization, and (5) caring during illness (Hoque, et al., 2011). Self-efficacy is an estimation of the degree to which mothers perceive themselves as capable of performing the varied tasks associated with newborn care includes (1) care taking procedures, (2) evoking behaviors, (3) reading behaviors, and (4) situational beliefs (Barnes & Adamson-Macedo, 2007). Newborn care practices and self-efficacy among mothers are interrelated and influence each other.

## Methodology

This study is descriptive correlational research.

### Population and sample

The population was postpartum mothers who provide care for their newborn at home or hospital. Sample was 88. It was estimated by power analysis used significance level ( $\alpha$ ) of .05, medium effect size .30, and power of .80. (Polit & Beck, 2008). In consideration of the possible loss of subjects, deliberate additional (20%) sample was added (Burns & Grove, 2005). Therefore, sample size was 105 postpartum mothers.

Purposive sampling was used to recruit the sample with inclusion criteria including; mothers of newborn infant, able to read-write and communicate in Bangla language, normal cognitive perception and none of serious disease(s).

### Research instrument

The research instruments of this study included:

1) The Demographic Data Profile was used to collect mother's personal information.

2) Newborn Care Practices of Mothers (NCPM) questionnaire contains 30 items in the following five domains: (1) keeping the newborn warm, (2) breastfeeding, (3) caring of the newborn hygiene, (4) taking the newborn to get immunization and (5) caring during illness. Each item has scored 4-point Likert scale from (1) Never practice to (4) Always practice.

3) The Perceived Maternal Parenting Self-Efficacy (PMP S-E) questionnaire consists of 4 domains with 20 items: (1) care taking procedures, (2) evoking behaviors, (3) reading behaviors, and (4) situational beliefs. Each item has 4-point Likert scale from (1) Strongly disagree to (4) Strongly agree.

### Validity and Reliability of the instruments

The NCPM and PMP S-E questionnaires were assessed by 5 experts with validity index (CVI) .86 and .85. The internal consistency reliability of both NCPM and PMP S-E were tested with 10 mothers whose were excluded from the study sample and Cronbach's alpha were reported at .87 and .81 respectively.

### Translation of the instruments

The original of Demographic Data Profile, NCPM, and PMP S-E questionnaires were translated from English to Bangla and back translated from Bangla to English by 3 experts of English-Bangla language.

### Data Collection Procedure

Data collection was conducted after

receiving approval from the Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University, and the Director and Nursing Superintendent at Camilla Medical College Hospital, Bangladesh. The procedures for data collection were as follows:

The researcher contacted the nurse director of the hospital, the head nurse of the well-baby clinic for introducing herself, and explained the purpose of the study and the data collection procedure. The researcher recruited mothers of newborn from the list of appointments. After taking consent the instruments were given to the mothers. The researcher explained to the mothers how to answer the questionnaires and return as well as provided all necessary information related to data collection. Each questionnaires was checked for completion. Data collection was carried out during May to June, 2015.

### Data analysis

Data were analyzed by using a statistical software package (SPSS). Descriptive statistic was used to analyze demographic data profile. Spearman's rank order correlation coefficient analysis was used to examine the relationship

between newborn care practices and self-efficacy on newborn care among Bangladeshi mothers.

### Ethical considerations

The study protocol was approved by the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University, Thailand.

### Results

The study sample consisted of mothers whose age ranged from 20-34 years with the mean age of 27.26 years. The largest groups of the mothers were primiparas (52.39%). Most of the mothers were Islam (84.76%). About 63.81% of the mothers hold primary education. The majority of the mothers were housewives (86.67%). More than half of the mothers (63.81%) attended antenatal clinic 2 times during the pregnancy, and almost all of the mothers (90.48%) gave birth by normal vaginal delivery. About 57.14% of the mothers delivered at home. Around 47.61% of the mother's delivery was conducted by untrained birth attendants. Almost half of the mothers did not learn about newborn care practices before delivery (49.52%). Sources of information on newborn care were from nurse (24.77%) and doctors (17.14%).

**Table 1** Frequency, Percentage, Mean, Standard Deviation and Level of Overall Newborn Care Practices of Mothers (n= 105)

Practices level	Score	Frequency (n)	Percentage (%)
Low	30-60	-	-
Moderate	61-90	93	88.57
High	91-120	12	11.43

Table 1 showed that most of the mothers 88.57% rated moderate level of newborn care practices. Concerning newborn care practices, the aspect of breastfeeding, it was found that 68.58% of mothers never burped newborns during and after breastfeeding. Mothers sometimes fed supplementary food (67.62%). Concerning caring for the newborn's hygiene, it was found that the majority (83.81%) and

(82.86%) of mothers did not wash their hands before handling their baby and feeding their baby respectively. On the aspect of immunization, 80 – 87% of the mothers always brought their baby to receive vaccinations according to the vaccine schedule. In caring during illness, the mother sometime sponged her baby with warm water when she or he got fever (75.24%) as shown in Table 2.

**Table 2.** Frequency and Percentage of Newborn Care Practices of Mother (n=105)

Items	Never practice	Sometimes practice	Often practice	Always practice
<b>Keeping the newborn warm</b>				
1. The mother had her baby wrapped in dry clean clothes immediately after birth	0 (0)	14 (13.33)	23 (21.90)	68 (64.77)
2. The mother performed skin to skin contact to her baby immediately after birth	1 (0.95)	76 (72.39)	27 (25.71)	1 (0.95)
3. The mother delayed the initial bathing of her baby at least 6 hours after birth	0 (0)	11 (10.48)	83 (79.04)	11 (10.48)
4. The mother changed the diaper for her baby immediately after urination or defecation	0 (0)	38 (36.19)	63 (60.00)	4 (3.81)
5. The mother recognized her baby's body temperature by touching the feet and body of her baby	1 (0.95)	75 (71.43)	28 (26.67)	1 (0.95)
<b>Breastfeeding</b>				
1. The mother breastfed her baby initially within 1 hour after birth	0 (0)	9 (8.58)	54 (51.42)	42 (40.00)
2. The mother breastfed her baby according to the baby's demand	0 (0)	13 (12.38)	62 (59.04)	30 (28.58)
3. The mother fed her baby with colostrum	0 (0)	3 (2.85)	64 (60.95)	38 (36.20)
4. The mother burped her baby during and after breastfeeding	72 (68.58)	13 (12.38)	17 (16.19)	3 (2.85)
5. The mother recognized the hunger and satiation cues of her baby	4 (3.81)	67 (63.81)	33 (31.43)	1 (0.95)

Items	Never practice	Sometimes practice	Often practice	Always practice
6. The mother had provided only breast milk to her baby since birth	0 (0)	8 (7.62)	87 (82.86)	10 (9.52)
7. The mother fed her baby formula milk	101 (96.20)	3 (2.85)	1 (0.95)	0 (0)
8. The mother fed supplementary food such as honey or sugar water to her baby	11 (10.48)	71 (67.62)	23 (21.90)	0 (0)
9. The mother fed supplementary food such as cooked rice powder, ripe mashed banana or fruits to her baby	103 (98.10)	2 (1.90)	0 (0)	0 (0)
<b>Caring of the newborn's hygiene</b>				
1. The mother washed her hands before handling her baby	88 (83.81)	12 (11.43)	5 (4.76)	0 (0)
2. The mother washed her hands before feeding her baby	87 (82.86)	12 (11.43)	6 (5.71)	0 (0)
3. The mother bathed her baby once a day	8 (7.62)	25 (23.81)	71 (67.62)	1 (0.95)
4. The mother cleaned the baby's umbilical stump with an antiseptic solution cotton ball at least once a day	0(0)	69 (65.72)	35 (33.33)	1 (0.95)
5. The mother assessed the umbilical stump for any bleeding or discharge when she changed the diaper	0 (0)	63 (60.00)	42 (40.00)	0 (0)
6. The mother kept her baby's umbilical stump clean and dry without applying any substances	0 (0)	51 (48.58)	51 (48.58)	3 (2.86)
<b>Immunization</b>				
1. The mother brought her baby to receive vaccination to prevent tuberculosis	0 (0)	0 (0)	18 (17.14)	87 (82.86)
2. The mother brought her baby to receive vaccination to prevent diphtheria, pertussis, tetanus, hepatitis-B, and Haemophilus influenzae-type B diseases	0 (0)	0 (0)	25 (23.81)	80 (76.19)
3. The mother brought her baby to receive vaccination to prevent pneumococcal pneumonia disease	0 (0)	0 (0)	28 (26.67)	77 (73.33)

Items	Never practice	Sometimes practice	Often practice	Always practice
4. The mother brought her baby to receive vaccination to prevent poliomyelitis	0(0)	0(0)	22 (20.95)	83 (79.05)
5. The mother kept the BCG injected area clean and dry	0 (0)	0 (0)	23 (21.90)	82 (78.10)
<b>Caring during illness</b>				
1. The mother recognized when her baby got fever	0 (0)	49 (46.67)	52 (49.52)	4 (3.81)
2. The mother sponged her baby with warm water when she or he got fever	0 (0)	79 (75.24)	24 (22.86)	2 (1.90)
3. The mother turned her baby's face on the lateral side when she or he was vomiting to prevent aspiration	0 (0)	63 (60.00)	40 (38.10)	2 (1.90)
4. The mother recognized when her baby had diarrhea	0 (0)	16 (15.23)	78 (74.29)	11 (10.48)
5. The mother breastfed her baby more often when she or he had jaundice	0 (0)	3 (2.86)	65 (61.90)	37 (35.24)

**Table 3** Frequency, Percentage, Mean, Standard Deviation, and level of Overall Self-Efficacy on Newborn Care of Mothers (n= 105)

Self-efficacy level	Score	Frequency (n)	Percentage (%)
Low	20 - 40	-	-
Moderate	41 - 60	72	68.57
High	61 - 80	33	31.43

Table 3 showed that majority of the mothers (68.57%) rated moderate level of self-efficacy on newborn care. There were 35.24% of the mothers disagreed that they were good at feeding the newborn, 33.33% disagreed that

they were good at getting the newborn's attention, 52.38 % disagreed that they could read newborns cues, and 45.72% disagreed that they could tell when the baby sick (Table 4).

**Table 4** Frequency and Percentage of Self-Efficacy on Newborn Care of Mother (n=105)

Items	Strongly disagree	Disagree	Agree	Strongly agree
<b>Care taking procedures</b>				
The mother believe that:				
1. I am good at keeping my baby occupied	0 (0)	19 (18.09)	65 (61.91)	21 (20.00)
2. I am good at feeding my baby	1 (0.95)	37 (35.24)	56 (53.33)	11 (10.48)
3. I am good at changing my baby	0 (0)	15 (14.29)	81 (77.14)	9 (8.57)
4. I am good at bathing my baby	0 (0)	32 (30.48)	60 (57.14)	13 (12.38)
<b>Evoking behavior (s)</b>				
1. I can make my baby happy	0 (0)	34 (32.38)	58 (55.24)	13 (12.38)
2. I can make my baby calm when he/she has been crying	0 (0)	23 (21.90)	70 (66.67)	12 (11.43)
3. I am good at soothing my baby when he/she becomes upset	0 (0)	34 (32.38)	60 (57.14)	11 (10.48)
4. I am good at soothing my baby when he/she becomes fussy	0 (0)	30 (28.58)	65 (61.90)	10 (9.52)
5. I am good at soothing my baby when he/she continually cries	0 (0)	20 (19.05)	68 (64.76)	17 (16.19)
6. I am good at soothing my baby when he/she becomes more restless	1 (0.95)	29 (27.61)	63 (60.00)	12 (11.43)
7. I am good at getting my baby's attention	2 (1.90)	35 (33.33)	57 (54.28)	11 (10.48)
<b>Reading behavior (s)</b>				
1. I believe that I can tell when my baby is tired and needs to sleep	0 (0)	15 (14.28)	60 (57.14)	30 (28.58)
2. I believe that I have control over my baby	0 (0.0)	32 (30.48)	71 (67.61)	2 (1.90)
3. I can tell when my baby is sick	1 (0.95)	48 (45.72)	48 (45.72)	8 (7.61)
4. I can read my baby's cues	4 (3.81)	55 (52.38)	42 (40.00)	4 (3.81)
5. I am good at understanding what my baby wants	2 (1.90)	28 (26.67)	69 (65.72)	6 (5.71)
6. I am good at knowing what activities my baby does not enjoy	0 (0.0)	13 (12.38)	70 (66.67)	22 (20.95)

Items	Strongly disagree	Disagree	Agree	Strongly agree
<b>Situational beliefs</b>				
1. I believe that my baby responds well to me	0 (0)	24 (22.86)	55 (52.38)	26 (24.76)
2. I believe that my baby and I have a good interaction with each other	0 (0)	12 (11.43)	70 (66.67)	23 (21.90)
3. I can show affection to my baby	0 (0)	17 (16.19)	74 (70.48)	14 (13.33)

**Table 5** showed that self-efficacy on newborn care had a statistically significant positive correlation ( $r = .55$ ,  $p < 0.000$ ) with newborn care practices.

	Newborn care practices	
	r- value	p- value
Self-efficacy on newborn care	.55**	.000

\*\* $p < 0.000$

## Discussion

This study found 88.57% of mothers rated their newborn care practices at a moderate level. The study by Jiji, Wankhede and Benjamin (2014) also found 43% of mothers reported newborn care practice at moderate level. The possible reasons are to achieve MDG 4, Bangladesh government given special attention on maternal and child health through various activities such as antenatal care coverage, intrapartum care by skilled hand delivery, postnatal care, and newborn care (Chowdhury et al, 2011), as well as providing information for mothers how to care the newborn. The present study found that majority (83.81%) and (82.86%) of mothers were practices inappropriate newborn care that means mothers did not wash their hands before handling their baby and feeding their baby. The possible reason that there are 63.81% mothers were primary level

education means that they have lack of knowledge regarding hand washing.

On the aspect of self-efficacy of mothers this study found that the mothers (68.57%) perceived moderate level of self-efficacy on newborn care. This result is similar to the study conducted by Hashmi, Nawi, Seok and Halik (2014). They found that mothers perceived self-efficacy at moderate to higher levels. The possible explanation of mothers' moderate level of self-efficacy was due to their maturity, antenatal visits, parity, and hospital delivery. On the other hand, their low socio-economic condition, primiparity, home delivery may negatively contribute in their self-efficacy. The present study found that 45.72% and 52.38% of mothers were disagree in terms of being able to tell when their baby is sick and read their baby's cues. The possible reason that there are 86.67% mothers were housewife means that

they had always busy with their household work.

Regarding relationship between mothers' self-efficacy and newborn care practices this study showed that there was a positive correlation ( $r = .55$ ,  $p < 0.000$ ) between self-efficacy and newborn care practices of mothers. This result was congruent with the study by Chaisom et al. (2010), found that mother's self-efficacy on infant and toddler care was significant positive association with parenting practice ( $r = .62$ ,  $p < 0.01$ ). Additionally, self-efficacy induces the mothers to interpret newborn signals correctly and respond appropriately (Coleman & Karraker, 1998).

## Conclusion

This descriptive correlational study showed that majority of mothers (88.57 %) rated their newborn care practices at moderate level, and highest percentage of mothers (68.57) perceived at moderate level of self-efficacy. Mothers' self-efficacy was significant and positively ( $r = .55$ ,  $p < 0.000$ ) related to their newborn care practices. Nurses can use this result in order to

develop strategies to enhance newborn care practices and self-efficacy on newborn care among Bangladeshi mothers.

## Implications of Research Findings

The results of this study can contribute to enhance newborn care practices and self-efficacy on newborn care in mothers through providing essential information regarding newborn care practices. Policy maker can use these results to increase mother's newborn care practices and self-efficacy using proper information by various mass media.

## Recommendations

Further study should conduct in other settings including hospital and community level both in rural and urban areas with large sample size. Mother's newborn care practices questionnaire should develop considering the cultural context of each country. In addition, study should conduct to identify predicting factors of newborn care and self-efficacy.

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