

Attitudes of Mothers' for Preterm Neonates Health Care Post Discharge from NICU in Governmental Hospitals in the Gaza Strip-Palestine

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Abstract

Background: Preterm birth is one of most common health problems, associated with neonates admitted to Neonatal Intensive Care Unit (NICU). Globally, every year, an estimated 15 million neonates are born preterm, this number is rising globally as well as in 2015, preterm birth and low birth weight accounted for about 17% of infant deaths and more than one million died due to complications in the first month of life. Mother's attitudes about neonate care influences the nature and quality of care that is given to the preterm. Hence, this study aims to evaluate mothers' attitudes of health caring for premature infants after discharge from NICU in the Gaza Strip.

Methods: A Quantitative, cross-sectional design study was used to survey 120 mothers of preterm neonates at the time of discharge by face-to-face interview at Al-Shifa medical complex and Nasser hospital between February and June 2018.

Results: The results showed that about 88.3% of mothers of preterm babies had positive attitudes about health care needed for preterm neonates after discharge from NICU. Mothers admitted to Al-Shifa hospital had significantly higher attitudes than who were admitted to Nasser hospital. Furthermore, there was no statistically significant difference between the level of attitudes and mother's other sociodemographic characteristics (P-values > 0.05).

Conclusion: Mothers' attitudes of preterm neonates care was not at the optimal level, which might put the newborns at risk. Therefore, the study emphasis to maternal education during hospitalization in NICU prior to discharge, certain components of essential preterm care package need more emphasis during education program.

Keywords: Mothers' Attitudes; Preterm Neonates; Health Care; Neonatal Intensive Care Unit

Introduction

Preterm birth is a birth occurring before 37 completed weeks of gestation [1]. It is one of the most common health problems seen in neonates. It is associated with inadequate compatibility with the extra-uterine environment and is a challenge because of high mortality and morbidity [2,3]. Hospitalization of preterm in NICUs and mothers' lack of attitudes on how to care for their neonate and discharge without consideration of their needs may cause great level of anxiety, depression and alter parental roles [4,5].

World Health Organization (WHO) estimates preterm birth as the leading primary cause of death in children below five years, with over one million neonates dying each year worldwide due to complications of preterm birth [1]. The risk of neonatal death increased greatly by 35% in preterm neonates than in neonates born at term [6].

In Palestine, two thirds of neonates' deaths occurred within the neonatal period, mostly during the first few days of life [7]. Preterm neonates need special care from health professional in NICUs immediately after birth and also post discharge by the primary caregiver especially mothers. The mother of preterm neonate has an important role in providing access to health care services and modeling attitudes and behaviors that influences the neonate care.

The information regarding mothers' attitudes for preterm health care in Palestine is insufficient. So, the purpose of this study was to assess the attitude of mothers toward providing care to their preterm neonates after being discharged from neonatal intensive care unit. The study is necessary to evaluate the effectiveness of the current maternal training programs and would help the authorities to overcome the weaknesses of these programs and to plan effective actions for enhancing neonatal health.

Materials and Methods

Study design and setting

The current descriptive cross-sectional study was conducted in the main two NICUs which serve a vast portion of neonates in the Gaza strip between February and June 2018. The first located in Al-Shifa medical complex in Gaza governorate and the second situated in Nasser hospital in Khan Younis governorate.

Study tool

A forty items structured questionnaire was used to gather information about sociodemographic characteristics, clinical characteristics of women and mother's attitudes about health caring for premature infants post-discharge from NICU. The questionnaire was developed according to the previous literature review [8-10]. The questionnaire composed of three parts, the first part was dedicated to collect information regarding sociodemographic characteristics of the participant mothers whereas the second part was allocated to gather information about antenatal and birth history of neonates, and the third part investigates assessment of mothers' attitude concerning breastfeeding, infection prevention, vaccination, jaundice, temperature regulation, and umbilical cord care after discharge from NICU (Appendix 1).

Content validity of the questionnaire was attained by five experts from different fields related to nursing, medicine, and public health. Afterward, the questionnaire was piloted among 15 mothers. Minor modifications were done after the pilot examination to guarantee its suitability and constancy. This internal consistency reliability of the questionnaire was computed statistically by Cronbach's alpha test which was over 0.7. Then, the questionnaire translated in Arabic language (mother tongue) in order to facilitate the responding of participants.

Sample size and sampling process

According to the annual report distributed by the Palestinian Ministry of Health [11], almost thirty preterm neonates are discharged from the two selected NICUs every month. Since our study was conducted over four months, the study population is 120 mothers.

The convenient sample size was 120 mothers of preterm neonates discharged from NICUs. Sixty mothers were selected from Al-Shifa medical complex while the other sixty mothers were selected from Nasser hospital. A face-to-face interview was carried out at the time of preterm neonates discharge. Data were collected by two qualified data collectors who were aware of the purpose of the study. The average time for filling the questionnaire was 10 - 15 minutes.

Eligibility criteria

The interview was carried out only in case of a mother with a preterm neonate will be discharged from NICU.

Ethical considerations

The study protocol was approved by the Helsinki Ethical Committee in the Gaza Strip (Code: PHRC/HC/327/18). Written permission was sought and granted by the Palestinian ministry of health to conduct the study in NICUs at Al-Shifa medical complex and Nasser hospital. Likewise, mothers consent was gained after explaining the purpose of the study and they were not obliged to answer any questions which they did not like and were free to terminate the interview at any given time.

Statistical analysis

The Statistical Package for Social Science (SPSS) version 22 was used for data analysis. Descriptive statistics of frequency and percentage and mean and standard deviation were performed for categorical and continuous variables, respectively. The independent samples t-test was applied to investigate the differences between means. The chi-square test was used to determine the statistically significant differences between the different categorical variables.

Results

Mother's sociodemographic characteristics

One hundred twenty women participated and were equally distributed from the two hospitals (Shifa and Nasser). The mean age (standard deviation) was 24.9 (6.21) and 46.7% (56/120) of the mothers belonged to the age group 20 - 30 years and 31.7% (38/120) of them were below 20 years. Also, 74.2% (89/120) of the mothers were housekeepers (Table 1).

Variable	N	(%)
Age (Years) M ± SD: 24.9 ± 6.21 (range: 17 - 40)		
Less than 20	38	31.7
20 - 30	56	46.7
31 - 40	26	21.6
Mother occupation		
Employee	31	25.8
Housekeeper	89	74.2
Residence		
Gaza	39	32.5
North Gaza	16	13.3
Middle area	11	9.2
Khanyounis	40	33.3
Rafah	14	11.7
Hospital		
Shifa medical complex	60	50.0
Naaser Hospital	60	50.0
Number of family members		
Less than 3	89	74.2
4 - 7	31	25.8

Table 1: Socio-demographic characteristics of participated mothers.

Clinical characteristics of women

More than half of women were gave birth more than once (72/120) and 85.7% (102/120) had history of abortion. Half of them had history of admission of their babies to NICU (54.5%) and 54.2% (13/24) of them did discharge with good general condition, while 25% (6/24) passed away (Table 2).

Statements		n	(%)
Is it your first pregnancy?	Yes	72	60.0
	No	48	40.0
History of Abortion	Yes	102	85.7
	No	18	14.3
Had any of your infants admitted to NICU?	Yes	65	54.5
	No	55	45.5
If (Yes), the cause of admission	Respiratory problems	10	41.7
	Congenital anomalies	5	20.8
	Preterm	9	37.5
Type of discharge	Improvement	13	54.2
	Death	6	25.0
	Chronic problem	5	20.8
Mode of delivery	Normal vaginal	82	68.3
	C/S section	38	31.7
Did any complications occur during the birth?	Yes	19	15.8
	No	101	84.2

Table 2: Obst/Gyn characteristics of women.

Mothers' attitude about preterm care

The mean score of mothers' attitude regarding neonate care is 88.3 ± 3.3. According to our category, 99.2% has high attitude (Table 3).

Variable and level	n (%)	Mean (SD)	Min	Max
Mothers attitudes level about care of preterm		88.3 (3.3)	76	96
High (80 - 100)	119 (99.2)			
Moderate (60 - 79.9)	1 (0.8)			
Low (less than 60)	0 (0.0)			

Table 3: Mean score and classification attitudes of mothers about preterm care.
n: Number of the Subjects and SD: Standard Deviation.

Descriptive analysis (mean, SD, agree, neutral, disagree) of questionnaire items

Item responses were collapsed into three choices: disagree (1+2), neutral (3) and agree (4+5) and are presented in percentage (Table 4). Mean score of questionnaire items ranges from 1.8 - 4.9 out of 5. Majority have score above 4 out of five. 99% of mother agreed to

follow important advice and guidance in caring their children and to show love to my baby by touching, embracing, hugging and smiling. Majority (98.3%) see that breastfeeding reduces infection and increases my relationship with my child and helps to increase the weight (99%). Furthermore, majority are agreed with perceptions regarding vaccination timing and benefits. Three quarter (76.6%) of women disagreed with the phrase "I should not dry my baby immediately after bathing to prevent heat loss". Moreover, 80.8% disagreed with "I have to be sure to eat plenty of spices and caffeine".

Item	Mean	SD	Weighted mean	Agree	Neither agree nor disagree	Disagree	Rank
23. I must show love to my baby by touching, embracing, hugging and smiling.	4.9	0.3	98	119 (99%)	1 (1%)	0 (0%)	1
1. I is a must to follow the important advice and guidance in caring my child	4.8	0.4	96	119 (99%)	1 (1%)	0 (0%)	2
8. It is necessary to breastfeed my baby to feel happy and comfortable	4.8	0.4	96	119 (99%)	1 (1%)	0 (0%)	2
16. I will abide by the schedule of vaccinations in primary care center.	4.8	0.4	96	118 (98.3%)	2 (1.7%)	0 (0%)	2
4. I must breastfeed because it reduces infection and increases my relationship with my child	4.8	0.4	96	118 (98.3%)	2 (1.7%)	0 (0%)	5
7. Good breastfeeding helps to increase the weight of my baby	4.8	0.4	96	119 (99%)	1 (1%)	0 (0%)	6
21. I will commit to hand washing while taking care of my child because it is protect him from infection.	4.7	0.5	94	116 (96.6%)	4 (3.4%)	0 (0%)	7
20. Be sure to warm my baby after the bath and not expose it to any cold air stream because it may cause hypothermia.	4.7	0.5	94	115 (95.8%)	5 (4.2%)	0 (0%)	8
18. I should not expose my baby to cold air or air currents after bathing	4.7	0.6	94	114 (95%)	6 (5%)	0 (0%)	9
12. I want to breastfeed my baby because it contains antibodies that reduce infection.	4.7	0.6	94	111 (92.5%)	8 (6.5%)	1 (1%)	10
24. I must commit to giving my child enough time to sleep and wake him up only when breastfeeding.	4.7	0.7	94	110 (91.8%)	8 (6.5%)	2 (1.7%)	10
6. I have to keep my breast clean constantly as it reduces infection for me and my child.	4.7	0.6	94	113 (94.2%)	7 (5.8%)	0 (0%)	12
22. Should not to expose your child to perfume as it may adversely affect his or her health.	4.7	0.6	94	112 (93.3%)	6 (5%)	2 (1.7%)	12
9. I must commit to breast feeding because it reduces of jaundice to my baby.	4.7	0.6	94	113 (94.1%)	5 (4.2%)	2 (1.7%)	14

10. I think I should wash bottle of feeding with boiling water after each feeding.	4.6	0.7	92	107 (89.3%)	10 (8.3%)	3 (2.5%)	15
11. I want to breastfeed my baby because it is faster in absorbing and digesting than bottle feeding.	4.6	0.7	92	108 (90%)	12 (10%)	0 (0%)	16
5. I want to continue breastfeeding of my baby for at least a year.	4.6	0.7	92	110 (91.8%)	8 (6.5%)	2 (1.7%)	17
25. If appear any signs of inflammation or jaundice on my baby, I will bring him to the nearest hospital.	4.6	0.8	92	107 (89.2%)	10 (8.3%)	3 (2.5%)	18
3. I have to visit primary care center regularly to follow up health state of my child .	4.6	0.7	92	106 (88.3%)	12 (10%)	2 (1.7%)	19
15.I have to bring my baby for vaccination in the first month after leaving from hospital.	4.5	0.8	90	99 (82.5%)	18 (15%)	3 (2.5%)	20
2. It is necessary to attend health education programs	4.4	0.9	88	101 (84.2%)	13 (10.8%)	6 (5%)	21
28. I must make sure to add vitamins to my child prematurity along with breastfeeding.	4.4	0.9	88	103 (85.8%)	11 (9.2%)	6 (5%)	22
14. After breastfeeding, be sure to stop my baby on my chest and make light strokes or circular movements on the middle of the back until a sound is issued	4.4	0.9	88	96 (80%)	19 (15.8%)	5 (4.2%)	23
26. Olive oil will reduce the inflammation of the umbilical and helps to heal it faster.	3.9	1.3	78	78 (65%)	19 (15.8%)	23 (19.2%)	24
27. I want to use alternative medicine recipes because they are less expensive and more useful.	3.7	1.4	73	69 (57.5%)	20 (16.7%)	31 (25.8%)	25
17. I believe that hypothermia helps to increase of my baby weight.	2.2	1.2	44	17 (14.2%)	24 (20%)	79 (65.8%)	26
19. I should not dry my baby immediately after bathing to prevent heat loss.	2.0	1.1	40	11 (9.2%)	17 (14.2%)	92 (76.6%)	27
13. During feeding, I have to be sure to eat plenty of spices and caffeine	1.8	0.9	36	5 (4.2%)	18 (15%)	97 (80.8%)	28
Total	4.3	0.5	85	N = 120 (100%)			

Table 4: Distribution of the participants according to their responses to the mother attitudes level.

Differences of mothers' attitudes

Statistical significance in the mothers' attitudes is only noticed between hospitals ($P < 0.01$). However, mean scores are quite similar. Otherwise, the remained independent variables shoed no significance ($P > 0.05$) (Table 5).

Variable	N	Mean (SD)	F (df)	P value*
Level of attitude (education level)			1.257 (2, 117)	0.288
Primary	15	83.76 (3.49)		
Secondary	60	85.04 (3.05)		
University	45	84.52 (2.58)		
Level of attitude (age)			0.622 (2, 117)	0.539
Less than 20 years	38	84.24 (3.94)		
20 - 30 years	56	84.91 (2.41)		
31 - 40 years	26	84.86 (2.29)		
Level of attitude (income)			0.951 (2, 117)	0.389
Below 1000 Shekel	68	84.44 (3.05)		
1000 - 2000 Shekel	45	85.15 (2.71)		
More than 2000 Shekel	7	84.08 (3.49)		
Level of attitude (residence)			1.897 (4, 115)	0.116
Gaza	39	85.65 (2.90)		
North Gaza	16	84.46 (2.58)		
Middle zone	11	84.22 (3.35)		
Khanyounis	40	84.39 (2.62)		
Rafah	14	83.46 (3.65)		
Level of attitude (types of health educators)			1.594 (2, 117)	0.207
Physician	33	83.91 (2.98)		
Nurse	42	85.05 (3.12)		
Did not receive education	45	84.92 (2.71)		
Level of attitude (method of education)			0.403 (2, 117)	0.669
Individual	64	84.46 (3.01)		
Group	11	84.87 (3.49)		
Did not receive education	45	84.96 (2.76)		
Level of attitude (Hospital)			2.480 (118)	0.015
Shifa	60	85.34 (2.77)		
Naaser	60	84.03 (3.00)		
Level of attitude (Family members)			0.885 (118)	0.378
Less than 3	89	84.83 (2.75)		
4 - 7 members	31	84.28 (3.47)		
Level of attitude (Working status)			-0.338 (78.97)	0.736
Working	31	84.56 (2.13)		
Housewife	89	84.73 (3.20)		
Level of attitude (Pregnancy)			-1.717 (118)	0.089
First time	72	84.31 (2.96)		
Multiple	48	85.25 (2.87)		

Level of attitude (Antenatal care)			0.691 (118)	0.491
Yes	110	84.74 (2.97)		
No	10	84.07 (2.73)		
Level of attitude (Received health education)			-0.797 (118)	0.427
Yes	75	84.52 (3.06)		
No	45	84.96 (2.76)		
Level of attitude (Brochures)			-1.195 (118)	0.234
Yes	37	84.20 (2.89)		
No	83	84.90 (2.97)		

Table 5: Differences in the level of mothers' attitude regarding preterm care according to socio-demographic and health education variables.

**One way ANOVA and *Independent sample t test.*

Discussion

Prematurity is the main cause of neonatal mortality worldwide. Parents of children admitted in NICU need lots of information to participate in the treatment progression and supportive care. Health care professionals in NICU, printed materials, audio recording of neonatologist consultation consider useful and worthy information source [12]. In our study, we reported the highest score of attitude was 96% and the lowest 76%, and the mean score 88.3% of mothers of preterm babies have positive attitudes about post discharge care from NICUs.

This finding is consistent with a study conducted by Akimana, (2017) who found positive attitude with mean score 85.2% [9]. Another cross-sectional study was inconsistent with our study conducted by Amolo., *et al.* (2017) who presented positive attitude towards breastfeeding but negative attitude towards other components of newborn care. Lack of antenatal education on newborn care and those who fail to attend all the recommended four antenatal clinic are likely to have poor knowledge, attitudes and should be targeted for newborn education [13].

Excellent attitude toward neonatal jaundice was reported. This finding is consistent to previous ones. A study conducted by Rodrigo and Cooray, (2011) and Egube., *et al.* (2013). Showed high agreement among mothers (89.2%) to take the baby to the nearest hospital when jaundice appears [14,15]. However, babies arrived to hospitals when complications from jaundice arised Hussein and Aziz (2016) and Murki., *et al.* (2001) [16,17].

Immunization is regarded as one of the most successful and cost-effective public health interventions which averts about 3 million deaths annually [18]. Mothers showed high commitment to adhere to vaccination schedules (98.3%), in Palestine, vaccination rate id reported to reach 99.8% which is one among high and successful public health interventions. The high reported attitude is consistent with finding of Yousif., *et al.* [19].

Keeping on normal body temperature is essential in preterm due to their larger body surface area. A study in India proves that thermal care, a component of essential newborn care, gets neglected even though pregnant mothers have access to a trained birth attendant for delivery at home [20]. In the present study, 94% of mothers have positive attitudes about bathing the preterm with warm water; however, the timing of first bath was not clear to most of them. This finding was in contrast to a study done in rural Uganda where 48% of the mothers practices optimal thermal care [21]. Forty percent of mothers in the present study had a good attitudes in terms of maintaining body

temperature with drying and warm clothes. This was due to inadequate dissemination of information on thermoregulation by the health care providers during both antenatal and postnatal periods. Therefore, more effort is required for teaching these mothers to prevent hypothermia in preterm babies.

Even though the WHO always stresses improved umbilical cord care attitudes and practices since it can function as the entry point for infections. Guidelines are seldom followed in many rural areas where untrained birth attendants conduct deliveries. WHO recommends dry cord care where nothing is placed on cord stump unless indicated [22]. Studies done in developing countries suggest that mothers are applying substances like mustard oil, turmeric, cow dung, antiseptic lotion on the cord stump [23]. In our study, 78% of mothers responded that they are willing to use olive oil because it reduces inflammation of umbilical and helps to heal it faster. Also, 73% of mothers responded that they will use alternative medicine recipes because they are less expensive and more useful. This shows the gap in the education provided to them despite being taken care of in a tertiary center.

Mothers are taught all they need to know about caring for their preterm neonate during the NICU stay. In a study conducted by Phillips-Pula (2011), 36 parents were interviewed regarding NICU instructions and found nearly half 47% of mothers reported receiving less than 1 hour of discharge teaching from NICU staff; 47% reported feeling prepared to take their infant home; 49% felt "somewhat" prepared 3% were not sure, and even though 69% were hospitalized for more than two weeks, 85% of the mothers were unable to name any specific problem for which their infant might be at risk after discharge. In our study we didn't show significant correlation between mother have received health education and those who have not with mothers' attitude regarding infant care between those who ($p > 0.05$) [24].

Old age (≥ 30 years) was a predictor of good attitudes, but the finding was not statistically significant. A recent systematic review conducted by Mohini and Shetty, (2017) who showed that age of mothers significantly affect the mother's attitudes on home based neonatal care [25]. Also, Adib-Hajbaghery and Khosrojerdi (2017) found a significant direct but weak correlation between the mothers 'age and their awareness scores ($P = 0.02$) [26].

Education status of mother is one of the main socio-demographic factors affecting postnatal care of preterm neonate. A study done in Italy on knowledge, attitudes and behaviors of parents towards vaccination, the positive attitude towards the utility of vaccination was higher in parents with a level of education not higher than middle school, in those who had vaccinated their child [27]. In our study there are no significant differences according to educational levels ($p > 0.05$).

No significant correlation was found between family income with attitudes. This is inconsistent with Padiyath., *et al.* (2010) findings who reported mothers belonged to families which had a per capita income ranging more than 1500 rupees have highest level of attitudes and mothers belonged to families which had a per capita income ranging less than 500 rupees have lowest level of attitudes [28].

Distribution of vaccine-information pamphlet and brochures significantly improved attitudes about vaccination regardless of at what visit they were provided. Our study found no significant correlation between mothers' attitude regarding infant care with those who have received brochures and who have not ($p > 0.05$). The researcher describes that the attitudes are present in the mothers and their have sense of motherhood, compassion and tenderness to care for their preterm neonates. This result is consistent with Vannice., *et al.* (2011) which showed that receiving vaccine-information materials before the 2-month visit positively changed mothers' attitudes and beliefs about childhood vaccines [29].

In our study, we found significant correlation between level of mothers' attitude regarding preterm care with location of hospital ($p < 0.05$). Those who were admitted to Shifa medical complex have significantly higher attitudes than who were admitted to Nasser hospital. The researcher explain that because culture in Gaza city different to culture in Khanyounis city. Culture provides parents with a specific history of attachment experiences and with childrearing cognitions and practices that prepare children for adaptation to a specific niche

[30]. So, in Gaza city, the experience of mothers and family was more than Khanyounis city in the orientations of take care of their premature babies.

A limitation in our study was the fewer number of participants that may affect in our results. The other limitation may relate that our study was cross-sectional. Also, chose two hospital provided incomplete information which may be not enough for generalization.

Conclusion

In this study, mothers' attitudes of health care for premature infants after discharge from neonatal intensive care units was not at the ideal level putting the newborns at risk. In spite of there were no significant associations between mother's sociodemographic characteristics and their attitudes about preterm care after discharge from NICU, we suggest founding a well-planned maternal education program to bridge the attitudes gap about preterm infants care and grantee the healthy transition of preterm neonate to home and to ameliorate family concerns.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

Appendix

Appendix (1)

1. Socio-demographic Information

1. Address: € Gaza € North Gaza € Middle zone € Khanyounis € Rafah
2. The hospital: € AlShifa Medical Complex € Naseer Medical Complex
3. Age of mother: € Less than 20 years € 20 - 30 years € More than 30 years
4. Number of family members: € Less than 3 € 4 - 7 € More than 7
5. Mother occupation: € Housekeeper € Employee € Others, specify.....
6. Mother educational level: € Illiterate € Primary € Secondary € University € Post-university
7. Monthly income: € Less than 1000 NIS € 1000 - 2000 NIS € More than 2000 NIS

2. Obst/Gyn characteristics of women

1. Is it your first pregnancy? € Yes € No
2. History of Abortion? € Yes € No

- 3. Had any of your infants admitted to NICU? € Yes € No
- 4. If (Yes), the cause of admission: € Respiratory problems € Congenital anomalies € Preterm € Other, specify
- 5.Type of discharge: € Improvement € Death € Chronic problem, specify.....
- 6.Mode of delivery: € Normal vaginal € Caesarean section
- 7. Did any complications occur during the birth? € Yes € No

3. The level of mother attitudes about care of preterm

Questions	Very agree	Agree	Neither agree nor disagree	Disagree	Very disagree
1. I will follow the important advice and guidance in caring my child					
2. I attend health education programs					
3. I visit the primary care center regularly to follow up health state of my child.					
4. I want to breastfeed because it reduces infection and increases my relationship with my child					
5. I want to continue breastfeeding of my baby for at least a year.					
6. I will keep my breast clean constantly as it reduces infection for me and my child.					
7. Good breastfeeding helps to increase the weight of my baby					
8. I am happy and comfortable when I breastfeed my baby.					
9. I will commit to breast feeding because it reduces of jaundice to my baby.					
10. I a sure to wash bottle of feeding with boiling water after each feeding.					
11. I want to breastfeed my baby because it is faster in absorbing and digesting than bottle feeding.					
12. I want to breastfeed my baby because it contains antibodies that reduce infection.					
13. During feeding, be sure to eat plenty of spices and caffeine					
14. After breastfeeding, be sure to stop my baby on my chest and make light strokes or circular movements on the middle of the back until a sound is issued					
15. I bring my baby for vaccination in the first month after leaving from hospital.					
16. I will abide by the schedule of vaccinations in primary care center.					
17. Hypothermia helps to increase of my baby weight.					
18. I should not expose my baby to cold air or air currents after bathing					

19. Should not dry my baby immediately after bathing to prevent heat loss.					
20. Be sure to warm my baby after the bath and not expose it to any cold air stream because it may cause hypothermia.					
21. I will commit to hand washing while taking care of my child because it is protect him from infection.					
22. Should not to expose your child to perfume as it may adversely affect his or her health.					
23. I show love to my baby by touching, embracing, hugging and smiling.					
24. I will commit to giving my child enough time to sleep and wake him up only when breastfeeding.					
25. If appear any signs of inflammation or jaundice on my baby, I will bring him to the nearest hospital.					
26. Olive oil will reduce the inflammation of the umbilical and helps to heal it faster.					
27. I want to use alternative medicine recipes because they are less expensive and more useful.					
28. Be sure to add vitamins to my child prematurity along with breastfeeding.					

Bibliography

1. World Health Organization. "Recommendations on Interventions to Improve Preterm Birth Outcomes Highlights and Key Messages from the World Health Organizations" (2015).
2. Goswami S and Sahai M. "Premature birth: An Enigma for the Society". *European Journal of Medicine* 6.4 (2014): 215-225.
3. Leifer G. "Maternity nursing: An introductory text". Tenth edition. Philadelphia (2008).
4. Hemati Z., et al. "Mothers' challenges after Infants' Discharge from Neonatal Intensive Care Unit: A Qualitative Study". *Iranian Journal of Neonatology* 6.1 (2017): 31-36.
5. Aliabadi T., et al. "Effect of mothers' participation in preterm infants care in NICU on readmission rates". *Journal of Faculty of Nursing and Midwifery Tehran University of Medical Sciences* 17.2 (2011): 71-77.
6. El Awour I., et al. "Determinants and risk factors of neonatal mortality in the Gaza Strip, occupied Palestinian territory: a case-control study". *The Lancet* 380.1 (2012): 25-26.
7. World Health Organization. "Annual health report". Gaza. Palestine (2012).
8. Adib-Hajbaghery M and Khosrojerdi Z. "Knowledge of Mothers about Post-Discharge Newborn Care". *Journal of Nursing and Midwifery Sciences* 4 (2017): 33-41.
9. Akimana T. Mothers Awareness and Attitudes on the Care of Their Preterm Infant at Discharge from a Neonatal Intensive Care Unit in a Selected Referral Hospital in the North Province of Rwanda. Doctoral Dissertation, University of Rwanda, Kigali, Rwanda (2017).

10. Mohini H and Shetty S. "A Study to Assess the Knowledge of Mothers on Home Based Neonatal Care at Selected Area of Rural Bangalore". *International Journal of Community Medicine and Public Health* 4 (2017): 1695-1700.
11. Debillon T, et al. "Development and Initial Validation of the EDIN Scale, a New Tool for Assessing Prolonged Pain in Preterm Infants". *Archives of Disease in Childhood-Fetal and Neonatal Edition* 85 (2001): 36-41.
12. Rouck SD and Leys M. "Information Needs of Parents of Children Admitted to a NICU; a Review of the Literature (1990-2008)". *Patient Education Counseling* 76 (2009): 159-173.
13. Amolo L, et al. "Knowledge of postnatal mothers on essential newborn care practices at the Kenyatta National Hospital: a cross sectional study". *Pan African Medical Journal* 28.1 (2017): 159]
14. Rodrigo BK and Cooray G. "The knowledge, attitude & behavior on neonatal jaundice of postnatal mothers in Provincial General Hospital, Badulla". *Sri Lanka Journal of Child Health* 40 (2011): 164-168.
15. Egube BA, et al. "Neonatal jaundice and its management: knowledge, attitude, and practice among expectant mothers attending antenatal clinic at University of Benin Teaching Hospital, Benin City, Nigeria". *Nigerian Journal of Clinical Practice* 16.2 (2013): 188-194.
16. Hussein S and Aziz AR. "Assessment of mothers' knowledge and beliefs toward care of neonatal jaundice in pediatric teaching hospital in Holy Karbala City". *International Journal of Scientific Research* 6 (2016): 585-593.
17. Murki S, et al. "Risk factors for kernicterus in term babies with non-hemolytic jaundice". *Indian Pediatrics* 38 (2011): 757-762.
18. World Health Organization. Health Topics (Immunization) (2018).
19. Yousif M, et al. "Parents' knowledge and attitudes on childhood immunization, Taif, Saudi Arabia". *Journal of Vaccines and Vaccination* 5.215 (2013): 2]
20. Baqui AH, et al. "Newborn Care in Rural Uttar Pradesh". *Indian Journal of Pediatrics* 74.3 (2007): 241-247.
21. Waiswa P, et al. "Poor newborn care practices - a population based survey in eastern Uganda". *BMC Pregnancy and Childbirth* 10.1 (2010): 9-16.
22. World Health Organization. "Care of the umbilical cord: a review of the evidence. Maternal and newborn health/safe motherhood. Division of re-productive health (technical support): family and reproductive health". Geneva: WHO (2000).
23. Kesterton AJ and Cleland J. "Neonatal care in rural Karnataka: healthy and harmful practices, the potential for change". *BMC Pregnancy and Childbirth* 9.1 (2009): 11-20.
24. Phillips-Pula L. "Caring for a Preterm Infant during the First Six Months Post NICU Discharge: A Mother's Perspective Virginia Commonwealth University" (2011).
25. Mohini H and Shetty S. "A study to assess the knowledge of mothers on home based neonatal care at selected area of rural Bangalore". *International Journal of Community Medicine and Public Health* 4.5 (2017): 1695-1700]
26. Adib-Hajbaghery M and Khosrojerdi Z. "Knowledge of mothers about post-discharge newborn care". *Journal of Nursing and Midwifery Sciences* 4.2 (2017): 33-41]
27. Vezzosi L, et al. "Knowledge, attitudes, and behaviors of parents towards varicella and its vaccination". *BMC Infectious Diseases* 17.1 (2017): 172]
28. Padiyath M A, et al. "Knowledge, attitude and practice of neonatal care among postnatal mothers". *Current Pediatric Research* 14.2 (2010): 147-152]

29. Vannice K., *et al.* "Attitudes and beliefs of parents concerned about vaccines: impact of timing of immunization information". *Pediatrics Journal* 10.1 (2011).
30. Belsky J. "Modern evolutionary theory and patterns of attachment". In: Cassidy J, Shaver PR, editors. *Handbook of attachment; Theory, research, and clinical applications*. Guilford; New York (1990): 141-161.

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