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Assessment of LATCH Tool Regarding Initiation of Breastfeeding among Women after Childbirth

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Abstract: - Objectives: To assess the LATCH score regarding breastfeeding among study sample and to identify the problems related to breastfeeding among study sample after discharge from hospital and to find out the relationship between LATCH score and certain variables.
Methodology: A descriptive study was conducted on non probability sample (purposive sample) of (120) women on postpartum who have either normal vaginal delivery or cesarean section from the period of January 2nd 2012 to February 17th 2012 at Baghdad Teaching Hospital & Al-Elwia Maternity Teaching Hospital. A questionnaire was used as a tool of data collection to fulfill with objectives of the study and consisted of three parts, including demographic, reproductive characteristics, LATCH Breastfeeding Assessment Tool. Descriptive and inferential statistical analyses were used to analyze the data.
Results: The results of the study revealed that the highest percentage (26.6%) of the sample their age was ranged between (30-33) years, (50.8%) of them was graduated from primary school and less, and (88.3%) of them was housewives, (40%) had 1-2 birth, (71.69%) initiate their breastfeeding during 24 hours in previous baby, (51.6%) had delivered male newborn with (100%) of their newborn babies had normal birth weight and (53.33%) had moderate score of LATCH Breastfeeding Assessment and that there is a significant relationship (P= 0.000) between their ages with LATCH breastfeeding assessment tool for study sample.
Conclusion: Nearly half of study sample had moderate score of LATCH breastfeeding assessment.
Recommendations: The study is recommended to provide scientific information for pregnant women during prenatal visits about important of initiation of breastfeeding and benefits of breastfeeding and signs of good attachment and implementing LATCH breastfeeding assessment tool for women after childbirth.

***Key words**: Assessment, Breastfeeding, Initiation and LATCH tool.*

I. INTRODUCTION

Breastfeeding has the potential to save neonatal, infant and young child lives and to reduce morbidity and mortality. It is estimated that promotion of exclusive breastfeeding (EBF) for six months, it means giving nothing to newborn baby only breast milk except vitamins, minerals or medicines, this could prevent 8% of global annual child mortality. Breastfeeding is ranked as one of the safest and most efficient health interventions to achieve the millennium development goal four (MDG4): reduce child mortality[(1)]. LATCH is a tool based on observations and descriptions of effective breastfeeding which include five characteristics of breastfeeding [(2)]. There is strong evidence to support the World Health Organization (WHO) recommendations for women to breastfeed their infants exclusively for the first six months of life, with continued breastfeeding in combination with the gradual introduction of other forms of nutrition beyond that time [(3)].
The objectives of present study were to assess the LATCH score regarding breastfeeding among study group, to identify the problems related to breastfeeding among study sample after discharge from hospital and to find out the relationship between LATCH score and certain studied variables.

II. METHODOLOGY

A descriptive design was conducted on non probability sample (purposive) which consisted of (120) women who have either normal vaginal delivery or cesarean section. Data were collected for the period of January 2nd 2012 to February 17th 2012. The study was conduct at Baghdad Teaching Hospital and Al-Elwia Maternity Teaching Hospital. subjects were eligible to participate in the study if they met the following selection criteria: postpartum women who have either normal vaginal delivery or cesarean section with healthy newborn; Normal weight and newborns is rooming in with their mothers, in addition participants were excluded from the study if their mothers had any complications and multiple gestation births twins, triple, etc; newborn with low birth weight; premature baby (baby born before 37 gestational weeks) and infants with any congenital malformation or genetic diseases that might affect the study results. Questionnaire was used as a tool of data

collection to fulfill with objectives of the study which consisted of three parts: including demographic characteristics, reproductive characteristics and LATCH breastfeeding assessment tool is based on observations and descriptions of effective breastfeeding, evaluates five characteristics of breastfeeding. A numerical score (0,1or 2) is assigned to each measure for a possible total score 10, as shown in table (1). Each letter of acronym denotes a category for LATCH (L: represents how well the infant latches onto the breast, A: represents audible swallowing noted, T: describes the mother's nipple type, C: represents the mother's degree of breast or nipple & general feeding comfort, H: evaluates the amount of help the mother needs to position her baby at breast as shown in table (1). Data are analyzed through the use of Excel (Statistical package). Through the application of descriptive statistical data analysis include (Frequencies, Percentage, Mean and Standard Deviation) and Inferential statistical data analysis include Chi-Square test for testing the different among several observed frequencies and their expected. The criteria of probability levels were used to determine the significance of the statistical test as following: Highly Significance (HS) at ($P \leq 0.01$), Significant (S) at ($P \leq 0.05$) and Non-Significant (NS) at ($P > 0.05$).

Table (1): LATCH Breastfeeding Assessment Tool

Score value	0	1	2	Total
L Latch	Too sleepy or reluctant and No latch obtained	Repeated attempts, Must hold nipple in mouth and Must stimulate to suck	Grasps breast, Tongue down and forward, Lips flanged, Rhythmic	
A Audible Swallowing	None	A few with stimulation	Spontaneous, intermittent (less than 24 hours old), Spontaneous, frequent (greater than 24 hours old)	
T Type of Nipple	Inverted	Flat	Everted (after stimulation)	
C Comfort Level (Breast/Nipple)	Engorged, Cracked, bleeding, large blisters or bruises, Severe discomfort	Filling, Small blisters or bruises, Mother complains of pinching Mild/moderate discomfort	Soft, Tender, Intact nipples (no damage)	
H Hold Positioning	Full assist (staff holds infant at breast)	Minimal assist (i.e. elevate head of bed, place pillows), Teach one side, mother does other. Staff helps, mother takes over feeding.	No assist from staff. Mother able to position/hold infant.	

III. RESULTS

Table (2): Distribution of Socio-Demographic Characteristic for Study Sample.

Variables	Study Sample (n=120)	
Age / years	No.	%
14-17	6	5
18-21	16	13.3
22-25	23	19.2
26-29	17	14.2
30-33	32	26.6
34-37	18	15
38-41	8	6.7
Educational level		
Primary school graduate and less	61	50.8
Intermediate school graduate	37	30.8
Secondary school graduate	13	10.8
Institute graduate	4	3.3
College graduate & more	5	4. 2
Occupation		
Employed	14	11.7
Non employed	106	88.3
Place of residence		
urban	109	90.8
Rural	11	9.2
Type of family		
Nuclear	46	38.3
Extended	74	61.7
Socioeconomic status		
Low	106	88.3
Moderate	14	11.7

Table (2) shows that the highest percentage (26.6%) of study sample was at age group (30-33) years, (50.8%) was graduated from primary school and less, and (88.3%) of them was housewives. The highest percentage (90.8%) was from urban area. (61.6%) of them was living in the extended families and (88.3%) of study sample was low socioeconomic status.

Table (3): Distribution of Reproductive Characteristic for Study Sample.

Variables	**Study Sample (n=120)**	
No. of parity	No.	%
1-2	48	40
3-4	42	35
5 and above	30	25
No. of abortion		
Non	79	65.9
1-2	36	29.9
3	5	4.2
No. of stillbirth		
Non	98	81.6
1-2	22	18.4
No. of Alive children		
1-2	52	43.3
3-4	42	35
5 and above	26	21.7
****Place of previous delivery***		
* Non	14	11.6
Hospital	97	80.8
Home (Midwife)	9	7.5

Type of previous delivery		
Non	14	11.6
NVD	43	35.8
C/S	63	52.5
Current of type of delivery		
NVD	34	28.3
C/S	86	71.6
Gender of the baby		
Male newborn	62	51.6
Female newborn	58	48.3

* 14 of women were primigravida.

Table (3) shows that the highest percentage (40%) of study sample was multipara. The majority for study sample (65.8%) did not have any previous abortion. The highest percentage (81.6%) did not have previous stillbirth. (43.3%) had 1-2 alive children. The highest percentage (80.8%) was delivered in hospital and (52.5%) had cesarean section. Concerning the current of type of delivery: The highest percentage (71.6%) had a cesarean section delivery. the highest percentage (51.6%) of study sample had born a male newborn. while the lowest percentages (48.3%) had born a female newborn. (100%) of their newborn were within the normal weight (2500-4000) gm.

Table (4): Distribution of Previous Initiation of Breastfeeding among Study Sample.

Variables	**Study Sample (n=106)**	
Previous initiation of BF	**No.**	**%**
None	16	15. 1
During 24 hrs	76	71.7
After 24 hrs	14	13.2
Previous types of infant feeding		
Breastfeeding	56	52.8
Artificial feeding	24	22.6
Partial breastfeeding	26	24.5
Previous duration of breastfeeding		
Non	17	16.1
≤ 12 month	49	46.2
12-24 month	40	37.7

* 14 of women has primigravida.

Table (4) shows that the highest percentage (71.7%) of study sample initiate their breastfeeding during 24 hours. (52.8%) of study sample were used breastfeeding and (46.2%) were continued breastfeeding within 12 months and less.

Table (5): LATCH Breastfeeding Assessment Tool for Study Sample (n =120).

Classification	**No.**	**%**
(Poor) 0-3 score	5	4. 2
(Moderate) 4-7 score	64	53.3
(High) 8-10 score	51	42.5

Table (5) shows that the highest percentage (53.3%) of study sample had moderate score of LATCH breastfeeding assessment.

Table (6): Association of LATCH Breastfeeding Assessment Tool with Socio-Demographic Characteristic for Study Sample.

Socio-Demographic Variables	χ^2	P-value	C.S.
Age	16.688	0.000	HS
Educational level	78.442	9.243	NS
Socioeconomic status	174.95	1.022	NS

χ^2= Chi- Square, , P= Probability level at P ≥ 0.05 , C.S.= Comparative Significant, HS= High Significant, NS = Non-Significant

Table (6) revealed that there is a statistical significant relationship between ages and LATCH breastfeeding assessment tool for study sample.

IV. DISCUSSION

The highest percentages (26.6%) of study sample at age group (30-33) years as shown in table (2). Peterson & DaVanzo found that the significance of the age differentials in the initiation of breastfeeding decreased considerably when socioeconomic and demographic factors were controlled. A significant difference remained only between very young mothers aged 15 -17 years and those aged 20-29 years [(4)]. More than 25 years are more likely to initiate and continue BF than younger women [(5)]. In other studies of Middle Eastern women. For instance, no positive association was found between maternal age & initiation of breastfeeding in Kuwait and in other studies of Middle Eastern women in the United Arab Emirates (UAE) & Saudi Arabia [(6)].

The level of education plays a large role in influencing a women to exclusive breastfeed their children. It has been found that mothers with a higher education level tend to initiate breastfeeding more often, and also tend to breastfeed their child for a longer period of time than do their less educated counterparts [(7)]. In Jordan less educated women were more likely to breastfeed than women with higher education levels [(8)]. Conversely, a study in Egypt reported that educated mothers were more likely to initiate breastfeeding earlier and to exclusively breastfeed their infants in the first week of life than less educated women, which is consistent with most studies from Western countries [(6)].

It was reported that level of education was positively associated with breastfeeding initiation. Which indicated that mothers with more than 12 years of education were 5.2 times more likely to breastfeeding than mothers with 9 or fewer years of education [(9)].

The present study reveals that the (88.3%) are housewives. while the lowest percentages (11.6%) were employee as shown in table (2). Maternal employment is a factor that has received much acknowledgement in influencing a mother's decision to breastfeed the child [(10)]. Previous studies have indicated that women who continue employment after the birth of their child are more likely to discontinue breastfeeding early, or never initiate breastfeeding. Also it was reported that maternal employment does influence infant feeding practices. Consequently, this relationship may have repercussions on future health of the infant [(11)].

Abdul-Ameer et al., reported that Iraq is experiencing rapid urbanization. An increasingly urban lifestyle can lead to alterations in traditional behaviours such as BF. In addition, evidence shows that maternal education, social class, ethnic background and religion are related to the decision to initiate and continue BF. Results of study show that urbanization was significantly related to women's level of education (urban: rural ratio for secondary and higher education level was 12:1). These urban are more educated women than the rural are less educated women believed and practiced correct BF, as for example they started BF earlier, believed in giving colostrum was good for their baby, were more likely to know about full exclusive BF and its duration, and when to start supplements [(12)].

Women from lower-income families are less likely to breastfeed for a number of reasons, including less family support for breastfeeding, less ability to seek help with breastfeeding problems, less flexibility with working arrangements, and concerns about breastfeeding in public [(13)]. The study conducted by Piper and Parks reported that mothers with higher parity were more likely to breastfeed for a longer period of time. Interestingly, they found that each increase in parity by one birth resulted in a 1.7 times greater likelihood of sustaining breastfeeding beyond 6 months postpartum [(14)].

It was reported that if a woman breastfeed the first child, she is likely to have breastfeed to the subsequent children, regardless of how many children she has. Conversely, if a woman does not breastfeed the first child, she is less likely to breastfeed in the future [(15)]. The findings of present study

agrees with Madhu et al., (2009) conducted a descriptive study with 100 mothers in Kengeri, rural Bangalore, Karnataka, age at marriage was between 15 and 20 years old (69%). The main reasons given for the mother to start weaning early was insufficient milk, which may by due to the early age of marriage (those who were younger than 19 years old) and early childbirth. Studies indicated that adolescents BF less often than adults and they hold positive and negative attitudes toward BF that influence decision-making and BF [(16)].

Mothers who delivered at home were more likely to introduce complementary foods earlier than those delivered in health facility. Mothers who deliver in a health facility in most receive breastfeeding counseling, especially

with the revitalization of Baby Friendly Hospital Initiative (BFHI) [17]. Another risk factor for delaying the first breastfeeding identified in the present study was delivering by a cesarean section. Several studies have confirmed that even with hospital practices with norms and routines favoring breastfeeding, birth by cesarean section is a significant barrier that inhibits breastfeeding within the first hour of life. The first point to consider in this respect is the limitation on the mother's ability to touch her baby, if her arms have been restrained during the surgical procedure. Another point is the analgesia for the mother, which may cause disorganized behavior in the newborn and may result in delay and impairment of the first breastfeeding [18].

The present study reveals that the highest percentages (71.69%) of study sample initiate their breastfeeding during 24 hours, (52.83%) were used breastfeeding and (46.22%) were continued breastfeeding 12 months and less as shown in table (4). Multiparous women with a previous negative breastfeeding experience are likely to need support to attempt to breastfeed again. Previous studies indicated that if the breastfeeding experience is positive, breastfeeding can increase positive maternal affect [19]. Mothers who breastfed their previous infants for more than six months were 14 times more likely to exclusively breastfeed their current infants for six months compared to women who breastfed their previous infants for less than one month [20].

The present study reveals that the highest percentages (51.6%) of study sample have male newborn, while the lowest percentages (48.3%) had female newborn as shown in table (3). Boys were more likely to be introduced to complementary feeding early compared with girls. Anecdotal evidence indicates that boys are introduced to complementary foods early because breast milk alone does not meet their feeding demands [17]. Girls had a greater chance of being exclusively breastfed than boys. This finding is in agreement with the findings of Pe´rez-Escamilla et al., in Brazil and Honduras [21]. The authors discuss the possibility of there being a belief among health-care professionals and / or mothers that boys have greater nutritional needs, and thus require complementary feeding from an earlier age [22].

The present study shows that the highest percentages (53.33%) of study sample have moderate score of LATCH Breastfeeding Assessment (table 5). The study was conducted to test the validity of the LATCH breastfeeding assessment tool by comparing it with other measures of effective breastfeeding and by determining its effectiveness in predicting breastfeeding duration to 8 weeks postpartum, controlling for intervening variables in 133 dyads. LATCH scores, mother's evaluation of an index feed, and intended duration of breastfeeding were assessed postpartum and followed 6 weeks. Women breastfeeding at 6 weeks postpartum had higher LATCH scores (mean ± SD = 9.3 ± 0.9) than those who weaned (mean ± SD = 8.7 ± 1.0), due to only one measure, breast/nipple comfort. Women who weaned before 6 weeks reported lower breast/nipple comfort (1.5 ± 0.5) than those who were still breastfeeding at 6 weeks (1.7 ± 0.5, P <.05). Total LATCH scores accounted for 7.3% of variance in breastfeeding duration. Total LATCH scores positively correlated with duration of breastfeeding (n = 128; r =.26, P =.003) and to mothers' scores (n = 132; r =.58, P =.001). Correlations among LATCH measures ranged from .02 to .51. The LATCH tool is a useful identifies the need for follow-up with breastfeeding mothers at risk for early weaning because of sore nipples [2].

Breastfeeding success depends on appropriate attachment of the infant at the breast, in which the nipple and much of the areola are drawn well into the baby's mouth. Anatomical variations of the breast, including flat nipple, inverted nipple, large breast and large nipple may act as barriers for the baby to latch on to the breast effectively. Babies need to have good attachment to the breast for successful breastfeeding and potential maternal problems such as these variations can make good attachment hard to achieve. Also, infant problems such as tongue-tie can be important. Despite many studies conducted to explore factors associated with breastfeeding in both developed and developing communities, no investigation has been designed to show the effect of anatomical variations of the mother's breast on breastfeeding outcomes. It was reported that inverted and non-protractile nipples as leading to problems establishing and maintaining breastfeeding [23].

V. RECOMMENDATIONS

- Provide information for pregnant women during prenatal visits about important of initiation of breastfeeding and benefits of breastfeeding and signs of good attachment.
- Implementing LATCH breastfeeding assessment tool for women after childbirth.
- Distribution of breastfeeding pamphlet of the instructional material to all mothers having C/S or normal vaginal delivery.

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