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Early Suckling and Post-Partum Bleeding

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Abstract

Background*:* Nipple stimulation caused by the baby's suckling releases oxytocin and consequent uterine contractions. Consequently, uterine contractions can reduce duration of the third stage of labor and postpartum bleeding. Aim of this study to evaluate effect of early suckling on postpartum bleeding .Design*:* A quasi experimental research design was utilized. Setting*:* The study was conducted at labor unit of Obstetrics and Gynecology department in Benha University Hospital. Sampling*:* A purposive sample of (100) women's (50) in the control group were given routine care and (50) women in the study group, women encouraged to initiate early suckling immediately after delivery. Three tools were used I): A structured interviewing questionnaire II)*:* Observation record on parturient women during stages of labor III): Breastfeeding assessment tool. Results: The findings of the study revealed that early suckling & increased frequency of breast-feeding could decrease the amount of blood loss during the stages of labor. There were highly statistically significant differences in duration of third stage of labor in women of study group than those women in the control group. Reveals that, majority of the study group satisfactions about the outcome of early suckling. Conclusion: women who practice early suckling after birth would be expected to experience short duration of third stage of labor and affected positively in reducing postpartum bleeding. Recommendation Developing awareness program for parturient women to enhance their knowledge to benefit early suckling.

Key Words: Early suckling, Postpartum Bleeding.

1. Introduction

Labor is a natural process, there are four stages of labor. In that third stage of labor is very crucial period in the women's life. Complications are more expected during third stage of labor. The third stage labor begins upon completion of the birth of the baby and ends with the birth of the placenta. It is known as placental stage of labor [1].

The study by [2] found that in third stage of labor the mother face many problems such as postpartum hemorrhage, retained placenta, inversion of the uterus. This may lead to increased mortality and morbidity rate. Postpartum hemorrhage (PPH) is an obstetric emergency. It is one of the top five causes of maternal mortality in both high and low income countries, although the absolute risk of death from PPH is much lower in high-income countries.

The frequency of hemorrhage increased between 10-40 min after the birth of the baby. An oxytocin agent is usually not recommended unless uterine tone is poor, encouraging the mother to start breastfeeding as soon as after delivery of the baby may enhance these physiological changes. This is the result of the sucking reflex releases oxytocin from the posterior lobe of the pituitary gland which helps to secure good uterine action [3].

Post-partum hemorrhage problems can be prevented by breast feeding especially early suckling. In women it plays an important function like, it promotes bonding between mother and baby , involution of the uterus to normal size , it act as natural contraceptives and reduces the risk of primary postpartum hemorrhage [4].

Additionally [5] pointed out that there is association between early suckling and contraction of uterus. If early suckling is combined with active management of third stage of labor is provided to a parturient women by a competent midwife, it helps to reduce the duration of third stage of labor and reduces the blood loss by enhancing the uterine contraction which aids in placental separation and also establishes a bonding between the mother and infant. With this background, the present study undertaken to evaluate the effectiveness of early suckling on third stage of labor.

The nurse plays an important role in monitoring the woman's status, assisting with measures to control bleeding, providing support to woman and woman's family, and education the woman about condition. Maintaining the woman's safety is paramount. The nurse is aware of the woman's history, labor progress, and risk factors for postpartum hemorrhage. Note the use of any analgesia or anesthesia during labor and delivery or the use of oxytocin for labor induction or augmentation. This information helps identify potential factors that would place the woman at risk for hemorrhage [6].

Significance of the study

Globally, it was estimated about 127,000 women pass away as a consequence of postpartum hemorrhage. PPH is responsible for about 25% of maternal mortality rate in the developing countries. Management of third stage of labor is the key stone for preventing PPH. Placenta cord drainage effect on the outcome of third stage of labor for preventing and reducing the postpartum hemorrhage is still contention [7].

The prevalence of primary postpartum haemorrhage (PPH) in the developing world about 1.33% of births and when PPH occurred about 3% of women died. Globally around 0.4 women per 100,000 births die from PPH in the United Kingdom whereas

approximately 150 women per 100,000 births die in Africa [8]. Postpartum hemorrhage is one of the foremost causes of maternal morbidity and mortality globally. It occurs mainly in developing countries due to unwell developed substructures and deficiency of expert birth attendants**.** Assiut Governorate has the highest percentage of maternal mortality in Egypt (81 deaths/100 000 live births) [9]. In Egypt, Maternal mortality ratio is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births. Egypt maternal mortality rate for 2017 was **(**37.00**),** 2.63% decline from 2016 [10].

(WHO) estimates that 1.5 million infant lives could be saved each year through increased breastfeeding? One -fifth of neonatal deaths could be prevented by early initiation of exclusive breast feeding. Breast feeding within the first hour [11].

1. Aim of the study

The present study aimed to evaluate effect of early suckling on postpartum bleeding.

1.1 Research hypotheses

Early suckling affect positively on uterine contraction and retraction, hence reducing duration of third stage of labor and furthermore, reducing postpartum bleeding in women in study group more than those in the control group. Women in study group would be more satisfied with the outcome of early suckling than those in the control group.

2. Materials and Method

1.1Research design:

A quasi experimental research design was utilized.

1.2 Setting:

The study carried out at labor unit of obstetric department in Benha University Hospital .This unit is located at the ground floor of the hospital which includes one examination room, one prenatal room, labor room and two post natal room.

1.3 Sampling:

Sample type: A purposive sample was selected.

Sample size and technique:

Total sample size (100) parturient women divided into two groups (50) women for control group and (50) for study group who fulfilled inclusion criteria and admitted the previous study setting for period of nine month.

Inclusion criteria:

1. Women with normal course of pregnancy.
2. Normal vaginal delivery from 38-42 weeks.
3. Women free from any medical or obstetrical complications.
4. Women breast and nipples with normal shape and size and desire to breastfeed newborn at birth.
5. Viable fetus without any complication, no congenital anomalies interfering with breast-feeding and with an Apgar score above 7-10.

1.4 Tools of data collection:

Three tools were used to collect the necessary data about the study subject as follows:

Tool (I): A structured interviewing questionnaire:

It was designed by researcher after reviewing related literatures and consists of three parts: [12]**.**

Part (1): This part concerned with the personal characteristics included; age, level of education, occupation, residence, received information about effect of early suckling on reducing postpartum hemorrhage and sources of information about effect of early suckling on reducing the postpartum hemorrhage (6questions).

Part (2): This part assessed the obstetrics history included gravida, history of abortions and number of antenatal care visits (3questions).

Part (3): This part included two sections:

Section I: Knowledge about breastfeeding included, the time to start early suckling, the positions used during early suckling, the duration of one feeding (minutes), the importance of early suckling for the women and new born, effect of early suckling on reducing postpartum hemorrhage and the reasons for delaying the start of early suckling (7 questions).

Section II: knowledge about postpartum hemorrhage included meaning, time of occurring, causes of, types of, signs and symptoms and preventive measures to prevent postpartum bleeding (6questions), open and closed end questions.

Knowledge scoring system:

- All knowledge variables were weighted according to items included in each question. The answers were classified into 3 categories. The answer had score (3): for correct answer. The answer had score (2) for incorrect answer. the answer had score (1) if no answer.

Total score of to talk knowledge was classified as the following: -

Good: (≥70% correct answers), average: (50 <70% correct answers), poor: (<50% correct answers).

Tool (II): Observation Record on parturient women during stages of labor:

It included assessment of uterine contractility pattern immediately after birth, presence of any abnormal signs of uterine a tony or excessive blood loss, firmness of the uterus, position of the uterus) (15 questions). The fourth stage include follow-up every 30 minutes for 2 hours after the birth of the placenta.

Tool III: Breastfeeding Assessment Tool: It included two parts:

Part A: The Infant Breastfeeding Assessment Tool (IBFAT): it adopted from [13] and included two parts, early initiation of breast feeding during early postnatal period and measure the mother's perception and satisfaction about the feeding.

Scoring system : Each item took score of 0 to 3 for a maximum total score of 12 .A score of 10-12 was considered as successful first feeding. Scores less than 10 represented difficulty in first breastfeeding and for this study was consider as a failure. The mother's evaluation score is not calculated in the IBFAT score.

Part B: Assessment of initial breastfeeding outcome:

This part included items; assessment of the duration (minutes) of initial effective breastfeeding, the time in minutes between delivery and first effective breastfeeding, number of trials before the first effective breastfeeding and whether the newborn end the first breastfeeding by own self or not (4questions).

2. Method

2.1 Tool validity and reliability

Content validity would be done by (3) panel experts in the specialty of obstetrics and gynecological nursing. The developed tool would be reviewed for appropriateness of items and measuring the concepts. Cronbach's alpha coefficient test was used to measure the tools' reliability. It revealed that Labor Assessment Sheet = (r=0.85), Hence the tool was reliable.

2.2 Ethical considerations:

Approval of the faculty ethics committee for scientific research was obtained for the fulfillment of study. An official permission from the director of the selected study setting was obtained for the fulfillment of the study. An oral consent was obtained from each woman before starting data collection. Each woman was informed about the purpose and benefits of the study at the beginning interview and time throughout study. Confidentiality was ensured throughout the study process, where personal data were not disclosed, and the women were assured that all data was used only for research purpose. Each woman was informed that, participation is voluntary and withdrawal at any time. The study did not have any physical, social or psychological risk on the participation.

2.3 Pilot Study

A Pilot study was conducted on 10 % of the total sample (10) women from the previously mentioned settings to test the clarity and applicability of the tools. No modifications were done according to the pilot results; this pilot study was conducted one month before data collection .Pilot study not excluded from the total sample to prevent contamination.

2.4 Collection of data:

The study conducted from the beginning of May2021 till the end of January 2022 covering a period of 9 months until the study was completed. The researcher started the study by visiting labor unit at Benha university hospital three days/week (from 9.00am to 2.00pm). The researcher provided clear explanation of the nature and the benefits of the study were given to the woman to obtain informed consent. Women were divided into two groups (study and control group. The control group was received routine care only, but women in the study group were received intervention through knowledge, purpose and benefits of early suckling on preventing postpartum bleeding and initiate early suckling in third stage of labor.

2.5 Procedure of the study: The study proceeded as follows:

Interviewing and assessment phase:

This phase encompassed interviewing control group and then study group to collect personal characteristics and obstetrics history baseline data about women's knowledge regarding early suckling and postpartum bleeding through ask questions from the women during the first stage of labor and stayed with each mother in both groups from the beginning of the 2nd stage of labor till 2 hours after birth when effective breastfeeding was established in study group only. Interviewing begin first with control group then with study group to avoid bias and contamination of sample.

Planning phase :

Based on results obtained from pre guide line assessment phase that contains women's knowledge regarding early suckling on preventing postpartum bleeding

Implementation phase and evaluation phase:

During this phase, effect of knowledge of early suckling was evaluated.

2.6 Statistical analysis:

Statistical analysis was done by using Statistical Package for Social Sciences(SPSS version 20.0).Data were collected, revised, coded, organized, tabulated and analyzed using frequencies, numbers, percentage, mean scores, standard deviation and correlation coefficient .data were presented in the form of tables and figures. Quantitative data was presented by mean ($\bar{x}$) and standard deviation (SD). Qualitative data was presented in the form of frequency distribution tables, number and percent. It was analyzed by chi-square test (x2) &correlation to detect the relation between the variables of the study (p-value).

3. Results

Table (1): Shows that, (36.0% and 34.0%) of the study and control groups were in the age group of (25-<30) years old with mean age of (28.44±6.78) and (28.14±5.19) years respectively. (60.0% and 48.0%) of the study and control group respectively had secondary education, and (68.0% and 70.0%) of the study and control group respectively had no previous information about effect of early suckling on reducing postpartum bleeding. The same table also shows that there were no statistically significant differences found among the study and control group regarding to personal characteristics, at ($P > 0.05$).

Table (2): Describes that, (70.0%) of the study group take 10 < 15 minutes during the third stage of labor, while (74.0%) of the control group take from 15 ≤ 20 with a mean of (11.50±3.01 and 15.70±3.63) respectively. While (86.0%, 92.0%) the study group had a contracted uterus immediately after birth,and have a firm uterus like the size of grapefruit compared to (68.0%, 66.0%) of the control group respectively. Further, (92.0 %,) had a fundus above the umbilicus, and had no uterine atony compared to (66.0%,) of the control group respectively. The same table also describes that there were highly statistically significant differences found between the study and control group

according to assessment during the third stage of labor, at (P ≤0.001).

Table (3): Shows that, there were highly statistically significant differences found between the total mean score of the early initiation of breastfeeding among the study group (10.2800±1.789) compared to (8.4800±2.233) of the control group after the studied mothers' assessment to the infants' early initiation of breastfeeding at, (P<0.001), which also revealed an effective breast feeding among the study group.

Table (4): Denotes that, (84.0%, 80.0%, and 82.0%) of the study group take less than 30 minutes between delivery and the first effective breastfeeding, had 1&2 trials before the first effective breastfeeding, and the first effective breastfeeding lasted for 5-10 minutes compared to (66.0%, 6.0%, and 66.0%) of the control group respectively. In addition, (92.0%) of the newborns in the study group self-end the first breastfeeding compared to (70.0%) in the control group. The same table also denotes that there were highly statistically significant differences found between the study and control group regarding their assessment to the initial breastfeeding at, (P≤0.001).

Table (5): Reveals that, there were highly statistically significant relations between the studied mothers', total score of knowledge and personal characteristics at, (P≤0.001).

Table (6): Reveals that, there were highly statistically significant relation between the studied mothers', total score of initial breastfeeding and personal characteristics at, (P≤0.001).

Table (7): Shows that, there were highly statistically significant positive correlations between initial breastfeeding and uterine contraction, at (P≤0.001), and negative correlation between the initial breastfeeding and duration of third stage of labor, and postpartum bleeding among study and control groups, at (P≤0.001).

Table (1): Distribution of the studied sample (study and control) groups according to personal characteristics (n=100).

Personal characteristics	Study group (n=50).		Control group (n=50).		Chi square Test	P-value
	No.	%	No.	%		
Age (Years):						
20 < 25	14	28.0	12	24.0		
25 < 30	18	**36.0**	17	**34.0**		
30 < 35	10	20.0	16	32.0		
≥ 35	8	16.0	5	10.0	4.15	> 0.05
Range	**(35-20)=15**		**(35-20)=15**			
Mean ± SD	**28.44 ± 6.78**		**28.14 ± 5.19**			
Educational level:						
Illiterate	2	4.0	3	6.0		
Read and write	3	6.0	8	16.0		
Primary education	5	10.0	10	20.0	5.12	> 0.05
Secondary education	30	**60.0**	24	**48.0**		
University education	10	20.0	5	10.0		
Occupation:						
Housewife	30	**60.0**	33	**66.0**		
Employee	20	40.0	17	34.0	3.86	> 0.05
Residence:						
Rural	26	**52.0**	28	**56.0**		
Urban	24	48.0	22	44.0	1.61	> 0.05
Background about effect of early suckling on reducing postpartum bleeding:						
Yes	16	32.0	15	30.0		
No	34	**68.0**	35	**70.0**	6.94	> 0.05

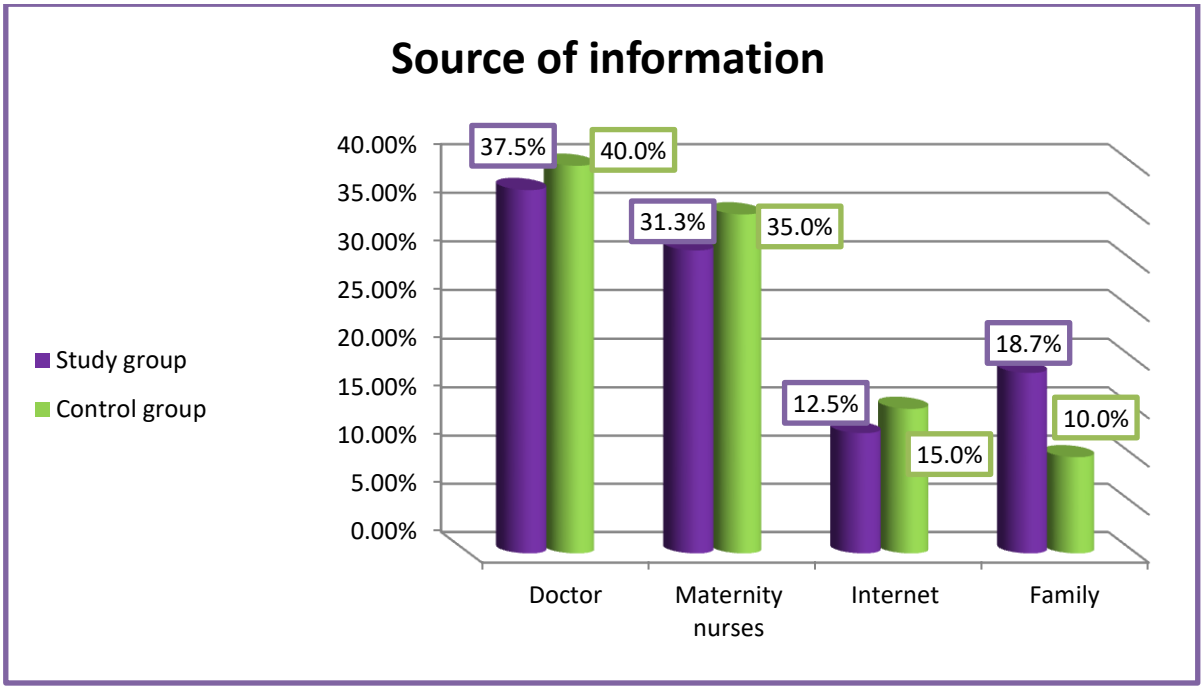

Fig. (1) Distribution of the studied sample groups according to source of information about effect of early suckling on reducing the postpartum hemorrhage (n=36).

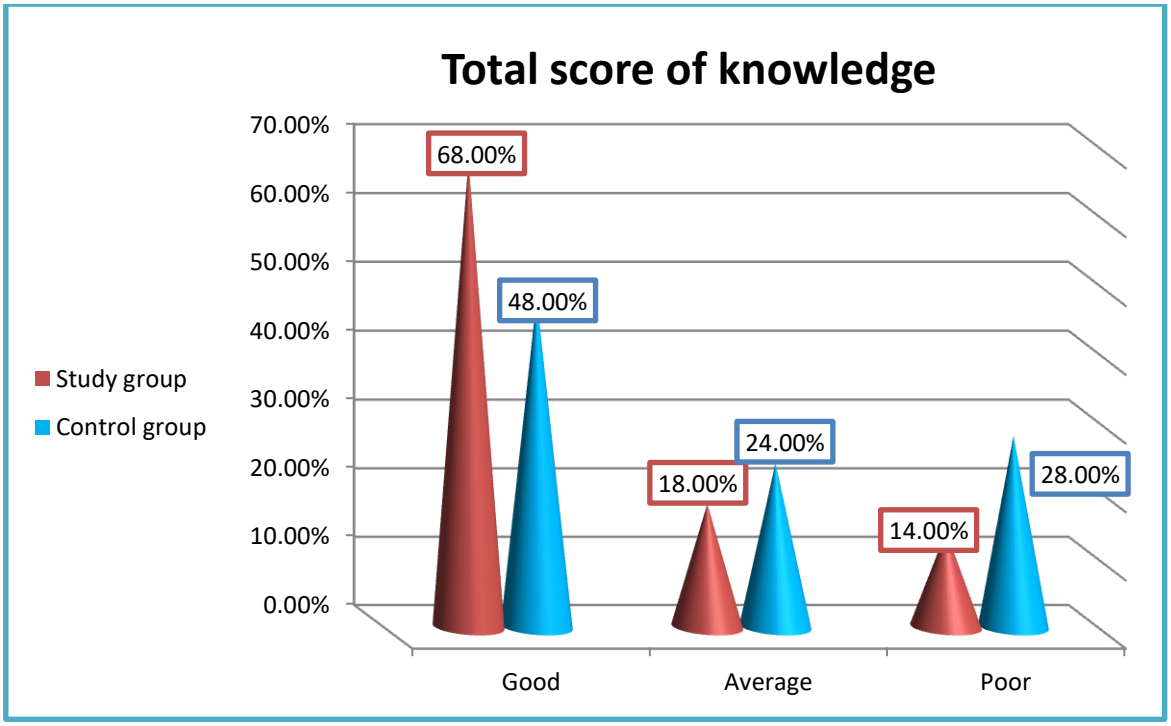

Fig. (2) Percentage distribution of the studied sample groups according to total score of knowledge about early suckling and postpartum bleeding (n=100).

Table (2) Distribution of the studied sample groups according to assessment during the third stage of labor (n=100).

Characteristics of the third stage of labor	Study group (n=50). No.	%	Control group (n=50). No.	%	Chi square test	P-value
Duration of third stage of labor (minutes):						
5 < 10	10	20.0	2	4.0	17.77	<0.001**
10 < 15	35	**70.0**	11	22.0		
15 ≤ 20	5	10.0	37	**74.0**		
Mean ± SD	**11.50±3.01**		**15.70±3.63**			
Uterus contracted immediately after birth:						
Yes	43	**86.0**	34	**68.0**	14.97	<0.001**
No	7	14.0	16	32.0		
Firmness of the uterus:						
Firm like the size of grapefruit	46	**92.0**	33	**66.0**	14.25	<0.003*
Not firm (boggy)	4	8.0	17	34.0		
Palpate the height of fundus:						
lower than the umbilicus	4	8.0	17	34.0	18.68	<0.001**
above the umbilicus	46	**92.0**	33	**66.0**		
Presence of uterine a tony:						
Yes	4	8.0	17	34.0	18.88	<0.001**
No	46	**92.0**	33	**66.0**		

*Significant at p ≤ 0.05. **Highly significant at p ≤ 0.001.

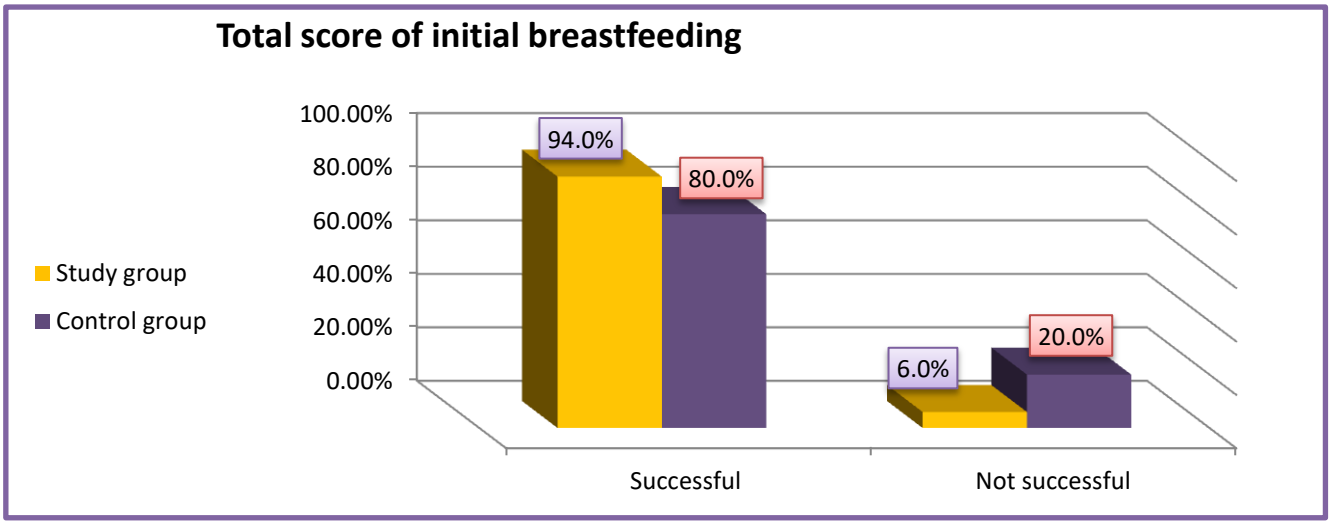

Fig. (3) Distribution of the studied sample groups according to total score of successful initial breastfeeding (n=100).

Table (3) Mean score of the studied sample groups according to early initiation of breastfeeding during the early postnatal period (n=100).

Breastfeeding assessment items	Study group (n=50). Mean ±SD	Control group (n=50). Mean ±SD	Independent t-test	P-value
In order to get baby to feed	2.6400±0.796	2.2400±0.969	15.35	<0.001**
Rooting	2.3800±0.725	2.0200±0.958	16.43	<0.001**
Time from placing baby on breast to latch & suck?	2.7200±0.453	2.4100±0.891	17.85	<0.001**
Sucking pattern	2.5800±0.641	2.3000±0.677	14.22	<0.001**
Total score	10.2800±1.789	8.4800±2.233	32.50	<0.001**

*Significant at p < 0.05. **Highly significant at p < 0.01.

Table (4) Distribution of the studied sample groups according to assessment to the initial breastfeeding (n=100).

Variables	Study group (n=50).		Control group (n=50).		Chi square test	P-value
	No.	%	No.	%		
Time between delivery and the first effective breastfeeding / (minutes):						
< 30 minutes	42	**84.0**	33	**66.0**		
30 < 60	8	16.0	10	20.0	18.32	<0.001**
≥ 60	0	0.0	7	14.0		
Number of trials before the first effective breastfeeding:						
No trial	1	2.0	3	**6.0**		
1 & 2	40	**80.0**	30	60.0	57.17	<0.001**
3 & 4	9	18.0	17	34.0		
Duration of first effective breastfeeding / (minutes):						
< 5	4	8.0	15	30.0		
5- 10	41	**82.0**	33	**66.0**	38.33	<0.001**
> 10	5	10.0	2	4.0		
Newborn self-ended the first breastfeeding:						
Yes	46	**92.0**	35	**70.0**	17.10	<0.001**
No	4	8.0	15	30.0		

Table (5) Relation between the studied sample groups total score of knowledge and personal characteristics (n=100).

Personal characteristics	Total score of knowledge											
	Study group						Control group					
	Good (n=34)		Average (n=9)		Poor (n=7)		Good (n=24)		Average (n=12)		Poor (n=14)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Age (Years):												
18 - < 20	12	24.0	1	2.0	1	2.0	12	24.0	0	0.0	0	0.0
20 -< 30	16	32.0	2	4.0	0	0.0	12	24.0	5	10.0	0	0.0
30- < 35	5	10.0	4	8.0	1	2.0	0	0.0	7	14.0	9	18.0
35+	1	2.0	2	4.0	5	10.0	0	0.0	0	0.0	5	10.0
Significance test	**X^2 = 48.23**		**P-value < 0.001****				**X^2 =47.47**		**P-value < 0.001****			
Educational level:												
illiterate	0	0.0	1	2.0	1	2.0	3	6.0	0	0.0	0	0.0
Read and write	1	2.0	1	2.0	1	2.0	5	10.0	2	4.0	1	2.0
Primary education	3	6.0	2	4.0	0	0.0	9	18.0	1	2.0	0	0.0
Secondary education	20	40.0	8	16.0	2	4.0	15	30.0	5	10.0	2	4.0
University education	7	14.0	3	6.0	0	0.0	4	8.0	1	2.0	0	0.0
Significance test	**X^2 = 37.51**		**P-value < 0.001****				**X^2 =56.16**		**P-value < 0.001****			
Occupation:												
Housewife	26	52.0	3	6.0	1	2.0	24	48.0	9	18.0	0	0.0
Employee	8	16.0	6	12.0	6	12.0	0	0.0	3	6.0	14	28.0
Significance test	**X^2 = 23.68**		**P-value < 0.001****				**X^2 = 39.97**		**P-value < 0.001****			
Residence:												
Rural	22	44.0	2	4.0	2	4.0	24	48.0	4	8.0	0	0.0
Urban	12	24.0	7	14.0	5	10.0	0	0.0	8	16.0	14	28.0
Significance test	**X^2 = 17.10**		**P-value < 0.001****				**X^2 = 39.17**		**P-value < 0.001****			
Background about effect of early suckling on reducing postpartum bleeding:												
Yes	12	24.0	2	4.0	2	4.0	13	26.0	2	4.0	0	0.0
No	22	44.0	7	14.0	5	10.0	25	50.0	8	16.0	2	4.0
Significance test	**X^2 = 16.28**		**P-value < 0.001****				**X^2 = 36.11**		**P-value < 0.001****			

Table (6) Relation between the studied sample (study and control) group total score of initial breastfeeding and personal characteristics (n=100).

Personal characteristics	Total score of initial breastfeeding							
	Study group				Control group			
	Successful (n=47)		Not successful (n=3)		Successful (n=40)		Not successful (n=10)	
	No.	%	No.	%	No.	%	No.	%
Age (Years):								
20 < 25	13	26.0	1	2.0	12	24.0	0	0.0
25 -< 30	17	34.0	1	2.0	15	30.0	2	4.0
30- < 35	10	20.0	0	0.0	12	24.0	4	8.0
35+	7	14.0	1	2.0	1	2.0	4	8.0
Significance test	**X^2 =17.85**		**P-value = 0.001****		**X^2 = 25.69**		**P-value = 0.001****	
Educational level:								
Can't read and write	2	4.0	0	0.0	3	6.0	0	0.0
Read and write	9	18.0	1	2.0	7	14.0	5	10.0
Primary education	13	26.0	1	2.0	10	20.0	3	6.0
Secondary education	14	28.0	1	2.0	12	24.0	2	4.0
University education	9	18.0	0	0.0	8	16.0	0	0.0
Significance test	**X^2 = 18.34**		**P-value = 0.001****		**X^2 = 22.00**		**P-value = 0.001****	
Occupation:								
Housewife	29	58.0	1	2.0	25	50.0	8	16.0
Employee	18	36.0	2	4.0	15	30.0	2	4.0
Significance test	**X^2 = 19.18**		**P-value = 0.001****		**X^2 = 19.48**		**P-value = 0.001****	
Residence:								
Rural	25	50.0	1	2.0	23	46.0	5	10.0
Urban	22	44.0	2	4.0	17	34.0	5	10.0
Significance test	**X^2 = 16.23**		**P-value = 0.001****		**X^2 = 19.89**		**P-value = 0.001****	
Background about effect of early suckling on reducing postpartum bleeding:								
Yes	16	32.0	0	0.0	19	38.0	1	2.0
No	31	62.0	3	6.0	21	42.0	9	18.0
Significance test	**X^2 = 16.38**		**P-value = 0.001****		**X^2 = 16.34**		**P-value = 0.001****	

*A Statistical significant at $p \leq 0.05$ ** A Highly Statistical significant at $p \leq 0.001$

Table (7) Correlation between initial breastfeeding, uterine contraction, duration of third stage of labor and postpartum bleeding among study and control groups (n=100).

Items	Initial breastfeeding			
	Study group		Control group	
	r	P-value	r	P-value
Uterine contraction	0.944	0.001**	0.766	0.001**
Duration of third stage of labor	0.558	0.001**	0.404	0.001**
Postpartum bleeding	0.440	0.001**	0.322	0.001**

**Correlation is highly significant at the 0.01 level.

4. Discussion

Postpartum hemorrhage (PPH) is one of the top five causes of maternal death in both developed and developing countries, during PPH, blood loss may become uncontrollable and life-threatening[14]. Nipple stimulation caused by the baby's suckling releases oxytocin leading to oxytocin induced contraction of the myometrium and decrease blood flow [15].

Concerning personal characteristics of the studied sample . The findings of the present study showed that, more than one third of the study and control group were in the age group of (20<30) years old with mean age of (25.38±6.78) and (27.22±6.69) years respectively. This reflected that both groups were homogenous.

These findings was supported by[16] *in Iraq in the study of effect of early initiation of breastfeeding on mother and newborn*, and found that the mean age of the mothers in groups were 26.29 ± 6.13 (M ± SD) and 26.02 ± 5.94 (M ± SD) respectively. These finding were also emphasized by [17] in Iraq in the study of the effect of early maternal/newborn skin-to-skin contact after birth on the duration of third stage of labor and initiation of breastfeeding who found that the mean age was 25.78 ±3.559 years for study group compared to 26.04 ± 2.850 years of control group. *This may be due to this age of childbearing in our culture.*

Concerning the educational level, the findings of the present study revealed that two thirds of the study and near half of control group respectively had secondary education. The majority of the study and control group respectively were married. Regarding occupation and residence, more than half of the study and two third of control group respectively were housewives and were living in rural areas. This reflected group homogeneity. *In the researcher point of view it may be due to more than half of parturient women live in the rural area and in early marriage so more than one quarter of the study secondary education*

This result agreed with [18] *in Iran in the study of effect of immediate and continues skin-to-skin contact in first two hours post-birth on breastfeeding* who mentioned that, (42.6%) of study group had high school, while (42.2%) in control group had guidance school (p=0.59). The majority of both groups (97.90% & 97.80) were housewife respectively p=0.97 and no significant differences in any of the variables measured.

On the other hand, these findings were contradicted with [20] *in Dammam in the study to conduct effect of early initiation of breastfeeding on the uterine consistency and the amount of vaginal blood loss during early postpartum period,* and found that less than one third of the mothers had intermediate, university and postgraduate educated. Less than tenth of the mothers was illiterate, read/ writes and had primary education. About one thirds of the mothers were housewives. *These differences may be due to different sample places.*

Regarding information about effect of early suckling on reducing the post-partum hemorrhage the finding of the present study indicated that, more than two thirds of the study and more than half of control group had not received any previous information about effect of early suckling on reducing postpartum hemorrhage. *This may be related to educational level of groups and lack of awareness of the importance of early breastfeeding in reducing postpartum hemorrhage and near two fifth of the study and control group respectively received information about effect of early suckling on reducing the post-partum hemorrhage from doctors.*

These finding similar to [21] *in WestBelessa, Northwest Ethiopia in the study to determinant of early initiation of breastfeeding*, who found that the majority of mothers (91.2%) had good or very good knowledge about breastfeeding.

The current study finding was disagreed with [20] previously mentioned research, who found that more than half of mothers had poor knowledge about breast feeding .The participants indicated that mainly acquired their breastfeeding knowledge source from physicians (51.6%) and friends (42.2%). In addition, 76.1% of mothers considered the level of information received from physicians as good (58.7%) or excellent (17.4%). Finally, approximately one-third (31.2%) of the women reported the need to receive additional information on breastfeeding.

Also these findings were disagreed with [17] previously mentioned research ,reported that most of the study and the control groups (98% &96%) respectively didn't receive prior information about early initiation of breastfeeding.

The findings of the current study revealed that there were no statistically significant differences were found among the study and control group regarding to personal characteristics, at (P > 0.05). These results emphasized that the great homogeneity between both groups could decrease the incidence of postpartum hemorrhage

These results were agreed with[22] *in a teaching hospital of central Gujarat in the study to conduct randomized controlled trial to evaluate the length of 3rd labor stage after implementing placental cord drainage* and mentioned that there was no significant difference seen in demographic profile and the gestational age at birth in two groups was seen of both the groups.

As regards total score of knowledge about early suckling and postpartum bleeding there result of present study denoted that, more than two thirds of the study group had good total score of knowledge about early suckling and postpartum bleeding compared to less than half of the control group .*This may be due to, that most of mothers were multipara with previous experience of early initiation of breastfeeding.*

This finding disagreed with the study done by [23] *in Saudi Arabia in the study to assess knowledge, attitude and practice regarding breastfeeding among primipara mothers*, illustrated that the majority of

mothers had also fair level of knowledge regarding breastfeeding. In addition, the present study finding coincided with the study of [24] *in Southwest Nigeria in the study of the breastfeeding knowledge and practices among mothers of children under 2 years of age living in Military Barrack in Southwest Nigeria* and found that most of the respondents (97.3%) had knowledge about early suckling and postpartum bleeding.

Regarding assessment during the third stage of labor, the findings of the present study revealed that, more than two thirds of the study group took five to ten minutes during the third stage of labor, while less than three quarters of the control group take from ten to twenty minutes with a mean of (4.32±3.11 and 9.24±4.47) respectively. The majority the study group had a contracted uterus immediately after birth, and have a firm uterus like the size of grapefruit compared to of the control group respectively. *This could be attributed to the fact that increase of oxytocin secretion resulting from the early infant suckling which stimulates the receptors in the breast that helped the posterior pituitary to release oxytocin. The oxytocin also encourages the uterus to contraction and shortage of third stage of labor.*

These findings were in contrasted with[25] *in china in the study to conduct an experimental study to assess the effectiveness of early suckling on third stage of labour among parturient women* and found that the total duration of third stage of labour among parturient mother was 8 ± 10 min with the mean score of 9.63 and standard deviation of 0.62. It was concluded that there was a significant association between early suckling and the third stage of labour at P 0.007 level.

Concerning the consistency of the uterus the present study showed that, the majority of the study group doesn't take any medications that increased the uterine muscle contraction, had a fundus above the umbilicus, and had no uterine atony compared to of the control group respectively**.** Lost from 100-150ml of blood during the third stage of labor, and had fresh blood compared to of the control group respectively. *This may be due to start early suckling after birth improves uterine consistency and contraction.*

The findings of this study indicated that there was a statistically significant difference between two groups regard initial assessment (amount of blood loss , source of bleeding, cause of bleeding , Blood pressure , location and consistency of the fundus), the assessment of the women was an important point in early management and improving the outcomes, this results were supported by [20] who concluded that the accurate assessment of postpartum hemorrhage women and blood loss facilitates timely transfusion and reduce severity of hemorrhagic shock.

Also is consistent with[26] *in Arizona who studied best practice guidelines for skin to skin contact following birth,* who concluded that the best patient outcomes occur when guidelines, resources and education are provided to healthcare providers, indicated that there was a statistically significant difference between two groups as regard performing uterine massage, weight materials, calculate and record cumulative blood loss, maintain strict intake &output which could effect on the prognosis of the women and outcomes and the percentage of weighting materials as accurate method in calculating amount of blood loss in control group was less than 10%which can delaying in proper management.

These findings were in accordance with the studies carried out by [27] who studied *measuring and communicating blood loss during obstetric hemorrhage*, found that staff nurses continuously underestimate blood loss when assessing a patient's Lochia (bleeding) after delivery. This underestimation of blood loss leads to improper management of postpartum hemorrhage and also agreed with[28] *in Siriraj in the study to report the use of weighting of blood loss collected on a sensitive scale, to diagnose immediate PPH is a crucial step for early management* and improved outcomes.

Regarding to the quantity of blood loss, the study findings showed significant difference in favor of study group. This means that study group may reduce the blood loss during 3rd labor stage and consequently decreasing PPH incidence. The study findings were in the same line with [7] *in South Asian in the study to conduct similar study on one hundred and twenty women undergoing normal vaginal delivery*. Pointed out that both blood loss and PPH incidence was lower among study group (195.45±13.994) than control group (265.45±21.920) respectively.

The study findings was also similar to[29], who had conducted a randomized controlled trial to compare the quantity of blood loss and length of 3rd labor stage in study group, they found that mean time of 3rd stage duration was shorter in study group than control group and there were highly statistically significant differences found between the study and control group according to assessment during the third stage of labor, at ($P < 0.01$) except in the presence of episiotomy, at ($P > 0.05$).

These findings were approved by [30] who found in study that there was statistically significance difference regarding the length of 3rd labor stage whereas the mean length of 3rd labor stage was 8.5 in study group and 10.8 in control group.

This finding may be attributed to the fact that the first 2 hours post-partum is the optimal time for the infant to initiate breastfeeding showing behaviors like mouthing, lip-smacking movements, hand-to-mouth activity, and vocal cues. This period gives an excellent opportunity for mothers and baby to develop relationship when kept together in an intimate direct contact. *And may be attributed to newborn with direct contact was handed over to mothers as early as possible and mothers were motivated for breastfeeding whereas in our set-up, the newborn was first generally handed over to relatives before breastfeed is offered.*

According to assessment to the initial breastfeeding the present study findings denotes that, more than three quarters of the study group take less than 30

minutes between delivery and the first effective breastfeeding. Also, there were highly statistically significant differences found between the study and control group regarding assessment to the initial breastfeeding at, (P<0.01).

Concerning the duration of first effective breastfeeding, the mean duration of the first effective breastfeeding was significantly longer among study group than the control group. Parallel with these findings, [17], indicated that the period to start the initial breastfeeding after birth was short in the study group compared to the control group.

Concerning the number of newborn's trials to catch the breast before first effective breastfeeding. The present study showed that, had 1&2 trials before the first effective breastfeeding, and the first effective breastfeeding lasted for 5-10 minutes compared to of the control group respectively**.**

From the researcher's point of view this result may be due to early maternal newborn skin to skin contact after birth improves the newborn's ability to suckle the breast, so it reduces the number of newborn's trials to catch the breast. This result was disagreed with [17], reported that 88% of the study group's newborns ended the first breastfeeding by themselves compared to only 42% of the control group. In addition, the majority 92.0% of the newborns in the study group self-end the first breastfeeding compared to 70.0% in the control group.

The findings of the present study showed that, highly statistically significant relation between the studied mothers', total score of knowledge and personal characteristics at, (P<0.01).

The current finding was in same line with[31] in Turkey in the study of the factors associated with breastfeeding initiation time in a Baby- friendly hospital who mentioned that many studies investigated demographic data for their effect on breastfeeding manners. On other hand, the results contradicted with[32] in Indonesia in the study of the breastfeeding initiation and duration, who found that socio demographic factors that affect the breastfeeding duration were age, educational level and of higher income that made breastfeeding is longer .

The findings of the present study showed that , highly statistically significant positive correlations between the studied mothers', initial breastfeeding and uterine contraction, duration of third stage of labor, and postpartum bleeding, at (P<0.01).

These results were supported by[33] in Southwest Iran in the study of the comparison of effect of breast pump stimulation and oxytocin administration on the length of the third stage of labor postpartum hemorrhage and anemia a randomized controlled trial, who found that there was no association between breastfeeding initiation and a demographic aspect that have been stated to be associated with breastfeeding initiation in other studies of Middle Eastern women. These finding were also emphasized by [34] in Saudi Arabia and found that ***there*** was no association between maternal age or any demographic data and breastfeeding initiation. Also, these results disagreed with [35] in Ankara in the study of the early initiation and exclusive breastfeeding, factors influencing the attitudes of mothers who gave birth in a baby-friendly hospital ,who found that additional factors that had statistically significant effects on the duration times of early breastfeeding like educational status of both parents, frequency and on demand breastfeeding, breast problems, artificial feeding, and social assistance.

5. Conclusion

Based on the results of the present study, it was concluded that: the results of the present study was supported research hypotheses that early suckling affect positively on uterine contraction and retraction, reducing duration of third stage of labor and positively in reducing postpartum bleeding in women in the study group more than those in the control group.

6. Recommendations

- Educational programs regarding to risk mothers for postpartum hemorrhage are recommended for the nurses working at Obstetrics and Gynecology department.
- Early suckling should be recommended as basic protocol of care for physician and nurses to initiative early suckling during third stage of labor.

Further study need to be performed:

- A comparative study between effectiveness of early suckling labor out comes among primigravida and multigravida women.

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