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**The Relationship between the Maternal Self -Efficacy and the Duration of Breastfeeding**

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**ABSTRACT**

**Background:** Breastfeeding self-efficacy (**BFSE**) refers to a mother's perceived ability to breastfeed newborn, and is a salient variable in breastfeeding duration as it predicts whether a mother chooses to breastfeed or not. The **Aim:** of this study was to assess the relationship between mother's self-efficacy and breastfeeding duration. The study was carried out at the postpartum unit and obstetric inpatient at Port Said general hospital on 100 mothers having breastfeeding using Descriptive, correlational **design**. Data were collected by an interview questionnaire and mother's self-efficacy scale. The study lasted from beginning of January 2015 to the end of August 2015. **Results:** of the study revealed that, there was a statistically significant relationship between baseline self-efficacy and breastfeeding duration. Also that highly statistical significance association between the mother's self-efficacy scores and their total knowledge score Mothers who scored higher and moderate on the breastfeeding self-efficacy scale breastfeed longer than six months .Therefore, the study has **Recommended:** that, there is a need for national programs about benefits and duration of breastfeeding for health professionals especially nurses, as well as for mothers.

**Key words:** duration of breastfeeding, self-efficacy

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## INTRODUCTION

Breastfeeding is the natural and healthy way to feed babies. It provides the essential nutrients that babies need for optimum growth and development, giving children a better start in life and reducing the risk of illness. Breastfeeding can also bring health benefits to mothers (*National Health Service (NHS), 2014*).

Breastfeeding enhances the relationship between a mother and her infant by improving bonding. For example, skin-to-skin contact during breastfeeding has been shown to improve the infants' vital signs, especially immediately after birth. Indeed, it is theorized that many of the identified health benefits of breastfeeding may be related to not only the composition of human milk, but also to the close contact between the mother and her infant during feeding (*Moore et al., 2012*).

Maternal breastfeeding self-efficacy is a mother's perceived ability to breastfeed the infant and has been shown to predict breastfeeding duration and exclusivity rates among women in the immediate postpartum period (*McCarter et al., 2010*).

To promote exclusive breastfeeding, nurses play a key role by using the systematic problem solving approach. It is the scientific method that consists of data collection and assessment, planning, implementation and evaluation. Early assessment, planning and appropriate management are important strategies and fundamental roles of nurses that facilitate the promotion of exclusive breast feeding. In case of promoting exclusive breastfeeding, nurse's work experience in a postnatal unit contributes to provide accurate information, demonstrating, and teaching, supporting the mothers, and motivating them to do breast feeding to their children (*Rahaet al., 2010*).

### AIM OF THE STUDY:

The aim of the current study was to assess the relationship between maternal self-efficacy and breastfeeding duration.

### SUBJECTS AND METHOD:

**Research design:** Descriptive, co relational design was utilized for conduction the study.

**Setting:** This study conducted at the postpartum unit and obstetric inpatient at port/said general hospitals and (Port-foad General hospital).

**Sample size:** A convenience sample of 100 mothers who delivered from the previously mentioned settings.

**Tools of data collection:**

**Tool (I): Questionnaire Sheet:** This questionnaire was developed by researcher after reviewing related to literature to collect, socio demographic characteristics of mothers and their children. Past medical history for mothers and their children ,mother's knowledge regarding breastfeeding immediately after birth and problems of breastfeeding (it consists of 28 questions). The total score was estimated by summing scores of each item and divided it to number of questions, whereas (2) scores was given for completely correct answer, (1) for incompletely correct answer, (0) for completely incorrect answer. The level of knowledge was categorized into two levels, adequate level if the percent score was 60% or more and in adequate if less than 60%.

**Part (II): Mother's self-efficacy scale :**This part was concerned with Mother's self-efficacy belief's as their believes in the importance of their breast milk and the mother's ability to breastfeed their infant continually and successfully ,it Consists of 14 items .It was developed by **Dennis (2002)** , and it translated by the researcher in simple Arabic language to suit all mother's categories. A total score was (70) were given for all question. It was assessed through a five-point Likert scale, from 1 (Don't trust ), 2(little trust ), 3(sometimes trust), 4(Many times trust ) and 5 (Always trust). Accordingly to, their self-efficacy was categorized into three levels; high (52-70), moderate (33-51), low (14-32).

**Part (III):**This part was related to the breastfeeding experience instrument was completed again after six months of delivery, (it consist of 6 questions).The total score was estimated by summing scores of each item and divided it to number of questions, whereas (2) scores was given for completely correct answer, (1) for incompletely correct answer, (0) for incorrect answer. The level of knowledge was categorized into two levels, satisfactory if the percent score was 60% or more and in unsatisfactory if less than 60%.

**Operational design:**

The operational design includes description of the study preparatory phase, the pilot study and field work

**Preparatory phase:**

During this phase, the researcher reviewed local and international related literature using internet search, text books, and scientific journals. This helped in the preparation of the data collection. Once the tools were prepared in their preliminary forms, they were presented to a panel of five experts in pediatrics nursing for face and content validation.

**Pilot study:**

A Pilot study was applied on 10% of studied mothers (ten mothers who attending to the postpartum unit and obstetric inpatient at port-Said general hospitals). The purpose of the pilot study were to test applicability, clarity and feasibility of the data collection tools .As well, it served to estimate the time needed to fill in the tools. It also helped to identify any obstacles or problems that might interfere with data collection. Based on the findings of the pilot study were not included in the main sample since some modifications were done in the tools in the form of rephrasing some items.

**Field work:**

The actual fieldwork was carried out over the period from the beginning of January 2015 to the end of August 2015. Part (I) and part (II) of the questionnaire sheet and mother's self-efficacy scale were collected by the researcher by interviewing mothers in the hospitals after they delivered over the period from the beginning of January 2015 to the end of February 2015. The researcher met mothers again after six months of their delivery at the family medicine centers while they were giving vaccination for their babies to complete part (III) of the questionnaire sheet over the period from the beginning of July 2015 to the end of August 2014. Before distributing the questionnaire, the purpose of the study was explained to each mother, and then the questionnaire sheet was distributed to the mothers and filled in the presence of the researcher to ensure that questions were answered by the mother on her own, and that all questions were completed.

**Ethical consideration:**

The purpose of the study were explained clearly and simply to every mother to obtain her consent to participate in the study .The researcher assured the mothers that the

information will be strictly confidential .They were informed about their rights to refuse to participate or with draw at any time without giving reason and with no consequences.

### **Statistical Design**

Data entry and statistical analysis were done using SPSS 20.0 statistical package for social sciences). Data were presented using descriptive statistics in the form of frequencies and percentages for quantitative variables. Qualitative categorical variables were compared using. Comparison chi-square test. Significant was considered at p-value <0.05.

### **RESULTS:**

**Table (1):** Represents distribution of the studied mothers according to their knowledge about breastfeeding immediately after birth. It shows that the majority of studied mothers (86%) were defined breastfeeding accurately, and 37.2% of them were attained the knowledge about breastfeeding from their family .Also 81.0%of them had knowledge about proper position. The majority of studied mothers (91.3%) reported that setting position was the proper type of breastfeeding position. Nearly half of studied mothers 42.5% had twice number of previous experience with breastfeeding .The majority of studied mothers (96.3%) reported that breastfeeding increase their children immunity ,and 71.8% of studied mothers reported that breastfeeding protect them from cancer.

**Table (2):** Represents distribution of the studied mothers according to their experience regarding breastfeeding after six months .This table shows that about three quarter of studied mothers (71.0%) were still breastfed their children after six months. Nearly two third of studied mothers (58.6%) were stopped breastfeeding at the age of 20 day and more, and 65.5% reported that the use of bottles was the cause of stopping breastfeeding. Also more than half of studied mothers (58.6 %) were received counselling about stopping of breastfeeding, in addition 58.8% of them their mothers in low were the source of counselling for them. Nearly one third of studied mothers (29.0%) had an exclusive breastfeeding to their babies; also the highest percentage of them 39% added foods to their children's after month of delivery

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**Table (3):** Represents the total score of self-efficacy among the studied mothers. It clarifies that, the highest percentage of the studied mothers (47.0%) had moderate self-efficacy and 37.0% of them have high level of self-efficacy while the lowest percentages (16.0%) have low self-efficacy. It was observed that, the total mean score was  $45.9 \pm 11.05$ .

**Table (4):** Represents the relationship between duration of breastfeeding of the studied mothers and their self-efficacy after. It shows that, there was a statistically significant relationship between baseline self-efficacy and breastfeeding duration. Mothers who scored higher and moderate on the breastfeeding self-efficacy scale breastfeed longer than six months ( $p=0.01$ ).

**Table (5):** Represents the relationship between total score of knowledge about breastfeeding of the studied mothers and their self-efficacy. It shows that highly statistical significance association between the mother's self-efficacy scores and their total knowledge score. Mothers who scored higher on the breastfeeding self-efficacy scale had satisfactory of total knowledge score.

**Table (1):** Distribution of the studied mothers according to their knowledge about breastfeeding immediately after birth

<b>Breastfeeding knowledge</b>	<b>No</b>	<b>%</b>
<b>Define the breastfeeding</b>		
Yes	86	86
No	14	14
<b>Source of knowledge about breastfeeding(n= 86)</b>		
Family	32	37.2
Social media	24	27.9
Friends	8	9.3
Medical team	19	22.1
<b>position of breastfeeding</b>		
Proper	81	81.0
Improper	19	19.0
<b>Position type of breastfeeding (n= 81)</b>		
Sitting position	74	91.3
Lying position	3	3.7
Both positions	4	4.9
<b>Number of Previous experience with breastfeeding (n= 73)</b>		
Once	23	31.5
Twice	31	42.5
Three	19	26.0
<b>Benefits of breastfeeding for baby(n=82)</b>		
Immunity	79	96.3
Nutrition	55	67.1
Contact	54	65.8
All of the above	30	36.6
<b>Benefits of breastfeeding for mother (n=39)</b>		
Protect from cancer	28	71.8
Easy method	10	25.6
Contraceptive	1	2.6

**Table (2):** Distribution of the studied mothers according to their experience about breastfeeding after six months (N= 100)

<b>Mother's experience regarding breastfeeding after six months</b>	<b>No</b>	<b>%</b>
<b>Still breastfeeding after six months</b>		
Yes	71	71.0
No	29	29.0
<b>Age of baby when stopping breastfeeding (n= 29)</b>		
One day	9	31.1
Two days	3	10.3
More than 20 days	17	58.6
<b>Causes of stopping breastfeeding (n= 29)</b>		
Baby have problems with sucking	1	3.4
Suffocating	5	17.2
No enough milk	4	13.8
The use of bottle	19	65.5
<b>Counselling when stopping breastfeeding (n= 29)</b>		
Yes	17	58.6
No	12	41.4
<b>Source of counselling (n= 17)</b>		
Mother	6	35.3
Mother in low	10	58.8
Sister	1	5.9
<b>Time of fluid and soft food add (n= 100)</b>		
One month	39	39.0
Two months	19	19.0
Three months	5	5.0
Five months	8	8.0
Exclusive breastfeeding	29	29.0

**Table (3):** Total score of breastfeeding self-efficacy of the studied mothers

<b>Total score of breastfeeding self-efficacy</b>	<b>No</b>	<b>%</b>
High (52 – 70)	37	37.0
Moderate (33 – 51)	47	47.0
Low (14 – 32)	16	16.0
<b>Mean ± SD</b>	45.9 ± 11.05	
<b>Median</b>	48.0	

**Table (4):** Relation between duration of breastfeeding of the studied mothers and their self-efficacy score

Duration of breastfeeding	Self-efficacy						Significance p-value
	High		Moderate		Low		
	No	%	No	%	No	%	
Continuous after six months	31	31.0	33	33.0	7	7.0	$X^2= 8.72$
Stopped before six months	6	6.0	14	14.0	9	9.0	P= 0.01*

**Table (5):** Relation between knowledge about breastfeeding of the studied mothers and their self-efficacy

Total knowledge score	Self-efficacy						Significance p-value
	High		Moderate		Low		
Adequate	31	31.0	28	28.0	3	3.0	$X^2= 20.273$
Inadequate	6	6.0	19	19.0	13	13.0	P= 0.000**

## DISCUSSION:

The current study revealed that two fifth of mothers haven't knew the accurate definition of exclusive breastfeeding; it may be due to that more than one third of the mothers had received the knowledge about breastfeeding from their family. This result was in the opposite way with *Ahmed et al., (2011)* who carried out study about Knowledge and practice of exclusive breastfeeding in Kware, Nigeria, revealed that majority of mothers had adequate information about exclusive breastfeeding. These results disagree with, *Illyasu et al., (2011)* who concluded that one third of the mothers had good knowledge of exclusive breastfeeding.

The current study findings illustrated that, only one third of mothers were exclusively breastfeed their babies until six months, This result is in harmony with *Maonga et al., (2016)* who conducted study about, Factors affecting exclusive breastfeeding among women in Muheza District Tanga Northeastern Tanzania: stated that, the prevalence of exclusive breastfeeding for six months was 24.1%. Also, the current study is in agreement with *Pollard, and Guill (2009)*, who mentioned that, more than one third of mothers breastfeeding their babies for six months. However these study findings are in conflict with *Babakazo et al., (2015)* who found the rate of exclusive

breastfeeding was very low, only 2.8%. AS well, *Bayissa et al., (2015)* who mentioned that, the majority of mothers were exclusively breastfeed.

Regarding to mother's knowledge about the problem of breastfeeding and how to management it, the current study revealed that the majority of mothers had a good knowledge about management of breast engorgement. It could be explained by the information which taken from health care personnel in hospital during postpartum period. In contrast with this study were *Tengku and Sulaiman (2010)* who reported that mothers also lacked adequate knowledge of dealing with the problems of breastfeeding such as breast engorgement or the storage and use of expressed breast milk.

The current study demonstrates that, nearly half of mothers had a moderate level of breastfeeding self –efficacy, and more than one third of the mothers had high level of breastfeeding self-efficacy. This finding could be explained by the fact that the majority of the studied mothers had previous experiences with breastfeeding and more of them were previously breastfed two and three times.

In the present study there was a significant relation between baseline self-efficacy and breastfeeding duration. Mothers who scored higher and moderate on the breastfeeding self-efficacy scale breastfed longer than six months ( $p=0.01$ ). these results may be attributed to the fact that the majority of the studied mothers were know the benefits of breastfeeding for baby and mother, as well as protect them from cancer and increase the immunity of her baby. The current study findings are similar to the findings of *Tuthill et al., (2015)* who conducted study about breastfeeding self – efficacy found that ,breast feeding self-efficacy has been shown to be a strong predictor of both breastfeeding initiation and duration and is therefore an important characteristic. Also the current study findings are coordinated with *Pollard and Guill (2009)*, who stated that, breastfeeding self-efficacy, was a statistically significant predictor of breastfeeding length.

This study also revealed statistically significant relationship between total score of knowledge about breastfeeding and the level of self-efficacy. Mothers who had satisfactory of total knowledge scored were higher on the breastfeeding self-efficacy. These results may be attributed to the fact that high percent of the studied mothers had

higher level of education and gets their knowledge from different sources as books, medical team and family.

## **CONCLUSIONS:**

Based on the findings of the present study findings, it was concluded that, the results of this study support the use of self-efficacy as a framework for predicting breastfeeding duration. There was a statistically significant relationship between duration of breastfeeding and self-efficacy scores. Mothers who scored higher and moderate on the breastfeeding self-efficacy scale at baseline did breastfeeding longer than six months. Also there was a statistically significant relationship between self-efficacy scores and total knowledge scores. Self-efficacy was statistically higher and moderate among mothers whose had statistically score in total knowledge.

## **RECOMMENDATIONS:**

**Based on the findings of the current study, the following recommendations are to be considered:**

- ❖ The breastfeeding self-efficacy scale can be used as a baseline assessment tool in the hospital at delivery to assist health care providers in identifying women who are at risk for early weaning. Health care providers, especially nurses can then plan strategies that foster a mother's knowledge and confidence with breastfeeding.
- ❖ Teaching and training classes should be organized for mothers at antenatal regarding exclusive breastfeeding and its relation to health and disease of their children

## **REFERENCES:**

*Ahmed H, Oche MO, Umar AS (2011):* Knowledge and practice of exclusive breastfeeding in Kware, Nigeria; Sep; 11(3): 518–523.

*Babakazo P, Donnen P, Akilimali P, Ali NM, Okitolonda E (2015):* Predictors of discontinuing exclusive breastfeeding before six months among mothers in Kinshasa: a prospective study. International Breastfeeding Journal; 10:19.DOI 10.1186/s13006-015-0044-7.

**Bayissa Z, Gelaw B, Geletaw A, Abdella A, Chinasho B, Alemayehu A, Yosef A, Tadele K (2015):** Knowledge and practice of mothers towards exclusive breastfeeding and its associated factors in Ambo Woreda West Shoa Zone Oromia Region, Ethiopia. *Global Journals Inc*; 15(2): 1-8.

**Dennis CL (2002):** The breastfeeding self-efficacy scale: Psychometric assessment of the short form. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 32, 734-744.

**Illyasu Z, Kabir M, Abubakar I, Galadanci N(2011):** Current Knowledge and Practice of Exclusive breastfeeding among mothers in Gwale LGA of Kano State. *Nig Med Pract.*; 48(2):50–55.

**Maonga A, Mahande M, Damian D, Msuya S (2016):** Factors affecting exclusive breastfeeding among women in Muheza District Tanga Northeastern Tanzania: A mixed method community based study. *Matern Child Health J*; 20:77–87.

**McCarter- Spaulding DE, Dennis CL (2010):** Psychometric testing of the breastfeeding self- efficacy scale- short form in a sample of black women in the United States. *Research in Nursing & Health*; 33: 111-9.

**Moore E., Anderson G., Bergman N., Dowswell T. (2012):** Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database of Systematic Reviews*, 5, CD003519. Doi:10.1002/14651858.CD003519.

**National Health Service (2014):** Breastfeeding: the first few days. Available at: <http://www.nhs.uk/conditions/pregnancy-and-baby/pages/breastfeeding-first-days.aspx#close>.

**Pollard D, Guill M (2009):** The relationship between baseline self-efficacy and breastfeeding duration. *Southern Online Journal of Nursing Research*; 9(4): 1-15.

**Pollard D, Guill M (2009):** The relationship between baseline self-efficacy and breastfeeding duration. *Southern Online Journal of Nursing Research*; 9(4): 1-15.

**Reha PR, Thassri J, Kritcharoen S (2010):** Roles of Nurses in Promoting Exclusive Breastfeeding Perceived by Mothers' and Staff Nurses' in Bangladesh. Available at: <http://fs.libarts.psu.ac.th/research/conference/proceedings-2/7pdf/006>.

***Tengku Ismail AL, Sulaiman Z (2010):*** Reliability and validity of a Malay-version questionnaire assessing knowledge of breast feeding. *Malays J Med Sci.* 2010 Jul; 17(3):32-9.

***Tuthill E, McGrath J, Graber M, Cusson R, Young S (2015):*** Breastfeeding self-efficacy: a Critical review of available instruments. *Journal of Human Lactation.* Feb; 32(1):35-45. Doi: 10.

## العلاقة بين الكفاءة الذاتية للرضاعة الطبيعية للأم ومدة الرضاعة الطبيعية

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### الخلاصة

الكفاءة الذاتية هي عبارة عن قدرة الام على ارضاع طفلها طبيعيا وهو متغير بارز يؤثر في مدة الرضاعة الطبيعية حيث انه يلعب دورا رئيسيا في تحديد لو كانت الام تكمل الرضاعة الطبيعية لطفلها ام تتوقف وتهدف هذه الدراسة الوصفية العلائقية الى تحديد العلاقة بين الكفاءة الذاتية للأم ومدة الرضاعة الطبيعية وقد أجريت هذه الدراسة في مستشفيات بورسعيد العام من داخل قسم النساء وشملت العينة 100 من الأمهات خلال الساعات الاولى من الولادة اثناء فترة تجميع العينة خلال ستة أشهر وذلك من بداية يناير 2015 حتى نهاية أغسطس 2015 كما استخدمت استمارة استبيان لجمع البيانات الشخصية من الامهات وتقييم المعلومات والخبرات المتعلقة بالرضاعة الطبيعية الأم وعلاقتها بالكفاءة الذاتية للأم ولقد اوضحت الدراسة وجود علاقة ذات دلالة إحصائية بين مستوى الكفاءة الذاتية ومدة الرضاعة الطبيعية حيث أن الأمهات اللاتي سجلن مقياس عالي ومتوسط من الكفاءة الذاتية استمرت في الرضاعة الطبيعية حتى ستة أشهر من الولادة. أيضا كشفت الدراسة وجود دلالة إحصائية عالية بين مستوى الكفاءة الذاتية للأمهات والدرجة الكلية لمعلوماتهن . وتوصى الدراسة الى ضرورة وجود برامج تعليمية حول فوائد ومدة الرضاعة الطبيعية للمهنيين الصحيين وخاصة الممرضات، وكذلك بالنسبة للأمهات.

الكلمات المرشدة : مدة الرضاعة الطبيعية ، الكفاءة الذاتية.