

A Comparative Study of Opinions and Practices of Egyptian and Saudi Mothers Regarding Weaning Process

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Abstract : *The aim of the study was to compare mothers' opinion and practice regarding infant weaning in two Arab countries Saudi Arabia and Egypt. A comparative descriptive, non-experimental design was adopted in the current study. Participants in the present study were a convenient sample of a 400 participants, 200 from Riyadh, Saudi Arabia and 200 from Cairo, Egypt Data was collected from different shopping malls in Riyadh and from outpatient of New Specialized Pediatric Hospital. Cairo University. Data were collected using a questionnaire developed by the researchers. The questionnaire have three parts: Part 1: Socio demographic data for the mothers. Part 2: Mothers Opinions about the weaning, Part 3: Mothers practices of weaning. The mothers who are working are more in Cairo than in Riyadh. A greater number of mothers were little educated in Cairo. The main source of information about weaning were family and relatives who represented the highest percentage in both countries. Breast milk insufficiency was the main reason given for the cessation of breastfeeding across the two countries. 12% of the childrenⁱ in Cairo had allergy problems after starting weaning process in contrast to 21.5% of the Riyadh children. Almost all these parameters were significantly different between the two countries. The current study revealed that the practices of feeding and weaning are different between the two countries. Majority of weaning happen suddenly in both countries and allergy might happen due to this sudden weaning practices. Teaching the parents about the proper weaning process and ways of introducing the new food could prevent further feeding difficulties and this responsibility lies on the shoulders of health care providers in both countries.*

Keywords: *Opinion weaning, Breastfeeding*

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I. Introduction

Pattern of feeding among normal infants in the first 6 months includes breast feeding and artificial feeding. Breastfeeding in the early years of life is considered the ideal nutritional source for infants and it is effective in insuring their growth and physiological needs. Because of the several advantages of breast feeding, World Health Organization (WHO) recommended an exclusive breastfeeding during the first 6 months of life and defined weaning as "the process by which a baby slowly gets used to eating family or adult foods and relies less and less on breast milk" [1] . Weaning can be a positive or negative experience for the mother and the child depends on how the child is introduced to food [2]

The best time to introduce complimentary foods according to WHO is after 6 months of age to reduce the risk for disease and to reduce infants' mortality rate. It have been proven by several researches that breastfeeding lower the vulnerability to many condition including malnutrition, allergy, gastroenteritis, respiratory disease and immunodeficiency [3]. An early weaning might have significant implication for infant health such as risk for diarrhea related morbidity and mortality, leukemia, and type 1 diabetes, gastroenteritis, risk for otitis media, malnutrition, obesity, cardiac and respiratory problems [4] ; [3]; [5] Infant who weaned before 12 weeks are heavier and had larger head circumference than infant who weaned after 6 months. Male was weaned earlier than females and pacifier use was independently associated with significant decline in breastfeeding duration [3].

There are several reasons mentioned in the literature that describe why mothers start to stop breastfeeding their children and give their infants solid foods early. According to [6] [7]) the reasons for an early weaning, depend on various psychosocial factors such as mother's self-esteem, self-efficacy, mother's belief that the breast milk is adequate in amount, cultural factors, duration of the maternity leave, new pregnancy and mother's illness, or nutritional quality to meet her infant's needs, perceived infant lack of sleep and hunger or

unsettled behavior. Perception of Insufficient Milk (PIM) and return to work are the two leading causes of weaning in a study by [8]

Different countries may have different approaches in weaning according to the country culture [9]. What mothers select as their weaning practice is related to their own values and beliefs as well as the value system of the society and the supporting networks such as fathers, grandmothers and medical staff. Although there are some studies that compared weaning practices in western countries [10]; [9] but weaning in Arab countries is still a problematic [11] and information gaps exist in relation to how, when weaning takes place and the effect of culture in the weaning practice.

Aim of the study

The aim of the study was to compare mother's opinion and practice regarding infant weaning in two Arab countries Saudi Arabia and Egypt.

II. Subjects and Methods

3.1 Research design

A comparative descriptive, non-experimental design was adopted in the current study.

3-2 Subjects

Participants in the present study were a convenient sample of a 400 participants, 200 from Riyadh, Saudi Arabia and 200 from Cairo, Egypt. Mothers who have an infant between 4 and 18 months who have no congenital anomalies at the time of survey were recruited in the study.

3-3 Setting

Data was collected from different shopping malls in Riyadh and from the outpatient of Cairo University, New Pediatric Hospital in Egypt.

3.4 Tools of data collection:

After reviewing related literature and to fulfill the aim of the study, data were collected using a questionnaire developed by the researchers and revised by 3 experts in the pediatric nursing field. The questionnaire has three parts: Part 1: Socio demographic data of the mothers. Part 2: Mothers opinion about weaning, Part 3: Mothers practices of weaning. The questionnaire reliability test was done using Cronbach's and the reliability was $\geq .72$. Pilot study was carried out on 20% of the mothers to test clarity and applicability of the tool and recommended modifications were done before data collection for the actual study.

3.5 Procedure

Before collecting the study data, approval of the College of Nursing Research Unit and permission from the mothers was obtained. Mothers were assured that all the information is confidential and they have the right to withdraw from the study at any time. The mothers were informed that the questionnaire will take approximately 10 to 15 minutes of their time.

3.6 Statistical analysis

Statistical analysis was done using statistical packages for social science SPSS program version (21). Data were manually entered and verified for error. Descriptive statistics were used numbers, percentage, arithmetic mean, standard deviation. The P- value < 0.05 was used as the cut of value for statistical analysis.

III. Results

Table 1: Description of Participants

The participants' demographic data were shown in table 1. In Saudi Arabia the proportion of working mothers were larger than in Cairo. A greater number of mothers were little educated in Cairo. The mothers who are working are more in Cairo than in Riyadh.

Item	Cairo N =200		Riyadh N =200		χ^2	P
	No	%	No	%		
Maternal Age						
20-30	124	62.0	78	39.0		
31-40	70	35.0	102	51.0		
41-50	6	3.0	20	10.0		
Mean \pm standard deviation	29.21 \pm 7.07		32.35 \pm 6.68		23.96	000.

Education						
Elementary	21	10.5	21	10.5	50.52	000.
Intermediate	69	34.5	37	18.5		
High School	50	25.0	32	16.0		
University	39	19.5	84	42.0		
Not Educated	39	19.5	8	4.0		
Maternal Occupation						
Occupation	111	55.5	60	30.0	26.56	000.
No occupation	89	44.5	140	70.0		

Table (2) Mothers' opinion regarding weaning process

Almost all these parameters were significantly different between the two countries. The majority of mothers stopped breastfeeding suddenly in Riyadh than in Cairo (70%, 55% respectively). The main source of knowledge and information about weaning were family and relatives who represented the highest percentage in both Cairo and Riyadh (100%, 66% respectively) in contrast to the books which was undoubtedly the lowest in both countries. Mothers were asked about the ideal season for weaning, in Cairo, most of the mothers 89.5% cited spring, as opposed to 60.5% mentioned summer in Riyadh. Mothers were asked to pick the most important reason for their decision to terminate breast feeding. The reasons given for the cessation of breastfeeding were quite similar across the two countries. In Riyadh, The principal reasons were: breast milk insufficiency, mothers' illness and mother's refusal to breastfeed. Whereas in Cairo, the majority of participants mentioned milk insufficiency, and the child's refusal of milk as the principal reasons of breastfeeding termination decision

Item	Cairo N =200		Riyadh N =200		χ^2	P
	No	%	No	%		
Weaning approach					85.480	000.
Suddenly	89	44.5	140	70		
Gradually	110	55.5	60	30		
Source of mothers' knowledge					80.480	000.
Books	0	0	17	8.5		
Health providers	0	0	20	10.0		
Family and relatives	200	100	133	66.5		
Websites	0	0	30	15.0		
Appropriate season of starting weaning:					210.278	000.
Fall	7	3.5	20	10.0		
Winter	8	4	22	11.0		
Spring	179	89.5	37	18.5		
Summer	6	3	121	60.5		
Reason for early weaning:					87.965	000
No enough milk	114	57	64	32.0		
Body image	0	0	19	9.5		
Mother disease	0	0	30	15.0		
Child refuse milk	86	43.0	65	32.5		
Mothers' work	0	0	22	11.0		

Table 3: Mothers' weaning practices in percentage distribution

The majority of mothers in both countries were exclusively breastfeed their infants until the age of 6 months. Introducing new food were given usually in the morning by the Riyadh mother's 73%. There was a significant difference between the participants in both cities regarding how they introduce the food to the children. In Cairo 71.5% of the mothers give one food only per time and 55.5% introduce liquid food the semi liquid food, while in Riyadh 77.5% of the children were introduced to one food only per time and 70% introduced liquid then semi liquid food which is highest than Cairo. 12% of the children in Cairo had allergy problems after starting weaning process in contrast to 21.5% of the Riyadh children.

Items	Cairo N =200		Riyadh N =200		χ^2	p
	%	No	%	No		
Exclusive breast feeding up to 6 months						
Yes	143	71.5	155	77.5	27.28	000.
No	57	28.5	45	22.5		
Time of introduce new food						
In the morning/ afternoon	99	49.5	146	73	1.21	000.
In the evening/ night	101	50.5	54	27		
Type of Milk						
Breast	20	10.0	110	55	1.57	000
Formula	113	56.5	18	9		
Formula & Breast	67	33.5	72	36		
Preparation of child's food						
• Introduce one food only per time						
Yes	143	71.5	155	77.5	1.31	000.
No	57	28.5	45	22.5		
• Added sugar or salt						
Yes	110	55.5	140	70	27.28	000.
No	89	44.5	60	30		
• Added butter /oil						
Yes	110	55.5	140	70	1.34	000.
No	89	44.5	60	30		
• Using spoon						
Yes	143	71.5	155	77.5	1.31	000.
No	57	28.5	45	22.5		
• Introduce food liquid then semi liquid						
Yes	110	55.5	140	70	1.34	000.
No	89	44.5	60	30		
• First type of food giving						
Cereals	7	3.5	21	10.5	75.32	000.
Fruited	8	4.0	22	11.0		
Yoghurt	179	88.0	118	59.0		
Meat /chicken	6	3.0	36	18.0		
Beans	3	1.5	9	4.5		
Experiencing problem after starting weaning process						
Allergy	24	12.0	43	21.5	75.32	000.
Anemia	-	-	22	11.0		
Asthma	-	-	24	12.0		
Constipation	-	-	6	3.0		
Nothing	176	88.0	105	52.5		

IV. Discussion

The aim of the study was to compare mother's opinion and practice regarding infant weaning in two Arab countries Saudi Arabia and Egypt. The current study showed that the participant mean age were 29.21 in Egypt and 32.53 in Riyadh .The majority of mothers in both countries received university education and their knowledge were taken from their relatives and family not from the healthcare giver. The majority of others in Cairo were working mothers. [2] Reported that 76% of the mothers were 20-35 years old and only 4% had receive university education.

Regards weaning approached 70% of the mothers in Riyadh and 55% in Cairo weaned their infants suddenly. [12] Found that less than half of the mothers in their study gradually weaned their infants. This results might be due to the source of information that mother depends on. In the current study, family and relatives represented the highest source of information in Cairo 100%, and 66.5% in Riyadh in contrast to the book and health care providers which were undoubtedly the lowest in both countries.

The ideal season for weaning was significantly difference between the two countries. Mothers in Cairo mentioned that the ideal season for weaning is spring, as opposed to 60.5% mentioned summer in Riyadh. Synonymous finding were observed in a study by [13]; who reported that children who weaned at summer or at rainy season have higher bacterial growth which increase the frequency for diarrhea among children older than 6 months.

The reasons given for the early weaning were quite different across the two countries. Saudi mothers were unique in selecting body image, mother's illness and back to work as some of the major reasons for early weaning. Mothers in both countries choose perception of breast milk insufficiency as a reason for stopping breast feeding. This perception of milk insufficiency was due to the mother's feelings that their infants are irritable and crying without any valid evidence such as poor infant weight gain or doctor's recommendations.

[2]; [14]; reported that milk insufficiency was a major reason for breast milk cessation in their studies.

In Riyadh, it was observed that 73% of the mothers introduce solid food in the morning as opposed to 50.5% of the mothers in Cairo who fed their children in the evening which make the child more susceptible for aspiration, obesity and disturbed sleep. Mothers in both cities were asked about the type of milk they give to their infants while they introduce the solid food. In Riyadh nearly half of the mothers were giving their infants' breast milk only when they start the weaning process comparing to 10% of Cairo mothers. Bottle feeding were more prevalent in Cairo than in Riyadh. A study by [2]; reported the same results in which 74% of their participants used only bottle feeding. In both Cairo and Riyadh mothers introduced one food only per time and started with liquid food first followed by semi liquid food. In both cities mothers used yoghurt as a first food to start weaning. Across the literature, most researchers reported that infants were fed different food as their first food such as honey and rice with milk [14]; [16].

Feeding difficulties in this study were established through an open ended question which used to ask mothers whether they had experienced any problems with feeding their infant when they introduced to the new food. This was later categorized. Large proportion in both countries reported to have allergy as a major problem, anemia, asthma and constipation were reported in Riyadh only. [5]; found that 21% of infant who weaned early had developed eczema and diarrhea, 8% had asthma, 9% obesity and 11% ischemic heart disease.

V. Conclusion and recommendations

Weaning is an important step in the life of any infant and his parents. In the present research, we aimed to explore mother's opinion and practice regarding infant weaning in two countries. Our study revealed that the practices of feeding and weaning are different between the two countries. Majority of weaning happen suddenly in both countries and allergy might happen due to this sudden weaning practices. Teaching the parents about the proper weaning process and ways of introducing the new food could prevent further feeding difficulties and this responsibility lies on the shoulders of health care providers in both countries.

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