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Research Article

**PATTERN OF CHILDREN'S WEANING IN HAIL,
SAUDI ARABIA**¹Wudian Mahmmad Alshammery, ²Shroog Khashman Alshammari, ³Ghena Ghazi Alenezi¹Faculty of Medicine, University of Hail, Hail, Saudi Arabia**Abstract:**

Background: Weaning is an important milestone in a baby's life and weaning practices are strongly associated with culture of a society.

Objective: to study the age and pattern of the children's weaning in Hail, Saudi Arabia.

Methods: A cross sectional study carried out among 515 mothers attending the PHC centers in Hail city, during the period from 1 March, to 31 July 2018. They interviewed and filled a questionnaire which includes the needed questions. Data were analyzed using SPSS program (version 16). P-value was considered significant if <0.05 .

Results: Our study reported breast feeding prevalence was 95.9%. The period of breast feeding was 1-6 months in 58.6% followed by 7-23 months (completed absolute breastfeeding) in 24.7%. Regarding the causes of weaning, child completed natural feeding period (24 months) in 30.1%, mother's work in 26.2%, mother's intention to get pregnant in 21.6%, to encourage the child to eat in 10.6%, mother's health problem in 8.5% and child health problems in only 2.9%. We found that relatives and parents were the most common mother's source of information about weaning by 62.9% followed by health care providers in 17.5, media in 14.6% and friends in 4.5%. Regarding the weaning food items, in present study we found that 97.1% of children preferred homemade food and only 2.9 % preferred canned food. There was insignificant association between weaning age of the child (in months) with child's gender, mother's work status and presence of problems in weaning ($p > 0.05$), significant association with No. of children in the family and mother age group among the studied children ($p > 0.05$).

Conclusion: In our study, there was 24.7% only of the mothers completed the period of exclusive breastfeeding in Hail city, Saudi Arabia. Health education of the mothers to increase mothers' awareness about the importance of exclusive breastfeeding in the first 6 months of age must be conducted.

Key words: weaning, causes of weaning, exclusive breastfeeding.

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INTRODUCTION:

Breast-feeding is one of the oldest practices, recommended in the Holy Quran, Biblical records [1]. However, there has been increasing concern in recent years about the changing pattern of breast-feeding, particularly in societies in rapid transition [2]. Breastfeeding has generally considered by health professionals as the ideal feeding practice for infants. It is the first communication channel between the mother and her baby. (World Health Organization, WHO, 2015) described breastfeeding as an unequalled way of providing ideal food for the healthy growth and development of infants. Optimal breastfeeding of infants under two years of age has the greatest potential impact on child survival of all preventive interventions, with the potential to prevent over 800,000 deaths (13 per cent of all deaths) in children under five in the developing world [3]. Also, providing the needed nutrition for the babies, boosting the baby's immune system, helping mothers to lose weight after pregnancy, and stimulating the uterus to return to its previous position before pregnancy. The World Health Organization (WHO) has strongly endorsed not only the feeding of all infants exclusively with breast milk for the first 6 months of their lives [4], but also the continuity of breastfeeding until 2 years of age in addition to nutritionally adequate complementary foods [5]. About 38% of infant feed only on breast milk during first 6 months [6]. Weaning plays a major role in determining the nutritional status of a child. The term "to wean" means "to accustom" and it describes the process by, which the baby is gradually introduced to foods other than milk and is recommended between the 4th-6th months of life [7]. It is transitional to change from liquid to a solid diet, the feeding behavior changes from sucking to chewing and biting and the obligatory introduction with the mother or other caretaker changes to independent feeding [8]. Introduction of timely, adequate and balanced weaning food is perhaps one of the most important single and direct remedial measures to combat infant's malnutrition. Not only the appropriate timings, but appropriate quantity and quality in a hygienic environment, along with increased maternal interaction time also have a desired positive effect on the growth of young children [9]. Guidelines for weaning foods suggest that weaning foods given should have characteristics according to nutritional needs, appropriate textures and viscosity and appropriate forms (liquid, semisolid, solid) to support mental and physical development [10]. The proper time for complete weaning has been suggested different in different textbooks, but the time agreed upon in most scientific references is about 24 months [11]. The process of complete weaning by the mother

can be either gradual or sudden. Gradual weaning is the best way to stop breastfeeding and should be accompanied by full psychological and nutritional support to prevent damages caused by disorders in child [12]. Studies have revealed a number of reasons for termination of breast-feeding in the Middle East. In general, the most widely-cited motivations for completely weaning from the breast, in countries as diverse as Egypt, Saudi Arabia, and Iran, are: a desire for another pregnancy and, a perception that breastmilk is insufficient [13].

This study aimed to show the age and pattern of the weaning among children of Hail, Saudi Arabia.

PARTICIPANTS AND METHODS:

This is a cross sectional study conducted in Hail, KSA. It included 515 mothers, during the period from 1 March to 31 July 2018. Mothers were selected from the attendees of the primary health care centers. They interviewed and filled a predesigned questionnaire, included questions about socio-demographic characteristics of the participants, including age, sex, number of children in the family, mothers education, work and consanguinity between parents. In addition, the questionnaire included inquiries about child's age at weaning, causes of weaning, weaning food and mother's sources of information about weaning, the process of weaning itself

Statistical analysis: Data were compiled and analyzed using statistical package for the social sciences (SPSS, version 16) and results were analyzed with frequencies and Chi-squared test as appropriate. P value was considered significant if <0.05 .

Ethical consideration: data collectors explains the aim of the study to the participant mothers. Participants were informed that participation is completely voluntary, written informed consent was obtained from each of them. No names was recorded on the questionnaires. All questionnaires were kept safe.

RESULTS:

Our study tables show that, breast feeding prevalence was 95.9%. Regarding the period of breast feeding our study reported 1-6 months in 58.6% followed by 7-23 months (completed absolute breastfeeding) in 24.7%. Regarding the causes of weaning, our study reported that child completed 24 months the most common cause, reported by 30.1% of mothers, followed by mother's work 26.2%, to get pregnant 21.6%, to encourage the child to eat 10.6%, mother

health problem 8.5% and only 2.9% for child health problems. As regards mother's sources of information about weaning we found that relatives and parents were the most common sources by 62.9% followed by health care providers 17.5, media 14.6% and friends 4.5%. Regarding the weaning food items, in present study we found that 97.1% of child prefer

home food and only 2.9 % canned food. There was insignificant association between weaning age of the child (in months) with child's gender, mother's work status and presence of problems in weaning ($p > 0.05$), significant association with No. of children in the family and mother age group among the studied children ($p > 0.05$).

Table (1): Socio-demographic characteristics of the studied mothers and children, prevalence of breastfeeding and sources of information about weaning Hail, 2018 (N=515)

Mother age	Frequency	Percent
▪ ≤20	14	2.7
▪ 21-30	234	45.4
▪ 31-40	207	40.2
▪ >40	60	11.7
Marital status		
▪ Widow	8	1.6
▪ Married	496	96.3
▪ Divorced	11	2.1
Working status		
▪ Housewife	252	48.9
▪ Private work	22	4.3
▪ Employed	241	46.8
Child's gender		
▪ Female	243	47.2
▪ Male	272	52.8
No. of children in the family		
▪ <4	354	68.7
▪ 4-5	74	14.4
▪ >5	87	16.9
Breastfeeding prevalence		
▪ No	21	4.1
▪ Yes	494	95.9
Mother's sources of information about weaning		
▪ Relatives and parents	324	62.9
▪ Health care providers	90	17.5
▪ Media	75	14.6
▪ Friends	23	4.5
▪ T.V	3	.6

Table (2): child weaning characteristics among the studied children, Hail, 2018 (N=515)

	No.	%
Period of breastfeeding (in months)		
▪ No breastfeeding	21	4.1
▪ 1-6	302	58.6
▪ 7-23 (completed absolute breastfeeding)	127	24.7
▪ 24 or more	65	12.6
Cause of weaning		
▪ Child completed 24 months	155	30.1
▪ Mother health problem	44	8.5
▪ Child health problem	15	2.9
▪ Mother's work	135	26.2

▪ To get pregnant	111	21.6
▪ To encourage the child to eat	55	10.6
Problems in weaning		
▪ No	346	67.2
▪ Yes	169	32.8
Child breastfeeding during next pregnancy		
▪ No	470	91.3
▪ Yes	45	8.7
Process of weaning		
▪ Cup drinking of fluids after breast and artificial feeding	182	35.3
▪ Eating solid food after breast and artificial feeding	333	64.7
Preferred food for the child		
▪ Home made	500	97.1
▪ Canned foods	15	2.9

Table (3): relationship between period of breastfeeding with child's gender, mother's age group, mother's working status, No. of children in the family and problems in weaning among the studied children, Hail, 2018

Variables	Responses	Period of breastfeeding (in months)				Total (N=515)	P value		
		No (N=21)	1-6 (N=302)	7-23 (N=127)	24++ (N=65)				
Child's gender	Female	11	145	58	29	243	0.896		
		52.4%	48.0%	45.7%	44.6%	47.2%			
	Male	10	157	69	36	272			
		47.6%	52.0%	54.3%	55.4%	52.8%			
Mother age group	<21	21	302	127	65	515	0.000		
		.0%	3.0%	3.1%	1.5%	2.7%			
	21-30	14	168	38	14	234			
		66.7%	55.6%	29.9%	21.5%	45.4%			
	31-40	4	99	70	34	207			
		19.0%	32.8%	55.1%	52.3%	40.2%			
	>40	3	26	15	16	60			
		14.3%	8.6%	11.8%	24.6%	11.7%			
Working status	Housewife	9	143	69	31	252	0.741		
		42.9%	47.4%	54.3%	47.7%	48.9%			
	Private work	1	11	7	3	22			
		4.8%	3.6%	5.5%	4.6%	4.3%			
	Employed	11	148	51	31	241			
		52.4%	49.0%	40.2%	47.7%	46.8%			
No. of children in the family	<4	19	233	71	31	354	0.000		
		90.5%	77.2%	55.9%	47.7%	68.7%			
	4-5	2	31	25	16	74			
		9.5%	10.3%	19.7%	24.6%	14.4%			
	>5	0	38	31	18	87			
		.0%	12.6%	24.4%	27.7%	16.9%			
	Problems in weaning	No	17	209	76	44		346	0.140
			81.0%	69.2%	59.8%	67.7%		67.2%	
Yes		4	93	51	21	169			
		19.0%	30.8%	40.2%	32.3%	32.8%			

DISCUSSION:

Weaning is an important milestone in a baby's life

and weaning practices are strongly associated with culture of a society. The term weaning comes from

the Anglo-Saxon word “wenian” meaning “to become accustomed to something different”. Weaning from the breast is a natural, inevitable stage in a child’s development. It is a complex process involving nutritional, immunological, biochemical and psychological adjustments [14]. Weaning may mean the complete cessation of breastfeeding or the beginning of a gradual process of the introduction of complementary foods to the infant’s diet [15]. The age at which complementary foods (CF) are introduced is a sensitive time in infant growth since breast milk alone is insufficient to meet their full nutritional needs. The World Health Assembly in 1990, 1992 and 1994 suggested 4–6 months and about 6 months, respectively, as an ideal age for introducing CF [16]. However, the recent WHO/UNICEF guidelines recommend exclusive breastfeeding for 6 months and the introduction of CF at 6 months of age [16, 17]. This is across sectional study was conducted among 515 of studied mother Hail, KSA. The study aim to Breastfeeding plays an important role in child development, especially as a protective factor against infectious diseases [18, 19]. Our study reported breast feeding prevalence was 95.9%. This was higher than result of another study was conducted in Kuwait which showed that 60.6% of the infants were breast-fed [20].

Regarding the period of breast feeding our study reported 1-6 months by 58.6% followed by 7-23 months (completed absolute breastfeeding) 24.7%. According to 2016 Demographic and Health Survey (DHS) data in Sri Lanka, the prevalence of BF of infants 0–6 months was 82%, while the BF rate at 4–5 months was 64% [21]. In Sri Lanka, across section study was conducted among 354 mother found that duration of breast feeding was up to 6 months in 50.8% of participants and up to 5 months or more in 81.3% [22]. Another study reported that the mean duration of breast feeding was 5.8 months and varied from 9.5 to 4.3 months among illiterate and educated mothers respectively [20].

Regarding the causes of weaning, our study reported that child completed 24 months the most common causes by 30.1% followed by mother's work 26.2%, to get pregnant 21.6%, to encourage the child to eat 10.6%, mother health problem 8.5% and only 2.9% for child health problems. In contrast to our results another study found that the main reason for cessation of BF was the mother thinking that breast milk only was not enough for the baby (52.9%) [22] as found by previous studies [23, 24, 25]. The probable reason for this could be a deficiency in health education given to the mothers. In India,

Konaseema region, another was conducted among 500 mothers reported; most of the mothers (61.4%) started weaning and complementary feeding because of insufficient milk, (36.6%) as felt the child required more than milk and (6%) as the child was sick and not drinking milk [26]. In Another study, mothers were also asked about reasons for weaning, 58% of them showed awareness of the need for extra calories for the growing child after the age of 4-6months, other major reasons noted were ‘not enough breast milk’ (36%) and custom of the family (6%) [27]. Another study found that the reasons for weaning were stated as: insufficient milk (30.7%), new pregnancy (14.7%), infant reaching weaning age (12.3%), mothers' sickness (12.0%), infant refusal (10.6%) and mothers' desire (6.6%) [20].

As regards mother's sources of information about weaning we found that relatives and parents were the most common sources by 62.9% followed by health care providers 17.5, media 14.6% and friends 4.5%. Another study found that the sources of information regarding weaning varied from family members and friends (52%), health-workers / medics / paramedics (30%) and media (18%) [27]. Selection of type of weaning food items is very important.

Regarding the weaning food items, in present study we found that 97.1% of child prefer home food and only 2.9 % canned food. The mothers were offering nutritious food mainly included indigenous foods from the main family supply such as home-made cereals like kitchri, dalia and suji. These are double mixes of rice, wheat, pulses, oil and sugar. Along with this, banana and fish were also given. The use of other fruits should also, either raw or pureed, as they are important sources of vitamin and minerals [28].

CONCLUSION AND RECOMMENDATIONS:

In our study, there was 24.7% only of the mothers completed the period of exclusive breastfeeding in Hail city, Saudi Arabia. Health education of the mothers to increase mothers’ awareness about the importance of exclusive breastfeeding in the first 6 months of age must be conducted.

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