

Maternal factors associated with the breastfeeding Status in Sana'a, Yemen

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Abstract

A survey was conducted during April-May 2013 in Sana'a City, Yemen, and 319 mothers from Sana'a City were interviewed about breastfeeding practices. Each mother had a living child aged less than 12 months. About 84% of mothers were breastfed their infants in the first month and the median of duration of breastfeeding was found only a half month. The results of multiple logistic regression analysis showed that mothers aged 30 or more years are likely higher to continue breastfeeding than younger women. Educated mothers are more likely to continue breastfeeding than illiterate mothers. Housewives are likely higher to breastfeed than those who are working. Mothers who initiated breastfeeding at less than two hours are likely to continue breastfeeding. Mothers who have more than one child are likely to wean earlier than mothers with more than one child.

Key Words: Breastfeeding, Maternal factors, logistic regression.

INTRODUCTION

Trivially saying, suitable feeding of infants merely increase their chances of survival. It gives also the chance to optimal growth and development. Exclusive breastfeeding for at least six months, timely introduction of mixed feeding at 6 months, continuing breastfeeding for two years or more and avoiding bottle feeding at any age are the basic constituents of sound infant feeding, which is essential for adequate growth and positive health of children (WHO, 1989; WHO, 1991; Cameron and Hofvander, 1983) . With this in mind, Health Authorities and Health Workers in the Republic of Yemen have been interested in the patterns, trends and factors that influence infant feeding practices in the Yemeni Society.

Musaiger (1993), reported that there was about three days delay in initiation of breastfeeding, its duration was noted to be short and that artificial feeding was increasing.

In a study conducted in Sana'a in 1983, it was found that the average age of weaning was seven months, and that only one quarter of the infants continued breastfeeding beyond 17 months (David, David and el Lozy, 1983).

In another study, it was found that 68% of mothers in an urban area had stopped breast feeding by the age of six months and only 7% continued beyond the first birthday (El Daher and Griener, 1979).

Griener and Latham (1983) described the breast-feeding situation in Udain, Yemen as "the typical feeding pattern that emerged from the baseline survey is one in which breast-feeding begins on the second day of life, bottle feeding is begun at two months in rural areas and three months in Urban samples: breastfeeding ends at nine months in Udain and three to five months in the cities."

In the late eighties it was reported that in Republic of Yemen, higher maternal education, younger maternal age and availability of electricity were associated with a shorter duration of breastfeeding (Akin, Bilsborrow, Guilkey and Popking, 1986).

In another study conducted in Dammar in 2011, Republic of Yemen, it was found that full breastfeeding rate 41.8% and timely introduction of complementary feeding rate 57.4% were low, bottle-feeding rate 25.1% was high and timely first suckling rate was zero, and it was also found that the more educated and older mothers tended to wean their children earlier than illiterate and younger mothers (Omer, Al-Mansoob, Omer, Shadliyy and Williams, 2011).

According to Central Statistical Organization, Yemen, (CSO, 1998), it was reported that 17.5% of children who are exclusively breastfed under 6 months. Further, Yemen Family Health Survey 2003, (Ministry of Health & Population (MoHP) and CSO, 2005), reported that only 11% of children were not breastfeeding at 6 months of age and the percentage of exclusive breastfeeding rate by children under 6 months of age was 20%. During 2007-2011, it was noted that the exclusive breastfeeding by children under 6 months of age were in Yemen was only 12% (WWW.UNICEF.ORG).

Finally, in Yemen National Health and Demographic Survey 2013, it was reported that only 10% of children under 6 months are exclusively breastfed (MoHP and CSO, 2014).

The objectives of the present study are to:

- Explore the recent breastfeeding trend in Sana'a City during the first year of infant's life;
- Identify the maternal factors that could be related to breast-feeding practice.

MATERIAL AND METHODS:

The survey was carried out during April-May 2013 in Sana'a City, the capital of Republic of Yemen. The questionnaire was administered consecutively to mothers attending Primary Health Care Centres in Sana'a City and who had babies less than one year of age. The questionnaire had been designed, pilotly tested and modified accordingly. It consisted of 35 questions covering socio_ economic characteristics of the mother, as well as information on infant's breast-feeding and weaning and contraceptive methods used after the last pregnancy. Questions about mother's attitudes and beliefs about infant feeding and health were also included. Information about breast-feeding and bottle-feeding practice were restricted to the 24 hours preceding the enquiry (24 hours recall).The consents of mothers were taken before administering the questionnaire. All eligible mothers agreed to participate in the study. The collected data has been statistically analysed by using SPSS 21. Basic statistics and the binary logistic regression analysis were used. The significance level (α) was set to 5% throughout the analysis.

RESULTS and DISCUSSIONS

Analysing the data has revealed that the percentages of using pills, breastfeeding and IUDs as contraceptive methods are 25.4%, 22.6% and 18.8% of mothers, respectively. These figures are much higher than percentages reported in a similar study that conducted earlier in Dhamar City where pills, breastfeeding, and IUDs percentages were 4.8%, 12.3% and 10.1%, respectively [Omar, Al-Mansoob and Buhubaish, 2000]. Pills, on the other side, was found to be the most popular contraceptive method in Jeddah, Saudi Arabia [Shawky and Abalkhail, 2003; Al-Hreashy et al, 2008]. Further, mothers who used breastfeeding as a family planning were more likely to continue breastfeeding than those used pills, IUDs or injectable tools.

In this study, it was found that 47% of the mothers initiated breastfeeding at less than two hours. On the other hand, 40% of the Sudanese mothers initiated breastfeeding at less than two hours (Omer et al, 1987). In addition, 27% of the Chilean mothers initiated breastfeeding within six hours after delivery (Diaz, Herrerros, Aravena, Casado, Reyes, and Schiappacasse, 1995). These results are assuring that starting breastfeeding mode is different from country to another and may be considered as a cultural characteristic.

Table1. Basic Statistics about Mothers and babies

Variables	Categories	N	%
Age of mother in years	< 30 years	235	73.7
	30+ years	84	26.3
Mothers' education	Illiterate	75	23.5
	Primary	104	32.6
	Secondary	71	22.3
	University +	69	21.6
Does mother work outside house	Yes	53	16.6
	No	266	83.4
No. of children alive	1 child	87	27.3
	2 children	88	27.6
	3 children	71	22.3
	4+ children	73	22.8
Place of delivery	At home	107	33.5
	At health facility	212	66.5
Method of family planning	None	75	23.5
	Pills (Oral)	81	25.4
	IUD	60	18.8
	Injectable	16	5.0
	Breastfeeding	72	22.6
	Others	15	4.7
Reasons for stopping Breastfeeding	Child still breastfeed	243	76.2
	Mother or child sick	27	8.5
	Breast milk is not enough	22	6.9
	Pregnancy	11	3.4
	Mother work	3	0.9
	Others	13	4.1
Breastfeeding Status	Breastfeed	250	78.4
	Does not breastfeed	69	21.6

Table 1 describes some basic statistics about the involved mothers and babies in this study. Their age ranged

from 15 to 43 years with mean 26 years and SD 5.5 years. About 23.5% of mothers had never been at school and only 21.6% had reached university and above. Most of the mothers are housewives (83.4%). No. of children alive ranged from 1 to 10 with a mean of 3 children and 22.8% of mothers had at least four children. However, pills and breastfeeding are the most popular contraceptive methods used by mothers. Delivery place at home still popular with 33.5% despite that this society is urban. 76.5% of mothers are using contraceptive methods. Some mothers have already weaned their babies (23.8%). Both mothers or child sick and breast milk is not enough are the most important factors behind weaning.

Table 2. Bottle and Breastfeeding Initiation

Variables	Categories	N	%
Bottle in the first few days	Yes	174	54.5
	No	145	45.5
No. of hours after birth did mother start breastfeeding	< 2 hours	149	46.7
	2+ hours	170	53.3
Sex of Infants	Male	175	54.9
	Female	144	45.1

Table 2 shows that more than 54% of the infants were given bottles in the first few days after birth. It also shows that 46.7% of infants did start breastfeeding in less than two hours. In a separate analysis, it was found that the median duration of breastfeeding is 15 days.

It seems of interest - at this stage of the analysis - to understand the relationship between breastfeeding and the socio-economic factors of the mothers. Breastfeeding is normally affected by several factors. In the following, we would try to model the breastfeeding status with some effected variables. Obviously, breastfeeding status is the dependent variable and the other socio-economic factors are the independent factors or variables. In such case, statistically, the logistic regression is the most appropriate (Agresti, 2002).

Table 3. Logistic Regression Analysis Results

Maternal Factors	Categories	Odds Ratio (OR)	95% CI	P-value
Age (years)	- < 30 (=0)* - 30+ (=1)	3.325	1.522 – 15.426	0.004
Education	- Illiterate (=0)* - Literate (=1)	4.252	1.145 – 15.738	0.010
Work Status	- Working (=0)* - Housewife (=1)	21.112	1.014 – 85.311	0.000
No. of children	- 2+ (=0)* - 1 child (=1)	0.256	0.181 – 0.882	0.001
No. of hours that mother started breastfeeding baby after birth	- 2+ hours (=0)* - < 2 hours (=1)	1.124	1.100 – 21.471	0.032
Infants' Sex	- Female (=0)* - Male (=1)	0.936	0.541 – 1.614	0.323
Baby had bottle in the first days	- No (=0)* - Yes (=1)	0.746	0.421 – 1.320	0.179

*reference category

Table 3 shows the relationship between some factors and breastfeeding. Mothers aged 30 or more years are likely higher to continue breastfeeding than younger women. It is possible that might be linked to parity, with older mothers having had other children and previous positive experience with breastfeeding. Educated mothers are more likely to continue breastfeeding their infants than illiterate mothers. Housewives are likely higher to continue breastfeeding than those who are working. This means that breastfeeding practice is negatively affected by the working mothers. Mothers who initiated breastfeeding at less than two hours are likely to continue breastfeeding. In other words, the early initiation the breastfeeding the more chance for babies to continue breastfeeding. It is also clear from the Table 3 that mothers who have more than one child are likely to wean earlier than mothers with more than one child. In addition, others factors are not significantly related to

breastfeeding status.

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