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THE EFFECT OF INTEGRATED HEALTH AND SOME SOCIO-ECONOMIC FACTORS ON EXCLUSIVE BREASTFEEDING

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ABSTRACT
Breastfeeding provides amazing benefits for the health of the child and the mother. WHO and UNICEF suggest a mother should be able to practice and maintain exclusive breastfeeding during the first six months of her baby's life. This study aimed to analyze the effect of integrated health and some socio-economic factors on exclusive breastfeeding. The current cross sectional study was conducted in Fallujah Teaching Hospital in Anbar province/Iraq during the period from August to September 2019 on 100 nursing lactating mothers who had children aged (7-12) months and selected by stratified random sampling. The dependent variable was exclusive breastfeeding, while the independent variables were maternal age, education, occupation, type of birth delivery, knowledge, attitude, family support, and social level. The data were collected by a questionnaire form and analysis by logistic regression. Results showed that mothers aged (20-34) years (79%) gave more exclusive breastfeeding than mothers aged <20 or ≥ 35 years, mothers with education level ≥ high school (89.6%) gave more exclusive breastfeeding results than those with education level < high school, women who work outside the house (34.8%) provided less exclusive breastfeeding than those who work at home, women who delivered by caesarean section (52.2%) gave less exclusive breastfeeding than mothers who gave birth normally, women with good knowledge (87.7%) gave more exclusive breastfeeding than those with poor knowledge, women with positive attitudes in relation to exclusive breastfeeding (87.8%) gave more exclusive breastfeeding than mothers with negative attitudes, women with strong family support (89.7%) gave more exclusive breastfeeding than mothers with weak family support and finally, women with strong social state (91.7%) gave more exclusive breastfeeding than mothers with weak social state. It can be concluded that exclusive breastfeeding increases with maternal age (20-34) years, high maternal education, good knowledge, positive attitude, strong family support, and strong social state. Exclusive breastfeeding decreases with mother working outside the house and caesarean section, and integrated health post has a strong contextual effect on exclusive breastfeeding.

KEYWORDS: Exclusive breastfeeding, socioeconomic state, integrated health.

INTRODUCTION
Breastfeeding is one of the basic health, development, and survival of children. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recommend that breastfeeding should begin within the first hour after birth and the baby should exclusively breastfeed for the first 6 months, with continued breastfeeding until 24 months or more (WHO, 2018). The practice of breastfeeding optimally can reduce child mortality and contribute to long-term health (WHO, 2017) and children have strong immunity and optimal development (Zakar et al., 2018). Globally, the overall rate of exclusive breastfeeding for babies under the age of six months is 40%, with only 23 countries achieving at least 60% of infants less than six months exclusively breastfed. WHO has set a target to increase the level of exclusive breastfeeding to at least 60% by 2030 (WHO, 2017).

The low practice of exclusive breastfeeding is influenced by several factors. Jaafar et al. (2016) draws the conclusion that exclusive breastfeeding is influenced by social and cultural factors. According to Asfaw et al. (2015) socio-demographic characteristics including maternal age, educational status (Habibi et al., 2018), occupation (Tewabe et al., 2017) were identified as factors influencing the practice of exclusive breastfeeding. Breastfeeding is a health behavior that is also influenced by social conditions, psychological mother, and social support (Boateng et al., 2019;

Mgongo et al., 2019). Strong family support can increase exclusive breastfeeding. Family support can be in the form of information support, motivating mothers and convincing mothers to give exclusive breastfeeding to their babies (Sipahutar et al., 2019). In addition, the role of social level also has an influence on one's health behavior. Social level and health can be seen from various perspectives. A better social capital relationship can be associated with better health outcomes (Ehsan et al., 2019).

Subjects and methods

This observational analytic method with cross sectional approach conducted in the Fallujah Teaching Hospital from August to September 2019 on 100 breastfeeding mothers in Anbar province who had babies aged (7-12) months and were selected by random sampling.

The data were collected by questionnaire, and measurement scale was categorical, coded 0 for no and 1 for yes. Maternal age was the age at the time of the study stated in years. The measurement scale was continuous and transformed into dichotomous, coded 0 and 1 for all parameters.

Statistical analysis

Sample characteristics in continuous data were described in mean, minimum, and maximum. Sample characteristics in continuous data were described in frequency (n) and percent (%). Bivariate analysis was performed by Chi-square. Multivariate analysis was performed by logistic regression.

RESULTS

Table (1) showed sample characteristics for continuous and table (2) showed sample characteristics for categorical data.

Table (1): Sample characteristics for continuous data.

Variables	n	Mean	SD	Min.	Max.
Knowledge	100	10.10	2.01	5	11
Maternal attitude	100	29.19	2.56	17	34
Family support	100	36.56	3.17	23	46
Social Capital	100	48.15	3.01	40	53

Table (2): Sample characteristics for categorical data.

Characteristics	Frequency(n)	Percentage (%)
Age		
<20 or ≥35 years	21	21.0
20 to 34 years	79	79.0
Education		
<Senior high school	23	23.0
≥Senior high school	77	77.0
Occupation Working outside home		
Working at home	78	78.0
Working outside home	22	22.0
Type of birth delivery		
Normal	27	27.0
Cesarian section	73	73.0
Maternal Knowledge		
Poor (score <10)	27	27.0
Good (score ≥10)	73	73.0
Attitude toward exclusive breastfeeding		
Negative (score <37)	29	29.0
Positive (score ≥37)	71	71.0
Family Support		
Weak (score <30)	24	24.0
Strong (score ≥30)	76	76.0
Social level		
Weak (score <49)	26	26.0
Strong (score ≥49)	74	74.0

Table (2) showed that mothers aged (20-34) years were (79.0%), maternal education ≥Senior high school were (77.0%). Mothers with caesarean section delivery and good knowledge were 73.0%. Mothers with positive maternal attitude were (71.0%). Mothers with strong family support were (76.0%) and mothers with strong social level were (74.0%).

Bivariate analysis in table (3) showed results of Chi square test on the effect of age, education, occupation,

type of delivery, knowledge, attitude, family support, and social level on exclusive breastfeeding.

Mothers aged 20 to 34 years (88.5%) gave more exclusive breastfeeding than mothers aged <20 or ≥ 35 years (45.5%). There was an influence of maternal education on exclusive breastfeeding. Mother with education ≥Senior high school (89.6%) give more exclusive breastfeeding than those with education <Senior high school (43.5%).

There was an influence of maternal occupation on exclusive breastfeeding. Mothers who work outside the house (34.8%) provide less exclusive breastfeeding than those who work at home (92.2%). There was an effect of the type of delivery on exclusive breastfeeding. Mothers who delivered section caesarean (52.2%) gave less exclusive breastfeeding than mothers who gave birth normally (87.0%). There was an influence of maternal knowledge on exclusive breastfeeding. Mothers with good knowledge (87.7%) gave more exclusive breastfeeding than those with poor knowledge (55.6%). There was an influence of maternal attitude towards exclusive breastfeeding. Mothers with positive attitudes related to exclusive breastfeeding (87.8%) gave more exclusive breastfeeding than mothers with negative attitudes (53.8%).

There was an influence of family support for exclusive breastfeeding. Mothers with strong family support (89.7%) gave more exclusive breastfeeding than mothers with weak family support (56.2%). There is an influence of social capital on exclusive breastfeeding. Mothers with strong social level (91.7%) gave more exclusive breastfeeding than mothers with weak social level (46.4%).

Table (3): Chi square test on the effect of age, education, occupation, type of delivery, knowledge, attitude, family support, and social level on exclusive breastfeeding.

Independent Variables	Category	Exclusive breastfeeding				OR	P
		No		Yes			
		n	%	n	%		
Age	<20 or ≥35 years	12	54.5	10	45.5	9.20	< 0.001
	20-34 years	9	11.5	69	88.5		
Education	<Senior high school	13	56.5	10	43.5	11.21	< 0.001
	≥Senior high school	8	10.4	69	89.6		
Occupation	Working at home	6	7.8	71	92.2	0.05	< 0.001
	Working outside home	15	65.2	8	34.8		
Types of child delivery	Normal	10	13.0	67	87.0	0.16	< 0.001
	Caesarean Section	11	47.8	12	52.2		
Education	Poor (score <10)	12	44.4	15	55.6	5.69	= 0.001
	Good (score ≥10)	9	12.3	64	87.7		
Attitude	Negative (score <37)	12	46.2	14	53.8	6.19	< 0.001
	Positive (score ≥37)	9	12.2	65	87.8		
Family support	Weak (score <30)	14	43.8	18	56.2	6.78	< 0.001
	Strong (score ≥30)	7	10.3	61	89.7		
Social level	Weak (score <49)	15	53.6	13	46.4	12.69	< 0.001
	Strong (score ≥49)	6	8.3	66	91.7		

DISCUSSION

The results of this study showed the effect of maternal age on exclusive breastfeeding. Mothers between the ages of 15 and 19 are almost 0.34 times less likely to exclusively breastfeed their babies. In addition, exclusive breastfeeding decreases in those aged 35 years and over (Sauza et al., 2012). Raheel and Tharkar's (2018) stated that mothers aged 35 to 49 years are found to be less likely to give exclusive breastfeeding compared to younger mothers. This negative effect may be because many mothers tend to use their own experiences rather than what they have learned from the clinic, or health personnel. Older mothers have given birth many times, so it is possible that they follow whatever they have practiced before without considering the new messages taught in the clinic or health personnel.

Several studies conducted on exclusive breastfeeding show significant results between maternal education and exclusive breastfeeding. Educated mothers are more receptive to health information especially concerning their children, therefore they are more likely to realize the importance of exclusive breastfeeding and are more willing to practice it (Boateng, 2018); Mohammed et al., 2014). Improved education often allows mothers to make wise decisions about breastfeeding practices for children. Thus, a higher level of maternal education can be a good estimate of success in exclusive breastfeeding practices (Mosquera et al., 2019).

There was an influence of maternal occupation on exclusive breastfeeding. Mothers who work outside the home reduce exclusive breastfeeding. Tadessa et al. (2019) stated that mothers who do not work were 26 times more likely to practice exclusive breastfeeding

compared to working mother. Many reasons can be stated for the relationship of working mothers with low exclusive breastfeeding. In accordance with the Constitution of Iraq and Labor Proclamation, female workers are entitled to maternity leave fully paid for 180 days. Therefore, working mothers will have enough time to stay at home and breastfeed their babies. This is in accordance with the six-month period of exclusive breastfeeding recommended by WHO. Short periods of leave, respectively, influence mothers to introduce supplementary feeding from the moment they return to work (Tadesse et al., 2019). A work environment that is not friendly to nursing mothers such as the unavailability of facilities for breastfeeding at work. Mothers who are employed cannot bring their babies to work and breastfeed there, which is one of the reasons that working mothers do not give exclusive breastfeeding to their babies.

The results of this study indicate that there is a relationship between the type of delivery and exclusive breastfeeding. Onah et al. (2014) stated that mothers who gave birth by caesarean section were 0.38 times less likely to breastfeed their infant exclusively compared to those who gave birth per vaginam. Mothers who give birth by cesarean section usually take a long time to recover from the effects of anesthesia before thinking about the recommended infant feeding practice of breast milk. The problem of increasing maternal stress after delivery by caesarean section can also delay the time to breastfeed the baby directly.

The results of this study demonstrated the effect of mother's knowledge on exclusive breastfeeding. Tsegaye et al. (2019) reported that children of mothers who have good knowledge of exclusive breastfeeding practices are twice as likely to give exclusive breastfeeding compared to children of mothers who have poor knowledge about the practice of exclusive breastfeeding. Lack of knowledge about the benefits of breastfeeding has been reported to contribute to the low practice of exclusive breastfeeding in Sub-Saharan Africa and rural areas in Ghana (Boateng, 2018; Mogre et al., 2016). Knowledge about breastfeeding is the most influential variable on exclusive breastfeeding (Zhang et al., 2018). Mothers who do not know about the benefits of breastfeeding, especially exclusive breastfeeding, will have an impact on the failure of exclusive breastfeeding itself. Good knowledge will provide experience for mothers to breastfeed exclusively, because it will provide a sense of trust and separate attitudes for mothers to breastfeed their babies, so there is a relationship between the knowledge and exclusive breastfeeding (Wowor et al, 2013).

There is an influence of mother's attitude towards exclusive breastfeeding in this study. A study by Wowor et al. (2013) indicated that there was a relationship between maternal attitudes and exclusive breastfeeding. The positive attitude of the mother towards exclusive breastfeeding makes it possible to form the basis of the mother's decision in exclusive breastfeeding. Behavioral beliefs are the beliefs that mothers have in considering the advantages and disadvantages felt by mothers to have the intention to give exclusive breastfeeding (Boateng, 2018).

The results showed that family support especially the husband played an important role during breastfeeding. Mothers who get family support succeed in providing exclusive breastfeeding compared to mothers who do not get family support (Maramis et al., 2017). Family support can be in the form of information support, motivation for mothers to be able to provide exclusive breastfeeding to their babies, provide adequate nutrition to mothers and families involved in homework, so that nursing mothers are more focused on caring for their babies without being burdened with the usual homework (Sipahutar, 2019).

The results of this study indicate that there is an influence of social level on exclusive breastfeeding. Social level have been approached from various interrelated perspectives. Having a good social level relationship is associated with better health outcomes. But social capital can also have a negative relationship with health (VillalongaOlives and Kawachi, 2015; Moore and Kawachi, 2017). Poor quality environments, such as the absence of a support system to encourage mothers to start breastfeeding, and perhaps the influence of family or friends who give formula milk to their babies, is the norm that can prevent the practice of exclusive breastfeeding. In addition, the lack of or insufficient support from institutional support systems including health care providers also influences the practice of exclusive breastfeeding (Edwards et al., 2017).

There is an influence of integrated health post on exclusive breastfeeding. A study by Lestari (2019) showed integrated health post had contextual influence on exclusive breastfeeding. Integrated health post was an increase in the quality of human resources from an early age through social services in the community that support development. One of the roles of cadres in integrated health post is to provide services and improve the quality of services, information, education and health motivation for breastfeeding mothers in implementing posyandu (Saputri and Rahman, 2018).

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