



Journal of Health and Medical Sciences

Elmanssury, A. E., & Dafaallah, S. A. (2024), Knowledge and Attitude Towards Exclusive Breastfeeding Among Lactating Mothers, Balancing Feeding and their Effect on Children's Health Status in District Area, Western Kordofan: Descriptive Cross-Sectional Study. *Journal of Health and Medical Sciences*, 7(4), 62-71.

ISSN 2622-7258

DOI: 10.31014/aior.1994.07.04.329

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

The *Journal of Health and Medical Sciences* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Journal of Health and Medical Sciences* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Medicine and Public Health, including medicine, surgery, ophthalmology, gynecology and obstetrics, psychiatry, anesthesia, pediatrics, orthopedics, microbiology, pathology and laboratory medicine, medical education, research methodology, forensic medicine, medical ethics, community medicine, public health, community health, behavioral health, health policy, health service, health education, health economics, medical ethics, health protection, environmental health, and equity in health. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Health and Medical Sciences* aims to facilitate scholarly work on recent theoretical and practical aspects of Health and Medical Sciences.



ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide



Knowledge and Attitude Towards Exclusive Breastfeeding Among Lactating Mothers, Balancing Feeding and their Effect on Children's Health Status in District Area, Western Kordofan: Descriptive Cross-Sectional Study

Ahmed Elnadif Elmanssury¹, Safa Abdaalla Dafaallah²

¹ Department of public Health, College of Applied Medical Sciences, Qassim University, Buraydah 51452, P.O. Box 6666, Saudi Arabia

² Department of public Health, College of Public Health & Health informatics, University of Hail, Hail, Saudi Arabia.

Correspondence: Ahmed Elnadif Elmanssury, Department of public Health, College of Applied Medical Sciences, Qassim University, Buraydah 51452, P.O. Box 6666, Saudi Arabia. Tel: +966502322462.

E-mail: a.elmanssury@qu.edu.sa

Abstract

Breastfeeding is important to infant health and survival in Sudan. Exclusive breastfeeding is considered an important criterion when practicing child nutrition, as infants consume only breast milk deprived of introducing any additional food or drink, not even water, and the child continues in this state for six months after birth. To effectively implement and promote breastfeeding in communities, it is necessary to understand the social and demographic factors relevant to infant feeding choices. This study examined cognitive trends regarding breastfeeding in a sample of mothers from the West Kordofan community. Methodology: About 576 housewives participated in descriptive cross-sectional study of children aged 59-60 months. The chosen structured questionnaire was used as the data collection method. The likelihood ratio with a confidence rate of 95% was also used to measure the strength of the association, and the statistical significance was determined at P-value <0.05. Result: The study showed that most of the responding mothers are aware of absolute breastfeeding. Nearly (80%) of the mothers are aware that breast milk alone is sufficient in the first six months. The research also explained that more than half of the study population (55%) have poor general knowledge, while (45%) of them have good knowledge. The analysis showed that the information of respondents from the study population has a significant relationship with the occurrence of diarrhea cases, vitamin A intake, and low birth weight. The analysis also shows the possibility of lower rates of diarrhea in children whose mothers have excellent knowledge of food and nutritional practices. [(95% CI: 0.492-0.874) p-v=0.004]. Conclusion: Housewives' knowledge of breastfeeding has a significant relationship with the health status of children. Mothers' prior knowledge of vitamin A and its benefits contributed clearly and logically to eating foods rich in vitamins. p-v=0.000].

Keywords: Exclusive, Breast Feeding, Knowledge, Attitude, Complementary Feeding, Millennium Development

1. Introduction

Breastfeeding represents the most important and cost-effective public health policy and has a significant impact on morbidity and mortality rates in third-world countries (Leshi et al. 2016). The period of absolute breastfeeding is limited to the infant consuming breast milk only without any liquids, including water, or other solid nutrients. With the exception of oral perfusion treatment solutions or instillation, and taking vitamins and tablets (Hassen et al. 2021) According to the World Health Organization, breastfeeding is of great benefit to mothers and children alike (Kedir et al. 2020 and Lauer et al. 2019). International statistics indicate that approximately 44% of infants and newborns are breastfed in the first four months of their lives. (Zakarija-Grković et al. 2020 and Anonymous 2020). The fourth-millennium development goal is worried through reduce child death. (Ogbonna et al. 2000) Researchers believe that the absence of appropriate health facilities outside housing, inconvenience, conflicts at work, family pressure, and poor education negatively affect women's desire and interest in practicing absolute breastfeeding. (Forbes et al. 2003) Research has also shown that one of the most important obstacles to practicing breastfeeding is the professional situation. (Agunbiade and Ogunleye 2012), (Mahgoub et al. 2002) But with urbanization and urbanization, which witnessed remarkable development, in addition to the industrial revolution, more women joined the workforce in their countries. (Mundagowa et al. 2021) The World Health Organization indicated that about 40% of newborn deaths occurred in children under one month old, most of them within seven days of birth. (Osibogun et al. 2018) Sankar et al. They were able to look into a systematic study to determine the association between adequate breastfeeding practice and the mortality of children in infancy. They initiate that the hazard aspects associated with breastfeeding and infant mortality were all higher in infants who were not breastfed compared to infants who practiced exclusive breastfeeding in the first five years of their lives. In addition, the risk of infection-related deaths is twice as high in children who are not breastfed compared to those who are exclusively breastfed. Research directed by Manjapallikkunnel, explained that mothers who are of great age and have a high level of education have a clear association with sufficient knowledge of absolute breastfeeding. However, mothers who have sufficient knowledge, but we find that only approximately half of them practice absolute breastfeeding for six months. Therefore, raising the educational level of mothers and promoting correct behavior regarding exclusive breastfeeding and its benefits among girls will greatly increase its practice. (Manjapallikkunnel et al. 2023). Within the framework of promoting breastfeeding as one of the effective public health measures to reduce infant mortality, the Ascension Ministry of Health has issued measures promoting Practice breastfeeding immediately after birth and continuing it exclusively for a period of six months, then following it with complementary feeding until weaning. (Saudi Ministry of Health 2022) A new reference study in Ethiopia showed that the total practice rate of exclusive breastfeeding during the six-month period was 60.4% (Wake & Mittiku, 2021). All of the above recommendations regarding the practice of breastfeeding are consistent with the recommendations of the World Health Organization and UNICEF regarding the necessity of mothers practicing and changing their concepts regarding exclusively breastfeeding their children during the first half year of his birth and then presenting complementary diets that are appropriate and safe for the children's ages after the first six months. (UNICEF, 2018).

Successful breastfeeding can be achieved by following effective strategies that contribute to behavior change, such as education, communication, and positive communication. The core source of breastfeeding for women is always insufficient due to its dependence on family and friends. Different religious, cultural and social beliefs also have a significant impact on breastfeeding. The main goal of this research is to identify the level of knowledge and attitudes of mothers towards exclusive Breast feeding and complementary feeding, and their effect on children's health status.

2. Method

576 responding mothers who had children of breastfeeding age in the area of Al-Hattah were subjected to a cross-sectional study. This study included mothers of children born within 42 weeks and in good health, free of complications and without major birth defects. Mothers who had no desire to participate in the study were excluded. The sample was selected by calculating the proportionality rate, where 50% was calculated as the prevalence of absolute breastfeeding in previous studies, and an absolute accuracy of 5% was assumed, with a

confidence level. 95%, and the sample size was estimated at 576 after calculating it according to the aforementioned data and applying it to the equation.

The cluster method was used as a multi-stage technique to select participants in the research. It was followed to select the research community in three different stages, which included the research area as a city, then neighborhoods, and finally residential homes. Permits to conduct the research were obtained from the competent authorities represented by the Ministry of Health in the locality, then the approval of the mothers participating in the study. A structured questionnaire was used as a means of collecting data and was administered by pre-trained persons who conducted the direct interview. This questionnaire included socio-demographic characteristics and questions about the knowledge and attitudes of breastfeeding mothers towards exclusive breastfeeding. Total knowledge was calculated by summing the responses of all students in all questions after creating a composite variable. A score of zero represented incorrect answers and a score of one for correct answers. Those whose scores were equal to the average (8.2) or higher than that were considered to have good knowledge. While those whose scores were below average were considered to have poor knowledge regarding exclusive breastfeeding and complementary foods. Regarding questions related to attitudes toward breastfeeding, the Infant Feeding Behavior Scale, which consists of several items, was used as a tool used to evaluate attitudes toward breastfeeding in different cultural settings. The general attitudes of all participants were determined by calculating scores on the attitudes toward breastfeeding questions, which consist of six questions, and their overall score is the same. Participants whose scores were higher than or equal to the average score (3.04) were considered to have positive attitudes, while those who received scores below the average were considered to have negative attitudes toward absolute breastfeeding.

The data was transcribed into Excel, and the Statistical Package for the Social Sciences, version 26.0, was used. Bivariate analysis was used in the statistical analysis, and the Chi-square test was also used, $p < 0.05$ was considered significant.

Participants were notified and assured that all data and information collected will be confidential and used for research purposes only, and that the results reached through this research will contribute effectively to health policies and decision-making, which will help improve the implementation of health programs in the region.

3. Results

Table 1: Demographic characteristics

Demographic characteristics	Response category	No	%
Age of mothers	≤ 25	311	40.5
	26-30 years	323	42.1
	31-35 years	67	8.7
	≥ 36	67	8.7
Social status	Continuous marriage	616	80.2
	separate	95	12.4
	widow	57	7.4
Mothers educational level	Illiterate	122	15.9
	Basic education	251	32.7
	Higher secondary education	246	32.0
	undergraduate	126	16.4
	post graduate	23	3.0
Mothers' occupation	farmer	166	21.6
	laborer	54	7.0
	Employee	157	20.4
	house wives	391	51.0
Monthly income	≤ 2000	474	61.7
	2001-5000 SP	233	30.3
	≥ 5000 SP	61	7.9

The sample of the present study comprised (N=349) fitted to 26-30 years' peer group. Almost semi of the contributors (51.6%) had higher education and postgraduate education. Further than half of the participants (51%) were housewives. 61.7% of participants were low-income, less than 2000 SP. The demographic features are more exposed in the Table 1.

Table 2: Familiarity of mothers towards among exclusive breast-feeding.:

Items	Results	No	%
exclusive breastfeeding	yes	644	83.9
	no	124	16.1
Breastfeeding children is sufficient for 6 months	yes	606	78.9
	no	162	21.1
What is the right time to give babies breast milk?	After taking drinks	116	15.1
	Immediately after birth	390	50.8
	After the first hour of birth	262	34.1
Breastfeeding protects from diarrhoea	yes	642	83.6
	no	35	4.6
	i do not know	91	11.8
Duration of absolute breastfeeding	≤month	106	13.8
	Three months or less	188	24.5
	From 4-6 months	277	36.1
	≥6 months	197	25.7
Knowledge of complementary foods	yes	634	82.6
	no	134	17.4
appropriate age to give complementary foods	Less than 6 months	136	17.7
	6 months	229	29.8
	more than 6 months	403	52.5
What are the benefits of foods rich in Vitamin A	yes	670	87.2
	no	33	4.3
	I do not know	65	8.5
Knowledge of iron-rich foods	yes	662	86.2
	no	106	13.8
benefit of eating foods rich in iron	yes	647	84.2
	no	51	6.6
	do not know	70	9.1

The study indicates that the level of knowledge among breastfeeding mothers is very high, as shown in Table 1, which shows that the majority of mothers (83.9%) have a high degree of knowledge about absolute breastfeeding, and 78.9% of mothers express their opinion that breast milk alone is considered sufficient for children. During the first six months of life, more than three-quarters (82.6%) of the study population of mothers were aware of the practice of complementary feeding for children. Also, most of those studied indicated that they knew the benefit of eating foods rich in vitamin A, as well as foods rich in iron.

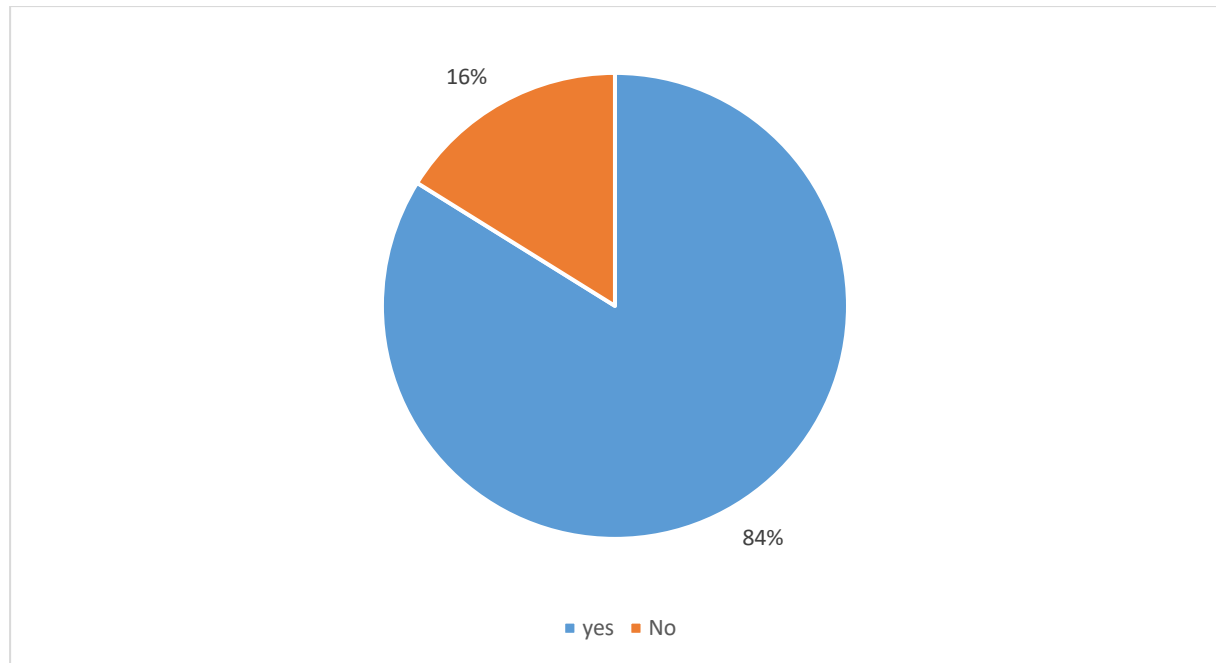


Figure 1: knowledge of mothers among breast-feeding and complementary feeding

The figure above indicates that the general knowledge level of the study participants regarding breastfeeding and complementary feeding was divided into good and poor levels. Therefore, the majority of mothers (83%) have good knowledge, while the remaining mothers (16%) have weak knowledge.

Table 2: The relationship between the level of maternal awareness and the incidence of diarrhea, vitamin intake, or low weight in newborn infants.

Variables	Response category	Knowledge		value	95% Confidence Interval		X ²	p-v
		Poor (No/ %)	Good (No/ %)		Lower	Upper		
diarrhea occurrence	Yes	211	208	.656	.492	.874	8.303	.004
	No	212	137					
vitamin A consumption	Yes	345	238	1.989	1.422	2.781	16.43	.000
	No	78	107					
low birth weight	Yes	136	145	.654	.486	.878	7.991	.005
	No	287	200					

It became clear through the analysis that the level of knowledge of the mothers participating in the study about exclusive breastfeeding has a significant relationship with the occurrence of cases of diarrhea and vitamin A intake, (p-v=0.004)]. in addition to the low weight of newborns. The analysis also explains that the probability of diarrhea occurring in children decreases as mothers’ knowledge of good nutritional practices increases. Prior knowledge of vitamin A and its benefits had a clear impact on eating foods rich in vitamins in general, including vitamin A.(p-v=0.000). In addition, this health awareness has greatly contributed to reducing cases of underweight newborns. (p-v=0.005).

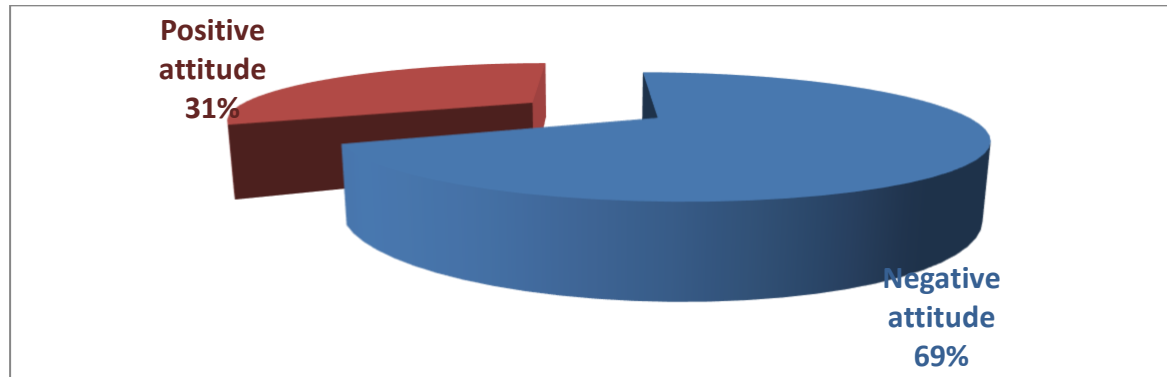


Figure 2: Attitude of mothers among absolute breast-feeding

Figure (2) The figure above explains the general attitudes of the study participants towards exclusive breastfeeding, which were classified as positive attitudes and negative attitudes. As a result, approximately two-thirds of the study population (69%) showed negative attitudes towards exclusive breastfeeding, while the remaining (31%) had positive attitudes towards exclusive breastfeeding and complementary feeding.

Table 3: The relationship between mothers' attitudes toward breastfeeding, nutritional status, level of education, and environmental factors

prevalence of malnutrition	Response category	Attitude		Total	X ²	p-v
		Negative attitude (No/ %)	Positive attitude (No/ %)			
Malnutrition	acute malnutrition	97(12.6)	92(12.0)	189(24.6)	47.82	.000
	moderate malnutrition	332(43.2)	91(11.8)	423(55.1)		
	well nourished	98(12.8)	58(7.6)	156(20.3)		
	Total	527(68.6)	241(31.4)	768(100)		
Maternal education	Illiterate	111(14.5)	11(1.4)	122(15.9)	44.76	.000
	primary school	172(22.4)	79(10.3)	251(32.7)		
	secondary and high school	156(20.3)	90(11.7)	246(32.0)		
	university	69(9.0)	57(7.4)	126(16.4)		
	post graduate	19(2.5)	4(0.5)	23(3.0)		
	Total	527(68.6)	241(31.4)	768(100)		
Hand washing	Before feeding	223(29.0)	91(11.8)	314(40.9)	8.58	.035
	before breast feeding	161(21.0)	73(9.5)	234(30.5)		
	after cleaning baby's bottom	86(11.2)	59(7.7)	145(18.9)		
	before food preparation	57(7.4)	18(2.3)	75(9.8)		
	Total	527(68.6)	241(31.4)	768(100)		
Disposal of human excreta	pit latrine	316(41.1)	163(21.2)	479(62.4)	12.57	.014
	improved pit latrine	173(22.5)	51(6.6)	224(29.2)		
	septic tank	17(2.2)	13(1.7)	30(3.9)		
	No facility	21(2.7)	14(1.8)	35(4.6)		
	Total	527(68.6)	241(31.4)	768(100)		
sources of water	deep well	228(29.7)	50(6.5)	278(36.2)	47.10	.000
	public network	205(26.7)	155(20.2)	360(46.9)		
	Rain water	55(7.2)	19(2.5)	74(9.6)		
	Surface water	39(5.1)	17(2.2)	56(7.3)		
	Total	527(68.6)	241(31.4)	768(100)		

The analysis explains that there is a significant and logical connection between mothers' attitudes toward exclusive breastfeeding, malnutrition, mothers' level of education, and use of clean drinking water sources. It was observed that the participants had negative attitudes about moderate malnutrition and showed a noticeable logical connection. [(p=.000, X² = 47.82)]. Moreover, it turns out that mothers who have a pre-university education level have more negative attitudes towards breastfeeding than mothers who have a university education level or above, as they showed a significant logical connection. [(p=.000, X² = 44.76)]. Mothers who practice personal hygiene, such as washing hands before feeding children and practicing exclusive breastfeeding, are likely to have positive attitudes toward breastfeeding. [(p=.035, X² = 8.58)]. Regarding the process of disposing of human waste, the study showed that there is no significant correlation. [(p=.014, X² = 12.57)]. The study showed that using a pit toilet is more likely than other methods of disposing of human waste. However, it was noted that there are logical correlations between mothers' attitudes and the use of pure drinking water sources. (p=.000, X² = 44.76). As shown. In the table above.

4. Discussion

This study aims at understanding the level of knowledge and attitude of breastfeeding among mothers and the factors associated with good knowledge about breastfeeding. In this study, majority (84%) of participants had proper knowledge, whereas the residual 16% of them owned poor knowledge. A study directed in a comparable situation in semi-urban Nigeria, North India, likewise displays equal outcomes (71.3%) (Bhutta et al. 2018, WHO 2017 and Nigel et al. 2016) also, study conducted by Fawad in Ghana has disagreed; it shows that mother was well informed and had proper knowledge and positive attitude toward breastfeeding. Other study conducted by Garg, also agrees, which explain that moms had extremely high knowledge and neutral views on breastfeeding. (Verma et al. 2017) fitted to 26-30 years age group. Closely half of the contributors (51.6%) Their education level is higher than secondary school. More than half of the participants (51%) were house wives. 61.7% of participants were low income, less than 2000 SP. These factors are closely related to the mothers' level of knowledge. It became clear from the study that working mothers show a lack of continuity in exclusive breastfeeding compared to housewives, as they tend to continue with exclusive breastfeeding.

A comparable result was described by the result directed in the semi-urban sub-district of Adigrat, Tigray, Ethiopia (Aude-Hélène et al. 2021) Canada (Mise et al. 2017) Sri Lanka (Anonymous 2013). Bangladesh (Mbada et al. 2013). Taiwan (Tadele et al. 2016). Goba district, Southeast Ethiopia (Jelly et al. 2022), and Northwest Ethiopia (Singh et al. 2018). The maternal employment status also effects the continuation of breastfeeding till optimal age. The results have shown that 51% lactating mothers are housewives and 49% of them are working women. The maternal education of mothers also had a huge impact on the knowledge, attitude and practices of lactating mothers towards exclusive breastfeeding. the illiteracy level of lactating mothers is 42% while 19% of mothers have intermediate level education and 39% are graduated. Similarly, a survey was conducted and published by John Elflein in 2017. (Gonah and Mutambara 2016).

The knowledge about breastfeeding is very important as if a mother has proper knowledge about breastfeeding, it will help her in the process and same goes for the attitude of a mother towards breastfeeding and the health of her child. Improved Knowledge and attitude could contribute to increasing the prevalence of exclusive breastfeeding in both working and non-working mothers (Atchibri and Dako 2017) It became clear through the analysis that the level of knowledge of the mothers participating in the study about exclusive breastfeeding has a significant relationship with the occurrence of cases of diarrhea and vitamin A intake, (p-v=0.004)]. in addition to the low weight of newborns. The analysis also explains that the probability of diarrhea occurring in children decreases as mothers' knowledge of good nutritional practices increases. Prior knowledge of vitamin A and its benefits had a clear impact on eating foods rich in vitamins in general, including vitamin A.(p-v=0.000). In addition, this health awareness has greatly contributed to reducing cases of underweight newborns. (p-v=0.005).

Concerning the attitude of mothers, the average score was 34 which displays an impartial attitude among breastfeeding. About (69%) of mothers had negative attitudes towards exclusive breast-feeding, while the remaining (31%) of the participants owned positive attitudes. This result might be due to the fact that around half of the mothers have professions that may be an obstacle to practicing breastfeeding on a regular basis, in addition

to the fact that around half of the mothers also have a weak educational level. These results agreed by Rinku Rani Das, (Ratnayake and Rowel 2018) and Marjia Sultana, (Akter and Rahman 2010). Other study disagreed with our result conducted by Chekol Abebe, et al, in north Ethiopia (Babakazo et al. 2015). Our research shows that there is a statistically significant relationship amongst the average mothers' attitude scores and malnutrition. ($p=.000$, $X^2 = 47.82$). On the other hand, the study showed that mothers who had only pre-university education were more affected by negative attitudes towards absolute breastfeeding compared to those who had more than university education, as they showed a logical connection as a result of their awareness of absolute breastfeeding. [$p=.000$, $X^2 = 44.76$]. In addition, an important suggestion was detected amongst mothers' attitudes and sources of water ($p=.000$, $X^2 = 44.76$).

5. Conclusion

Housewives' knowledge of breastfeeding has a significant relationship with the health status of children. Mothers' prior knowledge of vitamin A and its benefits contributed clearly and logically to eating foods rich in vitamins. $p-v=0.000$]. In addition, mothers' knowledge of good and beneficial nutrition in terms of nutrients, and absolute breastfeeding practices and complementary foods have clearly and effectively helped reduce cases of low birth weight. $p-v=0.005$].

Author Contributions: Conceptualization, Ahmed Elnadif Elmanssury.; methodology, Ahmed Elnadif Elmanssury.; software, Ahmed Elnadif Elmanssury.; validation, Safa Abdaalla Dafaallah; formal analysis, Ahmed Elnadif Elmanssury; investigation Safa Abdaalla Dafaallah, Resources, Safa Abdaalla Dafaallah.; Data Curation writing—original draft preparation, Ahmed Elnadif Elmanssury.; writing—review and editing, Safa Abdaalla Dafaallah.; supervision, Ahmed Elnadif Elmanssury. All authors have read and agreed to the published version of the manuscript.

Funding: Not applicable

Conflicts of Interest: The authors declare no conflict of interest.

Informed Consent Statement/Ethics approval: Not applicable.

Acknowledgments: Researchers would like to thank the Deanship of Scientific Research, Qassim University for funding publication of this Project. I extend my sincere thanks to everyone who contributed to conducting this research, including colleagues and volunteers, which had a great impact on achieving the objectives of this study..

References

- Agunbiade, O.M., and Ogunleye, O.V. 2012. "Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria: implications for scaling up," *International Breastfeeding Journal*, Vol. 7, No. 1, pp. 5-5
- Akter, S., and Rahman, M.M. 2010. "The Determinants of Early Cessation of Breastfeeding in Bangladesh," *World Health & Population*, Vol. 11, No. 4, pp. 5-12. and Intention among Female Young Adults in Ibadan, Nigeria," *Open Journal of nursing*, Vol. 6, No. 1, pp. 11-23.
- Anonymous "Researchers from World Health Organization (WHO) 2020.Report Details of New Studies and Findings in the Area of Global Health (Status of Water, Sanitation and Hygiene Services for Childbirth and Newborn Care In Seven Countries In East Asia and the)," *Health & Medicine Week*, pp. 6307. <https://iris.who.int/bitstream/handle/10665/376869/9789240094703-eng.pdf?sequence=1>
- Anonymous 2013. "Improving Child Nutrition: The Achievable Imperative for Global Progress;2013 IIS 4020-M36;ISBN 978-92-806-4686-3 (Paper);ISBN 978-92-806-4689-4 (Internet)," <https://data.unicef.org/resources/improving-child-nutrition-the-achievable-imperative-for-global-progress/>
- Atchibri, L.A., and Dako, E. 2017. "Factors associated with cessation of exclusive breastfeeding before six months

- among mothers in the Miramichi region (Canada)," *IOSR Journal of Nursing and Health Science*, Vol. 6, No. 1, pp. 69-74.
- Aude-Hélène, A.K., Honorine, A.C., Roland, Y.K. 2021. "Knowledge, Attitudes and Practices of Mothers Regarding Exclusive Breastfeeding in Rural Areas of Brobo (Côte d'Ivoire)," *Open Journal of Pediatrics*, Vol. 11, No. 4, pp. 694-705.
- Babakazo, P., Donnen, P., Akilimali, P. 2015. "Predictors of discontinuing exclusive breastfeeding before six months among mothers in Kinshasa: a prospective study," *International Breastfeeding Journal*, Vol. 10, No. 1, pp. 19.
- BHUTTA, Z.A., AHMED, T., SHEKAR, M. 2008. "Maternal and Child Undernutrition 3: what works? Interventions for maternal and child undernutrition and survival," *The Lancet (British Edition)*, Vol. 371, No. 9610, pp. 417-440.
- FORBES, G.B., ADAMS-CURTIS, L.E., HAMM, N.R. 2003. "Perceptions of the woman who breastfeeds: The role of erotophobia, sexism, and attitudinal variables," *Sex Roles*, Vol. 49, No. 7-8, pp. 379-388.
- Gonah, L., and Mutambara, J. 2016. "Determinants of Weaning Practices Among Mothers of Infants Aged Below 12 Months in Masvingo, Zimbabwe," *Annals of Global Health*, Vol. 82, No. 5, pp. 875-884.
- Hassen, S.L., Temesgen, M.M., Marefiaw, T.A., "Infant and Young Child Feeding Practice Status and Its Determinants in Kalu District, Northeast Ethiopia: Community-Based Cross-Sectional Study," *Nutrition and Dietary Supplements*, Vol. 13, 2021, pp. 67-81.
- Jelly, P., Kodi, M., Sharma, M. 2022. "Knowledge, preferences, practices, and attitudes about breastfeeding among postnatal mothers in Uttarakhand, India: a cross-sectional study," *Indian Journal of Community Health*, Vol. 34, No. 2, pp. 294-300.
- Kedir Y. Ahmed, Andrew Page, Amit Arora, "Associations between infant and young child feeding practices and acute respiratory infection and diarrhoea in Ethiopia: A propensity score matching approach," *Plos One*, Vol. 15, No. 4, 2020, pp. e0.
- Lauer, E.A., Armenti, K., Henning, M. 2019. "Identifying Barriers and Supports to breastfeeding in the Workplace Experienced by Mothers in the New Hampshire Special supplemental Nutrition Program for Women, Infants, and Children Utilizing the Total worker Health Framework," *International Journal of Environmental Research and Public Health*, Vol. 16, No. 4, pp. 529.
- Leshi, O., Samuel, F.O., and O. 2016. Ajakaye, M., "Breastfeeding Knowledge, Attitude and Intention among Female Young Adults in Ibadan, Nigeria," *Open Journal of Nursing*, Vol. 6, No. 1, 2016, pp. 11-23.
- Mahgoub, S.E.O., Bandeke, T., and Nnyepia, M. 2002. "Breastfeeding in Botswana: practices, Attitudes, Patterns, and the Socio-cultural Factors Affecting Them," *Journal of tropical Pediatrics (1980)*, Vol. 48, No. 4, pp. 195-199.
- Manjapallikkunnel, S.R., Nair, A.N.K., and Sujatha, C. 2023. "Knowledge, Attitude and practices Among Mothers of Infants Regarding Breastfeeding," *Journal of Family & reproductive Health*, Vol. 17, No. 3, pp. 136-141.
- Mbada, C.E., Olowookere, A.E., Faronbi, J.O. 2013. "Knowledge, attitude and techniques of breastfeeding among Nigerian mothers from a semi-urban community," *BMC Research Notes*, Vol. 6, No. 1, pp. 552.
- Mise, P.J., Mise, A.J., Mise, S.J. 2017. "Study of breastfeeding practices and problems among postnatal mothers: a hospital-based study," *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, Vol. 6, No. 8, pp. 3343.
- Mundagowa, P.T., Chadambuka, E.M., Chimberengwa, P.T. 2021. "Barriers and facilitators to exclusive breastfeeding practices in a disadvantaged community in southern Zimbabwe: A maternal perspective," *World Nutrition*, Vol. 12, No. 1, pp. 73-91.
- Nigel C Rollins, Nita Bhandari, Nemat Hajejbhoy. 2016. "Why invest, and what it will take to improve breastfeeding practices?" *The Lancet*, Vol. 387, No. 10017, pp. 491-504.
- Ogbonna, C., Okolo, S.N., and Ezeogu, A. 2000. "Factors influencing exclusive breast-feeding in Jos, Plateau State, Nigeria," *West African Journal of Medicine*, Vol. 19, No. 2, pp. 107-110.
- Osibogun, O.O., Olufunlayo, T.F., and Oyibo, S.O. 2018. "Knowledge, attitude and support for exclusive breastfeeding among bankers in Mainland Local Government in Lagos State, Nigeria," *International Breastfeeding Journal*, Vol. 13, No. 1, pp. 38.
- Ratnayake, H.E., and Rowel, D. 2018. "Prevalence of exclusive breastfeeding and barriers for its continuation up to six months in Kandy district, Sri Lanka," *International Breastfeeding Journal*, Vol. 13, No. 1, pp. 36
- Saudi Ministry of Health. 2022 Breastfeeding. Available online: <https://www.moh.gov.sa/en/HealthAwareness/EducationalContent/wh/Pages/Breastfeeding.aspx> (accessed on 13 December).
- Singh, J., Bhardwar, V., and Kumra, A. 2018. "Knowledge, Attitude and Practice Towards Exclusive Breastfeeding Among Lactating Mothers: Descriptive Cross Sectional Study," *International Journal of Medical and Dental Sciences*, Vol. 7, No. 1, pp. 1586.
- Tadele, N., Habta, F., Akmel, D. 2016. "Knowledge, attitude and practice towards exclusive breastfeeding among

- lactating mothers in Mizan Aman town, Southwestern Ethiopia: descriptive cross-sectional study," *International Breastfeeding Journal*, Vol. 11, No. 3, pp. 3.
- UNICEF. 2018b. Capture the moment: initiation of breastfeeding: the best start for every newborn. New York: UNICEF. Available at <https://www.unicef.org/reports/capture-moment>.
- Verma, A., Kumari, R., Husain, S. 2017. "Knowledge and practices regarding breastfeeding: A community-based cross-sectional study in a rural area of Northwest India," *International Journal of Medical Science and Public Health*, Vol. 6, No. 5, pp. 1.
- Wake, G.E., and Mittiku, Y.M. 2021. "Prevalence of exclusive breastfeeding practice and its association with maternal employment in Ethiopia: a systematic review and meta-analysis," *International Breastfeeding Journal*, Vol. 16, No. 1, pp. 86. <https://doi.org/10.1186/s13006-021-00432-x>
- WHO. 2017. Breastfeeding can save lives and boost the economy – but mothers need more support [Internet]. WHO. World Health Organization;. Available from: <http://www.who.int/life-course/news/commentaries/breastfeeding-can-save-lives/en/>
- young child feeding practices and acute respiratory infection and diarrhoea in Ethiopia: A propensity score matching approach," *Plos One*, Vol. 15, No. 4, pp. e0. <https://doi.org/10.1371/journal.pone.0230978>
- Zakarija-Grković, I., Cattaneo, A., Bettinelli, M.E. 2020. "Are our babies off to a healthy start? The state of implementation of the Global strategy for infant and young child feeding in Europe," *International Breastfeeding Journal*, Vol. 15, No. 1, pp. 51.