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Article

## Intervention effect on breastfeeding knowledge, attitude and practice barriers and COVID-19 among healthcare providers at Al-Zahraa hospital

Pediatrics

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### ABSTRACT

**Background:** The frequency and length of breastfeeding may be effectively influenced by the professional guidance given to moms. Previous research has shown that healthcare professionals lacked the knowledge and abilities needed to assist and encourage breastfeeding.

**Objective:** The primary goal of this research was to examine breastfeeding knowledge, attitude, and practice (KAP) among healthcare professionals and breastfeeding with COVID-19 before and after the delivery of breastfeeding educational sessions and to pinpoint the variables and obstacles that influence breastfeeding among healthcare professionals at Al-Zahraa University Hospital of AL-Azhar University.

**Methodology:** This interventional study was carried out in Cairo, Egypt at Al Zahraa Hospital, which is a part of Al-Azhar University, Faculty of Medicine for Women. It included total of 250 medical interns / house officers in the academic year 2020/2021 and residents of different specialties.

**Results:** There was significant difference between level of knowledge, attitude, practice before and after the orientation sessions. The percentage of improvement was moderate. This indicates that educational intervention improved the health care providers' practice towards breastfeeding. Also the study had shown defective baseline knowledge level regarding breastfeeding with COVID19 which is a new pandemic with many fears and question marks. There was remarkable improvement after the educational intervention.

**Conclusion:** After the intervention, interns' baseline knowledge and attitude ratings considerably increased. With COVID-19, a significant improvement in breastfeeding was attained. Therefore, it is necessary to implement various extracurricular and curricular activities to enhance breastfeeding knowledge and abilities.

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### INTRODUCTION

The most economical strategy to decrease infant mortality in underdeveloped nations is the encouragement of exclusive breastfeeding (EBF)<sup>[1]</sup>. The World Health Organization (WHO) recommends that newborns nurse exclusively for the first six months, then continue to do so while also consuming supplementary meals until they are two years old or older<sup>[2]</sup>. During the first six months of life, newborns are only given breast milk; they are not given any other liquids, food, tea, or

other herbal supplements, with the exclusion of vitamins, minerals, or medications<sup>[1]</sup>. However, according to statistics from UNICEF, the WHO, and the World Bank (2016), only 46% of 2-year-olds in the world were still solely breastfed, and 33% of children between 6 and 8 months of age were not yet receiving solid meals<sup>[3]</sup>.

The nursing procedures used in Egypt are not always the best. According to data from the Egyptian Demographic

and Health Survey<sup>[4]</sup>, just four out of ten infants under the age of six months were being exclusively breastfed. Six out of ten toddlers were said to have gotten a prelacteal meal after delivery. In terms of meal frequency and food variety, less than one-fourth of infants and young children aged 6 to 23 months were being fed in accordance with minimal baby and young child feeding requirements<sup>[6]</sup>.

Breastfeeding habits are adversely impacted by maternal work<sup>[5]</sup>. While the length of maternity leave is favorably correlated with duration of breastfeeding, return to full-time employment outside the house is linked with lower breastfeeding duration<sup>[7]</sup>. All phases of newborn feeding are affected by the expert guidance provided to moms in healthcare institutions<sup>[8]</sup>. However, research done to gauge healthcare practitioners' knowledge, attitudes, and behaviors about breastfeeding revealed that they lacked the information, attitudes, and abilities required to support breastfeeding and complementary feeding practices<sup>[9]</sup>.

The goal of the present research was to compare health care providers' knowledge, attitudes, and practices (KAP) about breastfeeding before and after offering breastfeeding education sessions. Identify the variables and obstacles that female health professionals at the Al-Zahraa University hospital of AL-Azhar University face in order to breastfeed.

## PATIENTS AND METHODS

This research was interventional study carried out at Al-Zahra university hospital. The hospital is affiliated to Al-Azhar University, Faculty of Medicine for girls, Cairo. It was conducted from March 2021 to October 2021.

### Phases of the study

Pilot study was carried out to test the quality and validity of the questioners. Phase I: was an exploratory cross-sectional design was used to gather healthcare KAP data as a prerequisite before starting the intervention (phase II). Phase II; was an interventional study; targeted educational sessions were organized via: online meeting workshop 2hrs. using teams, physical sessions, and focus group meetings with target group via online network meetings. Phase III was an exploratory cross-sectional design to evaluate how training sessions affected medical professionals' attitudes and knowledge about breastfeeding.

### Study population

Total of 250 healthcare workers were participated in the survey, medical interns / house officers in the academic year 2020/2021 and residents of different specialties.

### Inclusion criteria

Medical interns / house officers in their training year 2020/2021, Residents of different specialties including (pediatrics, neonatology, obs/gyn, internal medicine residents and other specialties). Either male or female,

married or unmarried and Have children or not were included into the study.

### Exclusion criteria

Paramedical staffs (nurses / technicians) were excluded from the study.

### Sample size

Epi Info STATCALC was employed to determine the sample size by taking into account the following hypotheses: A power of 80% and a two-sided confidence level of 95%. & a 5% error. Epi-result Info's was used to calculate the final maximum sample size, which was 244. Thus, to account for potential drop-out instances during follow-up, the sample size was expanded to 250 individuals. The sample size  $n$  and margin of error  $E$  are determined by  $x = Z(c/100)2r(100-r)$ ,  $n = N x / ((N-1)E^2 + x)$  and  $E = \text{Sqrt} [(N - n)x/n(N-1)]$ . Where  $Z(c/100)$  is the crucial value for the confidence level  $c$  and  $N$  is the population size,  $r$  is the percentage of replies that you are interested in.

### Interventions

The selected population was invited to attend the educational sessions via: Online meeting workshop 2hrs. using Teams, physical sessions, and focus group meetings with target group via online network meetings. The sessions were carried out by staffs who are expert in breast feeding and the researcher supervisors and researcher over 2 days depending on the results of the first survey. The 20-hour UNICEF/WHO course for breastfeeding encouragement and assistance in a baby-friendly hospital was covered in full throughout the instructional sessions. These elements include new clinical practice sessions employing animation movies, updated technical material, and a focus on skin-to-skin contact, early breastfeeding start, recommended breastfeeding length, treatment of breastfeeding issues, and nursing with COVID-19.

### Data collection procedures

The following questions were included in a self-administered questionnaire that had been pretested: Personal information, such as gender, nationality, and age, marital status, specialty, having children or not. Knowing the pros and cons of nursing, as well as information on the practical side of breastfeeding, colostrum, proper feeding, feeding length, complementary feeding, breast milk expression, issues with breastfeeding, and feeding of babies born to mothers with COVID-19. The following methods were used to gauge attitudes regarding breastfeeding: (a) The validated Iowa Infant Feeding Attitude Scale (IIFAS) has a Cronbach alpha range of 0.85 to 0.86.11 The 17 statements in the IIFAS include a variety of infant feeding-related topics, and respondents were asked to rate how much they agree or disagree with each statement on a three-point Likert scale ranging from 1 to 3. (b) To evaluate interns' attitudes regarding breastfeeding in practice, further: All medical professionals were asked

whether they would recommend breastfeeding to expecting and nursing moms who are their relatives or friends. When asked whether they will breastfeed their children in the future, female medical professionals said yes. When asked whether they would urge their future spouses to nurse their children, the male employees were asked. All medical professionals were surveyed on their feelings towards the inclusion of a required breastfeeding course during the year of the internship. Medical workers' problems and barriers that interrupt breastfeeding and their recommendations to improve it. Also questions regarding attitude towards feeding of infants born to mother with COVID-19. Also questions regarding breastfeeding with COVID19 .

A convenience sample of the targeted medical professionals who were not participants in the research pretested the questionnaire, and the necessary revisions have been made. The questionnaires were distributed: online via specific private Facebook groups for interns and residents. Online personal applications such as; whatsapp and telegram and messenger and in person for house officers in their rotations at Al-Zahraa hospital.

**Ethical consideration**

This study was done after approval by both pediatric department and faculty research ethical Committee .

**Statistical analysis**

Statistical Package for Social Sciences (SPSS) version 26.0, Microsoft Excel 2016, and MedCalc program software version 19.1 were utilized to tabulate and statistically evaluate the gathered data.

**RESULTS**

Table (1) shows level of participants' knowledge about breastfeeding before the intervention. The majority of

participants showed moderate knowledge level, 28.8% had low knowledge and only 1.2% had high knowledge . Table (1) shows level of participants' knowledge about breastfeeding after the intervention. The majority of participants showed moderate knowledge level, 28.8% had high knowledge and only 1.2% had low knowledge.

Table (2) shows level of participants' attitude about breastfeeding after the intervention. The majority of participants showed high attitude level 69.2%, 25.6% had moderate attitude and only 5.2% had low attitude.

Figure (1) shows level of participants' attitude about breastfeeding before the intervention. The majority of participants showed moderate attitude level 54%, 29% had low attitude and only 17 % had high attitude.

Table (3) shows level of participants' practice about breast feeding after the intervention. The majority of participants showed moderate score 66.8%, 28.8% had high score and only 4.4% had low score.

Table (4) showed the association between practice level and demographic data of participants. There was substantial link between level of practice and age ( $p < 0.05$ ); better attitude among older ages.

Table (5) shows the association between knowledge level towards breastfeeding with COVID-19 and demographic data of the participants. There was no significant relation between level of knowledge towards breastfeeding and COVID-19 and age, gender, occupation as well as social status ( $p > 0.05$ ).

Figure (3) shows level of participants' knowledge about breastfeeding after intervention and COVID-19. The majority of participants showed moderate knowledge level (77.2%) and 20% had high knowledge and 2.8% had low knowledge.

**Table (1): Distribution of health care providers according to level of knowledge before and after the intervention**

Level of Knowledge	Level of knowledge before the intervention (n=250)	Level of knowledge after intervention (n=250)
	no. (%)	no. (%)
Low Knowledge (< 25%)	72 (28.8%)	3 (1.2%)
Moderate Knowledge (25-75%)	175 (70.0%)	175 (70.0%)
High Knowledge (> 75%)	3 (1.2%)	72 (28.8%)

**Table (2): Distribution of health care providers according to level of attitude after the intervention**

Attitude	Health care providers (n=250)
	n(%)
High Attitude (> 75%)	173(69.2%)
Moderate Attitude (25-75%)	64(25.6%)
Low Attitude (< 25%)	13(5.2%)

**Table (3): Distribution of health care providers according to level of practice after the intervention**

Practice	Health care providers (n=250)	
	n (%)	
Low practice (< 25%)	11 (4.4%)	
Moderate practice (25-75%)	167 (66.8%)	
High practice (> 75%)	72 (28.8%)	

**Table (4): Relation between practice level after the intervention and demographic data**

Demographic data		Practice level after the intervention			Stat. test	
		Low practice n (%)	Moderate practice n (%)	High practice n (%)	X <sup>2</sup>	p-value
Age (years)	<24 years	0 (0%)	1(0.4%)	1(0.4%)	15.74	0.003*
	24 -30 years	9(3.6%)	164(65.6%)	70(28%)		
	>30 years	2(0.8%)	2(0.8%)	1(0.4%)		
Gender	Male	0 (0%)	3(1.2%)	1(0.4%)	0.240	0.887
	Female	11(4.4%)	164(65.6%)	71(28.4%)		
Occupation	Intern / House officer	5(2%)	82(32.8%)	29(11.6%)	1.58	0.454
	Residents	6(2.4%)	85(34%)	43(17.2%)		
Social status	Single	5(2%)	103(41.2%)	48(19.2%)	3.403	0.757
	Married	6(2.4%)	61(24.4%)	24 (9.6%)		
	Divorced	0 (0%)	2(0.8%)	0 (0%)		
	Widow	0 (0%)	1(0.4%)	0 (0%)		

X<sup>2</sup>: Chi-square test, \*: Significant p value (<0.05)

**Table (5): Relation between knowledge level after intervention and demographic data**

Demographic data		Knowledge level after intervention			Stat. test	
		Low Knowledge no. (%)	Moderate Knowledge no. (%)	High Knowledge no. (%)	X <sup>2</sup>	p-value
Age (years)	<24 years	0 (0%)	1 (0.4%)	1 (0.4%)	0.719	0.949
	24 -30 years	3 (1.2%)	170 (68%)	70 (28%)		
	> 30 years	0 (0%)	4 (2.8%)	1 (0.4%)		
Gender	Male	0 (0%)	3 (1.2%)	1 (0.4%)	0.085	0.959
	Female	3 (1.2%)	172 (68.6%)	71 (28.4%)		
Occupation	Intern / House officer	1 (0.4%)	85 (34%)	42 (16.8%)	1.186	0.553
	Residents	2 (0.8%)	90 (36%)	30 (12%)		
Social status	Single	2 (0.8%)	105 (42%)	49 (19.6%)	2.396	0.880
	Married	1 (0.4%)	67 (26.8%)	23 (9.2%)		
	Divorced	0 (0%)	2 (0.8%)	0 (0%)		
	Widow	0 (0%)	1 (0.4%)	0 (0%)		

X<sup>2</sup>: Chi-square test, \*: Significant p value (<0.05)

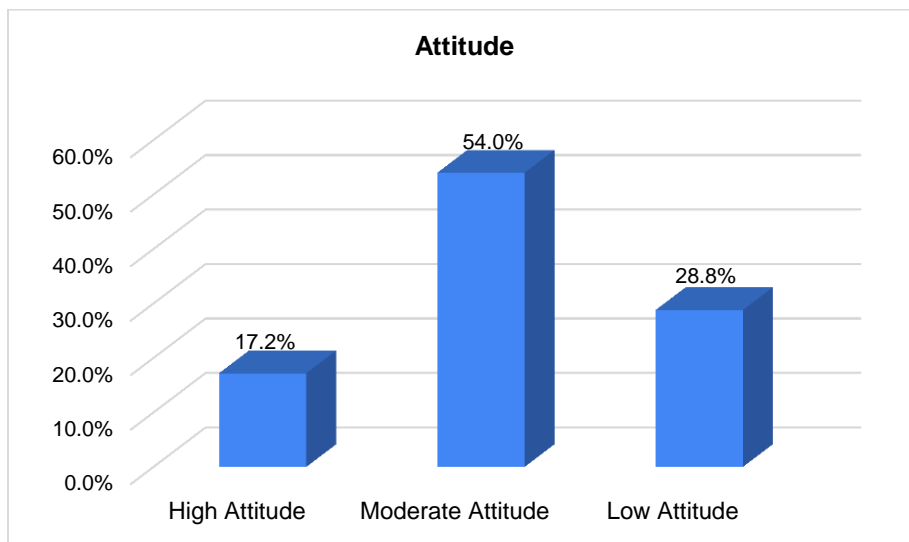


Figure (1): Distribution of healthcare providers according to level of attitude before the intervention.

### Knowledge towards feeding of infants born to mother with COVID-19

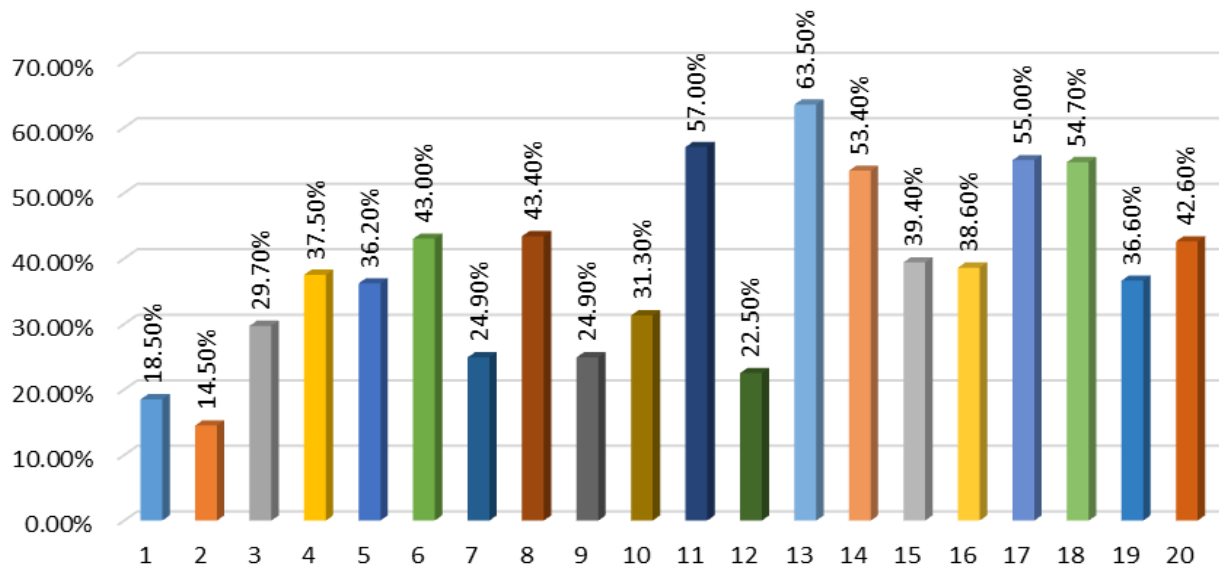
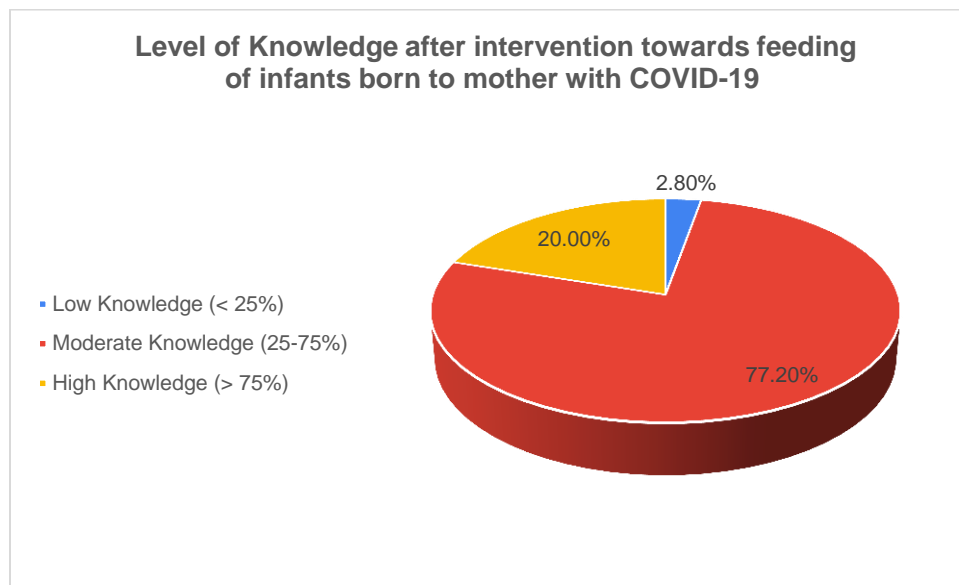


Figure (2): Distribution of health care providers according to their Knowledge about breastfeeding and COVID-19 before the intervention

Figure (2) shows knowledge of healthcare providers at Al -Zahraa University hospital towards breastfeeding and COVID-19. The results show that healthcare providers' knowledge after intervention were significantly changed compared to that of before the intervention in all items. The following items showed the substantial changes: Breastfeeding mothers should take precautions when feeding their infants at the breast, expressing milk, or from a bottle, and should follow any close contact instructions from a person with COVID-19. They should also be quarantined for the duration of the breastfeeding child's recommended period of home isolation and for the remainder of their own quarantine, needing no quarantine until the nursing infant exhibits COVID-19 symptoms or obtains a positive virus test result, taking into consideration no extra measures (such as wearing a mask) for breastfeeding during the time of home isolation, Breastfeeding is beneficial in areas where COVID-19 is common. Skin-to-skin contact should be used, and breastfeeding should continue if the mother is confirmed or suspected to have the virus. Breastfeeding should continue even if a medical face mask is not used, and the breast should be washed before direct breastfeeding or before expressing milk ( $p < 0.05$ ). Additionally, the findings of the COVID-19 testing had no bearing on the recommendations for feeding infants and young children since there was a substantial difference in the requirement for additional precautions while handling the breast pump, milk storage containers, or feeding utensils, giving a "top-up" of infant formula milk, discussing infant formula milk safety, accepting free formula milk supplies for infants of mothers with confirmed/suspected COVID-19, and deviating from some national and professional organizations' recommendations on mother/infant contact and breastfeeding for mothers with confirmed/suspected COVID-19, advising wet-nursing when a woman has confirmed or suspected COVID-19 and is unable to breastfeed or produce milk, as well as lactating individuals' capacity to take a COVID-19 vaccination ( $p < 0.05$ )



**Figure (3): Distribution of health care providers according to level of knowledge about breastfeeding after intervention and COVID-19**

## DISCUSSION

The nursing procedures used in Egypt are not always the best. Six in ten newborns were reported to have had a prelacteal feed, according to data from the Egyptian Demographic and Health Survey, while just four in ten infants younger than six months were being exclusively breastfed<sup>[10]</sup>. This interventional research was carried out in Cairo, Egypt at Al Zahraa Hospital, which is a part of Al-Azhar University's Faculty of Medicine for girls. It included total of 500 medical interns / house officers in the academic year 2020/2021 and residents of different specialties.

The present study demonstrated Breastfeeding knowledge prior to and during the training course interventions. There was significant improvement regarding almost all knowledge questions. The participants showed 100% improvement in knowledge questions related to; advantages of breast feeding, limitation of breast feeding, just breastfeeding for the first six months, breast feeding benefit for both the mother and the baby, contraindication to breast feeding and nutritious needs from the milk 98.4% with  $p < 0.05$ . The substantial advancements were also true as regard need of vitamin D with breastfeeding 96%, cessations of breastfeeding in different situations as (smoking, exposure to x-ray) and disadvantage of formula feeding. This indicates that educational intervention is able to improve ideas and knowledge about breastfeeding.

The only item that showed insignificant improvement was "stopping breastfeeding once the mother gets pregnant", most of responses weren't adequate. This may be due to pregnancy symptoms that may reduce the chance of breastfeeding such as morning sickness,

anorexia, tender nipples, sore breast, pregnancy fatigue and hypotension also breastfeeding may trigger uterine contractions causing miscarriage or preterm babies. Breastfeeding is not always associated with inhibition of ovulation so women can't depend on breastfeeding as a safe method of contraception.

The majority of participants showed moderate knowledge level, 29% had high knowledge and only 1.2% had low knowledge. In accordance with our results, study of Davis<sup>[11]</sup> as they reported that there was sufficient evidence to indicate that the evidence-based educational intervention improved the students' breastfeeding knowledge.

Also, Mostafa et al.,<sup>[12]</sup> revealed that The following items: benefits for the infant, colostrum, duration, complementary feeding, and breast milk expression showed a statistically substantial increase in interns' subtotal knowledge ratings from baseline to immediately after, and 3 months after the intervention. However, the improvements between the schooling and three months later were not statistically substantial.

Regarding the objective evaluation of knowledge, Kronborg et al.,<sup>[13]</sup> showed that "Health visitors getting the eighteen-hour WHO course on "Breastfeeding Promotion and Support in a Baby-Friendly Hospital" had substantially greater post-intervention scores for the knowledge questionnaire ( $p < 0.00001$ ) and management of lactation practice case studies (MD = 0.51, 95% CI = 0.26, 0.76, Z = 4.06,  $p < 0.0001$ ) than staff who did not get extra training."

The results of the present research revealed that there was no statistical significant relationship between knowledge

level and participant demographics, including age, gender, employment, and social position, either before or after training ( $p > 0.05$ ). The study of Mostafa et al.,<sup>[12]</sup> revealed that there is no statistically substantial variation between men and women's knowledge and attitudes towards nursing, but in our study this can't be generalized as number of the participating males in our study were not enough to compare or to generalize the role as the study took place in Al-Zahraa University Hospital for girls.

The attitudes of healthcare providers at Al-Zahraa University Hospital towards breastfeeding were measured by IIFA Scale (Iowa Infant Feeding Attitude). There was significant improvement regarding all attitude questions except for the following 3 questions related to early initiation of breast feeding, preferring exclusive breastfeeding at first 6 months, convenience of formula feeding and formula feeding is a symbol of wealth ( $p > 0.05$ ).

The majority of participants showed high attitude level 57.2%, 25.6% had moderate attitude and only 17.2% had low attitude. There was significant relation between level of attitude and age, occupation, social status as well as having children ( $p < 0.05$ ). This is because breastfeeding attitude is positively affected by older ages especially with the experience of marriage, childbearing, and breastfeeding experience. The research by Mostafa et al.,<sup>[12]</sup> which demonstrated an improvement in the interns' knowledge and attitude regarding breastfeeding after the educational intervention complemented our findings. The findings of the present study are in line with earlier research done in Croatia by Zakarija- Grković et al.,<sup>[14]</sup>. In the study done by Shi et al.,<sup>[15]</sup> they found the average attitude percentage was 80. This result was consistent with research from a survey Amin and colleagues performed among Saudi medical students<sup>[16]</sup>. This conclusion may be explained by the fact that the Islamic culture is particularly supportive of breastfeeding in the Middle East nations, which are mostly Islamic. In the Holy Quran, nursing is recommended for two years in several passages; "His mother carried him, in weakness upon weakness, and his period of weaning is two years" (Quran, 31:14). "His mother carried him with hardship and gave birth to him in hardship. And the carrying of the child to his weaning is a period of thirty months" (46:15).

Breastfeeding is encouraged in the Qur'an: "Mothers shall give suck to their children for two full years for those who desire to complete the term" (Qur'an, 2:233)<sup>[19]</sup>. Similarly, in the study of Davis<sup>[11]</sup> they reported that there was sufficient evidence to indicate that the evidence-based educational intervention improved the students' breastfeeding attitude toward breastfeeding. According to research, medical professionals' support for and encouragement of breastfeeding sent moms good signals that assisted in starting and subsequently maintaining nursing<sup>[17]</sup>. All of these results show that it is

very important to improve knowledge throughout the whole community with all different social classes.

Regarding the proximal evaluation of attitudes, Kronborg et al.,<sup>[13]</sup> revealed that When compared to health visitors who did not receive additional training, those who took the WHO's 18-hour course on "Breastfeeding Promotion and Support in a Baby-Friendly Hospital" had substantially higher scores for subjective norms promoting breastfeeding (95%,  $p = 0.02$ ) and assessment of the relevance of breastfeeding (95%,  $p = 0.02$ ). However, there were no substantial variation in self-efficacy between groups (95%,  $p = 0.24$ ). This indicates that educational intervention improved the health visitor's breastfeeding attitude towards breastfeeding. Dykes<sup>[18]</sup> discussed how attitudes toward breastfeeding are influenced by personal and vicarious experiences (observation and impact of others). In particular, in settings where breastfeeding rates have historically been low, healthcare staff may have personally struggled with breastfeeding, which will directly affect their attitudes. For instance, just 45% of physicians and 65% of nurses agreed that children should be breastfed exclusively for the first six months.

The majority of participants showed moderate score 66.8%, while 28.8% had high score and 4.4% had low score. There was substantial link between level of practice and age ( $p < 0.05$ ). The percentage of improvement was moderate. This indicates that educational intervention improved the health care providers' practice towards breastfeeding. The women who are most likely to stop nursing early should be the target of interventions that aim to promote breastfeeding. Barriers to breastfeeding have included a lack of information, unsupportive actions and attitudes of maternity nurses, inconsistent guidance, and little prenatal encouragement to breastfeed. Some nurses and doctors are not very pro-breastfeeding, and they often advise moms to supplement with formula or quit up all together if they have problems<sup>[19]</sup>. The current study results showed that healthcare providers' knowledge after intervention was significantly improved compared to that before the intervention in all items.

The educational intervention in our study had a great impact in changing many misconceptions regarding breastfeeding and Covid-19, which is the challenge of this epidemic for all mothers who are breastfeeding or about to give birth, as well as healthcare providers who sometimes have no evidence based answers. The significant changes were found in the following items: Since the COVID-19 virus cannot be passed from the mother to the infant through breast milk, it is important to take extra precautions while nursing, learn how to express milk or feed from a bottle, and consider whether a person with the COVID-19 virus should be quarantined for the duration of the child's breastfeeding period, followed by a period of home isolation and quarantine.

Breastfeeding is beneficial in areas where COVID-19 is prevalent, skin-to-skin contact should be used, and breastfeeding should continue if the mother is confirmed or suspected to have the virus. This is a significant difference from other precautions (such as wearing a mask) for breastfeeding during the period of home isolation when both members of the dyad have suspected or confirmed COVID-19, requiring no quarantine unless the breastfeeding child develops COVID-19 symptoms or receives a positive viral test. This indicates that educational intervention improved the health care providers' knowledge about breastfeeding with COVID-19 which was an unclear problem that prevents many mothers from breastfeeding as a precaution and as a further safety for their child.

Additionally, there were notable discrepancies in the responses given in regards to the need of additional precautions while handling the breast milk pump, milk storage containers, or feeding utensils. Additionally, there has been a significant improvement in the responses to questions about how the COVID-19 infection has no bearing on recommendations for infant and young child feeding, the safety of infant formula milk when given as a "top-up," and accepting free formula milk for babies whose mothers have COVID-19 that has been confirmed or is suspected of having it ( $p < 0.05$ ). All of these results show that it is very necessary to raise people's awareness and knowledge about this epidemic regarding the breastfeeding mother and her baby and providing suitable alternatives for the mother and child such as breast milk expression or wet nursing instead of the prevailing tradition of preventing breastfeeding even one of them is suspected or infected with Covid-19. In the study of Abusaad and Algilany<sup>[20]</sup> the participants' knowledge score about breastfeeding during COVID-19 were unsatisfactory particularly items related to role of breast milk in the COVID-19 transmission, breast milk storage, availability of vaccine against COVID-19 and ways of infant feeding for suspected or confirmed COVID-19 mothers. This deficit may be because the scientific nature of this information for non-specialized working and ill-treat mothers. Furthermore, Pereira, et al.,<sup>[21]</sup> stated that the findings about breastfeeding and COVID-19 revealed very different experiences: 41.8 % of women believed that lockdown safeguarded nursing, whereas 27.0 % struggled to acquire help and faced several difficulties as a result of lockdown, some mothers stopping breastfeeding before they were ready. Less educated mothers, more difficult living conditions, and a Black or minority ethnic heritage were more likely to find the impact of lockdown difficult and quit nursing.

## CONCLUSION:

Our study had shown that there was a low to moderate baseline knowledge, attitude, and practice as regarding breastfeeding which were improved much more after the training intervention, reflecting that training courses are

of value in improving promotion of breastfeeding. Also the study had shown defective baseline knowledge level regarding breastfeeding with COVID19 which is a new pandemic with many fears and question marks. There was remarkable improvement after the educational intervention.

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## الملخص العربي

### تأثير التدخل التعليمي على المعرفة بالرضاعة الطبيعية وسلوكها وممارستها ومعتقداتها بين مقدمي الرعاية الصحية في مستشفى الزهراء.

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#### ملخص البحث

**الخلفية:** قد تتأثر وتيرة الرضاعة الطبيعية ومدتها بشكل فعال بالإرشادات المهنية المقدمة للأمهات. أظهرت الأبحاث السابقة أن المتخصصين في الرعاية الصحية يفتقرون إلى المعرفة والقدرات اللازمة لمساعدة وتشجيع الرضاعة الطبيعية. **الهدف:** الهدف الأساسي لهذه الدراسة هو مراجعة المعرفة بالرضاعة الطبيعية وسلوكها وممارستها بين المتخصصين في الرعاية الصحية والرضاعة الطبيعية مع وباء كوفيد 19 قبل وبعد تقديم الجلسات التعليمية للرضاعة الطبيعية وتحديد المتغيرات والعقبات التي تؤثر على الرضاعة الطبيعية. بين مقدمي الرعاية الصحية في مستشفى الزهراء الجامعي بجامعة الأزهر.

**الطرق:** أجريت هذه الدراسة التداخلية في مستشفى الزهراء الجامعي، وهي جزء من كلية الطب للبنات بجامعة الأزهر بالقاهرة. وشملت مجموعة من 250 مشاركاً ما بين طبيبات الامتياز لعام 2021/2020 وطبيبات مقيمات من مختلف التخصصات.

**النتائج:** كان هناك فرق كبير بين مستوى المعرفة والسلوك والممارسة قبل وبعد الجلسات التعليمية. نسبة التحسن كانت متوسطة وهذا يشير إلى أن التدخل التعليمي أدى إلى تحسن ممارسة الرضاعة الطبيعية بين مقدمي الرعاية الصحية. كما أظهرت الدراسة وجود خلل في مستوى المعرفة الأساسي فيما يتعلق بالرضاعة الطبيعية مع وباء كوفيد19 وهي جائحة جديدة لها العديد من المخاوف وعلامات الاستفهام، فكان هناك تحسن ملحوظ بعد التدخل التعليمي.

**الاستنتاجات:** بعد التدخل التعليمي حدث تحسن كبير وملحوظ في المعرفة بالرضاعة الطبيعية وسلوكها وموقفها مع وباء كوفيد19. لذلك، من الضروري تنفيذ العديد من الأنشطة الدراسية وغيرها لتعزيز المعرفة بالرضاعة الطبيعية ومهاراتها.

**الكلمات المفتاحية:** الرضاعة الطبيعية، التدخل التعليمي، مقدمي الرعاية الصحية، كوفيد -19 مريض معياري.

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