

Midwifery Students' Attitudes towards Infant Feeding: A Sample from Turkey

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ARTICLE INFO	ABSTRACT
<p><i>Article type:</i> Original article</p>	<p>Background & aim: Midwives are the main healthcare professionals who play a critical role in supporting mothers for initiating and maintaining breastfeeding. Due to the importance of midwifery students having sufficient breastfeeding knowledge and non-judgmental attitudes prior to graduation, this study aimed to examine the attitudes towards infant feeding of midwifery students.</p>
<p><i>Article History:</i> Received: 14-Jul-2021 Accepted: 10-Oct-2021</p>	<p>Methods: This survey was conducted at Health Sciences University in Ankara, Turkey in June 2021. The study was carried out on 212 midwifery students in total who agreed to take part in the study. Data was collected using the Student Information Form and IOWA Infant Feeding Attitude Scale, which were completed electronically through WhatsApp messenger and analyzed using SPSS Version 22.00.</p>
<p><i>Key words:</i> Midwifery Infant Feeding Breastfeeding Attitude Student</p>	<p>Results: The mean age of the students was 20.40±1.25. The mean score of IOWA Infant Feeding Attitude Scale was 66.18±5.52 out of 87. There was a statistically significant difference found between the mean scores of the students in the infant feeding attitude scale and their grade in school ($p<0.001$), receiving information in related classes ($p<0.005$), attending courses in the related subject ($p=0.044$), taking additional classes ($p<0.001$), and feeling themselves sufficient in terms of knowledge ($p=0.009$). There was no statistically significant difference with the status to give counseling.</p> <p>Conclusion: Midwifery students had positive attitudes towards infant feeding. It is, therefore, suggested to present an educational curriculum that supports and encourages breastfeeding in midwifery programs and to evaluate students' attitudes towards infant feeding in order to train professional midwives who will encourage families to breastfeed in the future.</p>

► Please cite this paper as:

Uğurlu M. Midwifery Students' Attitudes towards Infant Feeding: A Sample from Turkey. Journal of Midwifery and Reproductive Health. 2022; 10(1): 3093-3099. DOI: 10.22038/jmrh.2021.58976.1714

Introduction

Breastfeeding has proven and well-known benefits for infants and their mothers (1,2). Suitable and on-time feeding in infancy creates a critical opportunity for proper growth and development (3). The risk of the respiratory, gastrointestinal, urinary system, ear infections, obesity, type 1 diabetes, and allergies is lower in infants fed breast milk. Breastfeeding mothers have a lower risk of ovarian and breast cancer, post-menopause hip fractures (4).

Although the importance and benefits of breastfeeding are commonly known, there are still deficiencies in practice (3). Studies demonstrate that only 37% of babies younger than six months are fed breast milk in low and

middle-income countries (5). In Turkey, only 41% of babies younger than six months are fed breast milk. Moreover, contrary to the recommendation of feeding solely based on breast milk for the first six months, 23% of children take other milk than breast milk, and 12% take supplementary food in addition to breast milk (6).

The most efficient way of improving breastfeeding rates and attitudes is to train healthcare professionals who know how to encourage, preserve and support breastfeeding (7). Midwives are recognized on the international level as the most suitable primary healthcare providers for mothers and families

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with an infant, and they are responsible for offering information and guidance about infant feeding (7, 8). Midwives can offer support and knowledge needed by mothers to protect the health of their babies (7).

Efforts to increase breastfeeding rates demonstrated how important it is to give breastfeeding training to nursing and midwifery students (9). The main components of midwifery training comprise breastfeeding information, skills, and attitudes supporting and preserving breastfeeding (8). Midwifery programs can improve theoretical information and supportive attitudes and help breastfeed by developing breastfeeding practices. Many undergraduate programs in midwifery have started to give specific breastfeeding training programs to address the necessary information, attitudes, and supportive behaviors of midwives for breastfeeding (8). In this respect, breast milk and breastfeeding trainings are offered within the scope of the national core training program to undergraduate midwifery students in Turkey (10).

Studies in the field report that nursing/midwifery students generally have insufficient knowledge about breastfeeding, or even if they have sufficient knowledge, there are problems in practice (11). For example, Altwalbeh identified that midwifery students had lacking breastfeeding knowledge, and they especially fell short in managing breastfeeding problems (7). Some studies examined the attitudes and beliefs about breastfeeding among university students. Ahmed and Guindy (12) studied the midwifery students' breastfeeding knowledge and attitudes in Egypt and determined that 80% of the students acquired sufficient breastfeeding knowledge and skills in the nursing program, and 70% had low breastfeeding knowledge scores and neutral attitudes towards breastfeeding. However, they were confident about their skills in offering breastfeeding support. Other studies reported that improved breastfeeding knowledge in the students was correlated with more positive attitudes and beliefs in offering support to breastfeeding mothers (9, 13–15).

In conclusion, when it comes to supporting mothers in initiating and maintaining breastfeeding, the main healthcare professionals are midwives (7,11). In midwifery programs,

when the students are vested with positive reinforcement, non-judgmental attitudes, and practical clinical skills, together with sufficient breastfeeding information, they can offer the most appropriate care for mothers to breastfeed their babies (7). There are limited studies on the midwifery students' attitudes towards infant feeding in our country (16). Considering the health benefits of breastfeeding and the fact that midwives play a critical role in encouraging breastfeeding, this study was planned to evaluate midwifery students' attitudes towards infant feeding. Data obtained in this context can provide foresight to academicians in developing successful strategies in breastfeeding training.

Materials and Methods

This descriptive study was conducted at Health Sciences University in Ankara, Turkey. The study population was comprised of students enrolled in the midwifery department in the academic year of 2020-2021. A study sample was not selected, and the entire population was included in the sample. As some of the students did not accept to be involved in the study, 96% of the population was reached. The sample was comprised of 212 students in total who agreed to take part in the study. The criteria of inclusion in the study were 1) being 18+, 2) volunteering for the study, 3) being literate in Turkish.

Study data were collected using the "Student Information Form" and the "IOWA Infant Feeding Attitude Scale".

The researchers created the student information form in parallel to the respective literature (10, 16), which questioned the students' socio-demographics and breastfeeding-related knowledge. The form comprises 15 questions about age, marital status, childbearing status, grade in school, receiving information in classes about breastfeeding and infant feeding, taking another class or a course, the status of offering breastfeeding counseling. In order to evaluate the clarity of the student information form a pre-application was made with 10 students studying in a different department. Necessary adjustments were made in the form after the pre-application. These students were not evaluated within the scope of the sample.

The IOWA infant feeding attitude scale was developed in 1999 by Da La Mora and Russel to

evaluate the women's attitudes towards breastfeeding and estimate the term of breastfeeding in addition to the infant feeding method (17). The scale is a 5 item Likert type varying between points of 1 (absolutely disagree) and 5 (absolutely agree) and comprises 17 items in total. 9 items on the scale include positive statements about feeding with breast milk, while 8 items include positive statements about feeding with formula and are reverse scored. The total score that can be obtained from the scale ranges between 17-85 points. The scale does not have a cut-off score, and higher points demonstrate a positive breastfeeding attitude. Ekşioğlu et al. determined that the scale was a valid and reliable tool in Turkish women (18) and also in Turkish midwifery students (16). Studies found that the scale's Cronbach's Alpha internal consistency factor was 0.71 both for breastfeeding women and midwifery students (16, 18).

The link of data collection forms which was prepared by via Google Form was sent online to the students' WhatsApp groups. After students clicked the address, the informed consent document which explains the purpose and method of the study was displayed on their screen. When the student approved the informed consent document, data collection forms were displayed on the screen and filled in by the student. Filling the data collection forms took almost 10-15 minutes for each student.

The necessary ethical board permission required to conduct the study (No: 2021/266) was obtained from Health Sciences University Gülhane Scientific Studies ethical board. The study took the principles of the Helsinki Declaration into account.

Data were analyzed using SPSS for Windows Version 22.00 (IBM Corporation, Armonk, New York, USA). The descriptive analysis such as frequency distribution, mean and standard deviation was performed. Student's t-test, Mann-Whitney U, and one-way ANOVA were used to determine the differences in IOWA Infant Feeding Attitude Scale between the groups. A value of $p < 0.05$ was accepted as statistical significance.

Results

Table 1 gives the distribution of specific characteristics of the midwifery students. The mean age of the midwifery students is

20.40±1.25. Of the students involved in the study, 82.1% have a nuclear family, and 99.1% do not have children. 36.3% of the students are in the first grade, 34.4% in the second grade, and 29.2% in the third grade.

Table 1. Students' Socio-Demographics

Variable	???
Age	20.40±1.25 (min:18-max:30)
	N (%)
Marital Status	
Married	2 (0.9)
Single	210 (99.1)
Family Type	
Nuclear	174 (82.1)
Extended	38 (17.9)
Childbearing Status	
Yes	2 (0.9)
No	210 (99.1)
Grade	
1 st grade	77 (36.3)
2 nd grade	73 (34.4)
3 rd grade	62 (29.2)

The mean scores of the midwifery students on the IOWA Infant Feeding Attitude scale. The mean score is 63.2±24.74 for the first graders, 67.3±45.80 for the second graders, and 68.48±4.43 for the third graders. The students' total mean score is 66.18±5.52.

The students reported the sources they acquired information about breastfeeding and infant feeding as the midwifery school (70.8%), books (47.2%), social media (35.8%), family (21.2%), courses (19.3%), and healthcare professionals (17.9%) (Figure 1).

Table 2 compares the infant feeding attitude scale mean scores of the midwifery students by certain variables. Accordingly, there was a statistically significant difference between the students' attitudes towards infant feeding and their grade in school ($p < 0.001$), receiving information in midwifery class ($p = 0.001$), labor class ($p = 0.003$), breastfeeding counseling class ($p < 0.001$), newborn and infant feeding class ($p < 0.001$), mother and child feeding class ($p = 0.001$), and attending related courses ($p = 0.044$), taking another class ($p < 0.001$) and feeling themselves sufficient in terms of knowledge ($p = 0.009$), there was no statistically significant difference ($p = 0.068$) in terms of the

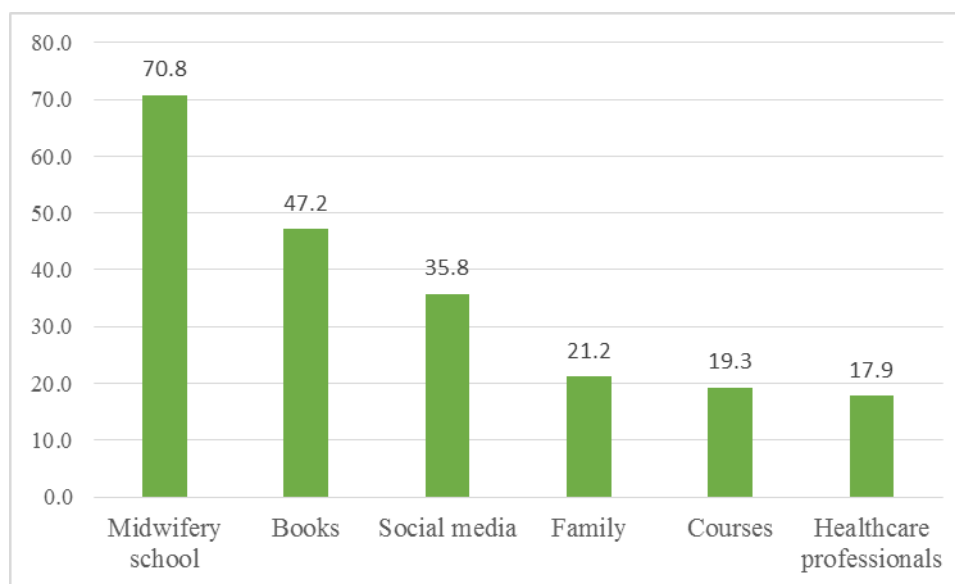


Figure 1. Information Resources for Midwifery Students on Breastfeeding and Infant Nutrition

Table 2. Comparison of Students' Infant Feeding Attitude Scale Mean Scores and Certain Variables

	N	Mean±SD	Test and p-value
Grade in School			
1 st grade	77	63.22±4.74	F: 21.60* p<0.001
2 nd grade	73	67.34±5.80	
3 rd grade	62	68.48±4.43	
Characteristics About Breastfeeding and Infant Feeding (BIF)			
Receiving information in the midwifery class			
Yes	84	67.64±5.07	z: -3.30*** p: 0.001
No	128	65.22±6.61	
Receiving information in the labor class			
Yes	62	67.90±4.17	t: -2.97** p: 0.003
No	150	65.47±5.85	
Receiving information in the breastfeeding counseling class			
Yes	72	68.57±3.97	z: -4.61*** p<0.001
No	140	64.95±5.80	
Receiving information in the newborn and infant feeding class			
Yes	66	68.42±4.20	t: -4.12** p<0.001
No	146	65.16±5.75	
Receiving information in the mother-child feeding class			
Yes	142	67.07±5.33	t: -3.43** p: 0.001
No	70	64.37±5.48	
Attending courses			
Yes	20	68.50±3.15	z: -2.011 p: 0.044
No	192	65.94±5.66	
Taking another class			
Yes	81	67.88±4.92	z: -3.51 p<0.001
No	131	65.13±5.62	
Self-evaluation of knowledge and skills			
I am sufficient	63	67.70±6.32	t: -2.16** p: 0.009
I am not sufficient	149	65.54±5.032	
Offering counseling			
Yes	13	68.77±4.93	z: -1.82*** p: 0.068
No	199	66.01±5.52	

*One-Way Anova Test

** Student's t-test

***Mann-Whitney U Test

status of offering to counsel.

Discussion

From the results of this study, it is considered that infant feeding attitudes of midwifery students were at a good level. In similar studies conducted in Turkey and England, the infant feeding attitudes of midwifery students were in line with our findings (4, 16). The total mean score of the nursing students in Egypt and the midwifery students in Jordan was (neutral) (7, 12), and another study in the Middle East the university female students' infant feeding attitudes were partially lower than our findings (3). In line with the scale mean score, it is considered that the students are in a positive attitude towards infant feeding and breastfeeding. This is an expected result for Turkish students because breastfeeding of infants is encouraged in Turkish culture (12, 19). At the same time, it was determined that mothers have a positive attitude towards infant feeding in Turkish society (20). It is suggested that midwives are influenced by the social culture and their personal experience with breastfeeding (4).

The mean scores of the third-grade students were higher than those of the second and first graders. The mean scores from the infant feeding attitude scale significantly increased with a higher grade in school. As there were no fourth-grade students, the study did not include any fourth graders. While the students take classes on mainly basic sciences in the first grade within the curriculum, the number of classes, including breastfeeding and infant feeding topics, increases with a higher grade. Therefore, it is believed that the more the students are exposed to the related topics and the more knowledge they acquire, their attitudes will be positively affected by that. In the literature, it is reported that breastfeeding attitudes become more positive with increased knowledge about breastfeeding (13, 21). Unlike our findings, a significant difference was not obtained between the grade and breastfeeding attitudes in a study made with midwifery students (7). Another study compared undergraduate and graduate health sciences students to evaluate the impacts of educational level on breastfeeding attitudes. In graduate students, the breastfeeding attitude scale mean

scores were significantly more positive than formula feeding (22). With an increased educational level, having a positive attitude towards breastfeeding and infant feeding is a desirable situation. According to this result, it can be seen that the trainings that the students receive have a positive impact on the infant feeding attitude scores.

This study found out that receiving information by the students in classes that include breastfeeding and infant feeding topics in the curriculum, taking another class, and attending a course positively impacted the infant feeding attitude mean scores. In another study conducted with the midwifery students in Turkey, a significant difference was not determined between similar variables as different from our results (16). It is an expected result that methods that improve the knowledge level, such as attending classes, courses, and seminars on breastfeeding, positively impact the breastfeeding attitude. Our findings are important in demonstrating that training the students to improve their knowledge level and encouraging them in this respect have positive impacts on the breastfeeding attitude.

In this study, the students who considered themselves sufficient in terms of knowledge about breastfeeding and infant feeding had significantly higher mean scores in infant feeding attitudes. In the literature, studies made with undergraduate students found a significant positive correlation between the level of knowledge about breastfeeding and breastfeeding attitudes (21, 23). In another study conducted with midwifery students in Turkey, a significant difference was not determined between the students' status feeling sufficient in terms of knowledge and skills and their infant feeding attitude scale point (16). Atlwalbeh, in the study made with midwifery students, found a significant positive correlation between the students' breastfeeding knowledge and breastfeeding attitudes (7). Although there are varying results in the literature, it is suggested that breastfeeding knowledge and feeling sufficient positively impact the breastfeeding attitude. Therefore, it is very important to plan midwifery curriculums in a way to support the students' self-sufficiency in

terms of knowledge about breastfeeding and infant feeding.

In this study, no significant correlation was determined between the students' status of offering counseling and breastfeeding attitudes. In a study made with nursing students in Turkey, it was determined that the knowledge mean score increased with increased counseling offered by the students (24). Hamade et al., in the study made with female university students, determined that those who witnessed a woman breastfeeding had a significantly positive attitude towards infant feeding (3). It is believed that the reason for not identifying a correlation between the status of offering counseling and infant feeding attitudes in our study can result from the lower number of students who offered counseling. This situation is a result of the interruptions in the clinical practices of the students during the pandemic. It is reported in the literature that national quarantines implemented in many European countries and Japan, as in Turkey. This new situation caused rapid and dramatic changes in the theoretical and clinical education of midwifery students' and caused significant disruptions in practical education (25, 26).

This study contributes to the literature in terms of determining the attitudes of midwifery students, who have a critical role in promoting breastfeeding, with a measurement tool and providing information in planning the education program. The limitation of the study was that it was conducted with a sample group consisting of midwifery students studying in the field of health. The same study should be done with sample groups consisting of university students of similar age studying in other health fields.

Conclusion

In our study, it is considered that the midwifery students had positive attitudes towards infant feeding. It was determined that the students' attitudes towards infant feeding were more positive with a higher grade in school. Accordingly, it can be suggested that the students' training has a positive impact on the infant feeding attitude scores. The students who felt sufficient knowledge about breastfeeding and infant feeding had more positive attitudes towards infant feeding than the students who feel insufficient. It is suggested that the classes

which offered information about breastfeeding and infant feeding, courses attended, and taking another class in the respective subject before interacting with the patient positively influenced their attitudes towards infant feeding. Universities are responsible for raising healthcare professionals who will provide the best service to society in line with evidence-based data. Offering a training presentation that underlines the importance of supporting and encouraging breastfeeding in the midwifery departments for the better health of future generations will raise equipped and professional midwives who will encourage families to breastfeed in the future.

Acknowledgements

Thanks to all students who participated in this study.

Conflicts of interest

The author declare no conflicts of interest.

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