Sağlık ve Yaşam Bilimleri Dergisi, Yıl 2025, Cilt 7, Sayı 3, s.150-156
DOI: https://doi.org/10.33308/2687248X.202573393

Article Type Original Research

# *Relationship between midwifery students' breastfeeding counselling self-efficacy and professional interest*

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**ABSTRACT**

**Objective**: The aim of this study was to determine the relationship between breastfeeding counseling self-efficacy and professional interest of midwifery students. **Method**: This study is a cross-sectional study. The data were collected between November 2024 and February 2025 through an online form. 355 senior midwifery students participated in the study. Personal Information Form, Breastfeeding Counseling Self-Efficacy Scale, and Professional Interest Scale were collected. Student's t test, One-Way Anova Test and Kruskal-Wallis test was used for comparisons. Pearson Correlation analysis was used to assess whether the relationship between the Self-Efficacy Tool for Midwifery Students' Ability to Support Breastfeeding Mothers and the Professional Interest Scale was significant. **Results**: The mean age of the midwifery students who participated in the study was 22.05(±1.48) years; the mean GPA was 3.08(±0.39, 1.9-3.8); 59.7% (n=212) continued their education at a public university; 72.1%(n=256) wanted to work in a public hospital after graduation; and 2.8%(n=10) did not want to work as a midwife. The mean score of midwifery students on the Self-Efficacy in Breastfeeding Counseling Scale was 120.38(±15.33), and the mean score was 75.18(±10.32) on the Professional Interest Scale. In the evaluation, it was found that 67% (n=238) of the students had a high level of professional interest and 18% (n=64) had a very high level of professional interest. When the total scale scores of the students were compared and it was determined that as the level of self-efficacy in breastfeeding counseling increased, the level of professional interest also increased. **Conclusions**: It was found that as the breastfeeding counseling self-efficacy score of the midwifery students increased, the professional interest score increased. Breastfeeding counseling training should be supported to increase the professional motivation of midwifery students.

**Keywords:** Midwifery, lactation, counseling, self efficacy, students

## *Ebelik öğrencilerinin emzirme danışmanlığı özyeterliliği ve mesleki ilgi ilişkisi*

**ÖZET**

**Amaç:** Bu çalışmanın amacı, ebelik öğrencilerinin emzirme danışmanlığı öz yeterlilikleri ile mesleki ilgileri arasındaki ilişkiyi belirlemektir. **Yöntem:** Bu çalışma kesitsel bir çalışmadır. Veriler, Kasım 2024 ile Şubat 2025 tarihleri arasında çevrimiçi bir form aracılığıyla toplanmıştır. Çalışmaya 355 son sınıf ebelik öğrencisi katılmıştır. Kişisel Bilgi Formu, Emzirme Danışmanlığı Öz Yeterlilik Ölçeği ve Mesleki İlgi Ölçeği toplanmıştır. Karşılaştırmalar için Student's t testi, Tek Yönlü Anova Testi ve Kruskal-Wallis testi kullanılmıştır. Ebelik öğrencilerinin Emzirme Danışmanlığında Öz Yeterlilik Ölçeği ile Mesleki İlgi Ölçeği arasındaki ilişkinin anlamlı olup olmadığını değerlendirmek için Pearson Korelasyon analizi kullanılmıştır. **Bulgular:** Çalışmaya katılan ebelik öğrencilerinin yaş ortalaması 22,05 (±1,48) idi; not ortalaması 3,08 (±0,39, 1,9-3,8); %59,7'sinin (n=212) devlet üniversitesinde eğitimine devam ettiği; %72,1'inin (n=256) mezuniyetinden sonra devlet hastanesinde çalışmak istediği; %2,8'inin (n=10) ebe olarak çalışmak istemediği belirlendi. Ebelik öğrencilerinin Emzirme Danışmanlığında Öz Yeterlilik Ölçeği'ndeki ortalama puanı 120,38 (±15,33) ve Mesleki İlgi Ölçeği'ndeki ortalama puanı 75,18 (±10,32) idi. Değerlendirmede, öğrencilerin %67'sinin (n=238) yüksek düzeyde mesleki ilgiye sahip olduğu ve %18'inin (n=64) çok yüksek düzeyde mesleki ilgiye sahip olduğu bulunmuştur. Öğrencilerin toplam ölçek puanları karşılaştırıldığında, emzirme danışmanlığında öz yeterlilik düzeyi arttıkça mesleki ilgi düzeyinin de arttığı tespit edilmiştir. **Sonuç:** Ebelik öğrencilerinin emzirme danışmanlığı öz yeterlilik puanları arttıkça mesleki ilgi puanlarının da arttığı bulunmuştur. Ebe öğrencilerinin mesleki motivasyonunu artırmak için emzirme danışmanlığı eğitimi desteklenmelidir.

**Anahtar Kelimeler:** Ebelik, emzirme, danışmanlık, öz yeterlik, öğrenciler

Geliş Tarihi:18.07.2025 Kabul Tarihi: 26.11.2025

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Atıf/Citation: Bayri Bingöl F, Kocataş A, Polat M, Karanfil S. Relationship between midwifery students' breastfeeding counselling self-efficacy and professional interest. Sağlık ve Yaşam Bilimleri Dergisi 2025;7(3):150-156.

## INTRODUCTION

Breast milk is the most suitable food for newborn babies.[1] Breast milk has an important role, with positive lifelong effects, in the health of both infants and mothers.[2] Breastfeeding is also one of the most cost-effective public health strategies, increasing the chances of newborn survival. It is reported that children who are breastfed longer are protected from infectious diseases and have fewer dental problems.[3] Despite many publications showing the negative consequences of not breastfeeding, breastfeeding initiation and maintenance rates are not at the desired level, especially among women in low-income groups.[4] After birth, newborns should receive breast milk as soon as possible. Persistent or severe hypoglycemia that develops when a baby's feeding is delayed can lead to neurological problems, including significant dysfunction and developmental delay.[5]

Breastfeeding counseling is extremely important in initiating and maintaining it. The content, duration, and standards of breastfeeding counseling training in Türkiye have been determined by the General Directorate of Public Health. This training program is designed to improve the knowledge and skills of all health personnel serving in this field in order to support and sustain breastfeeding.[6] Teaching and managing breastfeeding is a core competence of midwifery care.[7]

In Türkiye, breastfeeding counseling is generally provided by midwives. Midwives worldwide are the health professionals who work closest to women during pregnancy and childbirth. In the midwifery regulation adopted on December 3, 2024, initiating breastfeeding, providing breastfeeding education, and maintaining breastfeeding, are among the main duties and responsibilities of midwives.[8] Provide breastfeeding counseling, midwives need to be well prepared, able to manage breastfeeding or related problems, and confident.[9]

Breastfeeding counseling training is given to midwifery students during their undergraduate education, and it is also offered by some associations and the Ministry of Health after graduation. Breastfeeding counseling is one of the most fundamental roles of midwives. In the existing literature, there is no research on the effect of breastfeeding counseling self-efficacy on midwifery students' professional motivation. In context, the study was conducted to examine the relationship between breastfeeding counseling self-efficacy and professional interest of midwifery students.

## METHOD

### Population and Sample of the Study

The population of the cross-sectional study consisted of 582 senior midwifery students studying at three State and nine Foundation universities between November 2024 and February 2025. The sample of the study was determined as n= 311 (99% confidence, 0.05 margin of error) by means of the sampling method. During the data collection process, data was collected from 355 senior midwifery students who met the inclusion criteria and volunteered.

### Inclusion Criteria

Being a final -year student in midwifery education. Since one of the measurement tools of the research is "Self-efficacy in Breastfeeding Counseling" and since certified breastfeeding counseling training programs started being given in our country in the 3rd year of undergraduate education and beyond, it is predicted that 4th -year students may have the highest self-efficacy in breastfeeding counseling. Therefore, being a 4th -year midwifery student was determined as the inclusion criterion. The questionnaire form was shared in class groups of midwifery students, and students were invited to participate in the study. To ensure data quality, the online questionnaire was configured to prevent multiple submissions from the same device using the platform's built-in settings. Participants were explicitly instructed to complete the survey only once. While advanced verification techniques such as IP filtering or biometric validation were not employed due to ethical and technical limitations, all responses were manually reviewed. Entries with identical timestamps or suspiciously similar response patterns were examined and, where appropriate, excluded from the dataset.

### Data Collection Method and Tools

The data were collected using an electronic data collection form. Student representatives at the universities where the research was to be conducted were contacted, and the research data collection link was shared in the students' WhatsApp groups. The participation brochure contained information about the research and a link to the Google Forms online survey. Students were asked to fill out an informed consent form via Google Forms, and those who agreed to participate were included in the research. In this study, no sample selection was made; all students who met the research criteria and agreed to participate in the study formed the research sample. The form consisted of three parts. The first part included a personal information form. The second part included the Self-Efficacy Tool for the Ability to Support Breastfeeding Mothers, and the third part included the Professional Interest Scale.

***Self-Efficacy Tool for the Ability to Support Breastfeeding Mothers (SETAS-BM*):** The Turkish validity and reliability study of the Midwifery Students' Self-Efficacy Tool for the Ability to Support Breastfeeding Mothers developed by Blackman et al.in

2015 was conducted. The Turkish validity and reliability study of the SETAS-BM was conducted by Bayrı Bingöl et al. (2025).[10] It is a 4-point Likert-type scale consisting of 37 items. For each item in the scale, there are options "Very difficult, 1", "Difficult, 2", "Easy, 3", "Very easy, 4", and it is scored in the range of 37-148. The scale has no cut-off score. Scores obtained from the scale indicate that the participant has high self-efficacy in breastfeeding counseling. Validity- reliability study the Cronbach's alpha value of the scale was found to be α =.97.[10] In this study, the Cronbach's alpha value of the scale was found to be α =.97.

***Professional Interest Scale (PIS):*** This scale, developed by Kaysi (2021) and containing 19 items, measures the professional interest levels of university students and graduates.[11] Responses are as follows: 1 "Strongly Disagree", 2 "Disagree", 3 "Undecided", 4 "Agree", and 5 "Strongly Agree". Item 7 is reverse scored. In the assessment of the scale, the mean response of the participants to the scale items between 1.00- 1.80 is interpreted as very low, between 1.81- 2.60 as low, between 2.61- 3.40 as medium, between 3.41- 4.50 as high, and between 4.51- 5.00 as very high. Validity- reliability study the Cronbach's alpha value of the scale was found to be α =.92.[11] In this study, the Cronbach Alpha value of the scale was α=.91.

**Data Analysis**

Statistical analysis of the data was performed in the SPSS program. Continuous variables were expressed as mean ± standard deviation; median, and categorical variables were expressed as numbers and percentages. The normality of the data was checked using Histogram, Boxplot, Kolmogorov-Smirnov Test, and Shapiro-Wilk Test. After assessing the conformity to normal distribution, Student's t test was used for two-class examinations, and One-Way Analysis of Variance (One-Way Anova Test) was used for comparisons with more than two groups. The Kruskal-Wallis test was used to analyze the data which was not suitable for normal distribution. Pearson Correlation analysis, was used to assess whether the relationship between the Self-Efficacy Tool for Midwifery Students' Ability to Support Breastfeeding Mothers and the Professional Interest Scale was significant.

**RESULTS**

The mean age of the midwifery students included in the study was 22.05±1.48; 59.7% (n=212) continued their education at a public university; 72.1% (n=256) wanted to work in a hospital after graduation; and 2.8% (n=10) did not want to work as a midwife. It was determined that 49.3% (n=175) of the students were satisfied with the breastfeeding counseling education given in their school, and 38% (n=136) received breastfeeding counseling education outside of school. It was found that 84.2% (299) of the senior midwifery students provided breastfeeding education independently, and 14.6% (n=52) conducted 21 or more counseling sessions independently. Comparison of the individual characteristics of the students with the scale scores determined that the breastfeeding counseling and professional interest scores of the students who provided breastfeeding counseling alone were higher than those of their peers.

The mean GPA (Grade Points Average) of the students was found to be 3.08 ± 0.39, with a range of 1.9 to 3.8. It was determined that the GPA of the students was not related to the level of self-efficacy in breastfeeding counseling (p=0.340). Additionally, there was a weak positive correlation between GPA and professional interest level (p=0.044, r=0.107). The comparison of other individual characteristics and scale scores of the students is presented in Table 1.

While it was found that the mean SETAS-BM score of the midwifery students included in this study was 120.38±15.33 (75-148), the mean score of the Professional Interest Scale was 75.18±10.32 (45-95). According to the professional interest scale, 67% (n=238) of the senior midwifery students had a high level of professional interest and 18% (n=64) had a very high level of professional interest. In the correlation analysis performed to compare the total score of the STAS-BM and the total score of the Professional Interest Scale, it was determined that there was a moderate positive relationship between them (p=0.000, r=.331), and as the level of self-efficacy in breastfeeding counseling increased, the level of professional interest also increased (Table 2).

**DISCUSSION**

Midwives are expected to support mothers in initiating and maintaining breastfeeding. The International Confederation of Midwives (ICM) updated the "Core Competencies of Midwifery Practice" in 2024, which include Continuing Care of Women and Newborns in Category 5. In this category, one of the most fundamental roles of midwives is to "support and promote breastfeeding."[12] In our country, the duties and responsibilities of midwives in initiating and maintaining breastfeeding were defined in the midwifery regulation updated in December 2024.[13] Breastfeeding counseling is one of the most fundamental roles of midwives. In this study, it was determined that as the students' self-efficacy in breastfeeding counseling increased, the level of professional interest also increased. It was found that students with low self-efficacy in breastfeeding counseling had lower professional motivation. Strengthening breastfeeding counseling training may be a way to increase the professional motivation of midwifery students.

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**Table 1: Comparison of students' individual characteristics with self-efficacy tool for the ability to support breastfeeding mothers and professional interest levels**

| | | | % | n | SETAS-BM | Professional Interest |
|---|---|---|---|---|---|---|
| Age | (Mean ± SD) | 22.05±1.48 | | | | |
| GPA | (Mean ± SD) | 3.08 ± 0.39 | | | | |
| Place of Residence | Student House | | 12.4 | 44 | 119.77±14.53 | 74.86±80.04 |
| | Family home | | 51.8 | 184 | 119.51±14.97 | 75.46±10.63 |
| | Dormitory | | 32.7 | 116 | 121.88±16.37 | 74.70±10.67 |
| | Relative's house | | 3.1 | 11 | 121.81±13.69 | 76.90±10.29 |
| | | | | | *p=0.703. KW=1.41* | *p=0.737. KW=1.267* |
| University of enrolment | Public university | | 59.7 | 212 | 119.94±15.05 | 74.91±10.73 |
| | Foundation University | | 40.3 | 143 | 121.03±15.76 | 75.59±9.70 |
| | | | | | p=.0513. t=0.654 | p=.0541. t=-0.612 |
| Employment Status | Yes | | 16.3 | 58 | 121.48±14.16 | 74.60±9.69 |
| | No | | 83.7 | 297 | 120.17±15.56 | 75.29±10.45 |
| | | | | | p=0.152. t=0.595 | p=0.639. t=0.445 |
| Economic Situation | Income does not cover expenses | | 35.2 | 125 | 119.24±15.71 | 73.75±10.90 |
| | Income in line with expenditures | | 61.1 | 217 | 120.60±15.01 | 76.01±9.69 |
| | Income more than expenses | | 3.7 | 13 | 127.69±15.97 | 75.15±13.80 |
| | | | | | p=0.195. KW=3.274 | p=0.199. KW=3.227 |
| Post-Graduation Work Plan | Working in a hospital | | 72.1 | 256 | 120.44±15.39 | 75.65±10.09 |
| | Freelance midwifery | | 5.4 | 19 | 122.08±15.07 | 77.08±8.38 |
| | Academics | | 9 | 32 | 123.94±15.51 | 78.94±8.66 |
| | Family health center | | 10.7 | 38 | 121.09±15.93 | 71.42±9.81 |
| | She does not want to work as a midwife | | 2.8 | 10 | 113.10±16.24 | 61.50±10.21 |
| | | | | | p=0.578. KW=3.806 | **p=0.000**. KW=23.337 |
| Satisfaction with breastfeeding counseling education given in midwifery education | Yes | | 49.3 | 175 | 123.05±15.75 | 77.06±9.32 |
| | No | | 12.4 | 44 | 114.41±14.76 | 71.52±9.74 |
| | No training is provided | | 38.3 | 136 | 118.84±14.27 | 73.95±11.26 |
| | | | | | **p=0.001**. F=6.805 | **p=0.001**. F=6.843 |
| Have you received breastfeeding counseling training outside of school? | Yes | | 38.3 | 136 | 118.61±16.02 | 76.45±10.53 |
| | No | | 61.7 | 219 | 123.25±13.71 | 79.39±10.13 |
| | | | | | **p=0.005**. t=-2.794 | p=0.68. t=-1.832 |
| Have you provided breastfeeding counseling on your own? | Yes | | 84.2 | 299 | 121.85±4.78 | 75.84±10.02 |
| | No | | 15.5 | 55 | 112.43±16.07 | 71.40±11.16 |
| | | | | | **p=0.000**. t=4.280 | **p=0.003**. t=2.966 |
| Number of counsellilng she has provided on her own | 0 | | 15.5 | 55 | 113.01±16.11 | 71.70±11.15 |
| | 1-10 | | 56.2 | 199 | 118.82±14.22 | 74.39±9.77 |
| | 11-20 | | 13.08 | 49 | 129.12±13.92 | 78.75±9.86 |
| | 21 and more | | 14.6 | 52 | 125.76±14.43 | 78.50±10.39 |
| | | | | | **p=0.000**. F=13.595 | **p=0.000.** F=6.466 |
| **SETAS-BM** | (Mean ± SD) | 120.38±15.33 | | | | |
| **Professional Interest** | (Mean ± SD) | 75.18±10.32 | | | | |

In this study, it was determined that 3 out of every 10 students was able to perform 10 or more breastfeeding counseling sessions alone. Similar to this study, in another study conducted with midwifery students in Italy, it was found that students generally had a high level of self-efficacy in helping mothers during breastfeeding.[14] In this study, it was also determined that as the level of professional interest of midwifery students increased, the level of self-efficacy in breastfeeding counseling also increased. The high level of self-efficacy of midwifery students in breastfeeding counseling is extremely important in terms of increasing the support provided to breastfeeding mothers and increasing breastfeeding rates. Lack of knowledge and skills and negative attitudes of health personnel towards breastfeeding are the most important barriers to supporting breastfeeding mothers. In a study, a breastfeeding education program was found to increase the self-efficacy of healthcare professionals in providing evidence-based support to breastfeeding mothers.[15] Students should be supported more to increase their breastfeeding counseling self-efficacy. Midwifery education should provide training to increase breastfeeding counseling skills and evaluate their adequacy.

World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) recommend various campaigns aimed at promoting breastfeeding through education and information for health professionals.[16] In midwifery education, virtual and face-to-face simulation-based training on breastfeeding are increasing.[17-19] As opportunities for technology-supported learning expand, simulation-based learning in clinical breastfeeding is likely to become the predominant form of health professional education.[20] Moreover, as new technologies and immersive learning opportunities will continue to emerge in the coming years, simulation-based learning is essential for healthcare professionals.[18,21] In a study, simulation training to increase breastfeeding counseling skills was found to

be effective in increasing students' basic and advanced clinical breastfeeding skills.[7] Motivation is the driving force behind all human actions. It is one of the most important factors in successfully choosing and pursuing a career. The timing of a young person's career choice is crucial and is based on limited knowledge and experience. In this context, determining students' academic motivation and career expectations is extremely interesting as it involves personal, social, and contextual factors that affect individuals and their careers.[22]

**Table 2. Comparison of students' self-efficacy tool for the ability to support breastfeeding mothers with professional interest levels**

| | % (n) | SETAS-BM Mean±SD |
|---|---|---|
| **Professional Interest** | | |
| Low | 0 | 0 |
| Middle | 14.9 (52) | 110.64±14.06 |
| High | 67 (238) | 119.19±13.37 |
| Very High | 18 (64) | 132.75±14.00 |
| | | **p=0.000. F=38.937** |

Midwifery students' interest in the profession increases their desire and participation in acquiring leadership, management, and clinical skills, which in turn improves the quality of education.[23] Indeed, similar to the findings of this study, the literature reports that interest in the profession directly affects the quality of care and that students with a high professional interest are more motivated in communication, empathy, and clinical practice, thus improving the care experience and outcomes for mothers and newborns.[24] Students' interest in the profession is decisive in terms of entry rates and long-term professional retention; low interest leads to sustainable labour force problems. If students in the preparatory phase have low intentions to choose the profession, the risk of future labour shortages increases, which affects service delivery.[25] Furthermore, high professional interest facilitates students' progression along academic and professional pathways-e.g., research, continuing education, and leadership roles. Clinical academic career opportunities and professional fulfilment prospects support the tendency of relevant students to engage in further education and scientific activities.[26] Midwives are expected to support women in initiating and maintaining breastfeeding. Breastfeeding education should include not only theoretical training but also practical breastfeeding skills. A systematic review found that healthcare student knowledge about breastfeeding, particularly regarding breastfeeding assessment and management, was limited.[27] The lack of standardisation between guidance frameworks, course content, trainer inadequacy and assessment strategies hinders the optimisation of breastfeeding education and subsequent support for mothers. [28] Focus group and clinical simulation studies conducted with nursing and midwifery students have shown that students' knowledge of breastfeeding counselling has increased.[29] In another study, it was determined that videos, interactive content and activities in a bachelor's degree breastfeeding course increased students' self-efficacy.[30] Further studies should be conducted to increase students' professional motivation and self-efficacy in breastfeeding counselling.

## Strengths and Limitations

No quantitative study examining the breastfeeding counselling skills of midwife candidates has been found in the literature. This is a strength of the study. The study's data were collected using self-report questionnaires rather than clinical observation and assessment. This is a limitation of the study. Therefore, the findings obtained are limited to the sample participating in the study and their generalisability is restricted.

## Conclusion and Recommendations

In this study, it was determined that most of the students wanted to work in a hospital after graduation had a high level of professional interest, and that the level of professional interest increased as breastfeeding counseling self-efficacy increased. Breastfeeding counseling training should be supported to increase the interest in their profession among midwifery students. Further research should be conducted to determine other factors affecting the vocational interest level of students. Future studies should focus not only on students' breastfeeding counseling self-efficacy, but also on more closely examining students' clinical breastfeeding skills performance. Researchers should look for methods to improve students' hands-on skills and increase their ability to receive feedback and self-reflect on their performance in order to maximize their breastfeeding counseling skills.

## Ethical Consideration

This study was approved by Marmara University of Health Sciences Faculty Ethics Committee (31.10.2024/134). In addition, midwifery students who met the inclusion criteria were given explanatory information about the purpose and methodology of the study, as well as the contributions it would provide. The study was conducted in accordance with the Helsinki Declaration of the World Medical Association and the criteria of the Ministry of Health of the Republic of Türkiye.

### *Author Contributions*

*Study idea and design: FBB, AK, MP, SK*
*Data collection: AK, MP, SK*
*Data analysis and interpretation: FBB*
*Literature review: FBB, AK, MP, SK*
*Critical review: FBB*
*Final approval and responsibility: FBB*

***Conflict of interest:*** *The authors declare no conflict of interest.*

***Financial Support:*** *Authors declared no financial support*

***Acknowledgements:*** *We would like to thank students who took part in the research.*

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