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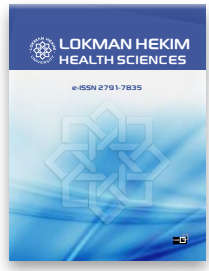

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ORIGINAL ARTICLE

The Relationship between Midwifery Students' Adverse Childhood Experiences, Fear of Childbirth, and Professional Interest: A Multicenter Cross-sectional Study

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Abstract

Introduction: Very little is known about how midwifery students' own negative experiences affect their transition into their professional roles. This study aims to examine the relationship between adverse childhood events, fear of childbirth, and professional interest levels among final-year midwifery students.

Methods: This cross-sectional and descriptive study was conducted between September 1 and December 31, 2022, with final-year midwifery students selected using a multi-stage purposive sampling method aimed at representing different geographical regions of Türkiye. Data were collected through an online questionnaire, and the sample consisted of 567 students who agreed to participate. Data were analyzed using the Statistical Package for the Social Sciences. Independent samples t-test, analysis of variance, and Chi-square test were used for group comparisons; Pearson correlation and linear regression analyses were used to examine the relationships between variables.

Results: The mean age of the participants was 22.2±1.21, and the majority were single (96.6%, n=548). After graduation, 71.6% (n=406) of the students stated that they wanted to work as midwives in the public sector, 91.9% (n=521) stated that they were satisfied with their midwifery education, and 58.0% (n=329) stated that the midwifery profession was suitable for them. Participants' mean fear of childbirth score was 3.44 (±1.17), a high level of professional interest (3.97±0.71), and a low level of adverse childhood events (0.16±0.198). A significant positive correlation was found between the number of traumatic experiences and fear of childbirth ($r=0.111$; $p<0.01$), while no significant correlation was observed with professional interest. A moderate negative correlation was identified between fear of childbirth and professional interest ($r=-0.330$; $p<0.001$). Regression analysis revealed that adverse childhood events significantly increased fear of childbirth ($\beta=0.144$; $p<0.001$), but had no significant effect on professional interest.

Discussion and Conclusion: Past-traumatic experiences among midwifery students appear to increase their fear of childbirth, which may negatively impact their level of professional interest. These findings underscore the importance of trauma-informed approaches in midwifery education. It is recommended that midwifery curricula incorporate content aimed at enhancing psychosocial support, emotional awareness, and coping skills for trauma.

Keywords: Adverse childhood experiences, Cross-sectional study, Fear of childbirth, Professional interest, Trauma-informed care

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E-mail: dondu.kurnaz@marmara.edu.tr **Submitted:** 09.10.2025 **Revised:** 15.03.2026 **Accepted:** 23.03.2026 **Available Online:** 14.09.2026

Adverse childhood experiences (ACEs) encompass a range of painful and distressing events that occur during childhood.[1] These include various forms of abuse, neglect, and household dysfunction, all of which are known to have long-term consequences for individuals' psychological, emotional, and social well-being.[2,3] An expanding body of research demonstrates that the effects of ACEs extend into adulthood, influencing not only mental health outcomes but also individuals' perceptions, coping mechanisms, and career trajectories.[2,4,5] Evidence further suggests that women exposed to ACEs are at increased risk of experiencing perinatal depression and anxiety, as well as other mental health issues during pregnancy and the postpartum period, including postpartum symptoms.[2]

One such manifestation is fear of childbirth (tokophobia), which may arise not only among women of childbearing age but also among health professionals who support them, such as midwives.[1] Midwives are healthcare professionals who provide autonomous and collaborative care to women throughout pregnancy, childbirth, and the postpartum period.[6,7] Final-year midwifery students preparing to enter a profession centered on pregnancy and childbirth may be particularly vulnerable to heightened emotional responses related to unresolved trauma histories. ACEs can increase their susceptibility to fear of childbirth, potentially undermining clinical confidence and diminishing motivation to pursue a career in midwifery.[8]

Among midwifery students, fear of childbirth can affect clinical decision-making and may contribute to inappropriate choices regarding vaginal birth and cesarean section. In some cases, students may inadvertently project their own fears of childbirth onto pregnant women, thereby contributing to increased cesarean section rates.[9] Furthermore, such fears can negatively influence the quality of care provided, shaping not only delivery mode but also the birth experience of the pregnant individual. Despite growing recognition of the importance of trauma-informed care in maternity services,[8] relatively little is known about how student midwives' adverse experiences may shape their transition into professional roles.[10]

Midwives, who play an important role in normal births, generally experience positive and happy birth experiences alongside women.[11] However, difficult births can cause intense emotional reactions in midwives.[12,13] Midwifery students inevitably encounter traumatic situations during their clinical training and, as students, are more vulnerable to trauma.[14–16] Witnessing traumatic births can affect midwifery students' perceptions, making it difficult for them to provide professional care and support during childbirth.[17] Beyond its psychological impact, exposure to both personal and indirect trauma has been shown to affect professional interest, career commitment, and the intention to remain in healthcare professions. Studies on nursing and midwifery education suggest that unresolved trauma, increased emotional distress, and fear related to clinical practice may lead to decreased professional motivation, indecision about the profession, and even the intention to drop out of education programs or avoid certain clinical areas.[18,19] In this context, professional interest can be understood as a multidimensional structure comprising enthusiasm for the profession, commitment to clinical practice, and the intention to pursue a midwifery career.[20]

When considered together, these findings suggest a conceptual pathway whereby ACEs may increase vulnerability to fear of childbirth, which, in turn, may negatively affect midwifery students' professional interest and career-related attitudes. However, there are few empirical studies that simultaneously examine negative childhood experiences, fear of childbirth, and professional interest within a single model, particularly among final-year midwifery students approaching entry into the profession. The present study aims to examine the relationship between ACEs, fear of childbirth, and professional interest among final-year midwifery students. A deeper understanding of these relationships may inform the development of targeted support strategies within midwifery education, ultimately enhancing the quality of maternity care as well as the well-being of midwives themselves.

Materials and Methods

This cross-sectional and descriptive study was conducted online with final-year students enrolled in the midwifery departments of seven universities in Türkiye between September 1 and December 31, 2022.

Research Questions

1. What socio-demographic variables affect ACEs, fear of childbirth, and professional interest?
2. What are the ACEs and levels of fear of childbirth among midwifery students?
3. What are the ACEs and professional interest levels of midwifery students?
4. What is the relationship between ACEs and fear of childbirth among midwifery students?
5. What is the relationship between ACEs and professional interest among midwifery students?

Population and Sample

The population of this study consisted of a total of 4,050 final-year midwifery students enrolled in 59 universities offering midwifery education in Türkiye as of 2022. The sample size was determined using the sample calculation formula for the known population, and it was calculated that a minimum of 478 students would be sufficient to include in the study at a 98% confidence level. In the sampling process, a multi-stage purposive sampling method was used to represent Türkiye's different geographical regions. Within this scope, the universities with the highest number of final-year midwifery students in each geographical region were identified (Marmara University, Medipol University, Üsküdar University, Ankara University, Çanakkale On Sekiz Mart University, Atatürk University, and Cumhuriyet University), and students studying at these universities were invited to participate in the study. This approach aimed to ensure that the sample reflected geographical diversity across the country. Therefore, the selection of universities was not random but based on a conscious choice to strengthen regional representation.

Students who were enrolled at the selected universities, met the research criteria, and voluntarily agreed to participate were included in the study. At the end of the data collection process, a total of 567 senior midwifery students were reached, exceeding the minimum sample size. Exceeding the calculated sample size was preferred in order to compensate for possible data losses, increase statistical power, and enable more reliable subgroup analyses. To assess the statistical power of the study, a post hoc power analysis was performed using the G*Power 3.1 program based on the final sample size. The analysis, conducted with a medium effect size (effect size=0.30), a 5% significance level (α=0.05), and a sample size of 567, determined that the statistical power of the study was above 0.95. This result indicates that the current sample has sufficient power to reveal the relationships between the research variables. However, due to the purposeful nature of the sample, the findings cannot be generalized to all final-year midwifery students in Türkiye. While the results reflect the views of students from different regions, they do not claim to be fully generalizable.

Data Collection

Data were collected using an electronic questionnaire. Participants were reached through student representatives at the selected universities, and the survey link was distributed through student WhatsApp groups. Students were informed that participation was voluntary. To prevent duplication, participants were required to verify their email addresses before accessing the survey, and each email address could be used only once. After login, participants first viewed the informed consent form and proceeded to the survey only after providing consent. All questions were mandatory to ensure complete responses. On average, the survey took approximately fifteen minutes to complete.

The Data Collection Instrument Consisted of Four Sections

General Information Form

Developed by the researchers based on a literature review,[14–17] this 15-item form captured socio-demographic characteristics (e.g., age, marital status, income, and residence) and professional attitudes (e.g., reasons for choosing midwifery and perceptions of the value of the profession).

ACEs–Turkish Form (ACE-TR)

Originally developed by Felitti et al.[21] and adapted into Turkish by Gündüz et al.[22] This 10-item instrument assesses adverse experiences before age 18. Responses are coded as "yes" or left blank. Scores range from 0 to 10, with higher scores indicating more ACEs. No cut-off value exists. The Turkish validation study reported Cronbach's α=0.74; in this study, α=0.757. Although there is no universal cut-off point for the ACEs, a score of 4 or higher is widely used in the literature, including by the authors who developed the scale, as a cut-off value associated with a significant increase in risk for health and psychosocial outcomes.[21,23–25] In this context, scale scores in the analyses were considered under two categories: 0–3 (low exposure) and 4–10 (high exposure).

Professional Interest Scale (PIS)

Developed by Kaysi (2021), this 19-item scale measures professional interest among university students and graduates. Factor analysis identified four subdimensions: Professional preparedness, self-development, professional choice awareness, and recommending the profession to others. Responses are scored on a 5-point Likert scale (1=strongly disagree to 5=strongly agree), with item 7 reverse coded. Scale interpretation: 1.00–1.80 very low; 1.81–2.60 low; 2.61–3.40 moderate; 3.41–4.20 high; and 4.21–5.00 very high. Cronbach's α=0.923 in the original study and α=0.941 in the present study.[26]

Childbirth Fear–prior to Pregnancy Scale (CF-PPS)

Childbirth fear–prior to pregnancy scale (CF-PPS): This 10-item self-report scale, adapted into Turkish by Uçar and Taşhan,[27] assesses fear of childbirth in young women and men across domains such as pain, loss of control, coping, complications, and irreversible physical harm. Responses are scored on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). Scores range from 10 to 60, with higher scores indicating greater fear. Cronbach's α was 0.86 in the Turkish validation study and 0.915 in the current study.

Statistical Analysis

Data were analyzed using IBM Statistical Package for the Social Sciences Statistics for Windows, Version 26.0 (IBM Corp., Armonk, NY, USA). Continuous variables are presented as mean±standard deviation and median, while categorical variables are presented as frequencies and percentages. Normality of distributions was assessed using the Shapiro-Wilk test. For comparisons between two independent groups, the independent samples t-test was used as appropriate; for comparisons involving more than two groups, one-way analysis of variance was applied. Relationships between categorical variables were analyzed with Chi-square tests. Correlations among the ACE-TR, PIS, and CF-PPS scores were examined using Pearson correlation coefficients. Linear regression analysis was conducted to explore predictive relationships between scales. Statistical significance was set at $p<0.05$.

Ethical Considerations

This study was approved by the Ethics Committee of the Faculty of Health Sciences at Marmara University (Date: January 27, 2022, Decision: 18). Online informed consent was obtained from each participant stating that they were volunteering. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

A total of 567 final-year midwifery students from seven universities across Türkiye participated in the study. The mean age of the participants was 22.2±1.21 years. The majority were single (96.6%, n=548), and more than half (52.4%, n=297) reported that their income was equal to their expenses. Of the students, 41.1% (n=233) lived with their families, and 89.4% (n=507) reported a nuclear family structure. The most frequently cited reason for choosing the midwifery department was "ease of finding a job" (49.0%, n=278), while 39.9% (n=226) stated that they had chosen it of their own free will. After graduation, 71.6% (n=406) expressed a desire to work as midwives in the public sector. In addition, 91.9% (n=521) reported being satisfied with their midwifery education, and 58.0% (n=329) considered the profession suitable for themselves. During their internships, students assisted in a mean of 27.2±18.8 births and performed an average of 9.89±12.7 births.

The mean score on the CF-PPS was 3.44±1.17. The mean score on the PIS was 3.97±0.713, reflecting a high level of professional interest. The mean score on the ACEs Questionnaire – Turkish Version (ACE-TR) was 0.16±0.198, indicating a low level of reported ACEs. Based on the responses to the 10 items of the ACEs scale, 44.8% of the participants reported no history of childhood trauma. In contrast, 36.7% reported experiencing one to three ACEs, while 18.5% indicated exposure to four or more ACEs. These proportions were calculated based on the participants' affirmative ("yes") responses to the ACE scale items.

The reliability analysis showed high internal consistency for all scales, with Cronbach's alpha values as follows: CF-PPS=0.915, PIS=0.941, and ACE-TR=0.757. The results of the Shapiro–Wilk test for normality distribution were examined, and according to the test result, no deviation from normality was observed, and the variables showed a normal distribution ($p>0.05$).

Comparison of Fear of Childbirth with Sociodemographic Characteristics

The relationship between students' sociodemographic characteristics and fear of childbirth is presented in Table 1. No statistically significant differences were found in fear of childbirth scores according to income status, place of residence, or family structure ($p>0.05$). However, a significant difference was observed based on the reason for choosing the department ($p<0.05$). Specifically, students who reported choosing the department "because my score was sufficient" had the highest fear of childbirth scores (4.23±0.67).

Fear of childbirth also varied significantly by post-graduation work preference ($p=0.017$). Students who planned to work outside the field of midwifery had the highest scores (3.93±1.36), whereas those intending to work as midwives in hospitals had lower scores (3.36±1.12).

Students who considered the profession suitable for themselves had significantly lower fear of childbirth scores ($p<0.001$). The mean score was 2.97 among those who reported the profession as "very suitable," compared with 4.11±1.28 among those who considered it "not suitable." Similarly, students satisfied with their education reported

Table 1. Comparison of students' characteristics and fear of childbirth scores

	n (%)	Childbirth fear-prior to pregnancy scale Mean±SD	p
Income status			
Less than expenses	228	3.51±1.20	0.176
Equal to expenses	297	3.36±1.11	
More than expenses	42	3.65±1.27	
Place of residence			
With family	233	3.39±1.24	0.858
With relatives	25	3.32±1.08	
Student house/apartment	79	3.48±1.14	
Dormitory	216	3.50±1.10	
Other	14	3.44±1.28	
Family structure			
Nuclear family	507	3.42±1.16	0.14
Extended family	60	3.65±1.16	
Intended career path after graduation			
Work as a midwife in a hospital	406	3.36±1.12	0.017
Become an academic	75	3.71±1.19	
Practice as an independent midwife	49	3.38±1.15	
Work outside the field of midwifery/Other	37	3.93±1.36	
Perception of the profession's suitability			
Very suitable	185	2.97±0.00	<0.001
Suitable	329	3.6±1.11	
Not suitable	53	4.11±1.28	
Satisfaction with midwifery education			
Yes	521	3.38±1.14	<0.001
No	46	4.12±1.21	
Professional interest scale level			
Very low	5	5.68±0.716	<0.001
Low	16	3.93±1.152	
Moderate	98	3.87±0.998	
High	299	3.47±1.093	
Very high	149	2.98±1.208	
Adverse childhood experiences – Turkish version			
No traumatic experiences	254	3.34±1.116	<0.001
1 traumatic experience	90	3.42±1.10	
2 traumatic experiences	65	3.54±1.225	
3 traumatic experiences	53	3.19±1.224	
4 traumatic experiences	52	3.38±1.312	
5 or more traumatic experiences	53	4.15±0.97	
Adverse childhood experiences – Turkish version			
None	254	3.34±1.12	<0.001
Present	313	3.52±1.20	

SD: Standard deviation.

Table 2. Correlation analysis between scale scores

	ACE-TR	Childbirth fear-prior to pregnancy scale	Professional interest scale
ACE-TR			
r	–		
p			
Pre-pregnancy fear of childbirth			
r	0.111	–	
p	**		
Professional interest scale			
r	-0.026	-0.330	–
p	0.209	***	

: <0.01; *: <0.001; Pearson correlation analysis. ACR-TR: Adverse childhood experiences–Turkish version.

lower fear of childbirth scores (3.38±1.14), while those dissatisfied had higher scores (4.12±1.21) (p<0.001).

Professional interest levels were also significantly associated with fear of childbirth (p<0.001). Students with very low professional interest had the highest fear scores (5.68±0.71), whereas those with very high interest had the lowest scores (2.98±1.20). Furthermore, professional interest was significantly influenced by post-graduation goals, perceived suitability of the profession, and satisfaction with education (all p<0.001).

Of the participants, 44.8% (n=254) reported no traumatic childhood experiences, while 55.2% (n=313) reported at least one. Fear of childbirth scores increased with the number of traumatic experiences. Students reporting five or more traumas had a mean score of 4.15±0.98, compared with 3.34±1.12 among those with no reported traumas (p<0.001). Each additional trauma was associated with a mean increase of 0.08 points in pre-pregnancy fear of childbirth. While ACEs were not significantly associated with professional interest, differences were observed according to the desired post-graduation work field (p=0.042).

Inter-scale Correlation

The Pearson correlation analysis revealed a weak but statistically significant positive correlation between ACEs scores and fear of childbirth scores (r=0.111, p<0.01). A moderate negative correlation was found between professional interest and fear of childbirth (r=–0.330, p<0.001). However, no significant correlation was observed between ACEs and professional interest (p=0.209) (Table 2).

Regression Analysis Findings

In the linear regression analysis conducted to examine the effect of ACEs on fear of childbirth, ACEs were found to have a statistically significant positive effect on fear of childbirth (β=0.144, p<0.001). Although the explanatory power of the model was low (R^2=0.021), the result was statistically significant. In contrast, no statistically significant effect of ACEs was observed on professional interest (β=–0.053, p=0.209).

Scale Scores Based on Postgraduate Goals

Significant differences were observed across all scale scores according to students' intended post-graduation work areas. Students who planned to work outside the field of midwifery had higher fear of childbirth scores (mean [M]=3.93, standard deviation [SD]=1.36) and lower professional interest scores (M=3.29, SD=0.95) compared with other groups (p<0.001). The highest professional interest scores were found among students who intended to work as midwives in hospitals (M=4.03, SD=0.67) (Table 3).

Scale Comparisons Based on Suitability for the Profession

Students who considered the profession "very suitable" reported the highest professional interest scores (M=4.43, SD=0.49) (p<0.001). Fear of childbirth scores were lowest in this group (M=2.97, SD=1.04). In contrast, students who regarded the profession as "not suitable" reported significantly lower professional interest scores (M=2.97, SD=0.83) and higher fear of childbirth scores (M=4.11, SD=1.29) (p<0.001) (Table 4).

Scale Comparisons Based on Satisfaction with Education

Students who were satisfied with their education reported higher scores across all subdimensions of professional interest (p<0.001) and lower fear of childbirth scores (M=3.38, SD=1.14) (p<0.001). No significant differences were observed between satisfaction groups with respect to ACEs scores (p=0.913; Table 5).

Discussion

This study examined the relationships between midwifery students' ACEs, pre-pregnancy fear of childbirth, and levels of professional interest. The findings revealed that an increase in ACEs during childhood significantly elevated fear of childbirth. This result is consistent with the existing literature. Several studies have demonstrated

Table 3. Comparison of scale scores according to post-graduation goals

Post-graduation career plans	n	Mean	SD	SE	F	p	
Professional interest scale							
Work as a midwife in a hospital	406	4.03	0.667	0.0331	7.69	<0.001	1>4
Pursue an academic career	75	4	0.695	0.0802			2>4
Practice as an independent midwife	49	3.87	0.632	0.0903			3>4
Work outside the field of midwifery	37	3.29	0.957	0.1573			
Childbirth fear–prior to pregnancy scale							
Work as a midwife in a hospital	406	3.36	1.127	0.0559	3.55	0.017	4>1
Pursue an academic career	75	3.71	1.198	0.1384			
Practice as an independent midwife	49	3.38	1.156	0.1651			
Work outside the field of midwifery	37	3.93	1.363	0.224			
Adverse childhood experiences–Turkish version							
Work as a midwife in a hospital	406	1.49	1.907	0.0947	2.85	0.042	3>1
Pursue an academic career	75	1.67	2.016	0.2328			3>4
Practice as an independent midwife	49	2.53	2.45	0.3501			
Work outside the field of midwifery	37	1.41	1.817	0.2988			
Recommending your profession to others							
Work as a midwife in a hospital	406	4.11	0.881	0.0437	7.79	<0.001	1>4
Pursue an academic career	75	3.98	0.898	0.1037			2>4
Practice as an independent midwife	49	3.85	0.914	0.1306			3>4
Work outside the field of midwifery	37	3.24	1.128	0.1855			
Professional preparedness							
Work as a midwife in a hospital	406	3.99	0.691	0.0343	9.58	<0.001	1>4
Pursue an academic career	75	3.91	0.741	0.0855			2>4
Practice as an independent midwife	49	3.85	0.666	0.0951			3>4
Work outside the field of midwifery	37	3.06	1.044	0.1716			
Professional choice awareness							
Work as a midwife in a hospital	406	4.28	0.717	0.0356	5.58	0.001	1>4
Pursue an academic career	75	4.2	0.72	0.0831			2>4
Practice as an independent midwife	49	4.09	0.721	0.103			3>4
Work outside the field of midwifery	37	3.65	0.968	0.1591			
Self-development							
Work as a midwife in a hospital	406	3.82	0.854	0.0424	3.99	0.01	1>4
Pursue an academic career	75	3.94	0.915	0.1056			2>4
Practice as an independent midwife	49	3.68	0.719	0.1027			
Work outside the field of midwifery	37	3.26	1.097	0.1803			

SD: Standard deviation; SE: Standard error.

that individuals with a history of ACEs report higher levels of childbirth-related anxiety, develop negative expectations regarding the birthing process, and are more prone to tokophobia.[28–30]

One of the striking findings of this study is that students who chose midwifery "because their grades were sufficient," who did not perceive the profession as suitable for themselves, or who wished to work in a field other than midwifery after graduation, exhibited significantly higher fear of childbirth scores. This suggests that fear of childbirth is not solely a consequence of professional training but may also function as an unconscious factor influencing, or even determining, career choice. For instance, a student may not wish to become a midwife due to an unconscious fear of

Table 4. Comparison of scale scores according to suitability for the profession

Perception of the profession's suitability	n	Mean	SD	SE	F	p	
Professional interest scale							
Very suitable	185	4.43	0.497	0.0365	115.971	<0.001	1>2>3
Suitable	329	3.86	0.58	0.032			
Not suitable	53	2.97	0.829	0.1138			
Childbirth fear–prior to pregnancy scale							
Very suitable	185	2.97	1.049	0.0771	28.617	<0.001	1<2<3
Suitable	329	3.6	1.115	0.0615			
Not suitable	53	4.11	1.288	0.1769			
Recommending the profession to others							
Very suitable	185	4.48	0.727	0.0534	60.221	<0.001	1>2>3
Suitable	329	3.92	0.825	0.0455			
Not suitable	53	2.96	1.117	0.1535			
Professional preparedness							
Very suitable	185	4.42	0.534	0.0392	128.884	<0.001	1>2>3
Suitable	329	3.79	0.6	0.0331			
Not suitable	53	2.81	0.84	0.1154			
Recommending your profession to others							
Very suitable	185	4.67	0.483	0.0355	99.976	<0.001	1>2>3
Suitable	329	4.12	0.646	0.0356			
Not suitable	53	3.21	0.932	0.1281			
Self-development							
Very suitable	185	4.2	0.774	0.0569	45.535	<0.001	1>2>3
Suitable	329	3.69	0.786	0.0433			
Not suitable	53	2.96	1.019	0.14			

SD: Standard deviation; SE: Standard error.

childbirth but may select this department for economic reasons or due to limited alternatives. The literature notes that individuals who enter health professions without intrinsic motivation are more vulnerable to clinical stressors and constitute a group at higher risk for professional burnout.[31–33] Fear of childbirth is therefore not only an individual psychological problem but also a systemic factor influencing the quality of maternity care. Prior studies highlight that this fear may increase midwives' tendency to recommend cesarean sections and foster insensitive attitudes toward trauma when providing care to women. Combined with a weak professional identity, this may result in a decline in care quality, professional role conflicts, and negative implications for patient safety.[34] For these reasons, midwifery students' professional orientations and psychological backgrounds should be assessed multidimensionally, and educational programs should incorporate structured content informed by a trauma-sensitive approach.

Previous research have shown that even a single adverse childhood experience can have long-lasting emotional and psychological consequences in adulthood, and that exposure to four or more ACEs before the age of 18 substantially increases the risk of mental health problems and behavioral disorders.[22–25,35] Consistent with these findings, our study demonstrated that each one-unit increase in trauma score was associated with an approximate 0.08-unit increase in pre-pregnancy fear of childbirth. This finding suggests that past traumas may trigger childbirth-related anxieties, influencing perceptions of future childbirth, women's health, and the clinical environment. Overlooking the trauma histories of midwifery students may therefore impair their professional attitudes toward the birthing process.

Another noteworthy finding is the negative correlation between fear of childbirth and professional interest. The decline in professional interest among students with high

Table 5. Comparison of scale scores according to satisfaction with professional education

Group	n	Mean	Median	SD	SE	Statistic	p
Professional interest scale							
Yes	521	4.05	4.05	0.643	0.0282	10.961	<0.001
No	46	2.96	3.08	0.697	0.103		
Childbirth fear–prior to pregnancy scale							
Yes	521	3.38	3.3	1.143	0.0501	-4.181	<0.001
No	46	4.12	4.1	1.219	0.18		
Adverse childhood events Turkish form							
Yes	521	1.6	1	1.953	0.0856	-0.11	0.913
No	46	1.63	1	2.341	0.345		
Recommending your profession to others							
Yes	521	4.11	4	0.859	0.0376	9.179	<0.001
No	46	2.89	3	0.948	0.14		
Professional preparedness							
Yes	521	4	4	0.682	0.0299	10.913	<0.001
No	46	2.84	3.14	0.752	0.111		
Professional choice awareness							
Yes	521	4.29	4.4	0.685	0.03	9.402	<0.001
No	46	3.28	3.3	0.845	0.125		
Self-development							
Yes	521	3.87	3.8	0.831	0.0364	8.051	<0.001
No	46	2.84	3	0.871	0.128		

SD: Standard deviation; SE: Standard error.

levels of fear of childbirth suggests that such individuals may also experience reduced professional motivation. The literature indicates that fear of childbirth affects not only those giving birth but also the healthcare professionals supporting the process, potentially leading to variability in clinical decision-making.[9,13,14,16]

In line with the study's results, no significant direct effect of ACEs on professional interest was observed. This finding suggests that the impact of adverse experiences may be moderated by individual coping strategies, social support networks, and positive experiences during training (e.g., problem-focused and emotion-focused coping as mediators of ACE impacts on outcomes).[36,37] Indeed, studies has shown that individuals with a history of ACEs report that these experiences influenced their decision to enter helping professions and shaped their professional motivations, suggesting that ACEs may be integrated into professional growth and meaning in career choice.[38,39]

Although a statistically significant positive correlation was identified between ACEs and fear of childbirth, the strength of this relationship was weak (r=0.111). This indicates that while childhood trauma may contribute to fear of childbirth, it represents only a minor component of a broader set of influencing factors.

Finally, this study found that students' perceptions of the suitability of the midwifery profession for themselves significantly influenced both their fear of childbirth and their professional interest. This finding underscores the importance of self-efficacy beliefs in the development of professional identity among midwifery students.[40] Although the regression analysis demonstrated a statistically significant relationship between ACEs and fear of childbirth, the explanatory power of the model was relatively low (R^2=0.021). This finding suggests that ACEs explain only a small proportion of the variance in fear of childbirth. Therefore, fear of childbirth among midwifery students is likely influenced by multiple psychosocial, educational, and experiential factors beyond childhood trauma. Consequently, the findings should be interpreted with caution, and future studies should consider incorporating additional predictors to better explain this complex phenomenon.

Strengths and Limitations of the Study

One of the strengths of this study is that seven universities were randomly selected to represent the seven different geographical regions of Türkiye. This enhanced the representativeness of the sample and strengthened the generalizability of the findings. In addition, the internal consistency of the measurement tools used in the study was high (Cronbach's α>0.75), supporting the reliability of the data obtained. The fact that all questions were answered during the online data collection process eliminated the possibility of missing data and ensured the integrity of the dataset.

However, several limitations should be noted. First, the cross-sectional design does not allow causal relationships between variables to be established. Second, the use of self-reported data introduces the potential for subjective bias, such as social desirability bias. Finally, the restriction of the sample to final-year midwifery students limits the generalizability of the findings to other health disciplines and student groups.

Conclusions and Recommendations

This study demonstrated that ACEs significantly increased fear of childbirth among midwifery students before pregnancy, and that fear of childbirth negatively affected their level of professional interest. The findings underscore that midwifery education should not be confined to imparting clinical knowledge and skills but should also be supported with content that enhances students' psychological resilience, fosters emotional awareness, and facilitates coping with past traumas.

Based on these findings, the following recommendations are proposed:

- Integration of psychosocial content: Midwifery education programs should incorporate modules on emotional intelligence, stress management techniques, and trauma-informed care.
- Development of structured support systems: Psychosocial support mechanisms – including early identification, counseling, and tailored support services – should be established for students experiencing fear of childbirth and those with a history of traumatic experiences.
- Ongoing monitoring and mentoring: The professional development of students with trauma histories should be regularly monitored, and individualized mentoring and guidance systems should be implemented.
- Longitudinal research: Future studies should adopt longitudinal designs to provide clearer insights into the causal relationships between traumatic experiences, professional development, and psychological outcomes.
- Broader research scope: Conducting similar studies across different health disciplines and with more diverse demographic samples would enhance the generalizability of the findings to health education.

Ethics Committee Approval: The Marmara University Faculty of Health Sciences Ethics Committee granted approval for this study (date: 27.01.2022, number: 18).

Informed Consent: Online informed consent was obtained from each participant stating that they were volunteering.

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