

R E V I E W

Fear, anxiety and stress in midwifery students: An integrative review of the literature

SERENA NERI^{1,2,3}, FRANCESCA FRATI^{2,3}, GIUSEPPE MARLETTA^{2,3}, MARGARET SMITH⁴,
SOFIA COLACECI⁴

¹Department of Biomedicine and Prevention, Tor Vergata University of Rome, Rome, Italy; ²Surgical and Medical Department, University of Parma, Parma, Italy; ³University Hospital of Parma, Parma, Italy; ⁴Departmental Faculty of Medicine and Surgery, Saint Camillus International University of Rome and Medical Sciences (UniCamillus), Rome, Italy

ABSTRACT

Background and aim: Health professions students experience higher levels of stress than peers enrolled in other study pathway and, in particular, midwifery students have a 40% prevalence of stress. Students subjected to stressful situations may experience negative repercussions on their academic performance. The aim is to examine the literature related to the sources of fear, anxiety and stress of midwifery students.

Methods: Integrative literature review. The databases CINAHL, PubMed and Embase were searched for articles published until 2025.

Results: The search generated 13 articles that met the inclusion criteria. Three areas were identified that can generate fear, anxiety and stress in students enrolled in an undergraduate degree in midwifery: Academics, Internship, and Personal. Of these, the area of Internship was reported in all the reviewed articles. Within the area of Internship, the greatest source of negative emotions was the relationship with their mentor.

Conclusions: Midwifery students experience significant stress during their undergraduate studies, particularly during internships. Our findings show that interpersonal relationships, especially a students' relationship with their mentors are a key contributor to emotional distress. The impact on the well-being of the students can be profound, and this highlights the need to investigate which interventions might mitigate these challenges and improve the learning experience. (www.actabiomedica.it)

Key words: fear, anxiety, stress, midwifery students, internship, mentor



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Correspondence: Serena Neri, PhD Student / Department of Biomedicine and Prevention, Tor Vergata University, via Montpellier 1, 00133 Rome, Italy. / E-mail: serena.neris@gmail.com.

ORCID 0000-0002-7630-3708

Introduction

The midwifery profession is recognized as being among those at risk of experiencing higher levels of anxiety and stress than that of the general working population because of the nature of its activities, which are closely connected to human emotions, patients experiencing pain, and complex and clinical emergency setting (1). Organizational difficulties and significant workloads (2) also prove to be a source of stress for midwives, as do difficult relationships with colleagues and the feeling of being unable to practice one's profession without acting in complete autonomy (3). Additionally, the awareness that it cannot always be provided the best possible care to mother and infant, due to organizational and structural limitations, can lead to the emergence of feelings of guilt that reduce the state of well-being (4). Several studies have exhaustively investigated the above-described emotional states experienced by professional midwives, but it is also important to examine these same experiences incurred by midwifery students during their training. In fact, the literature reports that health professions students experience higher levels of stress than peers enrolled in other study pathway (5) and, in particular, that midwifery students have a 40% prevalence of stress (6). Both at the European and non-European level, a Bachelor of Science in Midwifery is known to be a challenging undergraduate course of study featuring significant clinical experience integrated with a solid academic curriculum. Curricula are characterized by high-quality instructional offerings based on both theory and hands-on experience, conducted in a variety of clinical settings as well as within simulated scenarios (7). It follows that the learning experience undertaken by midwifery students is challenging and complex (8). With regard to learning within a clinical setting, we find greater difficulties compared to learning in a "traditional" context (5) due to multiple factors related to the hospital environment, which may contribute to stress in students. Additionally, during their internships, students are required not only to demonstrate theoretical competence, but also to apply their practical skills in the clinical context (9). A study from Turkey (10) showed that clinical internships, within the academic pathway, resulted in anxiety in midwifery students and that this, in turn, influenced their willingness

to continue their studies (11). Edwards et al. (2010) reported how the emotional stress persistently experienced by midwifery students not only affects their self-confidence but also their academic performance and overall health. Similarly, Cavanagh reported that in the presence of high levels of anxiety and stress learning capability is reduced (12). Furthermore, in the field of education, fear is a major cause of high levels of anxiety and has negative effects on content assimilation as well as on the ability to perform well in all areas that are affected by that fear (13). In fact, its consequences, can lead to maladaptive behaviors and responses (14), including loss of motivation concerning the academic path. Eaves and Payne (2019) report that students subjected to long-term stressful conditions are at greater risk of developing burnout. In turn, this burnout, identified as a condition of emotional exhaustion and depersonalization, along with reduced feelings of personal accomplishment (15), is often a cause of quitting the educational course (16). It should be remembered that midwifery students, precisely because of the structure and organization of their course of study, occupy a vulnerable position such as living in "no man's land" (17). They live, in fact, in a conflicting situation, where they are called to assist and support patients, who trustfully seek their care, but are not yet fully independent from a clinical and professional point of view. This situation is in per se a difficult circumstance to manage, which may affect the student's psychological well-being. The objective of this integrative review is to examine the literature related to the sources of fear, anxiety, and stress that midwifery students encounter along their educational path. Research Question: What are the main sources of fear, anxiety, and stress of midwifery students during their undergraduate education?

Materials and methods

Identification of the problem

Students in Midwifery degree programs report positive emotions related to their university experience, but also, they also report aspects that generate fear, anxiety, and, consequently, stress. These can influence the educational experience itself and negatively impact the quality of learning.

An integrative review of the literature was conducted to identify the causes of this emotional distress, and to inform possible strategies for its prevention.

Study design

This study employs an integrative review (18,19) using the Cooper approach (20), which comprises five steps: 1) problem identification, ensuring that the research questions and purposes are precisely defined; 2) literature search; which is characterized by the design and implementation of a comprehensive and systematic search strategy; 3) data evaluation; which undertakes a meticulous examination of the authenticity, methodological quality, informational value and representation of the available primary sources 4) data analysis; which includes data reduction, visualization, comparison, and conclusions; and 5) presentation; which synthesizes the findings into a model that comprehensively portrays the integration process, describes the implications for practice, policy, and research, and acknowledges the inherent limitations of the review. This review has been reported following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (21).

Eligibility criteria

Quantitative, qualitative, and mixed-methods studies that explored sources of fear, anxiety, and stress in students enrolled in midwifery programs, published in English, in international peer-reviewed scientific journals and with no date restrictions were included. Studies were excluded if the study focused on a student population other than midwifery students (e.g., nursing students, general health care area students, medical students, or midwifery students together with other types of students) or if their anxiety was overtly motivated by the COVID-19 pandemic. The publication was also excluded if it was not assessable through the Mixed Methods Appraisal Tool (MMAT) (22).

Information sources and search strategies

The literature search was conducted on three databases: CINAHL, PubMed and Embase. The most experienced researcher (SC) proposed the research

strategy to the group. The first search string was constructed by combining terms related to the population of interest—*Midwifery Students*, *Undergraduate Midwives*, and *Preregistration Midwives*—using the Boolean operator “OR.” The second search string included outcome-related terms—*fear*, *stress*, and *anxiety*—also joined using the “OR” operator. Finally, the two resulting strings were combined using the Boolean operator “AND” to identify studies addressing both the population and the outcomes of interest. The search strategy adopted for Pubmed is shown in Table 1. The electronic database search was supplemented by examining the references of relevant studies and analyzing the references included in each article that passed the eligibility stage. Each study retrieved from the search was then screened based on the title and abstract by two independent reviewers (SN and FF). Subsequently, the full texts of the studies that passed the screening stage were independently analyzed by the same two researchers who conducted the screening stage. Disagreements regarding study selection and data extraction were resolved through discussion and consensus.

Quality assessment

The included studies, both qualitative and quantitative, were evaluated using MAAT (22), a critical appraisal tool designed for the evaluation phase of systematic reviews of mixed studies, i.e., reviews that include qualitative, quantitative, and mixed-methods studies. It consists of a total of seven components: two screening questions (common to all study types) and five methodological quality questions (specific to each study type). The methodological quality of each included study was evaluated by two reviewers independently with the five criteria appropriate for each study design. The scores were compared and discussed, discrepancies were resolved, and consensus was reached.

Data extraction and synthesis

Two independent reviewers (SC and SN) analyzed each primary source, extracting and synthesizing the data in an individually extracted Excel table. The reviewers searched for the main causes of fear, anxiety and stress within each article, grouping them into

Table 1. Search Strategy for PubMed.

#	Search string	# of results
1	((Midwifery students[Title/Abstract])OR (Undergraduate Midwives[Title/Abstract])) OR (Preregistration Midwives[Title/Abstract])	1,354
2	((fear[Title/Abstract]) OR (anxiety[Title/Abstract]))OR(stress[Title/Abstract])	1,447,819
3	#1 AND #2	115

macro categories, within which smaller categories were recognizable. The two reviewers compared their work, discussed conflicting opinions and reached consensus. A final table (Table 2) was constructed, reporting the characteristics and data of each article included in the review.

Results

Search outcomes

The search yielded a total of 192 articles, of which 190 were retrieved from electronic database searches and 2 from bibliographic references. After removing 40 duplicate records, 152 articles remained. The titles and abstracts of these articles were screened, resulting in the exclusion of 110 studies that did not meet the eligibility criteria. The full texts of the remaining 42 articles were then assessed, and 13 study were ultimately included in the review. Figure 1 summarizes the selection process through a PRISMA Flowchart.

Quality appraisal

Two reviewers (SC and SN) independently assessed the quality of the studies, using the two common questions and the five specific questions required by MMAT (22). After discussing their contrasting opinions, the reviewers reached a shared synthesis. All studies included in the review were positively evaluated for the clarity of the research question and the adequacy of the data in addressing it. Five studies with a quantitative design (9, 12, 28, 30, 31) obtained three negative ratings out of five on the specific questions concerning the sampling strategy, sample representativeness and risk of non-response bias. The qualitative studies were all found to be of good quality.

Study characteristics

Thirteen articles were included in the review. Of these, seven were qualitative (14,17,23–27) and six quantitative (9,12,28–31) They were conducted in the Netherlands (26), Turkey (24,30), Iran (9,14,23,29,31), Ghana (28), Ireland (25), and England (12,17,27). In each study, the sample population consisted of students enrolled in a Bachelor of Science in Midwifery program. The duration of the course of study, in terms of academic years, and the hourly distribution between academic and internship commitments, differs among countries. Qualitative data were collected by means of semi-structured interviews (14,17,26,27) and focus groups (23–26). Quantitative data were collected by filling out scales (28,29) and questionnaires (9,12,30,31).

Participants

The qualitative and quantitative sample comprised 114 and 1,281 students respectively, both groups containing students from all years of the Midwifery school within their academic career.

Sources of anxiety, fear, and stress

From the full text reading of the articles included in the review, three areas were identified as potential generators of anxiety, fear, and stress in students enrolled in midwifery school: 1) Academic Area, 2) Internship Area, and 3) Personal Area. The area of internship is reported in all articles, as opposed to academics and personal.

Academic area

Students reported that the study load, understood as time devoted to attending university classes and personal study, was particularly onerous (12,26,28).

Table 2. Studies examining sources of stress of midwifery students.

Author (s), Year, Country	Sample and setting	Design	Instrument(s)	Stressors sources		
				Academic Area:	Internship Area:	Personal Area:
Kool L, van Hoogen M, Heerema L, Feijen-de Jong EI. Exploring the determinants of student midwives' wellbeing during their studies: A qualitative study. <i>Women Birth.</i> 2024 Jul 1;37(4).	20 midwifery students at a university of applied science in the Netherlands, enrolled in different academic years	Exploratory qualitative study	Semi-structured individual and group interviews	Studyload, Lack of breathing space; Financing study costs	Negative interactions with placement supervisor; Continual assessment/scrutiny; Placement assignments; Being on call; Peer pressure	Being away from home; Difficulty setting boundaries; Lack of self-confidence; Perfectionism
Balkan E, Genc Koyucu R. Feelings and thoughts of midwifery students during their first birth suite placement: A qualitative study. <i>Nurs Health Sci.</i> 2024 Jun;26(2).	22 final year midwifery students at a University in Istanbul	Qualitative phenomenological study	Focus group of 4-12 people		Not playing an active role at births; Different requirements in different hospitals; Witnessing situations of obstetric violence; Crowded birth room environment; Staff's lack of attention to privacy	
Sorkhani TM, Nezhad HK, Rajabalipour M. Empowering Midwifery Students: Educational Intervention Based on Group Counseling for Clinical Stress Management. <i>Shiraz E-Medical Journal</i> 2024 25:5. 2024 May 3;25(5).	48 undergraduate midwifery students at a medical science university in Bam, Iran, undergoing clinical internships in the labor ward	Quasi-experimental interventional study	Researcher-designed questionnaire		Discrimination toward midwifery students; Subjective evaluations; Questioning by or reprimands from instructors in the presence of patients; staff and other students; Expectations of staff and instructors; Fear of making mistakes while providing care	Inability to communicate with physicians; Lack of self-confidence; Insufficient knowledge and skills

Table 2 continues

Table 2. Studies examining sources of stress of midwifery students. (continued)

Author (s), Year, Country	Sample and setting	Design	Instrument(s)	Stressors sources		
				Academic Area:	Internship Area:	Personal Area:
Rezaei B, Falahati J, Beheshtizadeh R. Stress, stressors and related factors in clinical learning of midwifery students in Iran: a cross sectional study. BMC Med Educ. 2020 Mar 18;20(1).	70 midwifery students from a Nursing & Midwifery Faculty in Isfahan province, Iran, having passed at least one semester of clinical internship	Cross sectional survey	Persian version of Cohen's perceived stress scale (PSS) and the Persian Questionnaire of Stressful Sources (PQSS) in clinical learning, a self-reporting demographic questionnaire		Communication with instructors; Witnessing a dead neonate; Caring for an acute patient; Emergency situations; Inadequate patient care from the midwife; Instructor's admonitions in the presence of doctors, staff and other students	
Oates J, Topping A, Watts K, Charles P, Hunter C, Arias T. "The rollercoaster": A qualitative study of midwifery students' experiences affecting their mental wellbeing. Midwifery. 2020 Sep 1;88.	20 midwifery students from a midwifery undergraduate program at a university in the South of England	Qualitative descriptive study	Semi- structured interviews		Fear of living the internship experience alone, without the support of a mentor, especially in difficult clinical situations, Fear of not establishing good relationships with peers; Fear of being bullied by members of the midwifery team	Continuous "culture shock" going from placement and to placement and from class time to clinicals; Difficulty with the contrast of life before university and the reality of student midwifery life; Expectations of the "ideal" student life not matching the reality
Özcan NK, Boyacıoğlu NE, Güdücü N et al. Turkish Midwifery Students' Fear of Delivery Process. J Caring Sci. 2019 Sep 1;8(3):121-7	732 third and fourth year midwifery students from six universities in Turkey	Descriptive cross-sectional study	Questionnaire "Midwives' fear of delivery process", designed by the researchers		Practicing common or invasive skills (vaginal exams, episiotomy); Fear of harming mother or infant	
Budu HI, Abalo EM, Bam V, Budu FA, Peparah P.A survey of the genesis of stress and its effect on the academic performance of midwifery students in a college in Ghana. Midwifery. 2019 Jun 1 ;73:69-77.	160 midwifery students at Saint Micheal's Nursing and Midwifery Training College in Pramso, Ghana.	Contextual cross sectional study	Modified "College undergraduate stress scale (CUSS)"	Schoolwork and less vacation	Making mistakes with real patients/expecting mothers	Extracurricular groups; Family obligations bills/overspending

<p>Bradshaw C, Murphy Tighe S, Doody O. Midwifery students' experiences of their clinical internship: A qualitative descriptive study. <i>Nurse Educ Today</i>. 2018 Sep 1;68:213-7.</p>	<p>13 fourth year midwifery students from an Irish University</p>	<p>Descriptive qualitative study</p>	<p>Focus groups</p>		<p>Relationships in clinical practice; Placement on different units; Placement length; Competing demands, Expectations of staff and inconsistent policies</p>	<p>Being away from home; Working full-time and more than 24 hours; Release from clinical practice and insufficient time to organize work</p>
<p>Ahmadi G, Shahriari M, Keyvanara M, Kohan S. Midwifery students' experiences of learning clinical skills in Iran: a qualitative study. <i>Int J Med Educ</i>. 2018 Mar 9;9:64-71.</p>	<p>18 undergraduate midwifery students from three universities in Iran</p>	<p>Qualitative study</p>	<p>Semi-structured individual interviews and focus group</p>		<p>Fear of doing something wrong or doing harm to the mother and baby; Inadequate facilities at clinical placements; Poor relationship with clinical trainers and staff; Being reprimanded after erring; Poor educational environments; Conflicts between midwifery students and obstetric residents; The gap between theory and practice, The lack of continuity of the clinical instructors</p>	
<p>Ahmadi G, Shahriari M, Kohan S, Keyvanara M. Fear, an unpleasant experience among undergraduate midwifery students: A qualitative study. <i>Nurse Educ Pract</i>. 2018 Mar 1;29:110-5.</p>	<p>10 undergraduate midwifery students enrolled in different years at two universities in Tehran</p>	<p>Qualitative study</p>	<p>Individual interviews</p>		<p>Fear of causing harm due to lack of experience with procedures; Fear of dropping the baby during a birth, Fear of encountering their first childbirth; Seeing the baby's head being born; Episiotomy; Fear of penalties/legal issues related to midwives' practice</p>	

Table 2 continues

Table 2. Studies examining sources of stress of midwifery students. (continued)

Author (s), Year, Country	Sample and setting	Design	Instrument(s)	Stressors sources		
				Academic Area:	Internship Area:	Personal Area:
Davies S, Coldridge L. "No Man's Land": An exploration of the traumatic experiences of student midwives in practice. <i>Midwifery</i> . 2015 Sep 1;31(9):858-64	11 second and third year midwifery students from a university in the Northwest of England	Qualitative descriptive study	Semi- structured interviews		The speed with which a seemingly straight forward birth could become complicated Emergency events; Inconsistent instructor support; Not feeling part of a team; The role of students being devalued by midwives; Relationships with others people in the clinical setting; Students' lack of knowledge/understanding/ability to act	Empathic identification; The conflict between the idealized version of midwifery versus the realities of practice
Khajehei M, Ziyadlou S, Hadzic M, Kashefi F. The genesis and consequences of stress among midwifery students. https://doi.org/1012968/bjom2011196379 . 2013 Aug 16;19(6):379-85	72 third and fourth year midwifery students from the Faculty of Nursing and Midwifery, Shiraz University of Medical Sciences	Cross sectional study	Questionnaire		Relationship with the clinical preceptors; Nursing care practices; Prenatal health care; Fear of malpractice; Making mistakes; Continual scrutiny	
Cavanagh SJ, Snape J. Educational sources of stress in midwifery students. <i>Nurse Educ Today</i> . 1997 ;17(2):128-34	199 midwifery students from 12 principals English colleges	Quantitative study	Questionnaire	Cancelled lectures, classrooms being double-booked, and tardiness in returning assignments, Being late for lectures and clinical activities, Lecturers being late	Difficult relationships between students and preceptors	Long distances to attend lectures and placements; The pressures of managing a personal and student life; Prospects of finding work following the completion of their program

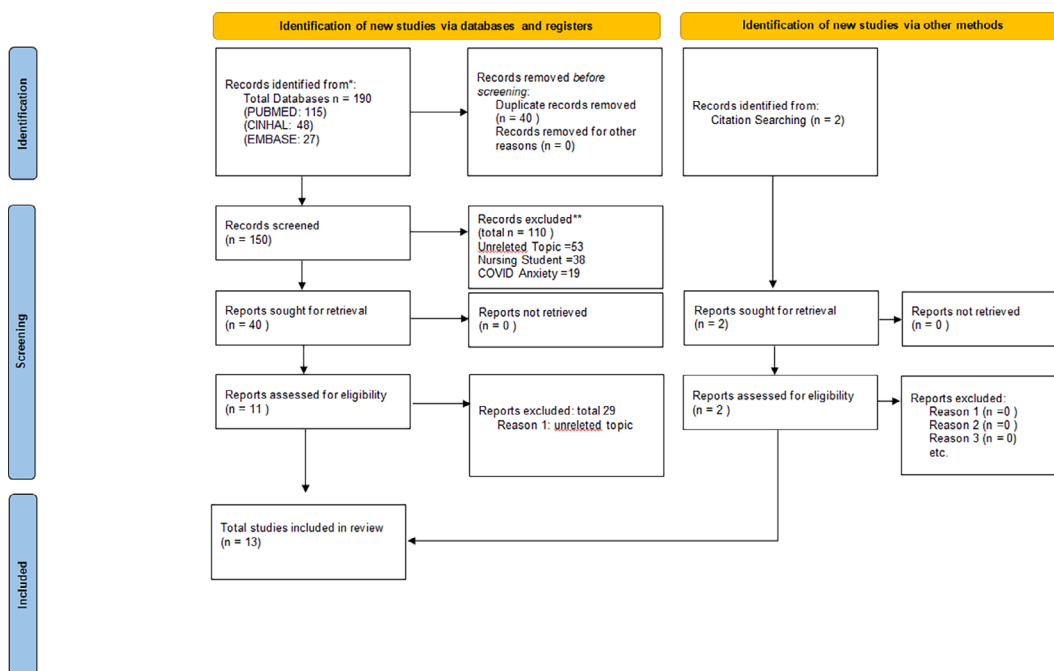


Figure 1. Study identification, screening and selection flowchart.

The simultaneous demands of completing different academic activities and goals not only caused anxiety in students, (25,26) it also hindered a healthy balance between their private life and university life (12,25–28) and led to a consequent reduction in free time. Even after setting aside personal activities, it was reported that the recovery time between various university commitments was too little (26,27). The presence of gaps at the theoretical level compared to what was required in the practical area were also source of academic stress, (23) as well as high costs for tuition and living expenses (23,25,26). Some students moved far from home in order to attend the university course and this was reported as a reason for stress due to a sense of loneliness and a lack of family support (26).

Internship area

Internship is the area consistently present in the studies reviewed as a source of fear, anxiety and stress for students, and within it there are multiple aspects that play an anxiogenic and stressful role. In almost all studies, the quality of the relationship between the internship instructor and the student emerged

as a major cause of discomfort, (9,17,23,25–30) and within this relationship, more critical aspects were highlighted. These included: poor communication (23,25,26), fear of being judged (23,25,26,31), fear of being reprimanded, especially in the presence of patients (23,29,31) lack of support from the instructor following emotionally challenging situations for the student (17,26,27), and low confidence on the part of the instructor as evidenced by reducing the autonomy of the student (9,17,25). Difficulty in the relationship with mentors led students not to communicate their discomfort, for fear of being judged as unmotivated and receiving an unsatisfactory final grade (26). Relationships with other personnel also caused concern for students (9,17,23,25,27,31) and the students reported that they were often regarded as “additional labor supply” and not recognized as undergraduates in training. At the same time, not being seen as part of the team also reduced their sense of belonging and self-efficacy and negatively affected their learning. Relationships between peers were also mentioned as sources of anxiety, under certain well-defined circumstances (23,26). In addition, the internship setting itself was shown to be a source of anxiety in terms of poor quality of

clinical care (23,24) and teaching (23) as well as the inadequacy of facilities (23) and the organizational differences that students encountered when changing departments (14,23,25). Students also reported experiencing anxiety in relation to clinical situations (9,12,14,17,23,29). Among these, the most feared were assisting at their first birth (14,23), caring for patients in critical situations (12,29), emergency care (14), and, in general, situations that involved an overwhelming emotional burden (12). They expressed fear that they may “hurt” the mother and infant (14,23) and make mistakes that may endanger their life and health (9,14,23,28). Consequently, they reported anxiety when considering the possible legal repercussions that could result (17,24). Finally, students expressed that the internship workload they were asked to undertake generally intimidated them (17,24,25).

Personal area

From the studies reviewed, it was shown that there are personal characteristics that, during the university experience, also became a source of stress for students. Among these, the most frequently cited was difficulty understanding one's role as a student midwife (9,17,23,24,31) followed by lack of self-esteem (26,31). One study (26) also reported students' difficulty in defining the limits of their availability during internship and a tendency toward perfectionism and setting excessively high standards was also reported.

Discussion

The results of our study show that the sources of fear, anxiety of midwifery students during their educational path, originate from the academic, internship and personal areas. The internship context has the greatest influence on the emotional distress of midwifery students. Within this area, there are two aspects that most concern students: the clinical one and the relational one. Attending their first delivery, emergency events, and emotionally demanding situations were all sensitive moments (12,14,23,29) during which the risk of developing fear and anxiety was increased. There is a higher risk for this possibility

especially at the beginning of an internship journey. The literature reports that the first internship experience is very impactful (32) and that quality mentoring is critical in helping students adjust to the clinical environment and in allowing their learning to be at the best possible level (32). Research, in fact, has shown that it is the mentors who make the difference in students' clinical learning and that the quality of the student/mentor relationship is the tool through which the student enhances their self-efficacy (33). Students are aware that they learn and develop skills by working closely and communicating effectively with their mentors (34), and the possibility that this may not occur because of relational difficulties is a source of stress. Indeed, our review shows that in most of the studies analyzed, a significant source of anxiety was the students' relationship with their mentor, manifested in various ways. Of these, the most recurring aspects are poor communication, fear of being judged and reprimanded, especially in the presence of patients, lack of support from the mentor following emotionally challenging situations, and low trust on the part of the mentor shown by reducing the autonomy allowed to the student. McKenna (35) identified these situations as acts of violence and bullying of students. These aspects are also found in the nursing literature, which also reports the same concerns as being characteristic of nursing students (36). Professionals with positive attitudes have a positive impact on student learning in clinical settings. In contrast, an unsupportive learning environment, characterized by unwelcoming staff, and a lack of a sense of belonging has a negative impact on students' clinical learning (32). In the systematic review by Cameron (37), it was found that supportive nursing and midwifery mentors who are passionate about their work play a critical role in a student's choice of whether to continue or abandon their academic path. In our review, the relationship with peers - whether they were other midwifery students or students from other health care professions - was also frequently experienced as a source of anxiety, especially if they were viewed as competitors to clinical experiences. Neiterman (38) reported some bullying on the part of older students, but also emphasizes that in most cases they brought a positive influence relative to the insecurity and sense of belonging of younger students. Students

reported that creating an atmosphere of mutual support through shared learning experiences was helpful because they could understand the emotions and difficulties that others were also going through (37). Other authors pointed out that when a student did not feel judged by their peers, their freedom to ask questions during the internship increased. This functions to enhance a student's role awareness, as well as increasing learning itself (7,39). Understanding one's own identity as a student of midwifery is critical to increasing self-esteem and self-efficacy, partly because the expectations students have of the profession often do not match the reality they encounter (40). The literature acknowledges the existence of a gap between theory and practice, between "ideal" midwifery and real midwifery (41). When this is experienced by the student it becomes a source of stress, since the student feels inadequate for their clinical performance. Another source of stress is the numerous, concurrent and often competing academic demands (12,25,26,28,29). This generates anxiety in the student who cannot find a balance between social life and university life. We believe that the findings from this review can be of support to midwifery faculty and program directors. By understanding the causes of student distress, they can implement strategies focused on support to reduce fears and anxieties and, in turn, reduce stress. This would improve the learning experience and ultimately reduce dropout rates. A unique feature of this literature review is the fact that the population of interest is solely midwifery students. In fact, in most of the studies in the literature, presumably because of issues of sample size, midwifery students are often included in mixed populations of students (nursing or medical students). From a methodological perspective, one limitation of the study is related to quality appraisal. Unlike the qualitative studies included in the review, the quantitative studies presented some aspects that were not optimal from a quality perspective. Methodological quality was assessed not to exclude those of lower quality, but rather to give greater weight in the narrative synthesis to those of higher quality. Other limits of the study include the organizational realities in which the studies were conducted; they differ greatly from one another geographically and in terms of the organization and structure of the

university pathway. The duration of a midwifery degree differs from country to country, and the students included in this review's sample belonged to different course years. Moreover, in most studies, students in the sample were not stratified by course year, yet academic "seniority" may also affect the onset of fear and anxiety and, thus, stress (36)). Furthermore, in quantitative studies, different tools were used for data collection, making the analysis less uniform.

Conclusions

Identifying the aspects that scare and stress midwifery students during their academic journey allows for targeted organizational choices. In this way, in fact, educational boards are helped in taking charge of the emotions of distress expressed by students, acting directly on their cause. Research should focus which methods are most effective in supporting students in dealing with and reducing fear, anxiety and stress that often lead to dropping out of the academic path.

Conflict of interest: Each author declares that he or she has no commercial associations (e.g., consultancies, stock ownership, equity interests, patent/licensing, arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

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