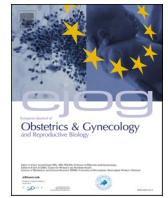




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Full length article



Medical and midwifery students need increased sexual medicine education to overcome barriers hindering bringing up sexual health issues – A national study of final-year medical and midwifery students in Finland

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ABSTRACT

Objectives: Physicians and midwives meet patients with sexual health issues regularly; however, they may have limited sexual medicine education. The study's aim was to evaluate the self-reported competence of medical and midwifery students to bring up sexual health issues with their patients and to assess the barriers that hinder these discussions. The need for additional education was also evaluated.

Study design: A web-based questionnaire was sent to the last-year medical and midwifery students graduating between December 2018 and May 2019 in Finland. In total, 233 medical students and 131 midwifery students participated in the study. Three fields were evaluated: the self-reported competence in discussing sexual health issues and treating patients with these issues, the barriers to bringing up sexual problems, and the need for education in sexual medicine.

Results: The students self-reported better competence in discussing sexual health issues than in treating patients' sexual problems. For the medical students, the most important barriers hindering bringing up sexual health issues were lack of i) time (89.2 %), ii) experience with sexual medicine (88.1 %), and iii) knowledge (82.1 %). For the midwifery students, the most important barriers were i) lack of experience with sexual medicine (73.3 %), ii) fear of failing to respond to patients' sexual health issues (64.9 %), and iii) lack of knowledge (62.5 %). A higher percentage of the midwifery students (96.2 %) reported an interest in sexual medicine education compared to the medical students (55.4 %) (OR 13.89, 95 % CI 5.32–35.71, $P < .001$). Majority (76.5 %) of the medical students and almost half (45.0 %) of the midwifery students reported receiving too little sexual medicine education (OR 7.30, 95 % CI 4.00–13.33, $P < .001$).

Conclusions: Both student groups reported several barriers hindering bringing up sexual health issues with their patients and expressed a need for more education, particularly the medical students.

Introduction

Good sexual health is essential for both physical and emotional

health and well-being. However, sexual problems are rather common, occurring both independently and in connection with various diseases [1]. Therefore, in clinical practice, health care personnel often meet

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patients with sexual health issues. In a study [2] with 5,441 patients of general practitioners, 33 % reported having symptoms of sexual problems; however, only some of the problems were diagnosed. Additionally, according to another study [3], nearly 75 % of patients reported that physicians never asked about sexual issues during their medical encounters. These results can be interpreted as indicating that sexual issues are not commonly brought up during appointments. Health care personnel having fluency in addressing sexual health issues is crucial, as patients typically prefer to receive sexual health information from a provider who initiates the conversation [4].

In general, important characteristics for a good physician to have in addition to good competence in the medical field are a positive personality, sensitivity to emotions, and good communication skills [5]. For midwives, the essential abilities are being aware of their strengths, knowledge gaps, and limits as well as having the right attitude and effective communicative skills [6]. Nevertheless, despite having sufficient abilities, many factors may hinder physicians and midwives in addressing their patients' sexual health issues. As reported in other studies [7,8], we also found in our previous study with general practitioners that the three most important barriers were lack of the following: time, knowledge about sexual medicine, and experience with it [9]. Nurses have also reported time constraints [10,11] as a barrier as well as nurses' perceptions that patients do not expect nurses to ask about sexual concerns [10]. Other reported hindrances have included insufficient training to manage sexual health problems [11,12] and gender (where the patient is the opposite gender) [7,8,13].

In Finland, the first two and a half years of midwifery studies consist of basic nursing studies. The last two years focus on gynecology and obstetrics in which it is more suitable to consider sexual health issues. Furthermore, many of the teachers in midwifery schools are certified sexual counselors. In contrast, medical studies consist of large range of subjects which do not necessarily include education in sexual medicine. The duration of the course of gynecology and obstetrics is only two months, which does not leave much space for education of sexual health issues. In addition, the teachers in medical schools typically lack of special pedagogy in sexual medicine. Therefore, it is plausible that education in sexual medicine is more limited in medical studies, resulting in bringing up sexual health issues being more difficult for physicians than for midwives.

The main objectives of our study were to assess and compare the self-reported competence and the barriers to bringing up patients' sexual health issues between Finnish medical and midwifery students. In addition, we aimed to evaluate the need for education in this field. According to our hypothesis, education in sexual medicine is currently inadequate; therefore, there are several barriers hindering practitioners' ability to bring up sexual health issues. We suggest that more education could reduce these barriers.

Materials and methods

Subjects

The participants in this Sexual Medicine Education (SexMEdu) sub-study were the medical and midwifery students who graduated between December 2018 and May 2019 in Finland. In Finland, there are five universities with faculties of medicine educating medical students and eight universities of applied sciences educating midwifery students; all these schools participated in this study. The average study duration in Finland is six years for medical studies and four and a half years for midwifery studies. In Finland, it is possible to work as a substitute doctor/midwife at the end of the studies. During the study period, a total of 562 medical students and 253 midwifery students graduated, of whom 233 medical students and 131 midwifery students responded, giving the response rates of 41.5 % and 51.8 %, respectively. The mean age of the medical students was 28.5 years (SD 4.0, range 24–48 years); 60.5 % (n = 141) were women and 39.5 % (n = 92) were men. All of the

midwifery students were women, and their mean age was 28.1 years (SD 5.0, range 23–50 years). Replying to the questionnaire implied consent, which was made clear to the respondents via the questionnaire. The Ethics Committee of Turku University approved the study protocol (44/2017).

Questionnaires

The study questionnaire included 17 questions which we adopted and slightly modified from the Portuguese SEXOS study [7] with general practitioners and a German study [14] with medical students with permission from both research groups. It was also used in our earlier SexMEdu sub-study for general practitioners [9]. We piloted the questionnaire with 27 medical students and used their feedback to make amendments to the content. The study questionnaire consisted of three independent fields (A–C, Appendix): A) The self-reported competence in discussing sexual health issues and treating patients (four questions/statements), B) The barriers to bringing up sexual health problems with a patient (nine issues), C) The need for education in sexual medicine (four questions).

Statistical analysis

Data are described using frequencies (percentages). In the analyses, each question was dichotomized in fields A and B [A: 1) 'not at all' or 'once' versus 'a few times' or 'many times'; 2) 'no problem' or 'a minor problem' versus 'a moderate problem' or 'a major problem'; 3) and 4) 'agree' or 'totally agree' versus 'disagree' or 'totally disagree'; B: 'much' or 'very much' versus 'some' or 'not at all'] except for question 1b in field A ('If yes, what was the result?'), where every option was analyzed separately. In field C, question 1 was dichotomized ('not at all' or 'a little' versus 'fairly' or 'very'). In questions 2 and 3 in field C, every option was analyzed separately. Question 4 in field C was a multiple-choice question with several options. The 'cannot say' responses in all fields were omitted from the analyses. The associations between the students' ages and genders and the three fields of interests (A–C) were analyzed using multivariable logistic regression (examining each question separately in each field in the analyses). The gender associations were carried out only in the sub-analysis for the medical students as all the midwifery students were women. The results are presented using adjusted odds ratios (ORs) with 95 % confidence intervals (CIs). *P* values <0.05 were considered statistically significant. Statistical analyses were performed using the SAS System for Windows, version 9.4 (SAS Institute Inc., Cary, NC).

Results

A) The self-reported competence in discussing sexual health issues and treating patients

While working as a substitute doctor or midwife, a majority (60.0 %) of the medical students and one third (36.7 %) of the midwifery students reported having met patients with sexual problems a few or many times (OR 2.22, 95 % CI 1.33–3.71, *P* = .002). The age of the student showed no associations. In the sub-analysis for medical students, the male students were more likely to report being able to help the patient with sexual health issues (OR 2.43, 95 % CI 1.22–4.84, *P* = .012).

Both the medical and the midwifery students reported a good competence in discussing sexual health issues with patients. If the patient had addressed the issue, only 6.9 % of the medical students and 2.3 % of the midwifery students reported having moderate or major problems with discussing the topic (OR 3.33, 95 % CI 0.89–12.41, *P* = .073 between the student groups). Compared to the midwifery students, the medical students were more likely to report not being able to bring up sexual health issues easily with their patients (36.5 % versus 16.0 %; OR 3.41, 95 % CI 1.91–6.08, *P* <.001). A majority of both the medical and

the midwifery students considered themselves unable to evaluate patients' sexual problems and determine the need to refer patients to specialists (67.8 % versus 51.2 %, respectively); this was the case with a higher percentage of the medical students (OR 2.02, 95 % CI 1.23–3.33, $P = .006$).

B) The barriers to bringing up sexual health problems with a patient

The results of determining the barriers to bringing up sexual health issues are described in Table 1. The most important barriers varied somewhat between the two student groups. For the medical students, the most important barriers were lack of time, lack of experience with sexual medicine, lack of knowledge about sexual medicine, and sexual health issues not being a priority at the moment. For the midwifery students, the most important barriers were lack of experience with sexual medicine, fear of failing to respond to patients' sexual health issues, lack of knowledge about sexual medicine, and sexual health issues not being a priority at the moment. In addition, compared to the

Table 1

Differences between medical and midwifery students in barriers to bringing up sexual health issues with patients.

	Medical student N = 233	Midwifery student N = 131	OR	95 %CI	P
Lack of time	89.2 % (n = 207/232)	49.6 % (n = 61/123)	9.22	4.79–17.76	<0.001
Sexual health issues are not a priority in the patient's treatment at the moment	78.8 % (n = 178/226)	53.5 % (n = 68/127)	2.49	1.48–4.17	0.001
The provider's personal attitudes and beliefs	10.9 % (n = 25/229)	7.6 % (n = 10/131)	1.13	0.47–2.72	0.778
The provider's personal discomfort when addressing sexual health issues	16.4 % (n = 38/232)	9.2 % (n = 12/131)	2.16	1.03–4.50	0.041
Lack of knowledge of sexual medicine	82.1 % (n = 184/224)	62.5 % (n = 80/128)	3.75	2.05–6.87	<0.001
Lack of experience with sexual medicine	88.1 % (n = 200/227)	73.3 % (n = 96/131)	3.91	1.91–7.99	0.001
Fear of failing to respond to the patient's sexual health issues	66.1 % (n = 148/224)	64.9 % (n = 85/131)	1.73	1.01–2.96	0.044
Gender differences (where the patient is the opposite gender)	26.8 % (n = 62/231)	15.5 % (n = 20/129)	2.22	1.21–4.05	0.010
Disability of the patient	34.1 % (n = 71/208)	26.4 % (n = 33/125)	1.64	0.96–2.81	0.072

OR (age and gender adjusted logistic regression) higher than 1 indicates higher barriers for medical students (two categories: much or very much versus some or not at all; the responses 'cannot say' omitted from the analyses) to bringing up sexual health issues with patients.

OR = odds ratio.

CI = confidence interval.

midwifery students, the medical students were more likely to report that almost all assessed factors were barriers to bringing up sexual health issues, except in responses concerning personal attitudes and beliefs and disability of the patient (Table 1). The age of the student was statistically significant only concerning the lack of experience; the older the student, the less the lack of experience was a barrier (OR 0.92, 95 % CI 0.87–0.98, $P = .006$). No other associations emerged. The female students were more likely to report the fear of failing to respond to patients' sexual health issues as a barrier (OR 3.02, 95 % CI 1.70–5.35, $P < .001$), whereas the male students were more likely to report sexual health issues not being a priority at the moment as a barrier (OR 2.30, 95 % CI 1.12–4.73, $P = .023$).

C) The need for education in sexual medicine

A higher percentage of the midwifery students (96.2 %) reported an interest in sexual medicine education than the medical students (55.4 %) (OR 13.89, 95 % CI 5.32–35.71, $P < .001$). Overall, 76.5 % of the medical students and 45.0 % of the midwifery students reported receiving too little sexual medicine education (OR 7.30, 95 % CI 4.00–13.33, $P < .001$). The female students reported receiving too little education at a higher percentage compared to the male students (85.5 % versus 62.8 %, respectively; OR 3.45, 95 % CI 1.79–6.64, $P < .001$). Compared to the midwifery students (6.1 %), the medical students (20.6 %) were more likely to suggest that the education should be voluntary (OR 3.00, 95 % CI 1.29–6.98, $P = .011$). The medical students preferred sexual medicine education to be integrated into other subjects (58.1 %) at a higher percentage than the midwifery students (27.2 %) (OR 3.47, 95 % CI 2.05–5.85, $P < .001$). The responses to various forms of education are illustrated in Fig. 1. The most preferred form of education for the medical students was workshops (n = 155), followed by lectures (n = 115). The midwifery students also preferred these forms, but with the opposite priority (lectures n = 114 and workshops n = 62).

Discussion

According to our study, both medical and midwifery students self-reported a good competence in discussing sexual health issues with patients. Issues related to sexual health and sexuality have become more acknowledged and liberal in recent years. For example, the effect of #MeToo has presumably resulted in more openness to talking about sexual health issues. In contrast, however, a majority of both student groups considered themselves to have difficulties in assessing patients' sexual problems and evaluating the need to refer patients to specialists, particularly the medical students. Several factors also hindered bringing up sexual health issues, primarily lack of experience and knowledge. Accordingly, the findings emphasized the importance of education in sexual medicine. A majority of both medical and midwifery students reported an interest in education in sexual medicine, which they considered to be insufficient during their studies.

Among all subjects, the course of gynecology and obstetrics is a logical subject to educate sexual medicine. When comparing medical and midwifery curricula, medical studies include a two-month course of gynecology and obstetrics, whereas in midwifery studies, the duration of gynecology and obstetrics education is two years. For a midwifery student, it is mandatory to take care, for example, 100 pregnant women, 40 vaginal births, and 100 puerperal women to complete the degree of midwifery in Finland. In midwifery education, sexual health is constantly present and thus, midwifery students inevitably meet patients whose sexual health should be addressed. Nevertheless, the students still felt unable to assess patients' sexual problems. For medical students, there are no numerical objectives in the curriculum. However, the medical students' uncertainty of evaluating sexual problems was concordant with the results from a Malaysian study [15] with 379 final-year medical students in which only 27 % felt having adequate skills to take sexual history and 38 % having enough exposure to these

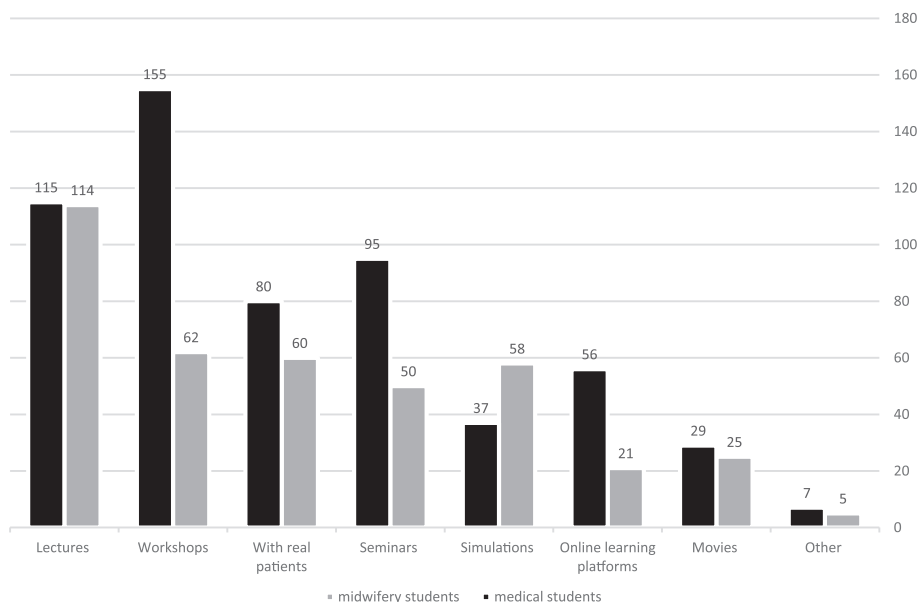


Fig. 1. The medical students' (total $n = 233$) and the midwifery students' (total $n = 131$) responses to preferences for the forms of education in sexual medicine (more than one option could be chosen).

situations.

The fact that lack of experience and especially lack of knowledge were in the top three barriers for both student groups emphasizes that the amount of the education in sexual medicine is insufficient. Previous studies have reported similar results [11,12,13,15–18]. In a mixed-method study from the United Kingdom with 86 midwifery students [16] and a qualitative study from Sweden [17] with 9 midwifery students, participants reported lack of knowledge [16,17] and inadequate training in sexology [17] to be barriers. In a Danish study [18] with 584 health professional students, participants self-reported lack of knowledge and training in sexual health issues. In a Dutch study [12] with 337 general practice nurses, the participants reported insufficient training as the number-one barrier. As for medical students, both a Saudi study [13] with 234 participants and a Malaysian study [15] with 379 final-year medical students named lack of training as a barrier. Furthermore, a UK study [19] with 372 midwives identified avoidance of harm as a barrier, as some participants were worried about giving an inappropriate response to the patient and therefore making the situation worse. In our study, almost seven out of ten students in both groups considered fear of failing to respond to patients' sexual health issues to be a barrier.

Another barrier reported in our study was lack of time, particularly for the medical students. This finding confirms the assumption that dealing with sexual health issues is considered time-consuming. Previous studies have also reported time constraints [10–12,16,17,20]. In a US study [10] with 302 nurses from various specialties, the participants reported time constraints as one of the main barriers. In addition, midwives in the above-mentioned Swedish study [17] described time as a very important factor, as a good relationship with trust must be developed between patient and midwife before raising issues related to sexuality [17].

In our study, a majority of the medical students and around half of the midwifery students reported receiving too little sexual medicine education. These results confirmed the findings of earlier studies showing the need for continuous education [16,17,19–22]. In a US study [21] with 1,014 medical students, only 36.4 % of the participants reported receiving excellent or adequate education in sexual medicine during their medical studies. Midwifery studies have collected similar reports [16,17,19,20]. Furthermore, in our study, a majority of both student groups preferred mandatory education. In concordance with an Austrian study [22] with 391 medical students, the medical students in

our study preferred that sexual medicine be integrated into other subjects. As for the method of education in sexual medicine, both student groups preferred lectures and workshops. These are practical and widely used teaching techniques in both medical and midwifery education that previous studies have also discussed [16,22].

Our study was essential, as it was the first study to explore and to compare the education in sexual medicine among medical and midwifery students in Finland and, to the best of our knowledge, in Scandinavia overall. Furthermore, our study was one of the few studies evaluating several aspects of the barriers to bringing up sexual health issues among medical and midwifery students. The number of participants in our study can be considered sufficient even though it was not as high as in some of the previous studies in the same field [20,21]. We included only final-year students in order to account for the full scope of their education, and thus when compared to similar studies [13,15] with medical students, we reached similar participant levels. Furthermore, as Finland is a country with a small population (approximately 5.5 million), thus having a smaller annual number of students in both medical and midwifery colleges, it could be assumed that our participant size represented the examined issue rather well. Our response rates of 41.5 % and 51.8 % (for medical and midwifery students, respectively) could be considered only moderate; however, they fell into the range of previous studies, from 12.3 % [22] to 70.0 % [15]. The link to our questionnaire was distributed to the participants mainly via their teachers or teaching coordinators. This could have had either a positive or a negative influence on the students' willingness to participate in our study. In addition, graduating students often get surveys, so our questionnaire might not have aroused higher interest compared to the other possible survey topics. One of the merits of our study was the piloting of our study questionnaire, allowing us to revise the content. As we included only students who studied in Finland, our results may not be directly applicable to medical and midwifery students in other countries. It is also possible that students who are particularly interested in sexual medicine participated in our study. However, we assessed the frequency of facing patients with sexual problems and found that students without this experience also participated; therefore, it is unlikely that the students' special interest in sexual medicine would have biased our results.

Conclusions

Although both medical and midwifery students considered themselves to be fluent in discussing sexual health issues with their patients, they undisputedly revealed having difficulties in evaluating the patients' sexual problems. Several barriers to bringing up sexual health issues with their patients also emerged. Hence, our study clearly showed a great need to enhance sexual medicine education in the curriculum, especially for medical students.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ejogrb.2022.10.021>.

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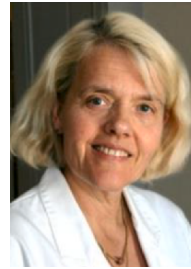
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