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Aim & Scope

The European Journal of Midwifery (Abbr: Eur J Midwifery; ISSN: 2585-2906) is an open access and double-blind peer-reviewed scientific journal, that encompasses all aspects of the practice of midwifery, especially focused on midwifery research, support, care and advice during pregnancy, labour and the postpartum period. The overall aim of the journal is to foster, promote and disseminate research involving midwifery education and clinical practice. While the journal is European, it warmly welcomes and publishes submissions and content from all over the world, linking the global community.

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Oral Presentations

The impact of exclusion due to Covid-19 restrictions on partners' satisfaction with Swedish hospital postnatal ward care: a mixed methods approach

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Introduction

To prevent the spread of SARS-CoV-2, hospitals around the world adopted protocols that in varying ways resulted in the exclusion of partners from hospital postnatal care wards. The aim with this study was to examine the effect this exclusion had on partners' satisfaction with postnatal care.

Material and Methods

An on-line survey (the Swedish Pregnancy Panel) including free text comments was conducted before and during the first wave of the COVID-19 pandemic; partners of pregnant women were recruited at an early ultrasound appointment and followed until two months after childbirth. Data were linked to the Swedish Pregnancy Register.

Results

The survey was completed by 524 partners of women who gave birth during the pandemic and 203 partners of women who gave birth before. Partners' satisfaction with hospital postnatal care dropped 29.8 percent (-.94 OLS. 95%CI = -1.17 -.72). The drop was largest for partners of first-time mothers (-1.40 OLS. 95%CI = -1.69 -1.11), but unrelated to clinical outcomes such as mode of birth, and most social backgrounds, except higher income. The qualitative analysis showed that partners 1) Felt excluded, as partners and parents, 2) Thought the strain on staff lead to deficiencies in the care provided, 3) Perceived the decision regarding partner restrictions as illogical.

Conclusions

The exclusion of partners from the hospital postnatal wards clearly impaired satisfaction with care, and partners of first-time mothers were particularly affected. Planning for future restrictions of partners from hospital wards should factor in these consequences.

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Conflicts of interest

The authors declare no competing interests.

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SARS-CoV-2 in pregnancy – a retrospective analysis of selected maternal and fetal laboratory parameters

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Introduction

Pregnant women and their neonates belong to the group of individuals with elevated risk for COVID-19 infection. Data on the course of the disease and how it affects the pregnancy and neonatal wellbeing remain conflicting. The aim of the study was to evaluate the effect of SARS CoV-2 infection on the mode of delivery, neonatal condition and selected maternal and fetal laboratory parameters.

Material and Methods

The study included a total of 633 women, either pregnant or parturients, hospitalized between April 2020 and February 2021 at the Gynecological and Obstetric Hospital of the Medical University in Poznań (Obstetrics and Gynecology Isolation Unit), Greater Poland Voivodeship, Poland. This was a single-center retrospective case-control study. This dataset was generated using electronic medical records collected by medical personnel. Two groups of patients, hospitalized between April, 2020 and February, 2021, were included in the study: study group (304)—pregnant women with SARS-CoV-2 and control group (n = 329)—healthy pregnant women or parturients.

Results

Mothers with a severe course of COVID-19 had higher activated partial thromboplastin—APTT (p = 0.02), C-Reactive Protein—CRP (p = 0.00) and procalcitonin (p = 0.032) levels as compared to pregnant women with mild or moderate course of the disease. Neonates born to SARS-CoV-2-infected mothers presented with worse condition at 1 and 5 minutes of life (p = 0.000 and 0.00, respectively) and lower Arterial Blood Gas—ABG pH scores (p = 0.016). Elective cesarean section is the most common mode of delivery for SARS-CoV2-infected mothers. Emergency cesarean sections are performed at earlier gestational age as compared to vaginal delivery and elective cesarean section. Lower Apgar scores were observed in neonates born to SARS-CoV-2-infected mothers who required oxygen therapy and whose procalcitonin levels were elevated.

Conclusions

Emergency cesarean sections are performed at earlier gestational age as compared to vaginal delivery and elective cesarean section. Lower Apgar scores were observed in neonates born to SARS-CoV-2-infected mothers who required oxygen therapy and whose procalcitonin levels were elevated. There is a relationship between more severe course of COVID-19 and APTT, as well as CRP and procalcitonin levels. More severe course of the disease is associated with higher APTT, CRO and procalcitonin levels.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Strengthening the maternal-newborn quality of care during and beyond the Covid-19 pandemic - Findings from the IMAGINE EURO study in Greece

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Objective

To investigate the quality of maternal and newborn care (QMNC) during facility childbirth in Greece from women's perspectives.

Material and Methods

Women giving birth in Greek facilities from March 2020 answered a validated online WHO standards-based questionnaire as part of the multicountry "Improving Maternal Newborn care In the EURO Region (IMAGINE EURO)" study. Data were collected from July 2022 to March 2023 regarding women experiences when giving birth from 1st March 2020. Descriptive analyses were performed and the Cochran-Armitage test was used for time trend comparisons.

Results

A total of 2277 women giving birth in maternity hospitals in Greece during the study period were included. More than a half (54.5% n=1242) reported having a cesarean, 65.2% (n=133/204 women who experienced an instrumental vaginal birth) were not asked for consent prior to instrumental vaginal birth and 67.7% (n=504/745 women who experienced a vaginal birth) could not choose their birth position.

Most women evaluated as positive their experience when giving birth (n=1924, 84.5%), although specific gaps were observed: 19.3% (n=440) of women reported not being treated with dignity, 9.9% (n=225) experienced abuse of which 57.8% (n=130) reported an emotional abuse (women could report multiple types of abuse) and 48.6% (n=1106) declared that healthcare professionals were not able to use effective communication methods to decrease the stress related to COVID-19 pandemic. Finally, 55.2% (n=1255) exclusively breastfed at discharge (without significant differences over trimester time periods, p=0.194).

Conclusions

Even though maternal reports indicate a generally high satisfaction among women giving birth in Greece, improvements are still needed. There is an urgent need to implement national initiatives to reduce caesarean, increase exclusive breastfeeding rates and promote maternal autonomy and evidence-based, patient-centered respectful care for all mothers and newborns.

Funding

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Conflicts of interest

The authors have no conflict of interest to disclose.

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The effect of midwifery students' changing life conditions and e-learning experiences on the state of their anxiety and hopelessness during the Covid-19 pandemic

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Background

Giving the existing formal education through the internet without a planned transition to distance education negatively affected the learning processes of the students.

Objectives

The study aims to identify the midwifery students' changing life conditions and elearning experiences on the state of their anxiety and hopelessness during the Covid-19 pandemic.

Methods

Designed as cross-sectional research, the study was performed with the participation of 1,296 midwifery undergraduate students. The survey form comprised of questions that explored the students' demographic characteristics, life conditions changing during the Covid-19 pandemic and distance education experiences, the Generalized Anxiety Disorder Scale-7, and the Beck Hopelessness Scale were used in the data collection.

Findings

It was discerned that, of the participant midwifery students, 55.2% spent the period of the pandemic in the province center, 51.7% used smartphones to have access to the distance education, 50.3% had trouble in following up the courses due to the limited computer and internet access, 63.5% failed to follow up the courses because of the infrastructure problems related to the distance education. It was found that, of the participant midwifery students, 54.6% exhibited anxiety symptoms and 26.3% had hopelessness symptoms. It was identified that having trouble in following up the courses increased anxiety by 1.438 times (CI:1.103-1.875) and hopelessness by 1.980 times (CI:1.459-2.687), having tensions in the family relations increased anxiety by 2.362 times (CI:1.780-3.134) and hopelessness by 1.789 times (CI:1.235-2.594), and having psychological support for anxiety and worry increased anxiety by 2.914 times (CI:2.208-3.8477) and hopelessness by 1.875 times (CI:1.083-3.247). It was ascertained that hopelessness increased anxiety by 2.878 times (CI:2.075-3.991) whilst anxiety increased hopelessness by 2.755 times (CI:1.985-3.823) (p<0.05).

Conclusion

As well as the Covid-19 pandemic, health, social life, and economic changes; the digital separation that accompanies distance education also affects the students' mental health. Solving the technical problems experienced in distance education, facilitating the follow-up of the courses, and equipping the midwifery students with problem-solving

and coping skills will be useful for reducing the midwifery students' hopelessness and anxiety levels.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Are midwifery students ready for the COVID-19 vaccine? The decision to vaccinate and affecting factors

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Introduction

It is necessary to determine the preferences of midwives, who are promising individuals in terms of providing vaccination services and the most valuable healthcare services like mother-infant health and reproductive health services, regarding the COVID-19 vaccine, as well as factors influencing these preferences.

Material and Methods

The sample of this online cross-sectional study consisted of 1879 midwifery students in Turkey. The data collection tools of the study included a sociodemographic data form, the Health Literacy Index, Perception of Causes of COVID-19 and Attitudes Toward the COVID-19 Vaccine Scale. Descriptive statistics, correlation and linear regression analyses were used in the analysis of the data.

Results

Among the participants, 65.7% (1235) did not want to get the COVID-19 vaccine. In this study, those who found childhood vaccines beneficial among the students, those reporting positive attitudes toward vaccinations and those who listened to the recommendations of health-care workers had higher rates of not wanting to get the COVID-19 vaccine. It was found that the students' decisions to get the vaccine were not affected by their health literacy levels. However, their attitudes toward vaccination were negatively effective, and their perceptions of COVID-19 causes were positively effective.

Conclusions

In our study, the midwifery students who perceived the cause of COVID-19 as a conspiracy did not want to be vaccinated. Midwifery students should move away from the perception of conspiracy, and they should be informed about COVID-19 with scientific facts.

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Transforming transnational intercultural

sensitivity for midwifery students through an inclusive mobility model (TOTEMM)

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Introduction

The benefits for students who engage in study mobility experiences should include developing soft skills, interaction skills with individuals from different cultures, adaptability, and proficiency and communication skills in foreign languages. The current Erasmus model used in Midwifery education focuses on clinical placement experience and excludes a group of students whose personal and financial situation makes it impossible for them to stay in another country for a protracted period of time. Therefore, to create a new blended approach to student mobility, incorporating pedagogically valuable online resources for midwifery students, supplemented by a short period of physical mobility, was the interest of this project. The TOTEMM project aims to promote equity, social inclusion and participation of non-mobile midwifery students studying in England, Italy, Estonia and the Netherlands through creating and implementing a new inclusive mobility model based on a combination of virtual and physical mobility activities. Furthermore, to investigate whether combining virtual and physical mobility activities can develop intercultural sensitivity.

Material and Methods

A mapping of curriculum content across four partners' undergraduate midwifery programs. Midwifery students studying in England, Italy, Estonia and the Netherlands were part of the design, development, and evaluation processes as Stakeholders along with subject experts/tutors and learning technologists. Two online questionnaire surveys and eight focus group discussions to establish students' views and experiences related to all components of the new blended approach to mobility completed by 65 students. The validated Intercultural Sensitivity Scale (ISS) assessment tool will be utilised to measure intercultural sensitivity.

Results

A mapping of curriculum content across four partners' undergraduate midwifery programmes, with particular regard to public health and the midwifery role; published a cross-sectional survey of midwifery students' perspectives on physical and virtual mobility activities and preferences for e-learning; application of the ASPIRE methodology to develop five e-learning packages related to the public health role of the midwife in Europe: Optimising psychological wellbeing for women and their families; Empowering women to maintain their sense of safety; Promoting positive lifestyle choices for women within their communities; Championing the needs of the migrant population; the new blended mobility model was acceptability and enjoyment for students; for students' acceptability and enjoyment of the new blended

mobility model, changes to their perceptions of midwifery, intercultural sensitivity and the needs of different groups of women, and some impacts on life-skills; Two Multiplier Events with a total attendance of 115 international delegates and international interest in the TOTEMM model.

Conclusions

Although the project was carried out during the period of the Covid-19 pandemic, which required adaptation to the conditions of the pandemic, including the transition to online work and the adaptation of the pedagogical approach in the development of online materials, the virtual online package and the students physical mobility provides a good opportunity to acquire the knowledge of maternity care in four countries, reflecting the role of midwives in caring for the public health of women from different cultures. Furthermore, there is a collaboration between midwifery training teams in the four countries and interest in further joint work on this and other initiatives.

Funding

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The authors have no conflicts of interest to disclose.

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Using digital technology: Educating midwives about neurodiversity

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Background

The medical model of disability has long defined neurodevelopmental differences as disorders and deficits and reveals cultural prejudice, leading to oppression for those diagnosed. Instead, neurodiversity roots itself in the social model of disability, which asserts that neurodivergent people are disabled by barriers in society. Given that an estimated 1 in 7 of the population is neurodivergent, better understanding is needed to support the learning and working environments for neurodivergent people.

Ensuring that neurodivergent colleagues and students are appropriately supported in the workplace necessitates radical change in workplace mentalities. Therefore, institutions should include neurodiversity awareness training to improve inclusion. The Royal College of Midwives (RCM) has collaborated with a group of neurodivergent maternity practitioners to develop an innovative and interactive eLearning package for midwives, midwifery students and Maternity Support Workers.

Development

A group of neurodivergent midwifery lecturers, midwives and students worked collaboratively with the Education Team at the RCM to develop an eLearning resource for midwives, midwifery students and MSWs. The eLearning module aimed to educate practitioners about working alongside neurodivergent colleagues and students to improve awareness and inclusion. The resource was developed using a range of innovative and interactive tools including animation and simulation. This

required expertise from the RCM's eLearning technologist, as well as professional expertise and lived experience from neurodivergent practitioners and students. The resource will be showcased in the presentation.

Implications for education

The resource has been made available to the 50000 members of the RCM and will be continuously evaluated by the eLearning team. The module will be used as the basis for further work to educate and raise awareness for those supporting and working alongside neurodivergent practitioners. This module will contribute to the inclusion and diversity agenda by ensuring that neurodivergent voices are heard. By raising awareness of the disabling barriers linked to unsuitable work environments, this module aims to improve understanding and implementations of reasonable adjustments for neurodivergent midwives, midwifery students and MSWs of the future.

Funding

Royal College of Midwives, UK.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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Internationality can be achieved from virtual exchange - Results from a questionnaire study

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Introduction

Internationality is an important part of nursing studies, as working in a globalizing working life requires graduates to have communication skills, good language skills and diverse cultural competence. The Covid-19 pandemic prevented student exchange programs, however, the pandemic brought broadly knowledge of using distance teaching in nursing studies. Even before the pandemic, only some of the students were able to go on a student exchange. We aimed to study how virtual exchange promotes midwifery students' internationality and cultural competence.

Material and Methods

A one-day course of virtual exchange was carried out among fourth-year midwifery students from Metropolia University of Applied Sciences, Helsinki, Finland and Daeyang University, Lilongwe, Malawi. The students' experiences of the course were collected with a six-question questionnaire.

Results

The students' experiences were generally positive. The best part was considered to be seeing fellow students and hearing about their midwifery education and midwifery practice. The students reported understanding patients coming from different cultures better after the virtual exchange and also their desire to learn about other cultures increased. Furthermore, the desire to go on a student exchange increased. In addition, the students described virtual exchange to expand the sense of community spirit - "they there and we here studying around the same things".

Conclusions

Today's technology makes it possible for students from

different countries to learn from each other together, without the need to travel. Virtual exchange enables all students to get experiences of internationality.

Funding

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Conflicts of interest

None of the authors have any conflicts of interest relating to this abstract.

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Students' active-learning in digital classrooms: An example from a sexual and reproductive health quality improvement course

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Introduction

Teaching asynchronous courses to midwives, and other clinicians, from around the world can be challenging for several reasons including: i) clinical workplace responsibilities (students' issue), ii) being able to collaboratively work together (peers' issue), and iii) ensuring a high integrity of learning (teachers' issue). The aim was therefore to design an asynchronous course that could be flexible for students, but ensure high course integrity and learning.

Material and Methods

Participants included: i) master-level sexual and reproductive health students from around the world, ii) clinical professionals, including midwives, from around the world, and iii) midwives from four sub-Saharan African nations who took part in a capacity building program. For three years, these three groups of participants were tested using the learning model. The learning model included a flipped classroom, where students could watch pre-recorded lectures at their leisure before meeting at the end of the week to discuss and apply the material to their clinical setting. In addition, project-based learning was a central tenant of the course, where each student should design their own improvement project and apply that weeks' course materials to their actual improvement project. Students then completed three rounds of peer review on each others' improvement projects. By peer reviewing, students i) received feedback to strengthen their own project, ii) could demonstrate a critical reflection of course concepts on others' projects, and iii) become inspired by other improvement project ideas that they could adapt into their own methodologies.

Results

Consistently, student evaluations showed that they enjoyed the flexibility of the course, allowing them to juggle their work life with the course, often integrating the two together via the applied improvement project (students' issue). Despite time differences in geography, students could learn about improvement projects in different parts of the world and were given enough time (one week) to peer review each others' papers. Moreover, by the third peer review round, they had read all of their peer's improvement projects, and thus gained a deeper insight into additional improvement ideas (peers' issue). Lastly, by having to apply their learned knowledge to

real world settings, they had to demonstrate a high level of learning and thus course integrity could be assured (teachers' issue).

A further result is that students often reported that their direct supervisor and/or clinic greatly appreciated their improvement project, often further benefitting patient outcomes. A few students further reported publishing their improvement project, while others spread their improvement ideas to other clinics.

Conclusions

Designing courses that force students to apply their learned knowledge creates a deeper learning experience for students, while having engaging weekly meetings and peer reviews, helps students feel like they are part of a class and can form meaningful relationships with their peers, even when learning asynchronously. Furthermore, applied courses can also benefit the workplace. Future teaching models should further explore how to make more classes use an applied teaching framework.

Funding

There is no funding for this research.

Conflicts of interest

The authors declare that they do not have competing financial claims or personal relationships that could influence the work reported. However, the main presenter does teach this course, and therefore, has a personal vested interest in the course. However, the information given is all based on student feedback of the course and their ability to apply learned concepts.

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Simulation-based education advocacy for patient safety in a limited resource country, experiences from Tanzania

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Introduction

Simulation-based education (SBE) bridges the gap between theory and clinical practice; and ensures patients' safety (Ntlokankulu et al., 2018; Tjoflåt et al., 2017; WHO, 2013). Resources for implementing SBE in low-income countries are a big challenge compared to high-income countries (Tjoflåt et al.2017). African training institutions, including Kilimanjaro Christian Medical University College (KCMUCo), face inadequate infrastructure (simulation laboratory) and resources (staffing, competence among lectures/ clinical instructors in SBE, equipment and training manuals) to implement SBE. The University and NORHED II project mobilized resources to train lecturers and clinical instructors to utilize the knowledge gained to improve clinical practice among students and nurses.

Material and Methods

The project digitally trained 11 Trainers of Trainees at the University who trained 60 clinical instructors supervising student nurses. The approach was adopted at the University, though challenges were in the clinical area because the environment needed more support.

Results

The trained staff followed up as some were reluctant of the traditional methods as opposed to the new approach of SBE. Upon evaluation, the teams initiated SBE and teach-back sessions utilising the available resources. This influenced lecturers, clinical instructors, and students to promote competencies to all groups while working in skill laboratory and clinical areas. The SBE and teach-back session promoted a conducive environment for teaching and learning for trainees.

Conclusions

Limited resources and technology should not be a barrier to producing a skilled workforce. Using SBE promotes competence in students utilizing low-fidelity manikins and standardized patients. This minimized novice errors and promoted patient safety, thus building trust among healthcare workers and patients.

Funding

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The authors have no conflicts of interest to disclose.

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Can Chat-GPT be an effective tool for midwifery education?

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Introduction

Artificial Intelligence is already creating opportunities for applications that challenge many practices in almost all domains of human activity. Intelligent tutoring systems have been used to assist in educational tasks. One recent development refers to Chat GPT which not only attracted the interest of academics around the world but also became a justifiable reason for the academics to start revising their education policies and practices. This research aims to investigate the value of using Chat GPT for educational purposes in midwifery. The research objective of this study refers to the potential of Chat GPT to facilitate learning that could provide not only accurate and up-to-date knowledge but also an assistant in problem-solving.

Material and Methods

This study evaluates Chat GPT by examining its ability to provide justifiable and accurate answers to a set of questions that are formed in such a way that they pertain to midwifery subjects. The questions are formed so that they cover several important topics. The answers would require the combination of several midwifery domains at different levels of depth. The study considers a sample set of 35 questions as a starting point. The Chat GPT was asked to answer and justify each question one by one, engaging in a short domain-specific discussion. Next, the same questions were given, and similar discussions were developed with a group of expert midwives. The answers of both sessions were filed and assessed by using a set of criteria such as their accuracy, the justification detail, credibility, the length of the discussion, the depth of the knowledge used for an answer, etc. Content analysis and

fuzzy logic techniques were used to analyze the answers analysis data.

Results

The results provide insights into the Chat GPT potential as a tool for facilitating learning. The study identifies the characteristics of problems that Chat GPT is mostly useful as a tool that can assist in midwifery education as well as compares and contrasts the answers it has given with those provided by the experts. The research findings are expected to provide useful insights not only for future research but also for redesigning educational processes and policies.

Conclusions

As soon as Chat GPT became available many researchers and academics started investigating its potential uses and capabilities. The conclusions of this study highlight the ability of Chat GPT to become an intelligent tutor that can assist in-class lectures, lab sessions, and self-study.

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Use of digital information and mobile applications by Flemish pregnant women

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Introduction

Although there is an increased use of the Internet and apps as information source for pregnant women, knowledge about its use is relatively limited. This study aimed to map information resources and use of apps among Flemish pregnant women.

Material and Methods

This cross-sectional study used a survey (n=311), consisting of demographics; use of devices; information sources and use of pregnancy apps. Data was analysed using descriptive statistics, independent Student's t-tests, chi-square tests and correlations.

Results

Obstetricians were the primary information source (86%), followed by websites/Internet (85.9%), apps (74.9%), friends (62.4%) and midwives (59.2%). Women searched mostly for information about foetal development (88.5%), discomfort/complaints (80.7%) and health during pregnancy (79.7%). A pregnancy app was downloaded by 55.3% the women. Single women asked more information to their mothers (73.3% vs 51.3%; P=0.02) or other relatives (43.3% vs 21.9%; P=0.01) than married women. Low-educated women were more likely to seek pregnancy information from relatives (41.1% vs 23.1%; P<0.001) than high-educated women. They were less likely to consult a gynaecologist (95.9% vs 83.5%; P=.001) and followed more prenatal sessions (80.8% vs 32.5%; P=0.04). Primigravida were more likely to ask advice from relatives (40.4% vs 20.1%; P<0.001) and other pregnant women (53.2% vs 40.2%; P<0.03) than multigravida.

Conclusions

Midwives need to be aware of the increased use of apps as information source for pregnant women. Concerns rise about the quality and safety of those apps. Midwives should refer pregnant women to high-quality digital resources and take the opportunity to discuss digital information during consultation.

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Conflicts of interest

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Use of antiretroviral therapy in pregnancy and association with birth outcome among women with HIV in Denmark: A nationwide, population-based cohort study

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Introduction

Antiretroviral therapy (ART) is recommended worldwide for all persons with Human Immunodeficiency Virus (HIV), including pregnant women. The use of this technology has resulted in a decreased risk of perinatal transmission to < 1 % in Denmark and other high-income countries. No single ART regimen has however consistently been considered first-line for pregnant women and exposure to HIV and/or different ART drugs during pregnancy may be associated with an increased risk of adverse birth outcomes. The objective of this nationwide study is to describe ART regimens during pregnancy among women living with HIV (WWH) in Denmark, including regimen changes during pregnancy, and to examine the association between ART use in pregnancy and other risk factors, and different adverse birth outcomes. This to evaluate the possible side effects of the technology and to have the results implemented in the midwifery education and practice.

Material and Methods

A Danish population-based cohort study including all pregnancies among WWH in Denmark between 2000 and 2019. Data was collected through national registries. Temporal trends of ART use in pregnancy were evaluated. Logistic regression models were used to examine the association between ART use in pregnancy (regimen, PI-use, and time

of ART initiation in pregnancy) and other risk factors with different adverse birth outcomes (preterm birth, small for gestational age, intrauterine growth restriction, and low birth weight).

Results

In total, 589 pregnancies were included. The mean age at delivery was 33 years (95% CI 32.2-33.1). Most women were born abroad, with more than half of the women originating from an African country (58%), and most were diagnosed with HIV prior to conception (81%) and were well-treated with an HIV RNA <50 copies/mL at delivery (86%). In total, 65% (n=385) of the WWH were on ART at conception, which increased over time from 54% in the early study period to 75% in the late study period.

Combination treatment with a Nucleoside Reverse Transcriptase Inhibitor (NRTI) and a Protease Inhibitor (PI) was the most common regimen (96%). NNRTIs were the least commonly used drug class (26%) together with INSTIs. The proportion of women receiving INSTIs after 2008, when raltegravir was licensed, was 9% (33/370). An increase in INSTI-based regimens in pregnancy, especially dolutegravir (DTG) use, is seen in recent years.

In total, 118 (20%) women changed their ART regimen during pregnancy. Change was more common in women, who were diagnosed with HIV prior to conception (n=102 (86%)) than among women diagnosed with HIV in pregnancy (n=16 (14%)). ART regimen, PI use in pregnancy and timing of ART initiation in pregnancy was not significantly associated with odds of preterm birth, small for gestational age, or low birth weight. First-trimester initiation of ART was significantly associated with increased odds of intrauterine growth restriction in the multivariate analysis [adjusted odds ratio (aOR) = 3.78, 95% confidence interval (CI): 1.23-11.59], while first trimester PI use was associated with increased odds of IUGR in the univariate analysis only [OR = 3.24, 95% CI: 1.13-9.30]. Smoking, comorbidity, and maternal HIV RNA ≥ 50 copies/mL were independently associated with increased odds of adverse birth outcomes.

Conclusions

WWH living in Denmark are generally well-treated during pregnancy with NRTI+PI as the most common ART regimen used in pregnancy. Initiation of ART in the first trimester may be associated with poor fetal growth. The association between ART use in pregnancy and adverse birth outcomes may partly be explained by maternal risk factors. The technology appears safe, and this can be well integrated in the programme of the midwifery education.

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Conflicts of interest

EM reports grants paid to her institution from the Novo Nordisk Foundation and Gilead, outside the submitted work. TLK reports personal fees and grants from ViiV/GlaxoSmithKline, Gilead, CLS Behring and Baxalta, outside of the submitted work. NW reports personal fees from AbbVie, Merck Sharp Dohme, Gilead, Glaxo Smith Kline, outside the submitted

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Preeclampsia and antiphospholipid syndrome. Is there a relationship?

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Introduction

Antiphospholipid syndrome is a clinical autoimmune syndrome characterized by arterial or venous thrombosis and pregnancy pathology such as fetal loss after 10 weeks of gestation, recurrent miscarriage or intrauterine growth restriction.

Material and Methods

This study describes a case of preeclampsia in a 37-year-old primiparous woman at 30 weeks' gestation with no previous thrombotic history.

Results

The stillbirth and findings of placental thrombosis raised the suspicion of antiphospholipid syndrome, which was confirmed by the finding of antibodies in the mother's blood. The diagnosis and treatment are described below. In our case, placental tissue sections were stained and observed. Various placental changes were detected with the presence of placental intravascular thrombi. The most important finding of this case study was the presence of severe preeclampsia in the setting of antiphospholipid syndrome, with no previous medical history.

Conclusions

In conclusion, antiphospholipid syndrome can be directly related to preeclampsia during pregnancy and can lead to complications that can be prevented if there is immediate medical intervention.

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The role of midwifery experts in prevention of low back pain among pregnant office worker women with low back pain: A review

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Female office workers are a group of staff, who pregnancy is a part of their life and during or after pregnancy they will face with different kinds of pain, especially in lower back area. In this regards, midwifery experts can play a key role for giving practical suggestions to prevent from that kind of low back pain. In addition, they can teach the methods for pain relief during pregnancy. So, as there are not much reliable information in this regard, this review paper is trying to collect the available suggestions for this purpose. Based on

our analyses done among selected papers, it was confirmed that midwifery experts can play a practical role in teaching of mothers for prevention from dangerous behaviors prone to low back pain. In addition, they could be as a leader for suggestion of on time checkups useful for home based care. Their leads could be based on educational suggestions.

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Experiences and perceptions of women with gestational diabetes mellitus regarding antenatal care in Cyprus. Time to invest in midwives' educational programs

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Introduction

Pregnancies complicated by Gestational Diabetes Mellitus (GDM) are defined as high-risk¹ and previous studies have highlighted diabetes-related distress and depression². GDM management requires individualized approach for pregnant women and their families^{2,3}. Midwives in Cyprus lack standard guidelines and advanced educational programs to assist women effectively in GDM handling.

Material and Methods

This is a qualitative descriptive study conducted in Cyprus within 2020. After purposive sampling, ten (N=10) women with GDM and gestational age greater than 30 weeks, were included. Data were collected through social media via a semi-structured interview and analyzed according to thematic analysis as described by Braun and Clarke (2006)⁴.

Results

Experiences and perceptions of GDM women were classified into the following themes: 1)feelings aroused after GDM diagnosis, 2)maintenance of blood glucose levels, 3)family-related factors and 4)suggestions for respectful care. Women experienced anxiety, fear and panic when diagnosed with GDM. Healthcare professionals suggested lifestyle changes including eating habits, exercise and glucose monitoring but women reported inadequate guidance, support and education. Most participants stated that the most supportive person was their husband while healthcare providers did not meet their needs in terms of gentle diagnosis announcement and scientific information. Family contributed crucially on GDM management but changing eating habits, forcing exercise and controlling blood glucose in most cases was an unpleasant daily experience. Some women proposed mandatory antenatal classes for GDM prevention.

Conclusions

Antenatal care in Cyprus regarding GDM management needs significant improvement, especially in matters of empowering, counselling and educating women and their families. GDM requires a multidisciplinary approach, including midwives, and Cyprus needs to integrate advanced and continuing educational programs in postgraduate studies.

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The authors have no conflicts of interest to disclose.

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Midwives' experiences of traumatic birth in Cyprus

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Introduction

In the 21st century, research evidence justifies that maternity health professionals, particularly midwives may experience a birth as traumatic. Childbirth in Cyprus is highly medicalized and midwives as advocates of normal birth, face enormous difficulties to fulfil their professional role. Therefore, it is interesting to find more about midwives' experience providing perinatal care in Cyprus.

Aim

To explore midwives' experiences of traumatic childbirth in Cyprus and how this affects their personal and professional life.

Material and Methods

Qualitative design based on Husserl phenomenological approach. Following ethical approval data were collected through semi-structured interviews with a purposive sample of midwives (N=14) from September until December 2021. Data were analysed using Colaizzi's method.

Results

Data revealed three themes and interesting subthemes: 1) The nature of Traumatic Events, 2) Consequences of Traumatic experience and 3) Dealing with traumatic events. Some midwives become defensive and careful, in order to avoid a similar traumatic experience in the future, while some of the midwives develop symptoms of PTSD.

Conclusions

Midwives in Cyprus experience many traumatic events during childbirth and that negatively affect their professional and

personal life. Collegiality is important to survive from traumatic events and there is an urgent need for effective methods to increase resilience amongst midwives. More awareness must be created during basic and continuing education about decision-making power, and problem-solving.

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Unplanned out-of-hospital births: Stories about the competence of paramedics and midwives

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Introduction

This study was originally presented in a peer-reviewed research article published in the book 'Changing Work and Operating Environments in Education - 10 studies utilizing the method of empathy-based stories'¹ and carried out in accordance with the guidelines of the Faculty of Education and Culture, Tampere University, Finland. The purpose of the study was to discover the perceptions of midwives and paramedics who have assisted with unplanned out-of-hospital births during their careers and to identify the key factors that foreshadow a successful delivery. The study was grounded in the educational sciences, focusing on the informants' perceptions of the reasons behind the phenomenon, the required resources for childbirth, their views on professional competence and how it is developed in degree education, workplace learning, and vocational further education and training. There is currently limited research on Finnish paramedics' competence in obstetric care. The number of unplanned out-of-hospital births has tripled in Finland in recent years, and with the network of maternity hospitals becoming sparser, they may continue to increase further. Unplanned out-of-hospital delivery carries significant risks for both the person in labour and the newborn.

Material and Methods

The research data (N = 34) was collected from midwives (n = 12) and paramedics (n = 22) from four hospital districts and rescue departments across Finland. Using the method of empathy-based stories, the informants were presented with a frame story where they were asked to empathize with an imaginary situation and write a story based upon it. The variable element in the frame stories was whether the unplanned out-of-hospital birth was successful or unsuccessful from the professional's perspective.

Results

In some stories, the underlying cause of unplanned out-of-hospital births was the challenge of arranging childcare, which delayed the departure to the maternity hospital. In others, it was due to patient backlog and lack of resources after the centralisation of births to larger maternity units. In the remaining maternity units, they should take care not to easily turn away those who have travelled long distances to give birth. One of the key factors foreshadowing a successful unplanned out-of-hospital birth is the involvement of an experienced midwife. However, the midwives' professional competence in assessing the need for treatment over the

phone should be developed by midwifery education in the future. The paramedics' perception of their competence in obstetric care was twofold. Some informants felt they knew how to handle an uncomplicated unplanned out-of-hospital birth, while others felt it was a matter of survival or good luck. In the treatment of complicated childbirth, almost all paramedic informants felt that their competence was insufficient. However, paramedics recognized the limitations of their competence and wanted to develop further.

Conclusions

Patient safety can be improved through educational policy decisions and by developing the overall processes of unplanned out-of-hospital obstetric care. The results of this study encourage social debate in the context of the possibilities of social and health services or education and work organisations to develop the necessary professional competences and resources related to unplanned out-of-hospital childbirth and care. An operational concept based on dialogue is needed to develop maternity care providers' expertise and activity systems. This would ensure that a person who goes into unplanned labour outside a hospital can rely on the competence of the professional who will provide the necessary care for a successful birth.

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A survey on midwives/nurses' knowledge and application of clinical guidelines in the midwifery care of women with Female Genital Mutilation/Cutting (FGMC) in Nigeria

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Introduction

The WHO clinical guideline in managing women with FGMC has been published to support high-quality, evidence-based midwifery care. Midwives/nurses represent the primary providers of women with FGMC during pregnancy and childbirth and are critical to providing high-quality care reducing mortality/morbidity associated with the procedure. The correct application of guidelines limits serious obstetric consequences in women with FGMC. Therefore, the aim of this study was to assess midwives/nurses' knowledge of and application of the WHO guidelines in the care of women with FGMC.

Material and Methods

An online survey was conducted in September 2021 assessing the midwives/nurses' knowledge and application of the WHO guideline in midwifery care of women with FGMC across government-owned tertiary, state and primary healthcare facilities in Osun State, Nigeria. Ethical clearance was obtained from the relevant institution.

Results

A total of 352 midwives/nurses working in maternity units responded to the survey. Of the 333 valid entries, 57% have cared for more than ten women with FGMC in this order: Type II 28%; Type I 27%; Type III 22%; Type IV 1% and 22% were unsure of the type. About half (52%) had no knowledge of the WHO guidelines. Over 73% (n=259) of the sample did not apply the WHO guideline in practice, and 20% declared using a different guideline. The different guideline referred to by the midwives/nurses were a combination of factors considered during care, such as wound dressing, religion, health education, counselling, and clinical experience.

Conclusions

Knowledge and application of clinical guidelines in the care of women with FGMC in Osun state is suboptimal. This study recommends adaptation and implementation of the WHO guideline to support standardisation of care while addressing potential barriers and facilitators that can influence the uptake of guidelines in the different healthcare facilities. There is an urgent need to develop and disseminate clinical guidelines amongst midwives/nurses providing midwifery care for women with FGMC in Osun state.

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The authors have no conflicts of interest to disclose.

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Equipping future professionals in supporting pregnancy, childbirth, and parenthood with a physical disability

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Background

Women with a physical disability have a higher risk of maternal and neonatal complications and often face problems of a practical nature. It is important to support these (future) parents during pregnancy, childbirth, and during (the transition to) parenthood. The attitude of professionals during these processes is crucial: autonomy in the parental role is experienced as very important.

Unfortunately, (future) professionals often lack knowledge about how to prepare for pregnancy, childbirth, and parenthood of women with a physical disability, possible complications, and the needs of these women and their partners. This lack of knowledge and the negative attitudes of caregivers limit the autonomy of these women.

Aim of the module

Therefore, we developed a multidisciplinary module for students midwifery, occupational therapy, nursing, and physiotherapy. The aim of the module is to increase future professionals' awareness of becoming pregnant, being

pregnant, giving birth, and becoming a parent with a physical disability and to adequately equip these professionals in providing care to these women. Students gain insight into their future roles and into the needs of women and their partners that face a physical disability.

Content of the module

During the module, various experts - women with a physical disability and professionals - discuss with the students concerning this theme and give insight into their field of expertise. Also, students work in multidisciplinary groups on an assignment. The result is presented by the group at the end of the module.

Application to practice and education

The module anticipates to the philosophy of midwifery care that is based on the ethical principles of justice, equity, and respect for human dignity. Adequately equipping future professionals, including midwives, through education is crucial in improving care for pregnant women with a physical disability. Specific attention is needed to improve knowledge and gain insight into the wishes and needs of pregnant women and their partners.

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Is there a role for midwifery education to improve the knowledge and attitudes of Greek midwives on gender equality and reproductive health rights of members of the LGBTQ community?

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Introduction

LGBTQ populations face significant social stigmatization, discrimination, and marginalization and are susceptible to healthcare disparities. LGBTQ health issues and sexual and reproductive healthcare are inextricably linked because they both involve individuals' autonomy in their most intimate decisions. Unfortunately, LGBTQ people experience major disparities in sexual and reproductive healthcare and worse health outcomes than the population overall¹.

Material and Methods

A literature search was performed with use of PubMed, Scopus and Google Scholar in order to identify published data over the last ten years related to the role of midwifery education in taking steps to provide tailored, appropriate and lifesaving reproductive health care for LGBTQ people.

Results

Several studies show that many healthcare professionals lack the significant knowledge, skills, and cultural competencies needed to provide high quality LGBTQ care² Evidence suggests that healthcare professionals continue to receive little or no training to prepare them to manage this vulnerable population. There is scarce data on pre-registration midwifery programs. Studies involving medical students show that although most medical students already show favorable attitudes towards

LGBTQ people, their knowledge on LGBTQ health needs is in average level and educational interventions help enhance it to a significant extent³. The results of two unpublished studies on members of the Greek LGBTQ community also verify similar findings in Greece. The Midwifery Department of the International Hellenic University, which is the second largest of the three public midwifery departments in Greece, only recently in 2019 added an undergraduate education module concerning vulnerable population health issues. Even in countries where midwifery education is more robust on equality-diversity awareness issues, studies show that academics need more support and tools to prepare and deliver LGBTQ health content to student midwives⁴.

Conclusions

Though Greece is one of 17 countries in the OECD that have the most legal protections for sexual and gender minorities⁵, nevertheless there is still a long way in achieving gender equality in this country. As evidence shows midwives ultimately have the potential to improve the experiences of LGBTQ people when accessing healthcare, therefore the midwifery pre-registration programs need to adapt, develop and implement curriculums addressing LGBTQ health. The curriculum needs to target specific learning aims and outcomes, such as training midwives on how to provide to Greek same-sex couples the same access to reproductive counselling and assisted reproductive technology.

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Independence of midwives in a therapeutic team - a midwife as a coordinator of the patient's stay at St. Sophia Hospital in Warsaw, Poland

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Introduction

The professional training of a midwife in Poland is regulated by law and system. The profession of midwife is an independent and fully settled profession. The midwife education system in Poland prepares graduates equipped with numerous competences. Unfortunately, the health care system, both closed (hospital) and open (environmental and family care), does not use the numerous competences of midwives, does not notice them, and even limits their actions.

St. Sophie Hospital in Warsaw (Poland) is one of the few units that has been breaking the clichés for many years in favor of a modern model of work organization, management and patient care, taking into account the midwife's independence and the use of their competences.

The aim of the work is to present a project entitled "Midwife - coordinator of the patient's stay" - its assumptions, the process of implementation, development, evaluation and changes. The main objective of the project is to use the midwife's competence and independence in organizing the work of the obstetrics ward.

Material and Methods

The project was started on 01/10/2021. The implementation of the project was proceeded by multi-stage analyzes concerning the characteristics of patients under the independent care of midwives, the scope of midwives' tasks, organization of work in the ward, principles of cooperation with the medical team, keeping medical records. In the course of the project these methods were used: the methods of direct observation, participant observation, analysis of medical records, focoused group interview and individual interviews. The project covered two hospital wards: maternity ward A and maternity ward B located in the St. Sophia Hospital in Warsaw.

Results

The core of the project was to provide independent midwife care to healthy postpartum women and newborns- from the moment of admission to the ward until discharge home. The final assumption is the lack of medical consultation in a situation where the well-being of the mother and the child is secured by a midwife (physiological postpartum). The midwife admitting the mother and the child to the ward collects data, recognizes their condition, plans and implements care, monitors the health condition, orders examinations, consultations, and medications if necessary. Prepares the patient for discharge home, educates her, prepares documentation and discharges the patient home. Consultation with a doctor (or other specialist) is possible at the request of a midwife or at the explicit request of the patient (which does not happen). Initially, the project raised many concerns in the community of senior midwives. The most important of them is the fear of new duties (so far carried out by doctors) and of responsibility. The graduate and multi-stage implementation of the project was aimed at

reducing midwives' fears, enabling them to adapt to changes, identify with the project and finally undertake new tasks independently and actively. The strength of the project was the integration of the environment of doctors and midwives, who jointly undertook tasks, educated each other, consulted and made decisions.

Conclusions

The systemic definition of the midwife's role as an independent specialist in the care of the mother and the child in the postpartum period allows for the maximum use of her competences, strengthens her professional position and increases the quality of care. A patient in such a care system is provided with individualized and comprehensive care, a sense of security and educational support. Such organization of work is also beneficial for public finances - the care of a gynecologist is directed only to patients whose health condition requires it. All others are within the competence of the midwife.

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Learning innovative expertise through business cooperation

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Introduction

Today, higher education must provide a wide range of competences in the development of sectoral expertise and skills, but also in generic skills, such as critical thinking, problem-solving, evaluation of information sources, reasoning, interaction skills, and writing. In the Multidisciplinary innovation project studies in Metropolia University of Applied Sciences, students meet their fellow students from different fields of study and together they are given different challenges from working life e.g., through business cooperation, to solve. The aim is that after completing the course, the students are able to utilize their competence in developing innovative solutions, operating methods, products or services with multidisciplinary actors that respond to the diverse needs and current challenges of the future.

Material and Methods

Twenty-two Metropolia's students of midwifery, nursing, radiology, physiotherapy, social services and biomedical laboratory technologists, received the project challenge by Metropolia's working life partner Siemens Healthineers. The challenge was to organize an event for the company's personnel in the Nordic and Baltic countries with the theme of inclusivity and diversity in the work community. The event was designed to be hybrid, so it could be followed both on Metropolia's Myllypuro campus and remotely via Zoom.

Results

Almost 100 Siemens Healthineers' employees participated to the Diversity Day event. The event was successful and rewarding in terms of content and arrangements. Feedback was collected from those participating to the event and almost

all of the respondents, 93.1%, found the event interesting and meaningful. The majority, 83.8%, felt that the program met their expectations and the majority, 76.8%, also felt that they had gained new tools for the daily encounter with diversity. The students were also very satisfied with the event and the Multidisciplinary innovation project studies.

Conclusions

Multidisciplinary innovation project studies promote and strengthen students' working life skills and competence needed in today's world.

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None of the authors have any conflicts of interest relating to this abstract.

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Long-term effects of an interprofessional training on identity formation in midwifery

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The importance of interprofessional identity (IPI) in healthcare education is increasingly acknowledged, as it aims to incorporate interprofessional competencies into students' professional identities („being interprofessional“)^{1,2}. This study aimed to investigate the long-term effects of interprofessional training on the IPI of midwifery students. During the winter semester of 2022/23, a four-hour interprofessional training session was held, where 24 first-semester midwifery students (all female, mean age = 21 ± 2 years) and 18 second-semester medical students (17 female, 20 ± 1 years) at the Westfälische Wilhelms-University in Germany collaborated in interprofessional tandems. They assigned themselves unique names and competed against one another by completing eight stations of anatomical case studies, playing “hormone memory,” and engaging in discussions on embryology models, among other tasks. The students were in charge of task allocation and documentation, and the training concluded with a meal where they networked and shared their healthcare experiences. After three months, the long-term effects of the training on IPI were evaluated using the Interprofessional Socialization and Valuing Scale (ISVS, $\alpha = .67$) and other intergroup contact-related items³. The control variable, professional identity, was measured using the Professional Identity Scale (MCPIS, $\alpha = .73$), along with a written essay. While qualitative and quantitative data analysis is still pending, preliminary data suggest that the training had positive long-term effects on the midwifery students' IPI. Overall, this study is the first to demonstrate that brief interprofessional training sessions have long-

term effects on the integration of interprofessionalism into the professional identity of midwives, providing resource-friendly opportunities for comprehensive implementation of interprofessional teaching activities into midwifery curricula.

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Equipping Dutch clinical midwives: The physician assistant education program

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In the Netherlands, clinical midwives provide comprehensive care to high-risk patients during pregnancy and labor. The obstetric system in the Netherlands is based on the principle that pregnancy and childbirth are physiological processes. Community midwives work autonomously to supervise low-risk pregnancies and childbirths, but patients with potential risks are referred to hospitals, where they are taken care of by clinical midwives or gynecologists. Clinical midwives usually work under the indirect supervision of a gynecologist and their tasks and responsibilities vary widely between hospitals. Although clinical midwives work in a hospital setting with high-risk patients, their educational background is similar to community midwives assisting uncomplicated pregnancies and births. As a consequence, their education might not be sufficient for their current tasks, responsibilities and position. In response to a growing demand for healthcare providers who can work collaboratively with physicians and other healthcare professionals, the first physician assistant (PA) education program in the Netherlands started in 2001. This program was designed to provide students with a broad range of medical knowledge and clinical skills. Since then, the field has grown rapidly. The Rotterdam University of Applied Sciences was the first institution in the Netherlands to offer a PA track specially aimed at clinical midwives. The program is a 30-month (150 EC) education program that combines on-the-job training and a teaching program at the University.

Clinical midwives receive specialized training in obstetrics, gynecology, neonatology, general medicine and clinical skills. In addition the program focuses on understanding and performing scientific research, developing critical thinking, communication, project management, education skills, and leadership skills. All of these are essential for midwives to function effectively in a complex healthcare environment.

The program was evaluated in 2016 and 2017. The evaluation involved analyzing 119 end assessment reports and administering a digital questionnaire to 156 PA clinical midwives. The findings demonstrated that PA clinical midwives make a significant contribution to the quality of care on multiple levels within the integral birth care system. They demonstrate independence and initiative in complex care situations, and they are able to take a broad view of the situation. In addition, PA clinical midwives contribute significantly to quality-improving committees¹.

Looking to the future, the PA education program for clinical midwives will need to continue to evolve to keep pace with changes in the healthcare system. This may include incorporating new technologies, addressing disparities in care, and adapting to new models of care delivery. For example, a new project called “making big data meaningful for the first 1000 days” has recently started, and we believe that it might be crucial for the future PA to cope with big data and know how to translate information from big data to clinical practice. Furthermore, we intent to place significant emphasis on the enhancement of personal development and leadership skills among students. Our aim is to equip them with the competencies required to effect changes in their daily practice, and to ensure that clinical midwives are adept at delivering the highest quality of care to their patients in the present and future.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Field lab mama’s garden and daddy’s place

Improving the social network of (future) parents and the learning environment for students in Rotterdam, the Netherlands

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Background

The health, behavior, social context, and living environment of future parents play an important role in the development

of their unborn child and have great impact on the health and development of their children after birth. Women who live in more vulnerable circumstances have a higher risk of perinatal and maternal morbidity and mortality and their children more often face learning and behavioral disorders, diabetes, and cardiac diseases later in life. Specifically for these families, it is essential to improve their social environment and to facilitate interventions that contribute to prevention.

Aim of Field Lab

We developed a prototype, a field lab, that aims 1) to equip future professionals in communities for this job and 2) to support (future) parents in improving their social network and to support them during (the transition to) parenthood.

Methods and interventions

Field Lab Mama’s Garden and Daddy’s Place is a community in Rotterdam, in which (future) parents and families, together with local government, educational institutions, research institutions, and social and health care professionals contribute to prevention, to improving the social network and the living environment of (future) parents, and to equipping (future) professionals.

The Field Lab does this by organizing (live and online) meetings with parents in which they focus on needs and talents of (future) parents and families. Above that, the Field Lab is an interactive learning environment for students from different levels of education (including midwifery and maternity care) with room for innovation and experiments.

The main focus lays on empowerment and self-management of (future) parents and future professionals. Students, as future professionals, work as trainee, are involved via a project, or perform research as part of a minor program. Students can also become a buddy for mothers who could use some extra support in familiarizing themselves within the neighborhood and the city. Students from various study programs work together and learn to collaborate and to be part of the community. Experiences of students, professionals, and parents are evaluated via interviews.

Presentation

During the presentation we present methods, interventions, and their impact on 1) the social network of (future) parents, 2) equipping future professionals, and 3) transformation of healthcare. We will outline working elements: what does work and what does not work. Also, challenges regarding sustaining and upscaling will be discussed.

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Promoting mentoring support and development: Views and benefits of an iMentor network

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Introduction

A variety of strategies have been proposed to support students' dropout and successful completion in higher studies. Mentoring support is a critical element of comprehensive intervention strategies. An iMentor network had been established through an innovative project called "UMBRELLA" that was developed in the context of the Operational Programme «Human Resources Development, Education and Lifelong Learning 2014 – 2020» of the International Hellenic University, for the provision of individualized help and guidance at an academic, social and emotional level to students who belong in 'sensitive' social groups. At the undergraduate level, mentorship typically involves support functions as psychosocial-emotional support (i.e., counseling, guidance, and encouragement), instrumental support (i.e. skill development through assistance on challenging tasks and opportunities for advancement), or coauthoring experiences (i.e. collaborative presentations or publications of research). Mentorship can also involve role modeling support serving as an inspiration and example of success. iMentor network acted on a person-centered level basis, as a pool of volunteer's senior students of the Alexander campus of IHU who had offered individualized help and guidance at an academic, social and emotional level to students in need through physical communication and e-services throughout their studies. These students have been trained by experts to acquire counseling skills, basic interpersonal skills, personal and work improvement practices, etc. prior to supporting students from sensitive groups. The aim of this study is to present the experience and the benefits derived through the participation of Midwifery Department which joined UMBRELLA project.

Material and Methods

Data had been collected from 2019 to 2022. Fourteen (14) volunteered students of Midwifery Department (out of 180 IHU students) participated in the iMentor network. There have been conducted interviews where the mentors mentioned their views and level of satisfaction for the training seminars and their interaction with the students in need. The responses were analyzed using content analysis. In terms of ensuring reliability in the categorization of texts, coding was performed separately by two researchers. The overall agreement rate between the two researchers in categorizing all responses was 84.2%.

Results

The students' feedback regarding their involvement in the iMentor network was highly positive. The students emphasized that they felt empowered and gain moral satisfaction by supporting their protégés who were at risk and vulnerable. Moreover, they admit that through the training they have received from the experts of the Umbrella structure, they acquired important counselling & communications skills and they recorded in their CV an important voluntary social activity. Specifically, the benefits were: (a) Moral satisfaction, (b) Emergence of solidarity, (c) volunteering, (d) acquiring new counseling skills /knowledge, (e) skills for personal improvement, (f) acquisition of new acquaintances/ friendships.

Conclusions and further research

The importance of the existence of an i-Mentor support model allows the development of an individualized support approach. The personal communication of the i-Mentors

with their protegee students and the ability of an i-Mentor to understand the personality, the specific needs, the abilities and the skills of the vulnerable students, will allow the provision of targeted support that cannot be achieved through the traditional or non-individualized counseling services. A further research aim can be to utilize and evaluate the i-mentors participation after the completion of their studies. It is considered particularly important to transfer their experience and know-how to the new i-mentors who will join in the UMBRELLA structure.

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Reliability and validity of multiple mini interviews in selection to a dual degree midwifery program in Germany: a cross-sectional cohort study

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Introduction

The multiple mini interview (MMI) method was implemented and evaluated for a degree program in midwifery at one German university for the first time in 2022. In addition to the grade of the university entrance qualification (UEQ), personal attributes and psychosocial competencies were recorded as further selection criteria¹ enabling a more objective and fair assessment of personal suitability compared to traditional selection interviews². Broadly established in medicine^{3,4} and nursing⁵ internationally, MMIs consider professional aptitude^{6,7} according to clinical training facility requirements and avoid solely merit-based selection⁸ in the course of academizing midwifery in Germany.

Objectives

The aim was to explore reliability, factorial and incremental validity and consider professional aptitude with undergraduate entry midwifery students. The MMI was designed to achieve best fit with program-specific requirements and promote an inclusive selection process fostering diversity in midwifery students.

Methods

In May 2022, 56 applicants were assessed in a six station MMI by examiners from different professional backgrounds. Structured questions designed to explore personal characteristics and interaction with simulated patients in practical tasks were evaluated based on checklists with semantic differentials and global ratings. An accompanying

survey recorded participants' sociodemographic data, individual motivation and self-reported personality traits according to big five inventory⁹. Test quality was examined by means of reliability analysis, factorial validity confirmed using maximum-likelihood factor analysis¹⁰. Incremental validity of the MMI stations in relation to the grade of UEQ and differential effects due to individual characteristics were considered correlatively.

Results

Reliability analysis was good to excellent for all parameters (internal consistency $\alpha = 0.79-0.94$, corrected item-total correlation $r_{it} = 0.46-0.77$ and absolute difficulty $p = 0.72-0.79$). The factorial validity of MMIs and incremental validity for the practical stations was confirmed. Personal characteristics did not correlate with performance. The MMI results clearly impacted on final selection decisions: 68% of places were offered to candidates who would not have been considered based on their high school grades alone.

Discussion

To promote equity and social justice in the health care workforce, unbiased admission policies are required^{11,12}. Student selection criteria reflecting societal diversity¹³ can enable inclusive and faire recruitment for future midwives¹⁴. By widening the recruitment funnel, the educational system can proactively contribute to a diverse and competent future workforce.

Conclusions

Multiple Mini Interviews increase dimensionality in the selection of students for dual degree midwifery programs and allow the inclusion of psychosocial competencies and practical skills in the process. Diversity within the profession can be promoted by widening the applicant tool. The selection process also reflects the institutional values and paves the way for a bond between location and student.

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Artificial intelligence and digital twins in simulating pregnancy

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Introduction

Taking precautionary measures is of particular importance in midwifery allowing midwives as well as pregnant women to prevent unwanted and difficult situations. The AI-based digital twins technology can be used to represent personalised knowledge pertaining to a woman's medical, psychological, social environment status, thus facilitating preventive problem solving through a pregnancy period. This research aims at developing digital twins for pregnant women in order to simulate women profiles, investigate scenarios regarding the development of a pregnancy and assist in suggesting taking the necessary measures. Additionally, the digital twins models can be used for educational purposes allowing midwifery students to evaluate their knowledge and calibrate their skills.

Material and Methods

This study collects data from a group of 600 pregnant women in Greece. The data was collected in two phases. The group of women was randomly split into two groups. Then, phase 1 was carried out through semi-structured interviews that allowed group 1 women to express their expectation, concerns, problems, etc., regarding their pregnancy. During phase 1, a group of 35 were interviewed. Phase 2 involved the administration of a questionnaire which was developed considering the results of the interviews and it was delivered to the group 2 women. The study satisfies the requirements of GDPR, thus the women who agreed to participate in the study had earlier provided their consensus for collecting and analyzing their data. Fuzzy logic and clustering methods were used to analyse the data and develop the digital twins. Scenarios investigated and analyzed using the digital twins were evaluated for their credibility, by calculating accuracy measures as well as by consulting field experts, such as gynecologists.

Results

The results identify several features, such as macrosomia, depression, Body Mass Index that contribute to developing a highly personalized digital twin model. Aspects of the medical, social and psychological dimensions of the pregnant women profile are extracted and used for developing a digital twin to predict risks e.g., related to pre-eclampsia, anxiety, etc. Results indicate the potential of using digital twins for preventive problem solving as well as for educational reasons.

Conclusions

The proliferation of AI applications in many other domains spawn new opportunities for applying AI innovative methods in midwifery. This study suggests that digital twins represent a promising technology for facilitating several aspects pertaining to pregnancy such as supporting risk assessment, women profile assessment, students training, etc.

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Evaluation of pregnancy's attitudes to sexuality

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Aim

This study was conducted to find out the attitude of pregnant women towards sexuality.

Material and Methods

This study with descriptive design was conducted with 290 pregnant women who registered in a Health Practice and Research Center in a province in the Black Sea region between May and November 2022 and agreed to participate in the study. Data were collected using the "Socio-demographic information questionnaire" and the "Attitude towards Sexuality in Pregnancy Scale". The number, percentile distribution,

mean, standard deviation, "t-test for independent groups", "Anova analysis of variance" and "Tukey post hoc" test were used to evaluate the data.

Results

The mean age of the pregnant women in the study was found as 28.15±5.01. Considering the sub-dimensions and the total score averages of the attitude towards sexuality during pregnancy scale, it was found that 30.49±7.70 points were obtained for the sub-dimension fear of sexual intercourse during pregnancy, 38.62±7.86 points for the sub-dimension beliefs and values regarding sexuality during pregnancy, 44.46±9.15 points for the sub-dimension affirmation of sexuality during pregnancy and 113.58±18.45 points for the total scale score. It was found that 51.7% of pregnant women had positive attitude towards sexuality.

Conclusions

Although half of the pregnant women who participated in the study had a positive attitude towards sexuality, it was found that approximately the other half had a negative attitude.

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A qualitative study on episiotomy repair training of midwifery students with beef tongue

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Introduction

Since the theory and practice should be done together and in an integrated way in the professions that provide health services, it is much more important that students learn by experience in vocational training in this field. In recent years, it has become inevitable to focus on simulation training in order to teach clinical skills to students. Opening and repairing episiotomy is one of the practices demonstrated in midwifery education. It is known that there are various alternatives such as episiotomy simulators, sponge, banana peel, chicken or beef tongue in order to improve students' practical skills in episiotomy training given to midwifery students. There are a limited number of studies on the effectiveness of these methods used in episiotomy training. In this study, it was aimed to qualitatively evaluate the opinions of midwifery students about episiotomy repair training with beef tongue model.

Material and Methods

Research data; In this study, the opinions and feelings of third-year midwifery students studying at Amasya University, Faculty of Health Sciences, about episiotomy repair training using beef tongue were investigated by qualitative method. The data of the study, which was conducted as a phenomenological approach of qualitative research methods, were obtained by conducting in-depth interviews in line with the semi-structured interview form created by the researchers, before receiving episiotomy training, after receiving theoretical training, and after receiving practical training, and by taking voice recordings. Post-transcriptional data was subjected to content analysis

without any digitization concerns. Data saturation was taken into account in the number of participants included in the study, and data saturation was reached after the interview with 40 students. In this research, the phenomenological approach of qualitative research methods is used.

Results

As a result of in-depth interviews, the information collected from the students was grouped into three categories; Before episiotomy training, after theoretical training and after practical training. Among the prominent themes are “Before the application, the students perceived episiotomy as the only surgical procedure they could do while performing their profession and this made them feel both curiosity and anxiety” and “They thought this application as something that could be achieved during the laboratory application, and at the same time they found it close to living tissue, experience fear and anxiety” such findings. Among the prominent themes, “before the application, perceiving episiotomy as the only surgical procedure they can do while performing their profession makes, feeling both curiosity and anxiety” beside it there are findings such as “Thinking of this application as something that can be achieved during the laboratory application, at the same time finding it close to living tissue, experiencing fear and anxiety”. When the post-practice experiences of the students were examined, it was seen that “self-confidence, sense of achievement, professional belief” were among the emerging themes. In addition, it was determined that the codes created from the students’ responses for the use of beef tongue were frequently repeated with the concepts of “satisfaction, not harming women, finding it fun and instructive, being satisfied, finding useful and the concept of the suitability of the method”. It is possible to state that the negative content codes regarding the use of beef tongue are determined as “cost, hardness, smell, drying”.

Conclusions

With this research, it has been concluded that it is possible to express the use of beef tongue as an alternative method for the development of episiotomy skills of midwifery students. At the same time, it is thought that determining the advantageous and disadvantageous aspects of the use of this method in midwifery education will contribute to the literature since it is a method-specific situation determination.

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The authors have no conflicts of interest to disclose.

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The effect of antenatal education on expectant fathers’ attitudes toward breastfeeding and attachment to the fetus

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Introduction

The aim of this study is to explore the effect of antenatal education on fathers’ attitudes toward: (i) breastfeeding and (ii) attachment to the fetus. A secondary aim is to explore the relationship of fathers’ demographic and the psycho-emotional characteristics that come with breastfeeding and attachment.

Material and Methods

This is a longitudinal study involving a group of 216 Greek expectant fathers who participated with their partners in an antenatal educational program performed by midwives in Athens, Greece (September 2020–November 2021). The Iowa Infant Feeding Attitudes Scale (IIFAS) and Paternal Antenatal Attachment Scale (PAAS) were administered at two time points: (a) 24th–28th gestation week and (b) 34th–38th gestation week. The T-test and Univariate Analyses of Variance (ANOVA) were performed.

Results

The expectant fathers’ scores show that breastfeeding intention/exclusivity and prenatal attachment to the fetus were higher after their participation in the antenatal education program, but the difference was not statistically insignificant. Expectant fathers with a cohabitation agreement ($p = 0.026$) and the private-sector employees ($p = 0.016$) seemed to have greater paternal antenatal attachment. The men who felt very much supported by their partners reported greater paternal antenatal attachment compared to those with moderate or no support ($p = 0.001$) and the participants who had no relationship difficulties showed greater paternal antenatal attachment to the fetus. Regarding prevalent emotions during pregnancy, those who reported being very happy ($p < 0.001$) and those who had experienced no feelings of sadness during pregnancy had greater paternal antenatal attachment.

Conclusions

Although the difference was statistically insignificant, the expectant fathers’ scores, which show breastfeeding intention/exclusivity and prenatal attachment to the fetus, were higher after their participation in the antenatal education program performed by midwives, compared to their scores at the beginning of the program. Also, this study presents some factors, such as the emotional support from partners and the absence of relationship difficulties that were associated with increased rates of paternal antenatal attachment to the fetus. Given the value of the fathers’ role during breastfeeding, future research should be directed toward the identification of factors that impact the expectant fathers’ attitudes toward breastfeeding. This research highlights the role of midwives in the greater involvement of fathers in antenatal education which can potentially lead to higher rates of breastfeeding and antenatal attachment. In addition, further research is needed to determine additional factors that may affect paternal antenatal attachment during pregnancy like the number of children they have and the period of trying to conceive.

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Keeping new families together after birth – A multidisciplinary training initiative to

facilitate neonatal transitional care

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Introduction

Keeping every new baby with their mother after birth is an undisputed international goal. Neonatal transitional care is an increasingly important concept whereby babies with additional care requirements are supported to stay with their mothers who remain their primary care givers as opposed to being managed in a neonatal unit. Successful implementation has the potential to prevent thousands of avoidable neonatal admissions, reduce length of stay by engaging and empowering parents earlier and reduce postnatal readmissions through education and proactive risk identification. Essential to the successful implementation of NTC however is effective joint working between midwifery, neonatal nursing and paediatrics, and training of all frontline staff to ensure everyone caring for these families have the required knowledge, skills and confidence to deliver this service and keep these babies safe. We describe a joint-led neonatal and midwifery NTC educational program which is the first of its kind to be developed and delivered nationally across England to our knowledge, aimed at equipping staff working in postnatal clinical environments with the skills required to facilitate the rising demand for delivering NTC services.

Material and Methods

The project involved analysing the current learning needs of frontline staff and creating a tailored digitally delivered NTC study day in partnership with the multidisciplinary team. This was subsequently delivered to 295 frontline healthcare professionals from across 19 NHS trusts. Staff's self-reported confidence in managing a range of NTC scenarios were recorded before and after the intervention, whilst waiting for training in a delayed intervention group to assess for confidence changes without intervention, and 12 months after the intervention to assess for retention of benefit.

Results

A total of 295 healthcare professionals were trained from 19 NHS trusts across England through 6 NTC study days run between January 2022 and February 2023. Overall confidence in working in NTC increased by +1.8 points on a 5-point scale. Learning needs were met or exceeded for 99% of attendees and participants ranked the usefulness of the training day as an average of 9.4 on a 10-point scale. Across all participants where pre and post course surveys were completed in full (n=198), the scenarios where the intervention saw the greatest increase in confidence ranking included managing babies with neonatal sepsis (+2.2), being first on scene to a sick neonate (+1.8), preventing postnatal collapse (+1.8), managing babies with nasogastric (NG) tubes (+1.8), managing late preterms (+1.7) and managing babies with underlying paediatric conditions (+1.7). Of the 54 participants followed

up 1 year after intervention, confidence levels for managing all NTC scenarios remained within a +/-0.3 points average on a 5-point scale to the post course results, and 100% felt such training should be mandatory for all frontline staff looking after babies requiring NTC.

Conclusions

Taking a multidisciplinary approach to designing and delivering training interventions for areas where integrated working is crucial to care is essential. A targeted jointly delivered NTC study day can be an effective tool for increasing frontline staff's confidence in safely managing these babies and should be mandatory for all staff working in postnatal clinical environments.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Understanding the place of practical wisdom in healthcare: a review

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EBM generates a proliferation of guidelines and recommendations targeting health practitioners that are expected to "apply" them. There is a valorisation of standardization of care. In their daily practice midwives are facing two different important professional paradoxical injunctions: following guidelines/protocols and also providing a woman centered individualized care. Midwives are in a field of ethical tensions. How to take the most appropriate decision for the patient? How can we demonstrate a good quality of care? In the past years there was a number of publications promoting the importance of more practical wisdom or "phronesis" in health care practice. A review of literature on the subject was undertaken and 37 papers were selected to answer the main question: how can we understand the meaning of practical wisdom (or phronesis) and its place healthcare practice? Can practical wisdom be learned, taught, developed and cultivated? We will develop the main findings of our review, highlighting the fundamental place of professional judgement in midwifery profession. It is a question of using discernment and deliberation in order to decide the best action for the good of a unique person in a context of care. We will see the importance of a reflexive practice in clinical places as well as using narratives of experiences to learn discussion and reflection during the undergraduate period. In all context of care practical wisdom can help midwives to use the strengths of EBM AND to have a woman centered care. Practical wisdom is also seen as a mean to flourish as professional.

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Sustainability in midwifery work - Development of a curricular element for midwifery primary training and further education

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Introduction

Over the past decade, midwifery training in Germany has undergone a process of change and development. Since 2020, midwifery training has to be performed at University level, with the obligation to develop a study curriculum following competences specified in the law¹. Those competences include a variety of midwifery expertise covering pregnancy, labor and postpartum care, always referring to women's and families' special needs and resources. This offers the chance of focusing also on aspects of planetary health and climate change as they affect women's and families' health intensively.

Material and Methods

The object of this work is to demonstrate the development of a curricular element for midwifery primary training and further education studies with a concentration on sustainability and planetary health in midwifery work, following the competences from midwifery law texts in Germany.

Results

A module is presented that aligns with 10 European Credit Transfer System (ECTS) points in the curricular frame of midwifery training programs on Bachelor or Master level or in further scientific education. Since sustainability in midwifery work has not been part of the midwifery curriculum so far, there is a need for further education for all midwives. Therefore, this module is universally applicable.

It comprises elements about planetary health education and literacy all over, with differentiations leading to counseling and escorting women and families regarding questions of sustainability and health along the whole continuum of pregnancy, childbirth and postnatal care. Topics covered include, for example, nutrition and breast-feeding, care products, and equipment. Students will learn about shared-decision-making processes and evidence-based counseling regarding planetary and individual health (climate-sensitive health counselling²), while keeping an eye on individual needs and possibilities of each family. Furthermore, the midwife's own working process will be analyzed, looking for possibilities to contribute to sustainability in maternity care settings.

Conclusions

Through the implementation of the developed curricular module, midwifery students and midwives in further education will gain a clear understanding of the connection between planetary health, climate change, and midwifery work. This will enable them to effectively integrate these topics into their everyday work, contributing both to environmental sustainability and the health of women and families.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Factors that enhance midwifery students' learning and development of self-efficacy in clinical placement: A systematic qualitative review

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Introduction

Midwifery students work and are assessed under direct supervision of the Registered Midwife or preceptor in clinical placement. This learning and teaching partnership aims to enable the transfer of knowledge, skills, and behavior, i.e., competence, while providing the opportunity for students to develop self-efficacy and become socialized into the midwifery practice culture. Self-efficacy is the belief in one's ability to master challenges, which is described as a component in learning theories. Qualitative systematic research was conducted to explore the significant factors that enhance midwifery students' learning experiences and development of self-efficacy in clinical placement.

Material and Methods

- Database search,
- Primary peer reviewed qualitative literature published between 2000 and 2021
- Result 354 studies: 22 studies met the inclusion criteria
- A systematic review, thematically analyze according to Thomas Harden 2008

Results

Results was described in two descriptive teams as 'A nurturing relationship' and 'Predictability in the learning process, contextual factors, and one analytic theme – 'Gaining access to and belonging in an enabling educational and working culture'".

Conclusions

The relationship with the preceptor is a prerequisite for midwife students learning process and achievement of self-efficacy. A learning culture appears to be the fertile ground in which midwife students thrive and where they develop the self-efficacy needed to meet the demands of clinical placement.

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Structured contraceptive counselling- a workshop for student midwives and clinical midwives focusing on informed decision-making on contraceptive Methods

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Introduction

The midwife program in Norway is a 2-year post-graduate

master's program. Students receive their right to prescribe and administer contraceptives for all women after graduation. There is a need to address women's sexual and reproductive health and rights and heighten women's informed decision-making in contraceptive counselling. Therefore, in this workshop, we invited clinical registered midwives with the student midwives cohort to introduce an evidence-based structured counselling module.

Material and Methods

The four days' workshops took part in the second semester, and addressed, among many topics, different types of contraceptives. The last part of this week consisted of the structured counselling module, developed, and tested by researchers in the LOWE trial in Stockholm, Karolinska, with promising results. We followed this evidence-based program by viewing an e-module lecture by PhD Niklas Envall. Then we were digitally guided through the program. Finally, the participants simulated a counselling session using the questions and tools described in the LOWE study.

Results

This workshop was highly rated as significant for student midwives and midwives in gaining competence in informed decision-making processes through an evidence-based program.

Conclusions

The participants rated the simulation of structured contraceptive counselling as essential to enhancing the competency of informed decision-making about contraceptive methods.

Conflicts of interest

The author has no conflicts of interest to disclose.

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Evaluation of doctoral thesis studies in the field of midwifery in Turkey

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Introduction

The aim of this study was to evaluate the content and scope of doctoral dissertations in the field of midwifery in Turkey.

Material and Methods

The study was a retrospective descriptive study. Theses conducted in the field of midwifery between 2012, when midwifery doctoral education started, and February 2023 were scanned. A search was made by selecting the type of doctoral thesis "Department of Midwifery" from the detailed search engine of the Thesis Center of the Council of Higher Education (<https://tez.yok.gov.tr/UlusalTezMerkezi/>). As a result of the search, the theses were downloaded and the title, content and method were examined in detail. The data were evaluated with descriptive statistics according to the research group, research type and thesis topic.

Results

Since 2012, when midwifery doctoral education started, the number of doctoral thesis is 91. The majority of the theses were randomized controlled trials (59.35%), followed by quasi-experimental studies (12.09%), methodological studies (8.79%) and mixed studies (8.79%). The study group of the

theses consisted of pregnant women with 45.56%, postpartum women with 11.12%, midwives or other health professionals with 8.89% and students with 8.89%. When the subjects of the theses are examined, Midwifery Care in Childbirth is 16.49%, Education/Counseling is 13.19%, Innovation is 9.90%, Scale development is 8.79%, Breastfeeding is 6.59%, Maternal Mental Health is 5.49%, Spiritual Care is 5.49%, Neonatal Health is 4.39%, Postpartum Care is 4.39%, Pregnancy complaint is 3.29%, Prementruel health is 3.29%.

Conclusions

It was determined that the majority of midwifery doctoral theses in Turkey were randomized controlled trials. In addition, it was determined that the thesis topics showed a great variety such as midwifery care, scale development, neonatal health, childhood vaccinations, adolescent health, special groups.

Funding

No funding was received for the study.

Conflicts of interest

The authors report no actual or potential conflicts of interest.

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Opinions and perceptions of midwifery students on the accreditation of midwifery education

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Introduction

Students constitute the most important step in the accreditation process of an educational institution. The main criteria are how the student's basic competence, professional skills, learning and program outcomes are evaluated, and how student support and services are provided. Therefore this research was conducted to examine the perceptions and opinions of midwifery students about the accreditation of midwifery education.

Material and Methods

The cross-sectional study was carried out with a total of 418 students studying in the midwifery department of a university between March-April 2022. The data were collected by face-to-face interview method, using a questionnaire and "Accreditation Perception Scale". The data were analyzed using the SPSS 22 package program.

Results

68.7% of the students know what accreditation means, 54.5% think that it will benefit students and graduates. 78.5% of the students stated that they knew the vision and mission of the midwifery department, 65.8% the quality ambassador of the department and 78.2% the accreditation studies of the department. Accreditation perception scale scores were found to be significantly higher in those who participated in the scientific event, knew the purpose of accreditation, internal/external stakeholders, wanted to take part in accreditation studies, knew the quality ambassadors and the mission/vision of the department ($p < 0.001$).

Conclusions

In the study, it was found that the students' perception of

accreditation was at a high level and their awareness of accreditation contributed positively. Initiatives to increase the perception of accreditation will contribute positively to the execution of accreditation activities to increase the quality of midwifery education.

Funding

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Conflicts of interest

There is no conflict of interest between the authors.

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Examination of the students' opinions and expectations on independent midwifery

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Introduction

The number of midwives who are independent midwives is increasing all over the world. In Turkey, however, the number of independent midwives is very limited and has just started to become popular. Therefore this research was applied to determine the opinions and expectations of midwifery students about the independent midwifery profession.

Material and Methods

The population of the descriptive study consists of 463 midwifery students. The students were informed about the content of the study and their written consent was obtained. In collecting the data, the questionnaire form was distributed to the students and they were asked to fill in individually. In the analysis of the data obtained from the research, the number and percentage distributions for socio-demographic characteristics and the effect of independent variables on the dependent variable were evaluated with the chi-square test.

Results

86.8% of the students stated that they knew about independent midwifery. 52.2% of these students learned from department activities and 38.5% from social media. 21.2% of the students think of doing independent midwifery, 34.4% of them want it in order to fulfill their independent midwifery roles. 82.7% of the students think that independent midwifery can be done in Turkey. 78.4% of the students think that independent midwives can use their professional autonomy/independent role. Lack of social awareness (27.4%) and failures in the implementation of legal regulations and health policies (26.0%) were stated to be the biggest obstacles to the execution of independent midwifery services.

Conclusions

Independent midwifery is among the career goals of students, and it can be considered to include this subject in the midwifery curriculum. In order to evaluate this issue more closely, it is considered important to make publications on the practice and legal aspects of independent midwifery.

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Evaluating an online asynchronous Multiple Mini Interview (MMI) with ten principles of fairness built-in: findings from a cross-sectional feasibility study

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Introduction

Ensuring equity, inclusivity, and diversity in selection to health professions is becoming increasingly recognised as an ethical and practical imperative¹. However, fulfilling our responsibility to ensure fair selection has never been more challenging to enact. This is because of unintended biases that are intrinsic to human assessment compounded by unprecedented Covid-driven adoption of online systems in the absence of published evidence.

Material and Methods

We undertook a rapid review of published literature within and outside health professions² (2011- September 2021) to identify key principles optimising online interviews. Our online interview system grounded in Multiple Mini Interview (MMI) methodology was customised accordingly and applicants underwent a seven station, four-minute circuit.

We aimed to explore reliability for all users, fairness for a random stratified sample (gender, age, UK/non-UK, disability) usability and acceptability with applicants to Nursing and Midwifery programmes at one UK university.

Results

Ten principles key to building-in fairness were elicited from 49 articles identified and reviewed. These included:

- Incorporate language that supports the affirmation of values e.g., "well done for getting this far".
- Use encouraging words/phrases in the interview e.g., "good luck".
- Soften language instructions e.g., "when you are ready ..."
- Minimise verbal load of interview content.
- Provide prior opportunities for candidates to familiarise themselves with the online format.
- Recommend generic, blank backgrounds for video-based interviews.
- Accommodate access and engagement for neurodiverse applicants.
- Ensure diversity of interviewers.
- Avoid culturally sensitive subjects in interview content.
- Ensure the use of gender-neutral language and pronouns.

Data were analysed from 712 applicants. Cronbach's α were good-excellent across questions within each scenario (mean Cronbach's α 0.72, range 0.64-0.89). Random sample subgroup analyses ($n=284$) showed similarly positive results with a female/male: 0.74/0.87; age: <20years/ >21 years 0.76/0.83, disability/non-disability: 0.78/0.88 and UK/non-UK 0.78/0.77 respectively.

Applicants found the instructions helpful/very helpful (89%) and qualitatively viewed the flexibility, use of different staff, Covid safety, a relaxed environment and cost savings as advantages. Interviewers (96%) found the system intuitive and easy to use, and the flexibility and time-savings (70%)

reduced stress.

Conclusions

With ten principles for equity built in, these preliminary findings suggest the online interview is reliable, fair, time-efficient, and acceptable. The MMI interviews were pre-recorded using inclusive language by diverse staff, representative of the University community. This promotion of equity was positively evaluated by applicants. Additional time and an intuitive system user interface met the needs of neurodiverse applicants.

Many organisations continue to use online interviews post-Covid. Best practice guidance on their design and configuration to optimise performance and mitigate potential unfairness issues is not readily available. These findings therefore provide unique internationally applicable insights necessary to embed fairness into online selection approaches across health professional selection.

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Conflict of interest: Alison Callwood is CEO of the UK University spinout company set up with funding from Innovate UK to build the online interview.

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A training program on trauma-informed care during childbirth for midwives: Creating and testing

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Introduction

Midwives are in a good position to offer TIC (Trauma Informed Care) at birth. However, it is known that midwives need well-structured training programs on TIC at birth. This research was conducted in order to establish the scope of the TIC program at birth and to evaluate its quality within the framework of knowledge, attitude and behavior.

Material and Methods

It is a quasi-experimental research using pretest-posttest-follow-up test. The training program was held in 3 sessions of 12 hours in total on the online platform. The sample of the study consisted of 140 midwives from seven different regions of Turkey. Data were analyzed with descriptive statistics, single factor repeated measures ANOVA, and Cochran Q test.

Results

While 8% of the midwives received birth psychology training, not all received TIC at the birth training programs. It was determined that the mean scores for knowledge and skills before, after, and after the training increased statistically ($p < .05$), but the difference in the mean scores for attitude was not significant ($p > .05$). Midwives suggested adding

psychological care and supportive basic topics specific to TIC at the birth training program, especially integrating the factors affecting the implementation process of TIC at the birth training content, providing similar training to all disciplines in the birth teams, and increasing the variety of digital training methods used.

Conclusions

It has been concluded that TIC training in birth offered on the digital platform contributes to the increase of knowledge and skills in midwives and that repetitive training is needed to change the attitude.

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The authors have no conflicts of interest to disclose.

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Evaluation of the efficiency of trauma informed care at childbirth training program for midwifery students

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Introduction

Care with Trauma Information at Birth (TIC) is not included in many midwifery department curricula. This research was conducted to evaluate the effect of the care education program that includes trauma information at birth for midwifery students in Turkey.

Material and Methods

The research was planned in a quasi-experimental design using pretest-posttest. The training program was carried out in 6 hours on an online platform. As a data collection tool; Introductory Information Form, pre-test and post-test online form assessing Knowledge, Attitude and Skill towards TIC were applied. 274 midwifery department 3rd and 4th grade students were included in the study. Data were evaluated using descriptive statistics, chi-square and t-test.

Results

29.6% of the participants stated that there was TIC education at birth in their midwifery curriculum, but 68.9% did not find the education they received sufficient, and 4% stated that they received this education outside of school. It was determined that 62.8% of the students witnessed a difficult/negative birth experience, 1.1% shared their experiences with the psychological support unit, 87.6% did not have a unit where they could receive psychological support, and 94.5% needed it. It was determined that while the students found birth more traumatizing for themselves, midwifery students and midwife after education compared to before education, they found it less traumatizing for women ($p < .001$). It was determined that the students' mean scores for knowledge and skills before and after education increased ($p < .001$), but the difference in the mean scores for attitude was not significant ($p > .05$).

Conclusions

It was concluded that the education program should be integrated into the midwifery curricula, the use of different

education techniques to improve attitude, and psychological support should be given to the students who were traumatized at birth in schools.

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Perinatal factors caused ADHD in children

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Introduction

Attention deficit hyperactivity disorder is a common pediatric neurobehavioral disorder consisting of high and chronic levels of inattention, impulsivity/hyperactivity, and/or both, and affects more than 2 million school-age children. Researchers are not sure of the exact causes of the disorder, but it appears that some perinatal factors other than genetic factors may contribute strongly to the development of the disorder. The aim of this review was to investigate perinatal and obstetric factors associated with the development of attention deficit hyperactivity disorder in childhood.

Material and Methods

A bibliographic review of databases of English language studies published from 2002 to 2020, using Embase, PsychINFO, PubMed and Google Scholar databases. Out of 1100 studies, only 17 were included in the review as they met the inclusion criteria.

Results

The results of the review showed that in addition to heredity and genetic factors, various conditions in pregnancy or the lifestyle of the mother in pregnancy, adverse conditions in childbirth and infancy can contribute alone or in combination to the development of attention deficit hyperactivity disorder in childhood.

Conclusions

Obstetric vigilance to identify risk factors in pregnancy combined with prevention of obstetric complications is key to the prevention of ADHD.

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Emergency cesarean section and mental health

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Introduction

Cesarean section can be a cause of the development of mental disorders, especially post-traumatic stress disorder or the profile of the disorder for a significant proportion of postpartum women. Despite the global increase in cesarean sections, there is a lack of adequate research on post-traumatic stress disorder after cesarean section, and often this condition is associated with other postpartum mental disorders, such as postpartum depression. The purpose of this research was to determine if there was a relationship between the type of cesarean section and post-traumatic stress disorder in postpartum women.

Material and Methods

Our sample consisted of 162 women who underwent cesarean section at a public University Hospital in Greece and consented to participate in the study.

Results

Results showed a high prevalence of postpartum PTSD (31.7%) and PTSD profile (14.3%) in women after emergency caesarean section with additional risk factors of preterm delivery, admission to the Neonatal Intensive Care Unit, lack of support from the partner and the lack of breastfeeding.

Conclusions

It should be understood by midwives and other health care providers that the postpartum mental disorders are only a part of short-term and long-term negative effects of cesarean deliveries worldwide.

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Perinatal factors associated with the occurrence of ASD in the child

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Introduction

Autism spectrum disorders (ASD), evident from an early age, are neurodevelopmental disorders defined by deficits in the individual's communication, socialization and cognitive abilities. An increasing number of children receive ASD diagnoses every year worldwide. The initial causes may be related to defective genes, chromosomal abnormalities, medical conditions, infectious viruses, prenatal stressors and environmental factors during the prenatal or early postnatal period, which may interfere with the development of certain brain systems affecting the normal functioning of the central nervous system.

Material and Methods

A search was conducted using Web of Science, Scopus, MEDLINE, Embase, and Cochrane Library as electronic databases. We included observational studies evaluating the perinatal history of mothers of children aged between 18 months to 5 years with a diagnosis of ASD. Categorical variables were assessed using odds ratio (OR) with 95% confidence interval (CI), whereas for continuous variables, the results were expressed as mean difference with their 95% CI.

Results

Maternal prenatal pathologies, usually treated medically such

as infections, antibiotic therapy, diabetes, mental illness, PCOS, fertility problems and epilepsy, are probably associated with ASD. Maternal obesity, asthma, hypothyroidism, substance abuse and celiac disease may be associated with ASD. ASD has been significantly associated with neonatal health, infection, suffocation, and complications.

Conclusions

The rising cost of rehabilitation for people with ASD has become a serious social problem. The occurrence of ASD is multifactorial and may indicate statistical significance. Through the results, perinatal care professionals, mainly midwives, will learn maternal risk factors prenatal and perinatal to control the disease's ever-increasing prevalence and support the family with a child suffering from ASD.

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Empathy and mental resilience evaluation after completion of the generic instructor course of the European Resuscitation Council

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Background

Empathy and mental resilience are basic skills that a trained and certified resuscitator should possess in order to be more efficient and adoptive to stressful conditions.

Aim

We aimed at evaluating changes in empathy and mental resilience levels among health professionals after the completion of a certified seminar for resuscitation trainers in Greece (Generic Instructor Course- GIC- of the European Resuscitation Council-ERC). We present preliminary results of the study.

Methods

This was an observational study. Study subjects were certified resuscitators who had completed different life support seminars, and who were trained and certified to become resuscitation seminar trainers. All candidates completed the GIC in Greece as per the ERC guidelines. GIC is a 2-day seminar (at least 14 hours) comprised by a theoretical and practical part. Evaluation of empathy and mental resilience was performed prior to the course, right after the completion of the course and on months 1 and 3 after the completion of the course. The Toronto Empathy Questionnaire (TEQ) and the Connor and Davidson (CD) questionnaires were used for the evaluation of the candidates.

Results

The sample consisted of 66 participants, 37.9% were males and 62.1% females. Participants showed statistically higher

empathy levels after the seminar completion compared to the levels before the seminar, according to TEQ [mean value \pm standard deviation (SD); 50.77 \pm 5.28 versus 51.73 \pm 5.16 respectively; $p = 0.014$]. Resilience (CD-RISC questionnaire) did not reveal any statistical difference before and after the seminar [mean value \pm SD: 67.32 \pm 8.73 and 68.89 \pm 8.71 respectively; $p = 0.057$]. For both variables (empathy and resilience), gender did not have any interaction in differences ($p = 0.799$ and $p = 0.779$ respectively). Educational level (bachelor degree vs. master/PhD) did not show any effect on both empathy and resilience levels ($p = 0.279$ and $p = 0.618$ respectively).

Conclusion/summary

These preliminary results reveal that participation in GIC to become a resuscitation trainer improves the empathy levels of the candidates although there is no effect on mental resilience. We are in the process of evaluating mid-term outcomes, within 3 months from the seminar completion. Subgroup analysis did not reveal any effect of major prognostic factors.

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Investigation of the fear of childbirth in a sample of Greek women

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Aim of the study

To investigate the fears of childbirth in a sample of Greek pregnant women as well as their effect on their everyday quality of life and their desired mode of birth.

Material and Methods

We used a modified version of the validated Childbirth Fear Questionnaire (CFQ) after receiving the original authors' approval. The CFQ is a multidimensional tool for assessment of the fear of birth and consists of 40 questions. We added questions about women's feelings regarding the COVID-19 pandemic. The questionnaire was posted online through the social media between March to May 2021. Upon closure of the study period, statistical analysis was applied to the collected data.

Results

A total of 561 pregnant women responded with a mean age of 31.9 \pm 4.9 years. 74.3% were university graduates, 47.1% had already one child and of those 50% had a previous caesarean birth (CB). 21.4% reported having currently a high risk pregnancy. 69.9% reported wanted to have a normal vaginal birth and only 7.3% had a strong will to have a CB. The greatest recorded fears were the fear of the baby being harmed or die during labour (CFQ score=1.98, range:0-4; Cronbach's α =0.93) and the fear of having a CB (CFQ score=1.88, range:0-4; Cronbach's α = 0.86). The fear of the baby being harmed and the fear of CB was significantly greater than the fear of maternal or neonatal death ($p < 0.001$, $p = 0.027$ respectively). 45.1% were very afraid that the way they will give birth might be affected and 57.9% were very afraid of not being allowed to breastfeed if they are diagnosed positive with COVID-19 during childbirth. A greater impact of fear on quality of life meant a higher total fear score. For those women who reported having high levels of fear, the quality of

everyday life was affected; mostly parameters like bonding with their baby, the way they spent their free time and their communication with the doctor/midwife. The factors that were shown to play an important role on the overall score of fear were the number of previous births, the gestational age, the current choice of preferred mode of birth, the contribution of the COVID-19 pandemic and the way that the pregnancy was conceived.

Conclusions

Fear of Childbirth is common among Greek women despite of their preferred way of birth and many parameters affect its intensity. The COVID-19 pandemic affected almost all parameters of fear of childbirth. Midwives and other healthcare professionals associated with pregnancy must be well educated about this phenomenon. Fear of Childbirth can lead to a seriously traumatic experience and thus have a negative impact in a mother's mental health and, consequently, her child's development.

Funding

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Conflicts of interest

No conflict of interest stated.

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Look outside the box! Intersectoral outreach as part of midwifery studies

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Introduction

Midwifery students are deployed in maternity wards, gynecological departments, neonatal care and freelance midwifery lead units in order to acquire competencies for the practice of the profession^{1,2,3}. An intended improvement of the care situation of expectant families includes the progressive necessity of intersectoral cooperation and the development of network competence⁴. Insights into extended fields of health and social care around the phase of family formation contribute to this and enable students to expand their individual scope of action. In the study programme "Applied Midwifery Science" at the University of Cologne students are provided with practical time for this purpose.

Material and Methods

The students of the 5th semester spend 80 hours in pregnancy counseling centers, family centers, pediatricians, mother-child homes, counseling centers for teenage mothers or institutions for accompanying women who have refugee background or experienced violence.

Results

Students are enabled to reconstruct newly acquired content from interdisciplinary disciplines and to integrate it into their own discipline. At the same time, the limitations of their own discipline are exposed⁵. This sensitizes students to the necessity of interprofessional cooperation and its appreciation and broaden their perspective on their own actions.

Conclusions

Interprofessional and intersectoral work are of great importance in the care of pregnant women and young

families. Giving midwifery students insights into this leads to a closer connection to institutions of the health and social sector. Getting involved in other disciplines opens up new perspectives for all participants, but also challenges⁵. The project will be evaluated summatively.

Funding

There is no funding necessary for the realization of this project.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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A mixed methods study on challenges for Roma women and access to health in Greece

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Literature suggests that Greek Roma population in general suffer from greater exposure to determinants of ill health, follow less healthy lifestyles and have poorer access to and lower uptake of primary care and preventive health services. Sexual and reproductive issues are very common among Roma women, including early pregnancies, sterilisation and it has been reported that they are mostly visit maternity and gynaecological health services for emergencies. The emphasis of this project was put on Roma women's empowerment and the promotion of sexual and reproductive health for them and their families. Mixed methodology was used, combining quantitative and qualitative research, in order to examine the access to healthcare services by Roma women in Greece and the challenges that Roma women and professionals face.

For the quantitative research two questionnaires were created (one for healthcare professionals and one for other professionals that serve Roma people within their practice). Qualitative data were collected through two semi-structured interviews and two focus groups. The thematic analysis that

followed led to six themes: 1) official registration issues and healthcare services, 2) stereotypes among health/social care professionals and Roma women, 3) culture as a determining factor in communication between health/social care professionals and Roma people, 4) contraception and family planning, 5) obstetric and gynaecological monitoring and breastfeeding, 6) woman's role and Roma women's empowerment.

The results of the quantitative and qualitative research were contradictory in some areas. For example, discrimination and negative attitude towards Roma were reported at the interviews, while the questionnaires showed that most of the participants were willing to offer their services without stereotypes. Moreover, the qualitative research revealed that the lack of trust between Roma and professionals is reciprocal. Several recommendations by the participants were noted for the improvement of the access of Roma women to health, including systemic changes, provision of information, training, ensuring liaison between different services and the use of Roma mediators.

In conclusion, there seems to be a gap between Roma and health/social care services. This gap is reinforced by factors, such as health illiteracy, stereotypes, and cultural differences. This gap, although apparently deep, could be bridged through various interventions that can support both sides to overcome the difficulties they face. In this direction, improving the capacity of professionals and services to work effectively with and be accessible to Roma is necessary, but it is also important to focus on training Roma women on how to empower other women to improve their general and sexual and reproductive health.

Funding

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The authors have no conflicts of interest to disclose.

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Implementation of midwifery education in Democratic Republic of Congo

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Introduction

The Democratic Republic of Congo (DRC) has high rates of maternal and newborn mortality. To address these challenges, a midwife education program emphasizing person-centered care and simulation-based learning is being implemented at the Evangelical University Africa (UEA) in Eastern DRC. The aim is to describe the development and implementation of this programme.

Material and Methods

A 90-credit midwife education program based on the national curriculum, with added focus on person-centered care and simulation-based learning, is implemented at UEA.

The Swedish course in person-centred care, Mutual Meetings, was translated into French and tested in a workshop with 31 participants. Its acceptability and cultural relevance of the course were evaluated through four Focus Group Discussions (FGDs) with the participants, and two individual interviews with the course facilitators. The interviews were analysed deductively using a process evaluation framework. Three simulation-based courses on safe childbirth were conducted in which midwife students and physicians representing five clinical placement sites were trained as facilitators. The feasibility and acceptability of the courses were evaluated through two FGDs with the 12 participants.

Results

The French version of the Mutual Meetings course was found to be feasible, with a novel pedagogical learning structure, incorporating a participatory approach, and its content of person-centred care was considered useful for both academic and clinical settings. However, some modifications for better contextual fit were suggested. The simulation-based training course was found to be feasible and acceptable, with participants feeling well-equipped to train midwifery students and clinical preceptors, but the need for sufficient resources such as mannequins, space and sufficient time for training was emphasized.

Conclusions

It can be concluded that both the French version of Mutual Meetings and the simulation-based training were feasible and acceptable. However, modifications are needed to ensure better contextualization and the findings of this study should be considered when implementing a similar education program.

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The authors have no conflicts of interest to disclose.

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In-country refugee midwifery programme for professional body registration process and employment support

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Many of the refugees that arrive in United Kingdom are health professionals in their own countries with extensive clinical experience and knowledge. In recent years, Liverpool John Moores University (LJMU) led the pilot refugee nurse support programme, intended to support in country refugee nurses into employment and registration with the Nursing and Midwifery Council (NMC), the official professional and regulatory body in the UK. The requirements for registration include proof of identification, equivalent qualification, clinical skills assessment, IT competency and competence

in the English language. Evaluation of the first two cohorts identified challenges of meeting the minimum language requirements, lack of knowledge on how to proceed with professional registration, healthcare, social, legal, and cultural context within the UK. Following this, a bespoke four-week pilot course was held for the first-time in June 2022 for refugee midwives alongside nurses. An applied transitional pedagogic approach was utilised to educate the midwives in the context of working as a registered, autonomous, and accountable professional within the National Health System (NHS). The course incorporated principles of working in a multidisciplinary team, a foundation of Midwifery Standards and boundaries, simulation based clinical skills' training, continuous professional development, job interviews and personal statements' advice. Each refugee midwife was allocated an academic mentor who provided them with pastoral care and verbal feedback was positive. In most cases, it enabled them to gain insight into the role within the UK, encouraged them to initiate the registration process and off course seek employment within Maternity Services.

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Black, Asian, and minority ethnic midwifery students' evaluation of practice supervision in the clinical placements: A cross-sectional study

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Introduction

Clinical placement is a vital component of midwifery education in the United Kingdom (UK) as well as in other countries. Practice supervision plays a core role in the clinical placement aspect of learning outcomes for midwifery students. Recent systematic review findings showed that clinical placements present may have challenges related to practice supervision in the professional development and learning outcomes of Black, Asian, And Minority Ethnic (BAME) healthcare students (midwifery, nursing, and medicine) in various developed countries¹. Very little is currently known about the practice supervision experiences of BAME midwifery students in the UK². Therefore, the study aims to describe the perceptions and experiences of the practice supervision from BAME undergraduate midwifery students in clinical placements in a UK context.

Material and Methods

The cross-sectional study was conducted between November 2022 and March 2023 in seven universities with undergraduate midwifery programs. The previously validated instruments the 'Clinical Learning Environment Supervision and Nurse Teacher Tool' (CLES+T) and Cultural and Linguistic Diversity Scale (CALDs) scale were used. The online survey also consisted of demographic data such as age, gender, and educational level. Data were entered in IBM Statistical Package for Social Science (SPSS) version 28.0.1.1 and was further analysed by using descriptive statistics and inferential statistics.

Results

All students (N = 1268) were invited across the seven

universities, where it is estimated 254 of them identified as BAME. According to the initial findings of the study (March 2023), a total of 81 students submitted responses. All respondents identified as female. BAME respondents were more likely to come from London or Southeast England (39.6% and 30.6%). Of the 56 BAME respondents, 37 (45.5%) identified as Black African, Black Caribbean or Black British and 22 (27.5%) as Asian/Asian British. The rest were either of mixed or another heritage. The majority of participants were highly satisfied with the clinical learning environment (58%) and ward atmosphere (54%), however, almost all students (77%) were dissatisfied with the supervisory relationship.

Conclusions

BAME midwifery students can face additional challenges which have an impact on clinical learning. Given the significant correlation between learning environments and midwifery students and practice supervisors need to build a good clinical teaching atmosphere and promote opportunities for theoretical and practical connections. Therefore, further studies with various methods are needed, such as in-depth interviews with BAME students' experience of practice supervision in clinical placements.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Improving the cultural competence of midwifery students: an evaluative study

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Introduction

Recently, due to the increasing number of multicultural societies around the world, culturally competent healthcare services have taken their place on the agenda. The quality of intercultural care provided in perinatal processes has a significant impact on the health of both mother and child. It is of great importance for midwives to gain proficiency in providing intercultural health care since their student years in order to increase the quality of health care services. In this context, the "Transcultural Midwifery" course has been added to the midwifery curriculum in Turkey in recent years

and is carried out as a two-hour elective course. This study, it is aimed to evaluate the “intercultural midwifery course” given on the basis of Bacote’s Cultural Competence Model in the midwifery department located in a province with a high immigrant population in the south of Turkey, in line with student opinions.

Material and Methods

This study was conducted as a qualitative case study. The sample of the research consists of 27 midwifery students who took a total of 28 hours of the “Transcultural Midwifery” course in the fall semester of 2022-2023. Ethical approval was obtained from the ethics committee of the university. First, the statements in a one-question case form before the lesson were evaluated as a data collection tool in order to determine the cultural competence levels of the students (anonymous-nick name forms). At the end of the semester, a four-question semi-structured form was used to reveal their evaluations of the course. Content analysis technique was used in data analysis. The data were coded separately by two researchers and the themes were compared. After the identification of the themes and sub-themes agreed upon by the researchers, the expressions of which the themes were chosen were selected and the relevant literature was compared.

Results

Participants in the study consisted of 27 midwife third-grade students who filled out the forms completely. The answers given by the students in the pre-test case analysis mostly contain expressions at the level of “cultural destructiveness, cultural blindness, and cultural inadequacy”. According to the findings obtained from the post-test, as a result of the students’ feedback, two main themes and five sub-themes were reached: “the transformation of the student’s perception of cultural competence” and “opinions about the course”. The data obtained at the end of the study show that the students show improvement in the level of cultural competence, and they think that this course should be made compulsory and that all midwifery education should be culture-based.

Conclusions

The “Transcultural Midwifery” course given within the scope of the Cultural Competence Model has been effective in improving the cultural competence levels of midwifery students. As in the rest of the world, it has been concluded that the midwifery curriculum should be revised in this context in order to raise a culturally competent midwives in Turkey, whose multicultural structure has become increasingly complex with the increase in the immigrant population in recent years. Integrating this course, which is carried out as a theoretical course, into all courses, and midwifery educators developing their own competencies by participating in workshops and trainings in this context will contribute greatly to the training of midwives with cultural competence.

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Student-centered learning in a maternity unit

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Students find the clinical training in obstetric care challenging due to a lack of support from the preceptor, poor continuity of preceptors, feelings of unpreparedness for the clinical training, and stress of achieving the final number of assisted births in midwifery education. From the preceptor’s perspective, the supervisor role is added to an already heavy workload on the maternity ward, with numerous students and little support from the management. To develop clinical training and stimulate student-centered learning, pedagogical models are needed in maternity care.

We have done much research on peer learning and implemented this model as a complement in maternity units in hospitals in Stockholm. The results are very positive among students, preceptors, and birthing parents. The conclusion is that a peer-learning model can solve many problems and even progress to interprofessional content learning. We want to share our experiences building this educational and pedagogical model and discuss different understandings of an interprofessional student-centered learning model in the maternity unit. We aim to exchange experiences, reflections, and thoughts on student-centered learning in new models by interacting with the participants.

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Conflicts of interest

The authors declare that they have no known competing financial claims or personal relationships that could have appeared to influence the work reported in these studies.

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Evaluation of the simulation-based interprofessional emergency obstetric team training program given to midwifery and first and emergency students

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Introduction

This research was conducted using a quasi-experimental design to evaluate simulation-based interprofessional emergency obstetric team training programme given to midwifery and first and emergency aid students.

Material and Methods

Sample of the research consisted of 36 students studying in the 4th grade of Amasya University Faculty of Health Sciences, Department of Midwifery and 34 students studying in the 2nd grade of Sabuncuoğlu Şerefeddin Vocational School of Health Services, Department of Medical Services and Techniques, First and Emergency Aid Programme in the spring semester of 2021-2022 academic year. A simulation-based interprofessional emergency obstetric team training programme including theoretical education and standard patient applications was developed within the scope of the research. In line with this training programme, students were

given a theoretical training of 3 hours and 10 minutes on obstetric emergencies. After the theoretical training, a total of 17 groups were formed with three midwifery and two first and emergency aid students in two groups and two midwifery and two first and emergency aid students in 15 groups. During two and a half days of standardised patient practice, each group was exposed to preeclampsia and postpartum haemorrhage scenarios. Data were collected using the Descriptive Information Form, Readiness for Interprofessional Learning Scale, Student Satisfaction and Self-Confidence in Learning Questionnaire, Simulation Design Scale, and Educational Practices Questionnaire.

Results

Mean score of the Student Satisfaction and Self-Confidence in Learning Questionnaire was 56.41 ± 7.92 , that of the Simulation Design Scale was 93.74 ± 6.58 and of the Educational Practices Questionnaire was 76.45 ± 5.00 . There was a significant increase in the mean score of students' readiness for interprofessional learning ($p=0.00$) at the end of the training (Table 1).

Table 1. Distribution of students' pre- and post-education readiness scale total and sub-dimension mean scores

Sub-dimensions	Pre-training		Post-training		Z	p*
	X \pm SS	Med	X \pm SS	Med		
Teamwork and collaboration	40,71 \pm 4,88	42	42,54 \pm 3,36	44	-3,69	0,00
Professional identity	29,62 \pm 3,44	30	31,77 \pm 2,78	32	-4,78	0,00
Professional roles	8,85 \pm 1,58	9	9,08 \pm 1,90	9	-0,95	0,33
Total	79,20 \pm 8,20	81	83,40 \pm 5,81	85	-4,94	0,00

Conclusions

In line with the data gathered through the research, it was determined that cooperative learning experiences led to an increase in students' readiness levels for interprofessional learning. In this direction, it is recommended that simulation-based interprofessional cooperation training programmes should be integrated into the curriculum.

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There is no conflict of interest between the authors.

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Czech women's experiences with maternity care – analysis of free text comments

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Introduction

Women's satisfaction with maternity care is an important indicator of quality.

A qualitative analysis of free text comments was used to explore women's experiences in a nationwide study.

Material and Methods

A questionnaire-based cross-sectional study using the standardized PREMAPEQ tool¹. Evaluation: 1) thematic analysis - 29 main themes; 2) combination of inductive and deductive procedures; 3) literature review - frameworks for assessing women's satisfaction with caregiving; 4) selection of appropriate framework.

Results

There are currently 2287 questionnaires completed, one third of which contain free text comments. The analysis used a 7-dimensional framework - StEM2: 1. Woman as a unique individual; 2. Woman as an active participant; 3. Responsiveness of maternity care; 4. Lived experience; 5. Communication and relationship; 6. Information and education; 7. Support.

The most represented were four dimensions (2-5). (2): "Woman's response to the provided care, conscious choice based on experience, woman's passivity vs. activity, impossibility of choice"; (3): "breastfeeding (non)support, health professionals' actions in accordance vs. in direct contradiction with woman's wishes, (dis)respect for the woman's needs, separation, what women miss in the system"; (4): "expressed trauma, rationalization, conscious choice of place or provider, rude or violent attitude"; (5): "(non)support, not believing that "I'm in labour", woman left with fears without explanation".

Conclusions

Women's most often mentioned experiences come from the childbirth (non-support, disrespect, manipulation, interventions without consent, obstetric violence) and the postpartum period (disempowerment of woman as a mother, contradictory information, breastfeeding non-support, inappropriate environment and food). Positive experiences reported: giving birth with a person or place of her own choice, clear information, support and outpatient or home-birth.

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Using a short stress and satisfaction debriefing intervention on midwifery students during perinatal simulation-based training: A randomized controlled intervention

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Introduction

Simulation is an innovative teaching strategy that incorporates active learning and has a positive effect on learning results^{1,2}. In general, students are satisfied with simulation training³, but scientific literature suggests that they may experience stress, including physiological response and psychological distress during the training sessions⁴. Therefore, attention must be paid to this experience of stress to improve students' learning experiences and to increase their satisfaction with this process.

Material and Methods

A randomized controlled intervention (RCT) study⁵ was conducted to measure midwifery students' stress levels during perinatal simulation-based trainings using a smart device (Empatica E4 wristband⁶). We also investigated the value of using a brief debriefing intervention on students' stress to support the process. Student's satisfaction of the overall process was also evaluated. The actual sample consisted of 55 midwifery students (n_{intervention}=28, n_{control}=27) enrolled in a simulation course at the Erasmus Brussels University of Applied Sciences and Arts (EhB) during the fall semester of the 2022-2023 academic year. Students were randomized into groups. As part of the study protocol, participants were asked to sit at rest for 30 minutes (T0) before the simulation begins. Prior to the start of the scenario, students were briefed about the specific scenario and the role they would be playing (T1). During the debriefing phase, the intervention group received a brief stress and satisfaction debriefing in which stress was discussed, while the control group received only a standard debriefing (T2). After the debriefing phase, participants were also asked to rest for 30 minutes (T3) in a special designated area. Students' physiological stress parameters (heart rate variability, galvanic skin response, and skin temperature) were assessed using an Empatica E4 wristband continuously (four times each second)⁷, but divided into T0, T1, T2 and T3 time periods. Their psychological stress level was assessed using the Short Stress State Questionnaire⁸ at T0 and T3 time periods and, satisfaction was assessed using the Satisfaction with Simulation Experience Scale³ at T3 time period as well as the intervention group interviews at T2 time period. Quantitative data were analysed using IBM SPSS 28.0 SPSS. Qualitative data were analysed using thematic content analysis. Empatica E4 wristband data were processed using Python program⁹.

Results

This study found that the mean post-test score level of psychological stress for the intervention group were lower than in the control group ($p < 0.001$), while the mean post-test score on satisfaction with simulation experience in the intervention group were higher than for the control group ($p < 0.001$). During the students' interviews, most of the comments suggested stress during the simulation, but participants particularly valued the possibility of discussing their emotions during the

debriefing session intervention. Empatica E4 wristband data processing and analysis are ongoing.

Conclusions

Using a brief debriefing intervention in perinatal simulation-based trainings (which is as such a stressful experience), has a positive effect on midwifery students' by reducing the stress levels, and increasing the satisfaction with simulation training. It is recommended to provide adjusted feedback on students' stress levels (brief intervention) during the debriefing sessions in the case of simulation-based training. These are initial results and therefore further research is needed.

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How the satisfaction in a partnership affects the fear of childbirth of Slovak pregnant women?

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Introduction

In regard to the devastating effect of fear of childbirth (FOC) in women, it is essential to identify women with a severe fear of childbirth. The objective of the paper is to analyze how relationship satisfaction influences the intensity of fear of childbirth in nulliparous and multiparous pregnant Slovak women.

Material and Methods

320 pregnant women (29,18; ± 4,44) in gestational week 19 - 25. and 35. - 41 participated in this research. 315 pregnant women were in partnership. Wijma Delivery Expectancy/Experience Questionnaire version A (W-DEQ – A) was used for quantifying the intensity of fear of childbirth (FOC). Women's satisfaction with their partnership was evaluated by the Relationship Assessment Scale (RAS). The data were analyzed using descriptive statistics methods and inductive statistics.

Results

Primiparous had a slightly higher mean W-DEQ-A score (69.91; ± 15.56) than multiparous (67.83; ± 17.31; p=0,26). RAS in primiparous was higher (30,65; ± 4,2) than in multiparous (29,61; ± 5,13). A significant weak negative correlation was found between intensity level FOC and satisfaction in a partnership (RAS) [-0,189; p = 0,001].

Conclusions

Satisfaction in a relationship influences FOC in Slovak women. The support of a partner is very important for a woman during pregnancy and childbirth.

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The integration of care according to neurodevelopmental standards for premature infants neonates in the education of undergraduate midwifery students: a contemporary necessity

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Introduction

In Greece, as in other countries, the care of premature newborns is a component of the practice of Midwifery care. This paper aims to highlight the strategies of neurodevelopmental care for premature newborns and the proposal for their inclusion in the education of undergraduate midwifery students.

Material and Methods

The paper is a descriptive literature review based on the Medline database.

Results

According to neurodevelopmental standards, the training of students According to the neurodevelopmental guidelines, the training of students is mainly extended to seven neuroprotective strategies. These relate to the following seven main strategies. These include the skills of cultivating a therapeutic environment, collaboration and engagement with family at the center of care, special handling of newborns, dynamic positioning, sleep protection, minimizing anxiety and pain, skin protection, and optimization of feeding. To implement these interventions more effectively, it is recommended that training in the skill of reading the behavioral signs of

inpatients neonates, as well as emphasizing individualized care. It is also considered necessary training in the use of scales for the assessment of pain, and skin of newborns, which need to be used in daily practice.

Conclusions

The training of students in the strategies of neurodevelopmental care in prematurity, it is advisable to include the cultivation of skills and awareness of the axes of neurodevelopmental care, to empower them and promote their health and quality of life of prematurity and their families.

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Transition from catheter feeding to breastfeeding of neonates in NICU

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Introduction

With increasing survival rates of preterm infants, reducing morbidity and improving long-term prognosis have become a priority. Therefore, feeding is of utmost importance for the health and development of neonates in the Neonatal Intensive Care Unit. The aim of this literature review was to analyze the stages of transition from tube feeding to oral feeding and breastfeeding in preterm neonates in the Neonatal Intensive Care Unit.

Material and Methods

Data were collected through literature review from databases (Medline/PubMed, Google Scholar and Crossref).

Results

Based on data collected internationally, some techniques are based on the specificity of each population and require adaptation to the data of each Neonatal Intensive Care Unit.

Conclusions

In any case, the correct implementation of the protocols by all NICU health professionals aims at the correct nutritional transition and establishment of oral nutrition, including breastfeeding.

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Towards an evidence-based multidisciplinary guideline for postpartum care in Belgium

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Introduction

There is a trend towards a shorter hospital stay after normal birth. In Belgium, the length of postnatal stay has declined to 72 hours, meaning a shift to postpartum care at home, mainly provided by midwives. A multidisciplinary approach is needed to ensure continuity of care. Since clinical guidance regarding

postnatal care is lacking in Belgium, a multidisciplinary guideline on postpartum care has been developed to optimize quality of care.

Material and Methods

The ADAPTE procedure has been applied to develop the guideline. After a systematic search for (inter)national guidelines, methodological quality of selected guidelines was assessed, using AGREE, resulting in three included guidelines. The quality of the evidence was rated (GRADE). A consensus procedure (Delphi) was used to formulate 'good practice points' (GPP). Additionally, further literature search and contextualising was executed.

Results

Together with stakeholders seven clinical questions were determined: PART 1: maternal and neonatal physical health; PART 2: information/support, neonatal examinations/screening, mental health, sexual health and baby's feeding. Following the ADAPTE procedure, recommendations in part 1 for maternal (n=16) and neonatal (n=14) physical health were finalized and validated by the Belgian Centre for Evidence-based Medicine (CEBAM). Part 2 will be finalized end of 2023.

Conclusions

Evidence-based midwifery practice leads to improved health outcomes and reduced variability in quality and provision of care. This guideline is a step forward in optimizing maternal and neonatal follow-up in postpartum, including early detection of complications. Further attention to a sustainable implementation in postnatal care with collaboration of all engaged professionals is needed.

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Conflicts of interest

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World Health Organization Well-being Index (WHO-5): A validation study on midwifery students and determination of related factors

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Introduction

Psychological well-being is a crucial aspect of mental health and can affect personal and academic achievements. Based on concerns regarding the decrease of well-being during midwifery education, early-stage determination of midwifery students' well-being level is essential. WHO-5 has been translated into many languages and proven to be a simple, rapid, and suitable tool for depression screening in various health conditions. The aim of this study is to determine the validity and related factors of WHO-5 on midwifery students.

Material and Methods

The study was conducted on 338 midwifery students studying at various universities in Turkey. The internal consistency of the scale was assessed using Cronbach's alpha coefficient, and construct validity was assessed using confirmatory factor analysis. For criterion validity, the Beck Depression Inventory

and Psychological Well-being Scale were used.

Results

It was determined that the model showed perfect fit and the one-factor structure of the scale on midwifery students was confirmed. A negative moderate level relationship ($r = -0.598$, $p = 0.000$) was found between the scores obtained from the WHO-5 and depression scores; and a positive moderate level relationship ($r = 0.438$, $p = 0.000$) was observed between WHO-5 and psychological well-being scores. The Cronbach's alpha reliability coefficient was calculated for the scale as 0.925. It was also found that students' well-being level was related to perspectives on their life.

Conclusions

The Turkish version of the WHO-5 is a reliable and valid tool for measuring psychological well-being among midwifery students.

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e-Posters

Operative deliveries in Estonia from 1992-2016

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Introduction

Cesarean sections (CS) rates have increased worldwide, the optimal rate of CS has been long debated¹. Operative vaginal delivery (OVD) can provide a safe alternative in modern obstetric care². The rates of CS and OVD in Europe varied vary largely. CS rates in Europe (median rate 26.0% in 2019) in 2019 from 16.4% in Norway to 53.1% in Cyprus³. In Estonia, the share of CS was low, 6.4% in 1992⁴, in 2015 was 19.5%⁵. Today, Estonia is one of the safest countries in the Europe for giving birth³.

Aim

Provide an overview of CS and OVD trends in Estonia.

Methods

Data was obtained from the Estonian Medical Birth Registry (EMBR). EMBR was founded in 1992 and is a central digital registry collecting data about all births in Estonia. All births in the years 1992 – 2016 were included (n= 356 063). Trends of CS and OVD in total were analyzed. Incidence Rate Ratio (IRR) was calculated, and two time periods compared for total CS rates, adjusted by the mother's age.

Results

The annual number of births in Estonia decreased significantly, and the proportion of CS increased. The proportion of CS increased from 6.5% in 1992 to 20.9% in 2007 and remained stable thereafter. Mean age of mothers increased during the

study period. The average annual increase in the number of CS between 1992 and 2009 is 6.5% (IRR 1.065, 95% CI 1.063–1.067), adjusted for the age of the mother, the number of CS increased by 3.6% per year (age-adjusted IRR 1.036, 95% CI 1.034–1.038). In the years 2010 – 2016, the number of CS decreased slightly, but adjusting by mother's age, the increase was ~3% per year. In 1992, 0.63% of all births were OVD but the proportion increased to 5.9% by 2016.

Conclusion

In Estonia, the time trends of CS and OVD are similar, if the CS rate rises quickly, the OVD rate also rises. In order to improve the quality of maternity care, it is important to monitor the rates of operative delivery. The reasons for the increase of operative deliveries deserve detailed analyses.

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Conflicts of interest

The authors declare that they have no competing interests.

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Regulation during a pandemic

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Introduction

The Covid-19 pandemic presented a unique challenge as a regulator of midwives. We wanted to play our part to ease the demands on the system and on individual midwives on our register.

Material and Methods

Following a request from the UK government's Secretary of State for Health and Social Care we undertook a number of temporary emergency regulatory steps during the pandemic to set how education providers should organise midwifery programmes.

Results

A temporary change to standards which were finally withdrawn in September 2022.

Conclusions

The pandemic demonstrated our agility in our approach to standard setting and the supportive part we played during a national emergency.

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COVID-19 vaccine uptake among pregnant people: A systematic review

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Introduction

Pregnancy is an independent risk factor for severe COVID-19 illness¹. World Health Organization, Centers for Disease Control and Prevention, and professional organizations recommend COVID-19 vaccination in pregnant people to prevent adverse outcomes²⁻⁴. The aim of the present study was to evaluate the uptake of COVID-19 vaccination among pregnant people.

Material and Methods

This systematic review was carried out in accordance to PRISMA guidelines. PubMed/Medline and CINAHL databases, and the Google Scholar search engine were screened from inception to 22 March 2023 for the identification of English written, cross-sectional articles that reported COVID-19 vaccine uptake in pregnant people. A narrative synthesis approach was used to analyze studies included in this review. The risk of bias assessment was conducted according to the Joanna Briggs Institute critical appraisal tool. Registration number: INPLASY202340079.

Results

Out of the 219 studies identified through international literature, 11 studies from seven countries (USA, Canada, Australia, Japan, Saudi Arabia, Pakistan, Israel) assessing 17579 participants (pregnant people) were included in this review⁵⁻¹⁵. All included studies were published between 2021 (n=3) and 2022 (n=8) and followed a quantitative approach using standardized questionnaires. Among the participants, only 54.9% (9650/17579) had been fully or partially vaccinated against COVID-19. The vaccination rate ranged from 1.9% to 82.1%^{6,9}. Three of the 11 studies reported the number of vaccinations received by the vaccinated participants [87.7% (4972/5671) had received the second dose of a two-dose COVID-19 vaccine]^{8,9,12}.

Conclusions

The prevalence of COVID-19 vaccine uptake among people who are pregnant is insufficient. However, these findings should be considered with caution due to small number of available studies.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Estonian midwives' opinion about birth doulas

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Introduction

We have evidence that all women should have continuous one- to one support throughout labour and birth as it is associated with a reduction in caesareans, instrumental births, epidurals¹. Women who have continuous support from midwife, doula or lay support person are more likely to report positive experience of labour and birth².

Many healthcare facilities still do not permit women to have a companion during labour and childbirth, despite clear evidence and the emphasis on respectful care. Many countries do not yet have policies in favour of labour companionship³. To promote collaboration between midwives and birth supporters, the role of doula must be clarified⁴.

Midwives and trained birth companions are not always positive about cooperation with each other. Problems arise between them due to often perceived overlapping roles⁵. There are misunderstandings and fears that the doulas would take over the role of midwife⁶.

In Estonia, midwives are independent professional health care workers. Midwives are educated in BSc level, study time 4,5 year. The Curriculum of Midwife meets the requirements established by the European Parliament and Council Directives 2005/36/EC, ICM Essential Competencies for Midwifery Practice`s (2019). Midwives can provide full- scope of midwifery care⁷.

In Estonia women can hire a professional doula to support her from pregnancy to new motherhood. Doulas training is not regulated by professional requirements and training program has been inconsistent through the years. Doulas competencies are not recognized by national policies.

Aim

To investigate the roles and expectations of doulas by Estonian midwives.

Material and Methods

Qualitative research method. Semi-structured individual in-depth interviews were carried out among Estonian midwives in August and September of 2022. Sample inclusion criteria was previous work experience as midwife at least 5 years and work-related contact with doulas. Questions were prepared and divided into six subcategories, in each 5 questions. Data were transcribed into written script and analysed thematically.

Results

Birth doula service is not widespread in Estonia. In general midwives have positive attitude towards doulas. Doulas training and education is not officially regulated and thus raises issues among midwives who work in a hospital. Some hospitals prohibit doulas to attend hospital births and doulas pretend to be lay support person or relative for the mother-to-be. Midwives have experienced some antagonistic behaviour towards them as doula took over the labour care.

Midwives who provide home birth service have established collaboration with doulas and roles are clear. Collaboration must be improved to provide quality and continuous support during childbirth and postnatal period.

Conclusions

In Estonia, roles, and expectations of doulas in hospital setting are not clear. Midwives' role and competencies are well regulated. Problems arise due to lack of policies that regulates the competencies and role of doula in labour care in hospital settings. The authors acknowledge that need for policies and clear regulation of doulas competencies must be clarified. Evidence is needed to understand the barriers that birth doulas face to provide service for women.

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Conflicts of interest

The authors declare that they have no competing interests.

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Students' experiences of peer learning on the postpartum ward

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Introduction

The number of practical placements within the region has decreased due to centralization in maternity care and thereby closing of several maternity units. Simultaneously there is a shortage of midwives, who work as mentors of students. This

encouraged us to try new concepts in order to increase the number of practical placements available for our students and enhance the student-centered learning. At about the same time Arcada launched a competence-based curriculum and a need to develop the learning in practical training to be more student-centered and to support self-directed learning emerged. All this with the aim of achieving the EU criteria for practical training¹ Collaborative placement models, where the midwife supervises more than one student at the same time, are actively used. Supervision in groups and modules is used in several hospitals in our area with good experiences and without increasing the workload of the supervisor. With these student modules and experiences of studies in other European and Nordic countries as a starting point, supervision of students working in pairs was piloted with a small group of fourth-year public health nurse students on their postpartum placement in one specific ward in the autumn of 2020. In autumn 2021, another group of public health nurse student tested the same concept at the same ward and in the autumn of 2022 the concept was taken further and was piloted on several wards with a bigger group of midwifery students in practical training in postpartum care. At the same time the concept was piloted by public health nurse students in an outpatient clinic.

Peer learning with student pairs means that one midwife supervises two students. The students work in pairs with selected patients making care plans, providing patient care and reflecting together on their actions. Alongside the students' process, there is a supervisor in charge that supports and coaches the students in order to facilitate the learning process and make sure that protocols are followed in order to secure patient safety².

In our poster, we want to present a model for peer learning in pairs. With focus on how to support the student's learning and follow-up on supervising. We want to support the process with a model created with the help of constructive alignment and Community of Inquiry, which are central parts of Arcada's educational policy³. A structured process helps the supervisors in focusing on the benefits of peer-learning and avoiding some of the challenges that peer-learning can bring².

Material and Methods

Description of the hospital ward's process around the development of peer learning in pairs.

Content of student feedback from reflective learning diaries and focus group interviews with students that has had this type of supervision during their practical training.

Results

Students felt that they were more confident at the beginning of the practical training when they were not alone and it was much easier to come to a new place and the routines and ways of the ward felt familiar faster. They learned how to give positive and constructive feedback and felt that they received more feedback than during other practical placements. This dialogue with a peer student in combination with constructive feedback resulted in students reaching their set learning outcomes better.

Working in pairs increased the student's sense of security and they felt more confident in situations where they did patient

tutoring. It also gave the students a possibility to observe the patients and register their reactions to the tutoring given by a peer student.

Conclusions

From a student point of view, this form of supervision is effective, provides a sense of security and deepens learning. From the educational point of view this form of supervision is more structured and the connection to the theoretical competence is more visible. And for the institutions providing the practical training placements this is a more effective way to supervise students and possibly a form of lowering the staff workload.

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Conceptualising simulation-based learning in the midwifery programme

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Simulation-based learning offers students a chance to develop and hone skills in controlled, simulated environments¹. In a newly established midwifery program at University College Absalon, Slagelse, Denmark, we recognise the significant potential for bridging the gap between theory and practice through realistic case simulations that can be tested, analysed, and evaluated².

Hence, a model conceptualising the didactic aspects of simulation-based activities, enabling lecturers to design and adjust instruction based on the appropriate level of complexity, is currently being implemented in all educational programs at University College Absalon, thus also within the midwifery programme. The conceptual model consists of four learning environments, allowing lecturers to plan student activities ranging from single-based, well-defined activities to more complex coherent activities while practicing skills in as-if scenarios towards what-if scenarios, allowing learning to progress from controlled towards unexpected environments³. Several lectures will be conducted with simple scenarios and skill training, such as midwifery consultation skills (including blood pressure measurement, external examination, communicative training etc.). Furthermore, we will be testing the model with scenarios that increase expectations for students' ability to act and reflect while increasing the complexity of the simulated scenarios (e.g., shoulder dystocia where effective communication with parents, practical skills

and manoeuvres, and interprofessional collaboration are essential elements). Simulations-based learning offer an important teaching dimension for midwifery students. The strength of the developed conceptual model is its intuitiveness, which focuses on didactical aspects in facilitating student skill learning. It transparently provides an easily applicable tool that conceptualises teaching in different environments. Thus, assuring midwifery students' skills to progress gradually, challenging each student appropriately at their respective level.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Decolonising midwifery education: co-producing a toolkit

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Introduction

The influence of colonialism on education, including midwifery education, persists. It affects recruitment into midwifery as well as content and delivery of the curricula. There is evidence that colonialism also affects maternal and neonatal outcomes. Recent reports in the UK have revealed that Black women are nearly four times as likely to die in childbirth as their White peers¹. The infant mortality rate in Black infants is over twice that of White infants². Two recent reports have called for decolonisation of education in maternity care^{3,4}.

Material and Methods

Despite a growth of generic information about decolonising higher education, the Royal College of Midwives (RCM) identified a gap in specific information around decolonising midwifery education. We set up two stakeholder groups representing midwifery lecturers, midwives, students, maternity support workers, maternity service users, social scientists, NGOs, professional body and RCM staff. The groups decided to produce an educational toolkit with the aim of empowering midwifery educators to challenge the colonial perspectives inherent in all aspects of midwifery education. The groups met frequently, formed four working groups, and co-produced a decolonising midwifery education toolkit over a nine-month period.

Results

The toolkit was developed in four sections: recruitment, curriculum, assessment and practice. In each section, there is an outline of the issues, followed by best practice statements and reflective questions. The toolkit does not aim to provide definitive answers about how to decolonise midwifery education, but to provide initial guidance within each of the four sections to enhance inclusive education for midwifery students. Following much discussion on inclusive language, the toolkit adopts the terms 'global majority' and 'racialised minority' to embrace the diversity of students, midwifery educators, women and babies.

Conclusions

The toolkit was co-produced following collaborative participation by all stakeholders and was launched at the RCM Education and Research conference in March 2023. It was posted to every UK university with a midwifery education programme. It is freely available on the RCM website. It is the first known Decolonising Midwifery Education Toolkit and aims to initiate conversations about inclusivity and racial disparity in education and practice. It is hoped to influence midwifery education to improve the lived experience of global majority students as well as improving maternity care outcomes for racialised minority women, birthing people and families.

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A new screening technology in maternity care for identifying dysfunction of the placenta

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Fetal growth restriction (FGR), defined as a birthweight under the 3rd centile¹, is the major cause of stillbirth as well as infant mortality and morbidity²⁻⁶. FGR is highly associated with dysfunction of placenta during pregnancy. Centaflow A/S has developed a new and groundbreaking technology for identifying abnormal functions of placenta and FGR – the Centaflow biocensor (CB). The technology is developed to be used by midwives in the pregnancy care system to improve identification of FGR.

No new technology has been implemented for decades in the Danish pregnancy care system. And it is well known that implementation of new technology in health care and among midwives is often complicated and many implementations fail to succeed⁷⁻¹¹. Implementation of new technology has a high level of complexity due to many stakeholders and a complex setting^{12,13}. Therefore, it is essential to involve stakeholders in the process of implementation^{14,15}. Some stakeholders for CB are midwives, pregnant women, and their partners.

The overall objective of this industrial PhD project is to contribute with new knowledge that will improve the clinical detection of placentas with dysfunction, FGR and reduce stillbirth, neonatal mortality, and short and long-term morbidity of FGR infants and to filling important knowledge gaps regarding implementation of technologies in health systems in general and how service innovation can be achieved - leading to better and safer care and improved health. Specifically, this study aims to identify drivers and barriers for implementation of new technology in midwifery consultations and explore how implementation activities are adapted and interact with the contextual factors of the different settings. It will address three research questions through three sub-studies:

1) A case study: The implementation process of the Centaflow screening technology and the new paradigm for finding dysfunctional placentas and FGR within different pregnancy care settings using the "nonadoption, abandonment, scale-up, spread and sustainability" (NASSS) framework developed to improve implementation and innovation in the health sector¹⁶⁻¹⁸.

2) Qualitative focus group interviews: Midwives' attitudes towards and experiences of the Centaflow screening technology and the change in paradigm.

3) Qualitative interviews: Pregnant women's assessment of the Centaflow screening technology and how it affects their experience of and attitudes towards the midwifery consult as well as sense of security throughout pregnancy.

The PhD project will develop scientific, evidence-based strategies for implementation of the new approach to screening for FGR in Denmark with a high level of stakeholder involvement.

Funding

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Conflicts of interest

Being an industrial PhD, Lisa Wienecke is employed by the Centaflow A/S company inventing the technology in focus. The remaining authors (JS and CO) declare no conflicts of interest.

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A digital communication training to prepare midwifery students for respectful maternity care practice during the pandemic

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Introduction

Quality of communication skills is important to ensure a positive experience in maternity care. At Midwifery Education, we have implemented a communication module called "four good habits" (4GH). 4GH consist of four steps in a structured empathic and respectful conversation and is well-known in medical communication.

Material and Methods

Using Zoom as a platform, we introduced the 4GH model in lecture, followed by displaying a scenario roleplay by the two teachers of cases of relevance for midwifery.

Students were divided into groups and addressed to breakout rooms for simulating a given scenario/case together in pairs. Students were informed to the obligation and the responsibility of participation in this module and to be an active partner in a breakout room. The teachers entered the breakout rooms for listening and facilitating the debrief of the scenario.

We followed the four steps of the communication model (4GH) in relation to the given cases followed by a common reflection and sharing experiences in the whole group.

Results

- Digital session was a good replacement for physical attendance.
- Breakout room creates a safe space compared to being in classroom simulation.

Conclusions

Digital communication training may be a substitute for ordinary classroom setting as it also provides a safe simulation learning space.

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Immersive Virtual Reality (VR) when learning anatomy in midwifery education

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Introduction

Technology has improved the teaching of complex subjects such as anatomy, which is vital in healthcare and midwifery education¹. Virtual Reality (VR) is an innovative and valuable tool that can help midwives and students develop essential clinical competencies in anatomy, which are essential for providing high-quality pregnancy, birth, and postnatal care. Systematic reviews state that VR can enhance motivation for learning and preserve knowledge and in-depth learning among students in health care^{1,2}. There are few studies demonstrating the development of learning outcomes in anatomy within the midwifery education using VR. We therefore conducted a pilot study to investigate whether the use of VR could affect the learning and knowledge of the pelvic anatomy among midwifery students at a university college in Norway. The aim of the pilot study was to investigate whether midwifery students' knowledge of anatomy increased after they have completed teaching sessions in anatomy using immersive Virtual Reality goggles as a learning tool.

Material and Methods

We used a pre-post-test experimental design, conducting a pilot study investigating midwifery students' pelvic anatomy knowledge before and after the use of VR-technology as a learning tool. We compared two different midwifery student cohorts. Cohort one attended two traditional anatomy lectures, each spanning four hours, amounting to a total of eight hours of lecture time. From a teaching point of view, this was the only distinguishing factor between the two cohorts. The pre-post-test contained 11 questions about anatomical knowledge, and one open-ended question about their learning experience in VR.

Intervention (VR)

Within the master's programme in Midwifery, we have established a VR-based medical simulation session focusing on the relationship between the female pelvis, foetus and uterine muscle. The use of VR goggles enables students to immerse in the environment and follow the rotation of the foetus through the birth canal simply by adopting the foetal perspective looking down from the pelvic brim and into the pelvic cavity. Working together in pairs, the students discuss and explore anatomical structures, practice on use correct anatomical terms and reflect on which procedures to initiate to promote a physiological birth.

Results

We invited 50 midwifery students from two different classes (cohorts) at the same master's programme in midwifery, 25 in each cohort. Both cohorts were in their first semester as a midwifery student, they had all a bachelor's degree in nursing, and none of them had used VR as a learning tool before.

Both cohorts increased their anatomical knowledge after attending the anatomical lecture using VR- goggles. We found that students from the cohort that did not participate in anatomy lectures scored significantly higher on knowledge, both before and after the lecture using VR as a learning tool for anatomy.

Both cohorts experienced an increased understanding of the spatial relations between the different structures when

learning in VR. They also experienced that small group activities were more helpful than working alone due to the complexity of the subject matter.

Conclusions

Implementing VR as a learning tool, can contribute to increase spatial understanding and anatomical knowledge. By focusing on student learning in combination with learning activities and collaboration, the technology helps students gain understanding and knowledge.

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Analysis of theses related to Virtual Reality in the field of midwifery: The case of Turkey

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Introduction

Virtual reality is a product of information technology that provides comprehensive access to information. Virtual reality, which has been in a constant change and development since its emergence, is being integrated into the real world industry day by day. Although it was initially considered as a technology for the entertainment industry, its application area has expanded in the last decade and has been used in various health fields such as pain treatment, physical rehabilitation, and psychiatric disorders. Today, the healthcare industry is a critical area where this technology is widely and effectively used. The use of virtual reality in the field of midwifery is very new. It is thought that studies showing how virtual reality technology is used in the field of midwifery and how it can be associated with this field will contribute to the literature. Therefore, in this study; It is aimed to analyze the theses about virtual reality in the field of midwifery, which is one of the most influential occupational groups in the health sector.

Material and Methods

The study is a literature review study. The theses about virtual reality in the field of midwifery were reached from Turkey's thesis database "National Thesis Center of the Presidency of the Council of Higher Education".

Results

As a result of the scanning, 11 theses about virtual reality were reached. 8 (73%) of the theses reached are doctoral; 3 (27) of them are at master's level. Theses were carried out between 2019 and 2022. When the thesis topics were examined, 27% were related to labor pain, 18% to attachment, 18% to

episiotomy pain, and the other 36% to fetal development, delivery mechanism, newborn care, and pain management during pelvic examination. 63% (7) of my studies were conducted with pregnant women, 27% (3) with midwifery students and 10% (1) with women.

Conclusions

As a result of the study, it has been determined that the studies on virtual reality in Turkey have increased since 2019, and its use has increased especially in labor pain and midwifery education. In line with the findings obtained from the study, it is recommended to give more importance to the studies on virtual reality applications in the field of midwifery, both in the education of midwifery students, in the care of pregnant, puerperal, newborn, and pain management.

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Table 1. Theses about virtual reality in Turkey

Thesis Name	Year	Thesis Degree	Working group
The Effect of Virtual Reality Glasses on Women's Perceived Labor Pain	2019	Doctorate	Pregnants
The Effect of Cognitive Behavioral Techniques on Labor Pain	2019	Doctorate	Pregnants
Development and Evaluation of a Virtual Reality Simulation for Newborn Primary Care	2020	Doctorate	Midwifery students
The Effect of Haptonomy and Virtual Reality Application on Anxiety, Attachment and Acceptance of Pregnancy in Unplanned Pregnancies: Being able to Imagine the Baby	2021	Doctorate	Pregnants
Development and Use of Virtual Reality Application in Teaching Fetal Development	2021	Doctorate	Midwifery students
The Effect of Virtual Reality Applications in Travail on Perceived Labor Pain and Satisfaction in Primiparous: A Design Based Study	2021	Doctorate	Pregnants
Developing and Using Virtual Reality Application in Teaching Birth Mechanism	2022	Doctorate	Midwifery students
The Effect of Virtual Reality Glasses Applied on Primiparous Pregnants During Episiotomy Repair Procedure on Pain Level and Satisfaction: A Randomized Clinical Study	2022	Master	Pregnants
The Effect of Virtual Reality Glasses Played with Music on Pain Perceived by Women, Vital Findings and Postpartum Comfort During Episiotomy Repair	2022	Doctorate	Pregnants

The Effect of Watching Nature Images with Virtual Reality Glasses on the Level of Stress, Anxiety, Attachment and Care Satisfaction to Pregnant Women with Premature Birth Threat	2022	Master	Pregnants
Investigation of the Effect of Virtual Reality on Pain and Anxiety Management During Pelvic Examination	2022	Master	Women

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Does breastfeeding reduce the risk of breast cancer? A case-control retrospective study

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Introduction

To investigate a possible association between breastfeeding and breast cancer risk in Greek women.

Material and Methods

Totally, 391 women participated in our case-control retrospective study. 238 women with breast cancer were included in the case group, while in the control group 153 women without breast cancer who were enrolled in two breast clinics in Greece. All women were examined clinically and with breast ultrasound, while those older than 40 years old also with bilateral digital mammography.

Results

The x2 (chi-square) test found a statistically significant reverse correlation between breast cancer and breastfeeding ≥ 12 months (cumulative) ($p = 0.001$). It was observed that the percentages of patients who breastfed ≥ 12 months were lower than those of healthy women.

Conclusions

Breastfeeding and particularly the cumulative period of ≥ 12 months is related to the maximum of protection from breast cancer.

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Conflicts of interest

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The impact of breastfeeding in the economy of a country

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Introduction

Breastfeeding represents the optimum nutritional choice (a natural phenomenon) after the birth of a child. According to the World Health Organization, mothers should be motivated

to breastfeed their babies exclusively for the first six months. During In the last decade, there is strong scientific interest in breastfeeding's advantages, which include apart from nutritional benefits also important economic aspects that can help in the long run in a country's economy.

Material and Methods

This study is based on a systematic bibliographic review after search into the environmental, social, health and economic benefits of breastfeeding. Relative literature and studies were searched in PubMed, Medline, the Cochrane Database of Systemic Reviews, Google Scholar, World Health Organization website, UNICEF website. Subject heading and key words used include economic benefits, aspects, factors of breastfeeding.

Results

Successful policies in the direction of promoting breastfeeding and expanding the breastfeeding duration can not only contribute to the improvement of the quality of human health, but also has effect on the economic status of a country.

Conclusions

Breastfeeding is beneficial to the nation's social and economic well-being on many levels.

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Protecting and promoting newborn's microbiota. The essential role of midwives for initiation and maintain lactation to mothers who separate their infants after birth for medical reasons

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Generally, the first major bacterial encounters a newborn experiences are of maternal origin and occur during and directly after birth, depending on the mode (vaginally or by Cesarean-section[CS]), and their closely relation with them afterwards. In some cases, the babies missing the maternal «starter kit», but this process can be covered from others sources, like the breastmilk. It is essential, therefore, when medical reasons separate mothers from their newborns to initiate expression of their milk, as soon as they are capable to do it, in the nursing wards. In our ward, «PETSALI», the midwives, in line with the global recommendations, educate and offer help to these cases of mothers, so as to express milk by hand or by breast pumps during the first 6 hours of birth, for the first newborn's meal.

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The effect of breastfeeding on women's weight loss after childbirth and body mass composition—a preliminary study

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Introduction

Breastfeeding is the best way to nourish infants and young children. It also has many benefits for the mother and society. It has a positive effect on the mother's metabolism, insulin sensitivity, increased release of fats used in milk production and faster postpartum weight loss¹⁻³. This protects breastfeeding mothers from obesity and metabolic diseases, and lowers healthcare spending considerably^{4,5}.

Aim

The aim of this study was to evaluate the effect of breastfeeding on the women's body mass composition, the levels of selected hormones (leptin, ghrelin, adiponectin, resistin, and insulin), and weight loss during the 6-8 week postpartum period and 1 year after childbirth.

Materials and Methods

The study group included 60 women with a singleton pregnancy. The study was carried out 7-8 weeks after childbirth. The women were subjected to body weight measurement, and body composition analysis performed using a professional body composition analyzer TANITA DC-430 S MA. Waist circumference and subcutaneous fat was measured. Blood for laboratory tests was taken in the morning, on an empty stomach. The same tests were performed 1 year after childbirth. The research was conducted from January 2017 to December 2019. The Shapiro-Wilk test was used to assess the normality of the distribution. The evaluation of data in two groups was performed using the Mann-Whitney U test. A comparison of the variables six weeks postpartum and one year postpartum was performed using the Wilcoxon test. The analysis assumed a significance level of 0.05. Thus, all p-values below 0.05 were interpreted as indicating significant relationships.

Results

Exclusive breastfeeding had a more significant impact on postpartum weight loss 6-8 weeks after childbirth, but not one year after childbirth (partial breastfeeding). One year after delivery, all women had significantly lower lean body mass (breastfeeding $p=0.026$; non-breastfeeding $p=0.027$) and smaller waist circumference (breastfeeding and non-breastfeeding $p<0.001$), but only breastfeeding women had lower BMI ($p=0.0014$), lower subcutaneous adipose tissue thickness ($p<0.001$) and lower obesity risk ($p=0.016$). Higher insulin and ghrelin levels were also observed in both breastfeeding and non-breastfeeding women ($p<0.001$), but lower resistin levels were observed in non-breastfeeding women ($p=0.004$).

Conclusions

Breastfeeding affected women's weight loss 6-7 weeks postpartum, but not one year postpartum, compared to non-breastfeeding women. However, it was observed that women who breastfed one year postpartum had a statistically significant lower BMI, less subcutaneous fat, and lower obesity risk and resistin levels. Further research is needed to determine effect of breastfeeding on women's weight loss after childbirth and body mass composition.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Maternal age at the last birth and breast cancer risk: A case-control bicentric study

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Introduction

Epidemiologic studies on the relationship between breast cancer risk and maternal age at the time of the last birth produced mixed results. We conducted this case control-retrospective analysis to unbiasedly evaluate the association between maternal age at the last birth and the risk of breast cancer.

Material and Methods

342 women who visited two breast clinics in Greece and gave birth to live infants were examined in our case-control retrospective research. Women without the disease were included in the control group, while those with breast cancer were included in the case group. In addition to digital bilateral mammography being conducted on those who were older than 40 years old, all women got a clinical evaluation that included a breast ultrasound.

Results

With a p-value of 0.474, the Mann-Whitney test found no statistically significant difference between the two groups of women's distributions of maternal age at the birth of their last child and their risk of developing breast cancer.

Conclusions

Our study found no statistically significant link between breast cancer and the mother's age at her last delivery. Further studies with a more significant number of patients are mandatory in order to confirm this result.

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Conflicts of interest

The authors have no relevant financial or non-financial interests to disclose.

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Fibroids and infertility: A sort review

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Introduction

Uterine myomas are a very common medical condition that affects almost 70% of women worldwide. They have a strong connection with cases of infertility and are estimated to be the only reason behind it in about 2–3 % of infertility cases. In addition, myomas can affect pregnancy in the early stages, leading to recurrent pregnancy loss or complicated pregnancy in later stages. This paper is a short review of the existing bibliography on the connection between infertility and uterine myomas.

Purpose

The purpose of this sort literature review is to clarify the role of fibroids in the occurrence of infertility, in the development of a pregnancy and in any coexistence with it.

Material and Methods

For the purpose of writing this review articles from databases like PubMed and NCBI were collected, using the following search terms "infertility", "uterine fibroids", "Uterine fibroids and infertility", "uterine fibroids treatment", "uterine fibroids and pregnancy", "hyperprolactinemia".

After a review of the results to this research the articles that were chosen to be concluded in this review were those with the most recent publication dates on the specific subject of research, with most of them having been published during the last 3 years.

Results

From the pathogenesis, gene mutations appear (Med12 gene [~70% of UFs], the AT-hook 2 [~20%], biallelic inactivation of fumarate hydratase (FH~2%), and secretion of MicroRNAs, which affect the endometrium.

Regarding the effect of the fibroid on the endometrium, it is detected in:

1. Low expression of HOXA10 and HOXA11 genes in 68.8% of fibroids coexisting with low implantation rates.
2. Low expression of the cytokines LIF and IL-11
3. Increase in TGF-β3 factor leading to decrease in BMPR-2
4. Increase of macrophages and decrease of Natural killer cells.
5. Disorder of contractility of the uterus (effect also from the pseudocapsule of the fibroid).
6. Coexistence of fibroids with pregnancy occurs in 3–12% of pregnant women.
7. Effect of fibroids on pregnancy: spontaneous abortion, abnormal fetal projection, placenta previa, premature labor, placental abruption, caesarean section, postpartum

hemorrhage.

Pregnancy can cause hemorrhage, necrosis, and histologic progression of the fibroid to leiomyosarcoma.

Conclusions

Fibroids are closely related to decreased fertility, and can potentially progress to malignancy.

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Satisfaction measured by the Satisfaction with Life Scale in case of the experience of an IVF cycle

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Introduction

Research is mainly examined negative indicators of psychological adjustment to the experience of in vitro fertilization (IVF), such as depression, anxiety or distress. However, it is important to examine positive emotions too in order to assess psychological adjustment of infertile couples. The current study was to expand this research to positive aspects of psychological adjustment by examining satisfaction with life and well-being. The aim of the current research was to test validity and reliability of Satisfaction with Life Scale to a sample of Greek infertile couples.

Material and Methods

90 couples, who experienced an IVF cycle, filled in the Satisfaction with Life Questionnaire (SWLS). In order to confirm the validity of the instrument in the sample of this research, confirmatory factor analyzes (Confirmatory Factor Analysis - CFA) were carried out using the IBM SPSS AMOS software which is specialized in the analysis of structural equation models (Structural Equation Modeling - SEM). The reliability analysis was carried out using the IBM SPSS statistical processing software package by calculating the Cronbach's Alpha size.

Results

The results of confirmatory factor analyzes and reliability analysis proved that Satisfaction with Life Questionnaire met the criteria of validity and reliability.

Conclusions

Validity and reliability of Satisfaction with Life Questionnaire was adequate. This scale can be used in infertile couples. Then, it is important to examine and identify factors that are correlated with increase of well-being, and use these factors to develop psychological interventions that assist infertile individuals in maintaining their quality of life and buffer the effects of stressors during the experience of an IVF cycle.

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Midwifery-led care during childbirth in Belgium anno 2021

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Introduction

Midwives are primary healthcare providers for childbearing women worldwide. Studies showed that women receiving midwife-led care (MLC) were less likely to experience interventions and more likely to be satisfied with their care. Despite the positive effects of MLC, autonomy of Belgian midwives to guide labour and delivery is restricted. Additionally, Belgian data on MLC and midwifery support during childbirth is missing. Therefore, the Flemish Midwives Organisation started a registration on maternal/neonatal outcome of MLC.

Material and Methods

Midwives registered anonymously perinatal outcomes about autonomously performed births in 2021 by completing an online form. In total, 31 midwifery practices with 108 independent midwives in Flanders and Brussels, reported 1587 registrations. Descriptive statistics was used for data-analysis.

Results

In total 1587 labours, started at home and were initially planned to give birth under supervision of a midwife. Most deliveries were autonomously performed by midwives (83%, n=1311), either at home, in a birth centre, assisted intramurally or in a MLC unit. One fifth of the women (17%) needed an intrapartum transfer, ending in a delivery by the gynaecologist. Women receiving MLC opted mostly for hands—and-knees positions (43%), had a bath delivery (43%), intact perineum (41%) and no maternal complications. Also neonatal outcomes (e.g. Apgar) were good.

Conclusions

These findings are in line with previous research, demonstrating the quality of MLC in Belgium, leading to good perinatal outcomes. It shows that midwives are the gatekeepers of physiological childbirth. Further efforts are needed to optimize the registration and visualize the work of primary care midwives.

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Immigrant and Norwegian-born women, discolored amniotic fluid, oligohydramnios and stillbirth: A population-based study from Norway (1990-2021)

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Introduction

Both discolored amniotic fluid and oligohydramnios increase

the risk of adverse pregnancy outcomes, such as stillbirth, and a combination of the two is more severe than an isolated one. Immigrant women in certain sub-groups are at an increased risk of adverse pregnancy outcomes, including stillbirth. The aim of the study was to investigate associations of maternal country of birth with discolored amniotic fluid, oligohydramnios and stillbirth.

Material and Methods

This is a nationwide population-based study including immigrant (N=304 853) and Norwegian-born women (N=1 355 174) giving birth in Norway in 1990-2021. Data were obtained from the Medical Birth Registry of Norway and Statistic Norway. Multivariable logistic regression analyses were used to estimate odds ratios (OR) with 95% confidence intervals (CIs). Analyses were adjusted for year of birth, maternal age, parity, maternal education and income.

Results

In overall analyses, higher odds for stillbirth were found in births with isolated discolored amniotic fluids (aOR 3.39; 95% CI 3.21-3.58), isolated oligohydramnios (aOR 5.72; CI 5.12-6.37) and births registered with both discolored amniotic fluids and oligohydramnios (aOR 13.38; CI 11.88-15.08), compared to births without these conditions. Compared to Norwegian-born women, births to immigrant women showed higher odds for isolated discolored amniotic fluid (OR 1.22; CI 1.20-1.23), isolated oligohydramnios (aOR 1.19; CI 1.16-1.23) and the combination of discolored amniotic fluids and oligohydramnios (aOR 1.42; CI 1.35-1.48). Sub-groups of immigrant women were either associated with higher or similar odds of isolated discolored amniotic fluid or the combination of discolored amniotic fluid and oligohydramnios, compared to Norwegian-born women. In particular, women from Sub-Saharan Africa were associated with an increased odds of all three outcomes; isolated discolored amniotic fluids (aOR 1.29; 95% CI 1.23-1.35), isolated oligohydramnios (aOR 1.99; CI 1.89-2.09) and births registered with both discolored amniotic fluids and oligohydramnios (aOR 3.05; CI 2.81-3.30), compared to Norwegian-born women.

Conclusions

Discolored amniotic fluid, oligohydramnios, or a combination of both increase stillbirth risk. Most sub-groups of immigrant women, especially those from Sub-Saharan Africa, are at higher risk of all three outcomes compared to Norwegian-born women. In this study, the combination of discolored amniotic fluid and oligohydramnios was associated with particularly high odds for stillbirth and should therefore require close monitoring during labour. Future research should aim to increase knowledge on the causes and risk factors for these conditions and develop strategies to prevent associated stillbirths.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Sleeping disorders during perinatal period as an element of women's physical and mental health

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Introduction

During pregnancy and postpartum, sleeping disorders constitute a relatively frequent phenomenon, which is likely to lead to physical and mental health complications¹⁻³. Low-quality sleep during perinatal period can be associated with increased symptoms of insomnia, snoring and postpartum depression^{2,4,5}. We aimed to investigate the prevalence of sleeping disorders during perinatal period and their correlation with depressive symptomatology.

Material and Methods

This cross-sectional study recruited women from three Greek maternity hospitals between May 2017 and February 2018. Data were collected with a self-administrated structured questionnaire completed by postpartum women. Participants also completed three scales that examine the physical and mental health compared with energy before and after sleep (VAS-F, GSDS)⁶⁻⁸ and the quality and quantity of sleep (AIS, GSDS)⁸⁻¹⁰. Finally, women also completed the Edinburgh Postnatal Depression Scale (EPDS)^{11,12}.

Results

Of 275 women recruited to the study, a small percentage of 8.7% declared extremely sleepy on the VAS-F scale and 102 women (37.2%) reported symptoms of insomnia according to AIS scale. Most of the women with symptoms of insomnia (98 out of 102) reported significantly less well-being the next day compared to the prenatal period. On the GSDS scale, a percentage of 31%, reported frequent awakenings all days of the week. Finally, according to EPDS scale, sadness negatively affected sleep sometimes in 17.5% of participants while most of the time at 6.6% of postpartum women.

Conclusions

Our data supports that an increasing amount of postpartum women mention poor – quality sleep (or low quality sleep) and suffer from sleep deprivation. Insomnia is an extremely important risk factor for postpartum depression. In addition, factors that contribute to poor sleep quality such as smoking and coffee consumption, weight gain and snoring can also contribute to the mother's physical and psychological state.

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Vitamin D supplementation during pregnancy in Greek population

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Introduction

Vitamin D deficiency or insufficiency is thought to be common among pregnant women. Recently, a special attention has been paid to gestational hypovitaminosis D in relation to pregnancy outcomes. There is little information on vitamin D intake in pregnancy and lactation and few studies on clinical outcomes. Vitamin D supplementation during pregnancy has been suggested as an intervention to protect against adverse gestational outcomes.

Objective

The aim of this study is to determine the necessary vitamin D supplementation in a cohort of Greek pregnant women. The main goals of this study are: a) to analyze and correlate data of pregnant women with different therapeutic protocols for vitamin D supplementation during pregnancy and relation to vitamin D insufficiency or deficiency of the newborn.

Material and Methods

All pregnant women from a private clinic of a maternity hospital in Athens were randomized and included in the study.

A single blind randomized design was used in order to define three groups of pregnant women who received different vitamin D3 supplementation after the 12th week of pregnancy (Group A < 8400 IU per week; Group B < 12800 IU per week; Group C > 16800 IU per week). Maternal vitamin D3 (OH-VitD3) levels were recorded on the 3rd month of gestation and the 1st postpartum day. Newborns' vitamin levels (OH-VitD3) were measured on the 3rd day of their life.

Results

In total 192 pregnant women and 194 newborns were involved in the study. Newborns absorb Vitamin D3 from their mother. There is a significant proportion of pregnant women who have vitamin D deficiency or insufficiency both on the 3rd month of gestation (91%) and on the delivery date (80%). Only 15% of newborns demonstrated low vitamin D levels at birth. Vitamin D supplementation with a dose of 16800 iu weekly from the 3rd month of pregnancy seems to have a significant effect on fetal vitamin D levels, resulting to no infant with vitamin D deficiency (less than 15ng/ml). In our survey there is no indication of adverse effect of Vitamin D on newborn's weight or premature labor. Premature labor is not associated with higher maternal levels of vitamin D.

Conclusions

Vitamin D supplementation during pregnancy is safe and provides an efficient therapeutic modality to prevent maternal and neonatal vitamin D deficiency or insufficiency.

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Mode of delivery in the first pregnancy and the potential risk for preterm birth in subsequent pregnancy

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Introduction

An increasing amount of research studies the relationship between the mode of delivery in the first pregnancy and the possibility of preterm birth in a subsequent pregnancy. This study aims to synthesize the available evidence on the mode of delivery and its possible association with an increased risk of subsequent spontaneous preterm birth or indicated preterm birth.

Material and Methods

A scoping review was performed in Medline and Scopus databases, searching for eligible studies from January 2023 to February 2023. Studies that reported the mode of delivery and the risk of preterm birth in subsequent pregnancies were included.

The data was extracted independently by two researchers.

Results

14 retrospective cohort studies were included in this study. The main research findings were:

1. Caesarean section in previous delivery increased the risk of preterm birth in subsequent delivery^{1,2}
2. Caesarean section if performed in the first stage of delivery or if performed pre-labor is associated with indicated preterm birth³⁻⁷
3. Caesarean section in the second stage of delivery was associated with an increase in the risk of spontaneous

preterm birth^{8–11}

4. A small number of studies also showed that caesarean section in the first pregnancy was associated with a non-statistically significant increase in the number of preterm births in subsequent pregnancies^{12–14}.

Conclusions

A caesarean section could increase the risk of preterm birth in subsequent pregnancies and specifically if the caesarian section was performed on the second stage of delivery. This scoping review provides information to midwives and obstetricians, so that they can recognize the association between the previous mode of delivery and the rate of preterm birth in subsequent pregnancies in order to use this information for postpartum counseling. More studies are needed – and specifically prospective cross-sectional studies – which would evaluate and regulate interventions, in order to clarify further whether the prolonged 2nd stage of labor or the caesarean section itself is what causes this association.

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Conflicts of interest

The authors have no relevant financial or non-financial interests to disclose.

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Karyotyping and chromosomal microarray analysis in women requesting amniocentesis for isolated sonographic soft markers or advanced maternal age

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Background

Prenatal diagnosis is an important part of obstetric care and is aimed at identifying potential genetic abnormalities in fetuses. Chromosomal microarray analysis (CMA) is becoming the preferred diagnostic method due to its higher resolution than traditional cytogenetics.

Objective

This study aimed to determine the prevalence of major and sub-chromosomal abnormalities in fetuses with ultrasound findings during routine anatomy scans or pregnancies of advanced maternal age after maternal request without medical indication.

Methods

A total of 126 cases were included in the study, divided into two groups: 84 fetuses with isolated sonographic soft markers and 42 fetuses from mothers of advanced maternal age. The group of isolated sonographic markers was further categorized by the affected anatomical system. Both QF-PCR and CMA were used to detect genetic aberrations.

Results

Clinically significant genetic abnormalities were found in 12% of the first group and 7% of the second group. Interestingly,

40% and 67% of the abnormal cases in the first and second groups respectively were only detected with CMA, while they would have been missed by standard karyotype or QF-PCR alone. The most common genetic aberrations were detected in fetuses with findings in the central nervous, craniofacial, cardiovascular, and musculoskeletal systems. CMA also identified sub-microscopic chromosomal aberrations in cases with short long bones and one case with ventriculomegaly.

Conclusion

This study highlights the importance of using CMA for prenatal diagnosis, even in low-risk pregnancies with isolated sonographic markers or advanced maternal age. It can help identify clinically significant genetic abnormalities that may have been missed with traditional cytogenetics, leading to better clinical management and counseling.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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The knowledge of correlation of pelvic floor disorders with maternal and obstetrics characteristics, overtime

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Introduction

Pelvic floor dysfunction with symptoms such as urinary and fecal incontinence, pelvic organ prolapse, perineal pain and sexual disabilities affects millions of women worldwide¹. A large number of these women undergo corrective surgery with significant implications for them, both personally and financially². In the USA approximately 400,000 women undergo surgery to repair pelvic floor dysfunctions, annually³. It has been found that in 2050, the percentage of surgical interventions to repair pelvic floor dysfunctions is expected to be increased by 50%⁴. In the possibility of urinary incontinence and pelvic organ prolapse childbirth is reported as the most frequent causative factor, although during pregnancy it occurs in a percentage of 44%⁵. It is argued that urinary incontinence is related to both hormonal and mechanical changes that occur in the body during pregnancy⁶. It is reported that the prevalence of postpartum urinary incontinence ranges from 18% to 34%⁷ and can reach 56% with a progressive reduction within six months after birth⁸. According to studies, pelvic floor dysfunctions are a major public health problem that could have socioeconomic ramifications and could lead to social withdrawal, affecting women's quality of life⁹.

Objective

The purpose of this review is to identify maternal, pregnancy related factors and obstetrics characteristics which are associated with the progress of pelvic floor disorders after childbirth.

Material and Methods

Literature related to the subject was found through the following electronic databases: Pubmed / Medline and Google Scholar. The Pubmed / Medline database and Google Scholar

searched for articles / publications in English. The selection criteria of the bibliography were the relevance to the subject of the study, the time of publication, the language and the accessibility of each article. The excluding criteria were the lack of relevance to the subject as well as the inability to get access.

Results

Pelvic organ prolapse, urinary and anal incontinence are the main identified disorders postpartum¹⁰ (Hou et al 2022). Muscles injuries from pregnancy and delivery may alter pelvic floor function. The pathophysiological mechanism of the alteration may be associated with pregnancy itself¹¹. Pregnancy and vaginal birth are the most well documented risk factors for pelvic dysfunction. However, cesarean section is not harmless. The function of the pelvic floor and morbidity is burdened by the surgery itself¹. Pelvic floor disorders increase with increasing parity. Nevertheless, muscle training may help to prevent pelvic symptoms postpartum¹².

Conclusions

Basic knowledge of pelvic floor disorders by women would reduce the prevalence of disease, significantly. This would greatly improve the healthcare costs of the countries and would have a positive influence on the general self-esteem of women³. Educating healthcare professionals and informing women about preventive care of the genitourinary system would facilitate the minimization of disease symptoms and would improve the possibilities of therapy¹³.

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Factors affecting for women's sexual functioning after childbirth-pilot study

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Introduction

Although postpartum sexual problems are common, the impact of the factors affecting on sexual life is still unclear and the understanding of the influencing factors is limited. Most women do not resume sexual activity for 6-8 weeks after labour. However, within three months of the delivery, 80-93% of new mothers resume intercourse¹. During this time, two out of three women experience at least one problem connected to sexual functioning, including decreased libido, difficulty achieving orgasm, vaginal dryness or dyspareunia². Decreased sexual activity in the postnatal period may result from reduced interest in sex, post-partum pain, tender breasts, and leaking milk³⁻⁵.

Women identify numerous factors affecting intimate and sexual relationships, including role incompatibility, extreme tiredness, lack of sleep, and changing body image issues leading to changes in libido⁵⁻⁷. What is more, new mothers are concerned with their body image and perceived physical attractiveness declines after childbirth^{5,8}.

The aim of this pilot study was to investigate factors affecting for sexual life the effects of different infant feeding methods on female sexual functioning after childbirth.

Female sexual dysfunction (FSD) is a common and often underestimated problem with serious effects on women's quality of life⁹. This phenomenon is understudied especially in the context of Polish women in the postpartum period.

Material and Methods

A pilot, cross-sectional control study was conducted in a group of 253 women in the postpartum period. The study followed the STROBE guidelines for cross-sectional control analysis. The study design included a questionnaire for characterizing sociodemographic, medical history and breastfeeding variables and the PL-FSFI (Female Sexual Function Index). All statistical analysis was performed on dedicated software. The level of significance was taken to $p < 0.05$.

Results

There was statistically significant difference between the groups that practiced different types of breastfeeding. The problem with lubrication and lack of sexual desire was the most prevalent dysfunction, regardless of the infant feeding method. Significantly lower scores were found in the exclusive breastfeeding group compared with the formula-feeding group for the pain subgroup. Out of all the PL-FSFI assessing domains, the highest average score for the whole group was presented for satisfaction and the lowest score for lubrication. Our findings indicate that exclusively breastfeeding women are more likely to develop sexual problems. There was statistically significant difference between the groups declaring different educational level, type of using contraceptive methods and type of labour. No differences were found for sexual functioning in relation to the mother's age, number of previous births, weeks of gestational completion and chronic diseases of the mother.

Conclusions

Extensive and professional counseling is needed for couples about postpartum sexuality and the factors that affect it, such as breastfeeding, in order to maintain sexual health and promote long-term breastfeeding. In further studies, we also decided to include the Body Esteem Scale and the SES Self-Esteem Scale of M. Rosenberg.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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The use of high-fidelity simulation with fetal head force-monitoring on the improvement of clinical skills in shoulder dystocia management: The SAFE study

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Introduction

Shoulder dystocia is considered an obstetric emergency at childbirth that can lead to significant neonatal morbidity and mortality. The primary objective of the SAFE study is to explore and quantify how the knowledge and skills on shoulder dystocia management of Greek Midwives may improve following high-fidelity simulation with integrated force-monitoring systems.

Material and Methods

A high-fidelity simulator that consisted of a pelvic model and a computerised neonatal mannequin with an embedded force-monitoring system was utilised for the purposes of shoulder dystocia management in a one-day workshop. Midwives were invited to participate in groups of five in a 90-min training session during the workshop. The training session consisted of a 30-minute initial evaluation, a 30-minute theoretical and hands-on training from the instructor, and a 30-minute final evaluation of participants. The outcomes measured involved the performance of maneuvers (scale:0-20), the force applied on the neonatal head, the level of communication skills (scale:0-5) and self-reported confidence (scale:0-10). These outcomes were recorded at the start and at the end of the training session. The pre- and after- training scores of all four outcomes were compared and statistical analysis was applied. The workshop was repeated at 6 and 12 months to determine the retention of skills over time.

Results

There were 102 midwives participating in total at the baseline workshop, with a median age of 26 years old, and with approximately 1 in 3 having labour ward experience. Prior to training, only 8,8% managed to successfully deliver the impacted shoulder (defined as successful delivery of the posterior arm), with this increasing to 89% after training. The mean force applied to the neonatal head was in excess of 100 Newtons and was similar pre- and after- training, with a convergence of the outliers to the mean value. Performance of maneuvers scores, the self-reported confidence of participants, and the communication skills of the participants improved significantly almost two-fold after-training. Those that benefited most were the participants with less clinical experience. High scores in clinical skills were retained even after 6 and 12 months.

Conclusions

High-fidelity simulation with use of force-monitoring systems on the management of shoulder dystocia at childbirth, can significantly improve the performance score of maneuvers, the levels of confidence and the communication skills of Midwives, with this effect being retained after 6 and 12 months from baseline training.

Funding

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Perineal care – evidence-based suture technique in first- and second-degree perineal tears

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Introduction

During a vaginal delivery up to 85% of those giving birth get a perineal tear. Tears affect both physical, psychological and social well-being for the woman. A first-degree tear leads to slight discomfort. A second-degree tear can lead to prolonged pain, affect body image, breastfeeding and family life, as well as lead to sexual dysfunctions. The aim with the master thesis was to make visible how the diagnosis of the perineal tears and the suture technique itself can affect the woman's sexual and reproductive health postpartum and for the rest of life.

Material and Methods

The method for the master thesis was scoping review. Scientific articles were found in Cinahl, PubMed, Cochrane Library. Also, Google Scholar, guidelines, educational programs and books were used in the manual search to find scientific articles. The data-analysis was done as inductive content analysis.

Results

The result includes several steps of the perineal care, preparation, identification, choice of material, suture technique and documentation. Midwives and obstetricians should have evidence-based knowledge of perineal anatomy and physiology, how the perineal tear should be repaired, as well as how the perineal tear and the suture affect the woman's life. Professionals should explain to the woman why the assessment and suturing is performed. Assessment and detection of perineal tears are strongly associated with a correct diagnosis. Anesthesia must be given before assessment and it should be sufficient throughout the repair. Rectal examination should be part of the systematic assessment and after each suturing. The suture material also affects the result; in the superficial layer use quickly absorbable sutures when needed; in the second-degree tears an absorbable suture and the suturing must be done in three layers, (vagina - perineal muscles - skin). The continuous suture is recommended over single sutures, as they have a beneficial effect on the perceived pain, the use of pain relief, as well as on the woman's sexual and reproductive health postpartum. Information to the woman and documentation are an important part of perineal care.

Conclusions

Every midwife and obstetrician need to have evidence-based knowledge about perineal anatomy and physiology, about perineal care and its importance, to ensure for every woman to have optimal sexual and reproductive health after a vaginal delivery. Diagnosis of perineal tear and proper assessment, including a rectal examination, must be performed after every vaginal delivery. Suturing technique should be chosen based on evidence and documented; a second-degree tear should be sutured in three layers with absorbable suture. The woman must receive information about the tear, reparation and self-care.

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Remembering birth: a narrative inquiry into older women's experiences of birth and their lifelong significance

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While there is an abundance of literature about the women's experiences of birth collected soon after birth, research about recollections of birth across the lifespan is scarce. This narrative inquiry takes a feminist interpretivist perspective to explore older women's birth experiences giving voice to women whose experiences occurred many years ago. As such, it presents a unique opportunity to understand more about the significance of the birth experience over time. Six women in their seventh decade were selected to participate and interviewed. The women gave birth to their children during the 1960-70s and recalled their experiences during two interviews: one unstructured interview and one semi-structured interview. The narratives were analysed using a voice-centred relational method - the Listening Guide¹.

From the analysis three central and interrelated interpretive findings emerged. The first highlights the importance of context; the stories were shared in a way that exposed the context of living in those times and how this impacted on their experiences. The second highlights the significance of the personal and professional relationships the women experienced during the birth continuum. These involved the midwives who had cared for them and the relationships they had with their mothers and those acting in that role. The third finding has been drawn out of I-Poems and illustrates the enduring emotionality of the birth experience. The poems reflect the sense of fear, un-enlightenment, humour and sadness associated with the women's birth experiences. They also offer empowering advice to younger women who are preparing to birth in the contemporary context.

The research demonstrates the value of older women's perspectives of their birth experiences. Not only does it actively foreground the voices of this group of women, but it also theorises the narratives in a way that reveals the longevity of the complex multi-sensory emotional experience of giving birth. It demonstrates the women's resilience when seeking out female support. It concludes with recommendations to health care professionals, community leaders and policymakers to embrace the wisdom and knowledge of older

women and consider how common birthing practices may impact the lifespan of women.

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Reflection on professional identity by first year students of a midwifery bachelor programme in Germany

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Background

Development of professional identity in order to provide high-quality midwifery care has been highlighted internationally and should be incorporated into contemporary curricula².

Rationale for practice

Educators are expected to design learning activities that enable midwifery students to link specific knowledge and skills to personal beliefs and their influence on practice³.

Description of application

First year midwifery students were introduced to midwifery philosophy at the beginning of a module concerned with clinical aspects of care during normal labour.

Three seminars were designed for further exploration. Students used creative methods to produce representations of their understanding of individual professional identity.

Descriptions and discussions on the perceived value of the experience and findings were part of the final assessment.

Impact

Reflection on professional identity via designated seminars and formalizing the results at the end of the module enabled students to

- engage with midwifery philosophy parallel to acquiring clinical knowledge and skills;
- identify specific actions and behaviours which reflect their professional identity;
- describe the perceived impacts of their professional identity on the care given to women.

Discussion

Students expressed awareness of the continuous process involved in professional identity development and intended to follow up on preliminary findings.

As reported elsewhere⁴, challenges to accommodate additional content without compromising clinical knowledge in the given module were identified. Digital formats might offer solutions⁵.

Examples and research with respect to digital formats to facilitate professional identity development among midwifery students are warranted.

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The incidence of risk factors for developing breast cancer

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Introduction

Breast cancer is the most common cancer in women worldwide, with an incidence 1,7 million in 2012. Breast cancer is about 25%, among women population and the fifth leading cause of mortality^{1,2}. The aim of this review is the recognition of the breast cancer risk factors, for the early detection, diagnosis and the effective treatment strategies.

Material and Methods

A systemic search was performed on research studies on breast cancer risk factors in PubMed and Embase databases, published between 2000 and 2022. This review considered retrospective studies, systemic reviews and meta-analysis, in English language. On research has been included studies with risk factors such as age, sex, ethnicity, use of oral contraceptive pills and hormonal replacement therapy, chest radiation, reproductive factors, personal or family history of breast disease, genetic pre – disposition and lifestyle such as high body mass index, exposure to tobacco and alcohol consumption, which have been associated with an increased risk for the development of breast cancer. A total number of 250 studies were retrieved, as potentially relevant. 165 studies were irrelevant, and 85 studies were eligible for further assessment. Of 53 studies that were identified, 10 were excluded, because were not relevant to chosen risk factors. 43 studies were relevant and examined in further detailed. Studies were analyzed and extracted using PRISMA flowchart.

Results

According to the included studies the age, sex, ethnicity, use of oral contraceptive pills and hormonal replacement therapy,

chest radiation, reproductive factors, personal or family history of breast disease and genetic pre – disposition were significantly associated with an increased risk of developing breast cancer³⁻³⁰. Also, lifestyle risk factors as obesity³¹⁻³⁴, alcohol consumption³⁵ and limited physical activity are strongly³⁶⁻³⁹ associated with breast cancer. However, the relationship between smoking and breast cancer risk remains controversial⁴⁰⁻⁴⁴.

Conclusions

Breast cancer develops through a multistep process and influenced by genetic, environmental and lifestyle factors. Targeted prevention strategies against these risk factors and personalized risk assessment for breast cancer screening should be taken.

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Perceptions of health professionals of obstetrics/gynecology departments regarding the concept of intercultural care in the region of central Macedonia

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Introduction

Greece is a multicultural country, especially in recent years, and health professionals must be able to provide culturally appropriate health care. Cross-cultural midwifery is an important aspect of health care. The growing multicultural population in most developed countries is a major challenge for midwives and doctors, who are called upon to provide individual and comprehensive care to their patients. To do this, health professionals need to recognize and understand cultural differences in values, beliefs and care practices. This requires them to acquire the necessary knowledge and skills for cultural competence. The aim of this study was to investigate the intercultural obstetrical competence of obstetrical health professionals in Central Macedonia and how the health personnel respond to the intercultural needs of each health unit.

Material and Methods

Relevant surveys were carried out with a questionnaire to the medical staff of the above departments. The questionnaires were designed to explore cultural competence through knowledge, skills, dealing with intercultural situations, cultural awareness, education and training. Data were statistically processed using SPSS 25 software.

Results

Factor analysis of the questionnaire highlighted the need for more personalized and culturally adapted care and training in intercultural midwifery from the first year of study.

Conclusions

The study concluded that training health professionals, raising awareness of multiculturalism and diversity, and acquiring basic skills are necessary to perform their duties more effectively and improve the quality of care. The healthcare system, and more broadly, is moving towards a more humanistic educational model.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The effect of hypnobirthing classes with a gender-responsive approach to labor anxiety, pain, labor satisfaction at the Tembuni birth center, South Jakarta in 2023

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Introduction

Maternal mortality in Indonesia is still dominated by the three main causes of bleeding, hypertension, prolonged labor and infection during pregnancy¹. Fear of childbirth is one of the main factors that can cause long labor. In Indonesia, the incidence of fear of childbirth reaches 373 million. Of these, 28.7% of them are anxiety that occurs in pregnant women before delivery (Ministry of Health of the Republic of Indonesia, 2017). The impact of fear of childbirth can be painful. The negative impact of fear of childbirth can hinder the physical condition of the mother in childbirth to function effectively, can increase heart rate and strain the muscles of the body so that it is often seen as a panic reaction. One of the causes of prolonged labour, aside from abnormalities in his, fetus, or birth canal, causes of these abnormalities are emotional factors in the form of fear and anxiety, as well as the effects of prolonged labor are intrapartum infections, uterine rupture, and musculoskeletal injuries. enabling pelvis can contribute to maternal mortality¹ not only that fear of childbirth will make mothers choose elective SC, and studies say that high SC including elective SC choices can increase the risk of maternal death up to three times compared to vaginal delivery². Fear of childbirth can also increase the risk of premature birth, low birth weight, and lower Apgar scores at birth³. The impact of labor anxiety can also cause higher labor pain, because the release of the hormone cortisol inhibits the release of endorphins (pain relievers). High labor pain will also have an impact on negative labor experiences. According to WHO guidelines, a positive birth experience is very important in labor. Maternal satisfaction is one of the service standards set by WHO to improve the quality of delivery services and to evaluate the organization of the Health Service System, this should be considered as one of the most relevant indicators in the field of midwifery³. Based on a preliminary study using the PRAQ-R2 questionnaire conducted by researchers at two maternity clinics, 8 out of 10 pregnant women have fear of childbirth with a high score at the Depok Jaya Birth Center, and 8 out of 11 mothers experienced fear of childbirth with a high score at Tembuni birth center, the results of the interview the mother felt worried about the pain of labor that would be felt, worried about the perineum tearing pain, worried about cutting the episiotomy, worried because she had heard stories of a traumatic birth, 4 out of 8 mothers who were worried about their delivery had thought of choosing SC surgery without medical indications. Hypno-birthing classes with a gender-responsive approach at the Tembuni birth center have been held since 2022. So far there has been no data or research on how hypno-birthing affects for fear of childbirth, labor pain scales, delivery satisfaction. On the basis of these problems, this study was conducted to determine the effect of Hypno-birthing on labor pain scores, fear of childbirth, and satisfaction scores of childbirth experience. It is hoped that the information obtained from the results of this study will not only contribute to the information available in relevant

publications, but also contribute to the provision of services related to prenatal education and childbirth care.

Objective

This study aims to determine the effect of Hypno-birthing on the delivery process and outcomes.

Methods

This study was a quasi experimental quantitative research with a control group, with a non equivalent control group design approach, the population in the experimental group study was third trimester pregnant women who delivered vaginally and had attended the Hypno-birthing class at the maternity clinic as many as 30 people and control group Mothers who received standard care in hospital until delivery, which consisted of prenatal care for 25 to 30 minutes as many as 30 people.

Results

Based on data analysis for labor anxiety using paired T test with sig = 0.000 <0.05, Labor pain scale with Mann-Whitney test 0.000 <0.005, Delivery satisfaction score using independent test sig value 0.000 <0.05, so there is an influence of hypno-birthing class with a gender-responsive approach to decreasing the anxiety scale of labor, reducing labor pain scores, and increasing delivery satisfaction.

Conclusion

There is a positive impact from hypnobirthing class with a gender-responsive approach to decreasing the anxiety scale of labour, reducing labour pain scores, and increasing Birth satisfaction.

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The mediating role of health perception on the effect of health literacy on perception of traumatic birth in women

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Introduction

It is important for women to be able to access, understand,

evaluate and apply the necessary health information in order to improve and maintain both their own health and family health. In particular, it is possible for women to access and apply accurate information about the pregnancy and birth process with an adequate level of health literacy. This study aims to examine the mediating role of health perception in the effect of health literacy on women's perception of traumatic birth.

Material and Methods

The research was carried out with the relational screening model from the general screening model. In the study, the data collection tool consisting of the Introductory Information Form, Health Literacy Scale, Traumatic Birth Perception Scale and Health Perception Scale was applied to 472 participants through an online survey.

Results

It was determined that women's health literacy and health perception levels were quite high and their perception of traumatic birth was at medium level. The mediating role of certainty and self-awareness in health perception in the relationship between understanding information in health literacy and traumatic birth perception; the mediating role of certainty and self-awareness in health perception in the relationship between application in health literacy and traumatic birth perception; the mediating role of certainty in health perception in the relationship between access to information in health literacy and traumatic birth perception.

Conclusions

Women need adequate health literacy in order to make healthy decisions in reproductive knowledge, pregnancy, birth and postnatal processes and to guide them in situations affecting their own and their babies' health. In order to reduce the perception of traumatic birth, it should be emphasised that women's information needs regarding maternal and child health and reproductive health should be met, and health literacy and health perception levels should be taken into consideration in intervention studies.

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Investigation of birth scenes of movies and tv series published on youtube in terms of traumatic birth perception

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Introduction

The Internet has become the most up-to-date and largest source of information on health issues, as it is in many other areas. YouTube, on the other hand, is a "video sharing network" frequently visited by health information seekers due to its free access and ease of use.

Material and Methods

It was aimed to examine the birth scenes of movies and TV series broadcasted on YouTube in terms of traumatic birth perception. A systematic search of YouTube videos of birth scenes was conducted using the keywords "Birth videos", "Birth scenes" and "Birth images". After excluding the excluded videos from a total of 240 videos, 80 videos were analyzed as the final sample.

Results

It was determined that 98.8% of the births in Youtube videos were vaginal, 41.3% were hospitalized, and 60.0% were premature births. The way the births in the videos occurred was 41.3% moderately fast, 32.5% fast. The form of labor contractions was 81.2% never interrupted. For 63.8% of women, the pain of childbirth was unbearable. It was observed that 80.0% of the scenes in the series showed sudden pain in 80.0% of the birth, 15.0% showed sudden amniotic fluid, 32.5% showed birth as a panic-inducing event, 25% showed fear of losing the mother and 28% showed fear of losing the baby.

Conclusions

To get health care right for what is best for mothers and babies, we need to be aware of the messages we share in popular culture about what birth is and how it should work.

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Factors associated with vaginal/cesarean birth attitudes among medical students

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Introduction

The use of cesarean section (CS) is increasing worldwide, with a current global rate of 21.1%. Researchers estimate the continuation of this tendency across all global regions^{1,2}. Access to safe cesarean delivery represents a fundamental aspect of modern perinatal care. CS can effectively prevent maternal and perinatal mortality and morbidity. However, the distribution of CS across different populations does not meet all the recommendations, and medically justified, unmet needs coexist with overuse of the procedure²⁻⁴. The increasing number of CS cases constitutes one of the most frequently discussed topics in perinatal care worldwide, particularly as it applies to pregnant women from groups at low risk from vaginal birth (VB)-related complications. As with any surgery, CS is associated with short- and long-term complications that can extend many years beyond the delivery at hand, potentially affecting the health of the woman, her child, and future pregnancies. Addressing in detail the potential risks and benefits associated with CS procedures is vital and of particular importance for those situations in which CS is not indicated for the benefit of the neonate^{5,6}.

The objective of this study was to identify medical students' opinions and attitudes concerning vaginal birth and cesarean birth. We posit that these attitudes reflect theoretical and practical education on perinatal care and can help identify areas for modification.

Material and Methods

This cross-sectional study, which included 748 Polish medical students, aimed to identify medical students' attitudes regarding birth methods. A descriptive questionnaire was distributed via the academic email addresses of surveyed medical students. Group comparisons were performed using Welch's t-test for continuous data or a Chi-squared test for categorical data. We also used the Mann-Whitney U test and Kruskal-Wallis H test.

Results

Midwifery students (96.2%) were the most unified group of students, with most agreeing that VB (vaginal birth) presents a safer option for women at low risk for VB-related complications vs. cesarean section. Of Medical Faculty students, 68% believed that fewer complications typically occur during vaginal birth than during CS. Students in their final vs. initial years of study furthermore considered VB more beneficial for women than CS.

Conclusions

An important factor identified at the individual clinician level is the presence of leadership and executive support. For medical students, we can interpret this as support from their trainers and supervisors.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Cesarean section in Greece: A retrospective

analysis according to Robson classification

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Introduction

Cesarean section (CS) has become the most performed operation around the world and in some countries has reached the epidemic level. The World Health Organization recommended the use of the Robson ten-group classification system (RTGCS) as a universal standard to establish a joint control system in healthcare facilities. The purpose of this study was to implement the RTGCS for the first time in Greece to identify trends in cesarean delivery.

Material and Methods

In the sample analysis, we included the records of 8572 women giving birth (pregnancies ≥ 22 weeks and weights ≥ 500 g) in one private health facility in Greece, between 1 January 2019 and 31 December 2019. The data was collected retrospectively from the digital medical records of the women.

Results

8572 women gave birth during the study period, 60,9% were cesarean section deliveries. According to RTGCS, in our study, the main contributions to the overall rate of CS rate were: (a) single, cephalic nulliparous women, at term in induced labor or cesarean section before labor - Group 2 (34,6%), (b) multiparous women with single cephalic at term pregnancy with history of at least one CS - Group 5.1 (30,7%), and (c) women with singleton cephalic < 37 weeks - Group 10 (11,7%). Cephalopelvic disproportion and previous cesarean section were the most common indication leading to cesarean section (41,7% and 34,6% respectively).

Conclusions

The frequency of cesarean sections in Greece was high compared to RTGCS and WHO data. Our study is expected to assist policymakers to identify effective strategies for specific subgroups of women to reduce the CS rate in Greece and improve outcomes.

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Episiotomy rates in Greek population using the Robson classification system

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Introduction

Episiotomy during vaginal delivery may predispose to short- and long-term complications, such as postpartum bleeding and sexual dysfunction. The aim of this study was to determine episiotomy prevalence in Greece according to Robson classification.

Material and Methods

In the sample analysis, we included the records of 8572 women giving birth (pregnancies ≥ 22 weeks and weights ≥ 500 g) in a private health facility in Greece, between January 1st of 2019 and December 31st of 2019. Data was obtained retrospectively from the digital medical records of the women.

Results

Over 60% of deliveries during the study period were performed by cesarean section, 30.6% by vaginal delivery and 8.5% of deliveries were performed by operative vaginal delivery. The results of this study indicate that overall rates of episiotomy was 68.5%. Nulliparous women with no previous cesarean delivery, with a singleton in cephalic presentation ≥ 37 weeks with spontaneous labor (Group 1) had episiotomy in 77%. Furthermore, 58.6% of multiparous women (excluding previous CS) with a single cephalic term pregnancy in spontaneous labor underwent episiotomy.

Conclusions

Episiotomy is a very common obstetric intervention in Greece compared to other European countries and WHO recommendations. Prospective multicenter research would be useful to study further the prevalence of episiotomy in Greece and improve outcomes.

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Obstetric violence in pregnancy and childbirth as a violation of women's human rights

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Obstetric violence is a specific form of violence against women that violates human rights. It is an important problem that can be seen in pregnancy, birth and postpartum period, affecting both mother and baby health negatively.

According to the data of the World Health Organization (WHO), violence against women is practiced all over the world. Especially during pregnancy and childbirth, women experience situations of ill-treatment, disrespect, abuse, neglect and violation of human rights. violence reports; Denial of the presence of the woman's chosen friend to accompany her at birth; lack of information about the different procedures performed during care; unnecessary cesarean section; deprivation of the right to food and walking during labour; unjustified routine and repeated vaginal examinations; frequent oxytocin using to accelerate labor; It shows that women are exposed to permanent physical, mental and emotional damage as a result of situations such as episiotomy and Kristeller's maneuver without their consent. Not meeting the needs of women, not being informed, not encouraging breastfeeding, not delaying/not providing medical care are the negligence that constitutes obstetric violence. Obstetric care should be based on the best scientific evidence and patient preferences, respecting the rights and principles of women and mothers, rather than focusing solely on the disease. This approach eliminates beneficial/unhelpful health outcomes, inappropriate or unnecessary risky interventions, while promoting safe, effective and personalized care.

Obstetric violence and abuse should be investigated, the forms of violence should be determined, and the awareness of caregivers about violence should be increased. Each country should develop relevant legislation that can address obstetric violence.

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Using peer learning in master thesis course

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Introduction

Writing a thesis can be emotionally and psychologically difficult for students, especially if they feel they have not received enough support from their supervisor. Peer learning is an effective and supportive way to enhance students' learning and involves students collaborating and learning from each other under the teachers' supervision. Doing peer learning can help solidify students' knowledge, promote metacognitive processes, and provide students with emotional and social support. The current aim was to establish peer learning experiences within a midwifery education thesis course to examine if i) it helped students' learning and ii) improved their psychological well-being.

Material and Methods

Students can choose their own thesis subject according to their area of interest and are assigned a supervisor with expertise in that field. Students work in pairs with one main supervisor. Two supervisors and their thesis students ($n = 8-10$ students in total) meet as a group three times during the thesis course for peer learning.

All students prepare for the peer learning by i) coming with questions/concerns, ii) reading each other's work, iii) providing feedback, and iv) listening and responding to each others' psychological needs. During these three sessions, students actively discuss, and the teachers facilitate, the sessions. Each session has a theme according to the progress of the work, which the students agreed before the session. Additionally, peer learning also occurs from the supervisors, where the supervisors and examiners have three joint meetings throughout the course to further increase consensus regarding group supervision and the progress of the students' theses.

Results

Over the past three years, students' thesis quality has improved, where examiners write fewer comments for further changes needed before passing, and no students are currently failing, as these major mistakes are caught earlier in the term, allowing them to be rectified. Furthermore, students, while still feeling time pressure, report less dramatic mood swings regarding writing their thesis, suggesting that the peer learning model provides them with needed emotional and social support. Additionally, supervisors report fewer misunderstandings at the end of the thesis course, noting that certain issues were prevented from getting worse by catching them earlier on. Supervisors further feel more secure in their supervisory roles via learning from each other and agreeing on how to handle situations that arise.

Conclusions

Using a peer learning model within the midwifery education thesis course can be a helpful way to improve the quality of

theses, while also decreasing students' stress. Furthermore, using peer learning with supervisors can help prevent issues from becoming larger and allow for consensus building to occur.

Funding

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Conflicts of interest

The authors have led this course. However, all insights are taken from student evaluations, and are not the authors' opinions.

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The correlation between midwifery-led support and psychosocial support with breastfeeding duration

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Introduction

The aim of this study is to examine whether a 12-month perinatal health intervention which combines continuous long-term antenatal education and continuous counseling / lactation support with the psychosocial support of women, is associated with the initiation and duration of breastfeeding.

Material and Methods

The study was conducted in Fainareti's Day Center in Athens (Greece), a primary mental health care setting, during a five-year period (January 2014–January 2019). It consisted of a sample of 1080 women who participated in a 12-month intervention program. Data were analysed through multiple analyses of variance and logistic regression analysis.

Results

The vast majority (96.3%) of participating mothers initiated breastfeeding either exclusively (70.7%) or some of the time (25.6%), and only 3% of them exclusively gave formula in the first 24 h after giving birth. In this study, at the end of the 1st month postpartum, the rate of any breastfeeding remained exactly the same (96.4%) as in the 1st day in maternity hospital, as opposed to a previous Pan-Hellenic research, where it appeared to have decreased. The multivariate analyses of variance (MANOVA) showed that mothers who received larger (quantitatively) midwifery-led support (antenatally and postpartum), had a longer any breastfeeding duration and longer duration of breastfeeding without giving any formula, compared to mothers who did not receive any support or received less support ($p = 0.015$ and $p = 0.015$, respectively). In addition, according to the logistic regression analysis, the chance for exclusive breastfeeding at the end of the 6th month postpartum appeared to increase when the woman had received greater (quantitatively) midwifery-led support in the perinatal period ($p = 0.034$). It is worth mentioning that, women who did not experience any symptoms of mental health disorders during pregnancy and up to 12 months postpartum had a longer any breastfeeding duration

compared to those who had high scores on psychometric tools and probably suffered from a mental health disorder, and those who received long-term counselling/psychotherapy ($p = 0.029$ and $p = 0.013$, respectively). Finally, this study showed significant correlations between specific perinatal factors and exclusive and any breastfeeding duration, and breastfeeding duration without giving any formula. For example, exclusive breastfeeding at the 1st day ($p < 0.001$) and at the 1st month postpartum ($p < 0.001$) seemed to increase the chance of exclusive breastfeeding at the end of the 6th month postpartum.

Conclusions

It is evident that perinatal and postnatal (until the 1st year postpartum) midwifery-led education, counselling and support on breastfeeding is a key strategy for the promotion of breastfeeding. Further research is needed in order to investigate the effectiveness of breastfeeding interventions, especially in countries with low rates of exclusive breastfeeding.

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An in-depth look at coping with maternity care in an efficiency-focused health system: Using capital and field concepts for a holistic approach

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Although online health information and social networks can help women increase their health knowledge, maternity-care services are still primarily shaped by the actions and decisions of health professionals. Using an approach based on Bourdieu's field theory. The present study explores, in the context of closures of rural obstetric units in Estonia, how young mothers' usage of different forms of capital (economic, cultural, and social) at the various stages of maternity affects their coping with the associated difficulties at each stage. This study is based on 20 semi-structured interviews with young mothers in rural Estonia. The findings suggest that, from pregnancy, through childbirth, and into the postpartum stage, young mothers' positions in the medical and information fields vary as the logics of these fields affect their capital usage. Paying attention to the intertwinement and differing logics of medical and information fields can help young mothers use their economic, cultural, and social capital to cope effectively. Further, this study revealed mixed effects of the closure of obstetric care units on young mothers' coping, which stresses the need for context-sensitive and agency-oriented approaches in maternity care.

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The authors declare that they have no competing interests.

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Social profile and young women's views on egg freezing without medical indication

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Introduction

Oocyte cryopreservation is a new method of assisted reproduction with the aim of preserving fertility. Although it was initially used by women undergoing chemotherapy, now it is widely used for "social reasons". The new way of life has changed women's biological clock, their thoughts about when is the right time for motherhood, finding the right partner and how they can balance their careers. The present research investigates the characteristics and lifestyle of young women aged 18-25, their opinion on oocyte cryopreservation and views on motherhood.

Material and Methods

The research was conducted on a population of young women in Greece aged 18-25, using a quantitative method and closed-ended questions. This survey examined social status, beliefs on motherhood and attitudes towards egg freezing. It was constructed in electronic format through Outlook Microsoft Forms.

Results

The electronic questionnaire is still ongoing with the number of participants who have answered so far being 180. Our results demonstrate that 71% of respondents are highly educated, most of them are working alongside their studies, and their habits such as drinking alcohol and smoking are in a small percentage (25%). The majority wish to have a child (67%), however, it is not their life goal. Seventy percent of the sample stated that their professional career and financial situation significantly influence their decision to start a family. When asked if they would undergo egg freezing in the future, only 15% answered yes. Most of our population know about this method (96%) and answer that the appropriate age to freeze your eggs is at 25-30 years.

Conclusions

The social habits and sex life of our sample seem to be within expected limits. The majority of them prioritize education due to the fact that they are university students. Financial status and career appear to be key factors in whether they are ready to start a family with the right partner. A large percentage of our sample does not feel concerned to have a child so their answers are uncertain about whether they would undergo egg cryopreservation in the future.

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Midwifery degree apprentices – a national strategy

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Introduction

There is a shortage of midwives in the UK and the number of midwives continues to decrease¹. Since the NHS bursary for healthcare students was removed in England in 2017, there has been a reduction in the number of mature, local students entering midwifery. In response to workforce need, the first Registered Midwifery Degree Apprenticeship

(RMDA) programmes were commenced in 2020 as part of a pilot of three universities. These pilot sites and subsequent programmes have now been evaluated.

Material and Methods

A trailblazer group was set up to develop the RMDA apprenticeship standard². The standard aligned with the standards for midwifery education set by the professional body, the Nursing and Midwifery Council (NMC)³. The pilot universities then approved their RMDA programmes with the NMC. The first RMDA programme commenced in January 2020 and there are now five programmes running throughout England, with another six programmes approved or in approval. A mixed methods evaluation has been undertaken to identify the benefits and issues associated with the RMDA from the perspective of apprentices, their employers and universities. This is the first evaluation of the RMDA programmes.

Results

Evaluation of the programmes that are running has demonstrated positive outcomes. Apprentices are employed by the Trust during their programme, therefore recruitment of apprentices is Trust-led. This creates a stronger sense of belonging to the Trust where they undertake practice placements. Apprentices contribute to services whilst studying and are 'work-ready' when they qualify. The academic proficiency of apprentices is at least as good as 'traditional' students. Attrition of RMDAs is lower than for 'traditional' students, with almost no attrition during the pilot programmes. Local, mature apprentices are more likely to take up employment in the Trust where they qualified, therefore meeting local workforce needs.

Conclusions

The benefit of RMDA programmes is being recognised by the UK government, with RMDAs being promoted in the most recent maternity services policy document⁴. The positive evaluation provides evidence of the benefits of the programme to RMDAs, Trusts and to the wider maternity workforce. The greatest barrier is in funding the salary of apprentices while they are on the programme as this is not covered by the government's apprenticeship levy. The Royal College of Midwives supports the apprenticeship route into midwifery and continues to lobby for the funding for further roll-out of RMDA programmes across England.

Funding

Royal College of Midwives.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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Influenza vaccination during pregnancy. Knowledge and recommendations from health care professionals

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Introduction

According to the World Health Organization (WHO), nations considering launching or expanding seasonal influenza vaccination programs should provide priority to pregnant women. Even if a woman is normally healthy and her pregnancy is straightforward, changes to her immune system, heart, and lungs during pregnancy increase her risk of developing severe influenza. Compared to non-pregnant women, pregnant women are at greater risk of hospitalization and even death if they get flu. Severe illness in the pregnant woman can also be dangerous to her fetus because it increases the chance of serious problems such as premature labor or even stillbirth. Although getting influenza during pregnancy can cause adverse maternal and prenatal outcomes, vaccination rates are low.

According to research data, one of the reasons for the low vaccination rates among pregnant women is that they don't receive a clear recommendation from healthcare providers.

The purpose of this study is to record the knowledge about influenza vaccine and investigate the healthcare professionals' recommendations during the perinatal period.

Material and Methods

This cross-sectional study was conducted in Athens, Greece. The study population consisted of 240 Midwives, Ob/Gs, and Pediatricians. Data were collected using a questionnaire about demographics and knowledge about influenza vaccination (recommendations, and guidelines about vaccination). Data was analyzed by using using IBM SPSS-Statistics version 26.0.

Results

One hundred and ninety-one (79.6%) were midwives, 27 (11.3%) were obstetricians-gynecologists and 22 (9.2%) were pediatricians. One hundred and seventeen healthcare providers in our study (73.8%) stated that they are aware of the guidelines of the Hellenic National Public Health Organization regarding flu vaccination, and more than half (150, 62.5%) mentioned that they are up to date on the developments surrounding the flu vaccine. Almost all of the study's participants recommend the flu shot during pregnancy (227 respondents, 94.6%) but only 137 (57.1%) of our participants answered right that vaccination is recommended throughout pregnancy, and 103 participants (42.9%) replied that vaccination is suggested in the 1st or the 2nd, or the 3rd trimester of pregnancy, or they did not know

the correct answer. Midwives were the most responders who answered that vaccination is recommended throughout the entire pregnancy. Obstetricians-gynecologists mentioned that they were up to date on the developments surrounding the flu vaccine nevertheless, those who knew that the flu vaccine is recommended for the general population were midwives.

Conclusions

This study's major goal was to pinpoint the variables that might be influencing the low vaccination rates, which might include a variety of misconceptions or a lack of information regarding the flu vaccine. To sum up, it is essential for health professionals to continue their professional development if they want to advance their level of knowledge and offer high-quality maternity care.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Investigation of biomarkers regarding their predictive value in the development of gestational diabetes mellitus. An overview

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Introduction

Gestational diabetes mellitus (GDM) has been associated with various short- and long-term adverse perinatal outcomes for both mothers and their offspring. Its incidence is estimated to be 14% of all pregnancies worldwide. GDM screening and diagnosis delay as they take place between the 24th and 28th week of gestational age. Discordance among GDM diagnostic criteria has increased research interest regarding biomarkers since they may provide useful information when clinical and laboratory findings are still lacking. The present review provides evidence through an overview of biomarkers investigated in the blood of pregnant women early in pregnancy who subsequently developed GDM.

Material and Methods

PubMed and Google Scholar were searched for articles published between 2010 – 2023. Key words "gestational diabetes mellitus", "biomarkers", "biochemical markers", "blood", "serum", "pregnancy", "prediction" were used to identify relevant articles.

Results

Totally, 12 studies were included. Sex hormone binding globulin (SHBG), Osteocalcin, Follistatin-like 3 (FSTL3), Malondialdehyde (MDA), Glutathione Peroxidase Activity (GPA), Triglyceride, YKL-40, microRNAs, plasma-glycated CD59 (pGCD59), Irisin and Ferritin have been investigated early in pregnancy in the blood of pregnant women who subsequently developed GDM. Osteocalcin, pGCD59, MDA,

GPA, microRNA-16-5p, -17-5p and -20a-5p demonstrated higher levels in the serum of GDM-women compared to non-GDM while SHBG, Irisin and FSTL3 demonstrated lower levels. No association was found between YKL-40 serum levels and the early identification of women at risk for GDM.

Conclusions

Several potential biomarkers with promising results relating to GDM predictive value have been explored in the blood of pregnant women during early pregnancy. However, currently, an ideal biomarker does not exist. As a result, further research is needed on this topic.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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The effect of mindfulness-based stress reduction (MBSR) program on stress, anxiety, and prenatal attachment of the high-risk pregnant women

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Introduction

The present study was conducted to examine the effects of the Mindfulness-Based Stress Reduction (MBSR) Program on stress, anxiety, and prenatal attachment of the high-risk pregnant women.

Material and Methods

This randomized controlled study was conducted with 94 high-risk pregnant women (48 participants in the experimental group, 46 participants in the control group) who were registered at the 15th Family Health Center in a city center in the Southeastern Anatolia Region of Turkey and diagnosed with high-risk pregnancies and reported to the Healthy Living Center. In the study, a total of eight sessions of the mindfulness-based stress reduction program were applied to the pregnant women in the experimental group for one month, each week, and two sessions per week. Data of the study was collected with "Prenatal Distress Questionnaire-Revised (NuPDQ)", "Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQR2)" and "Prenatal Attachment Inventory (PAI)". Descriptive statistics, chi-square test, t-test for independent and dependent samples were used in the analysis of the data.

Results

After the intervention, it was determined that the NuPDQ total mean score was 9.52±7.39 in the experimental group and 21.87±4.09 in the control group; the post-test PRAQR2 total mean score was 22.96±8.94 in the experimental group and 37.11±4.38 in the control group; the post-test PAI total mean score was 54.65±8.33 in the experimental group and 43.83±7.71 in the control group. After the intervention, the PRAQR2 total mean score in the experimental group was significantly lower than that in the control group. In addition, the PAI total mean score in the experimental group was significantly higher than that in the control group (p<0.05).

However, there was no significant difference between the groups in the NuPDQ total mean score ($p > 0.05$).

Conclusions

It was determined that the MBSR program applied to high-risk pregnant women decreased the anxiety levels, increased the prenatal attachment levels, and did not affect their stress levels of the pregnant women. Health professionals may consider the MBSR program for high-risk pregnant women as a means by which to improve their pregnant outcomes.

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Quality of life and social - demographic factors in menopausal women

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Introduction

Menopause is a normal physiological change occurring at a woman's mid-life. During this time, women experience vasomotor, physical and psychosocial and sexual symptoms that affect their Quality of Life. Social and demographic factors have a significant effect on symptoms of menopause.

Purpose

The aim of this study was to determine the prevalence of menopausal symptoms among menopausal and postmenopausal women and the factors associated with the Quality of these women's lives.

Material and Methods

The study was conducted among 150 Greek menopausal and postmenopausal women who live in the south region of the island Evia. For data collection has been used an anonymous questionnaire that included the index MENQOL that refers to menopausal symptoms and whether they affect the Quality of Life. Data were analyzed using the statistic program SPSS 22.0.

Results

Among the menopausal symptoms, "Feeling nervous or anxious" (64,7%) and "Changes in appearance, texture or tone of the skin" (8%) were the most and the least common ones respectively. Employed women had higher levels in vasomotor symptoms than unemployed ones. Non smokers had higher levels in psychosocial symptoms than smokers as well. Taking medicine for health problems was a very important factor which influenced negatively the severity of menopausal symptoms.

Conclusions

Menopause is associated with a variety of symptoms. Health providers should advise women and suggest them methods and treatments according to their health history and personal preferences. Further studies are suggested to evaluate the role of personal and social factors that affect the way women perceive the severity and the intensity of menopausal symptoms.

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Different conception regarding contraceptive pill use among two different adolescent female populations in Thrace

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Introduction

This is a study regarding the perception towards the use of the contraceptive pill in two different adolescent populations of Thrace.

Material and Methods

Adolescent women aged (mean 15.9, min 13 max 19 years, SD 2.51), belonging to the two main religious subgroups of Thrace (168 Orthodox Christians and 118 Muslims), during their visits to the family planning clinic of Democritus University of Thrace were invited to answer an anonymous questionnaire designed to investigate the contraceptive behavior of women in Thrace. The subject of the questions was the investigation of the women's level of information, the frequency of using the contraceptive pill, the sense of security it offers them in relation to contraception and the incidence of side effects depending on the time of taking it. The severity of the reported side effects and their role as a reason for discontinuation of contraceptive treatment were assessed.

Results

A significant percentage of the Christian women surveyed expressed a positive view of the usefulness of the oral contraceptive pill as a method of contraception. Muslim women appeared less willing to use it as a relatively high percentage do not consider it a safe contraceptive method and consider taking it daily as a deterrent

5.1% of women experienced mild side effects with contraceptive use but only 4.7% discontinued treatment because of them. The marital status, the level of education and the frequency of contacts of the respondents were factors that strongly influence their sexual behavior.

Conclusions

The contraceptive practice of Thracian women shows significant differences between the two subgroups under study and is directly influenced by the different socioeconomic characteristics of each.

Funding

The authors declare that no funds, grants, or other support were received during the preparation of this study.

Conflicts of interest

The authors have no relevant financial or non-financial interests to disclose.

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Peer learning at a prenatal ward- beneficial for students and clinical preceptors

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Introduction

In order to find a pedagogical model to increase learning for midwifery students and to meet the challenge of shortage of experienced preceptors, Peer Learning has been implemented and evaluated at a perinatal unit in Sweden. Peer Learning is a model that promotes student activity and collaborative learning in pairs at clinical placements. Previous research shows positive results from intrapartum care, but less is known from a perinatal care context.

Midwifery education in Sweden is a 1,5-year program for registered nurses at an advanced level. Half of the education is devoted to clinical placements at various units, such as labor/delivery, pre- and postnatal care.

At a perinatal care unit for women with complicated pregnancies, in southern Sweden, midwifery students have a weeklong clinical placement during their third semester. Apart from care for women with various diagnoses, such as preeclampsia, PROM or bleeding complication, students practice care during induction of labor and planned cesarean section.

Material and Methods

At the start of the clinical placement, two students and their preceptor have a preparatory meeting. The students are informed about the unit and share their expectations and previous experiences. From their individual needs, students are assigned 1-2 patients each to take care of under supervision. They discuss and plan for the care with their peer and confirm with the preceptor. The role of the preceptor is to encourage the students to reflect, reason, ask questions and try to solve practical issues.

In addition, students work in pairs with structured learning activities related to the assigned patients' diagnoses. At the end of each day, students and preceptor summarize, reflect and students practice giving feedback to each other.

The method has been written and verbally evaluated by all students.

Results

The unit has been using Peer Learning for two years and approximately 15 students have been assigned. Their evaluations show that the students were positive to the Peer Learning model. They stated that they did not feel as alone and vulnerable as they sometimes do when they start at a new clinical placement. The possibility to be increasingly responsible for their learning was beneficial and discussions with peers further enhanced learning.

From a preceptor perspective, the experience is that students progress faster and are more reflective before, during and after a task than with traditional supervision. The students thereby deepen their knowledge and the application of it, which is a foundation for critical thinking.

Conclusions

The results indicate that Peer Learning is beneficial for both students and preceptors in a prenatal unit. To evidence-base Peer Learning as a method for supervision during clinical placements in the prenatal context, research is needed.

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The authors have no conflicts of interest to disclose.

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Midwifery student continuity of care - A qualitative pedagogical study regarding students' perceptions

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Introduction

It is suggested that access to the continuity of care (CoC) model by a midwife or a midwifery student, throughout pregnancy and postnatally, is beneficial for mothers and infants. In Sweden, maternity care is based on a fragmented organization, and CoC is not implemented routinely within maternity care or midwifery education. At a midwifery program in southern Sweden, the new pedagogical program "Midwifery student all the way" regarding CoC for midwifery students has been introduced on a trial basis. The aim of this pedagogical study was to describe students' perception of providing CoC during pregnancy, childbirth, and the postnatal period.

Material and Methods

A focus group interview with midwifery students who voluntarily had shown interest and participated in the pedagogical program "Midwifery student all the way" during the years 2021-2023 has been carried out. Further data collection is ongoing. A qualitative method with an inductive and phenomenographic approach was utilized.

Results

So far nine students participated in the project as well as in the interview. Their ages ranged from 26-45 years (mean 32 years) and their years as authorized nurses ranged between 4 and 20 years (mean 8 years). They were interviewed at the end of their third and last semester just before graduation.

Preliminary results show that participation in the pedagogical program helped students in their learning and professional development. They reported an increased holistic understanding of the care for pregnant women and insights into the value of a known midwife, especially for the birthing process, which they would not want to be without. Challenges were the integration of the project with other courses and family life. Students acknowledged the importance of a strong anchoring of the project at the clinics, group supervision, and an adaptation of written assignments in the midwifery program.

Conclusions

Preliminary results show that continuity of care within midwifery education is possible and beneficial to students even when the healthcare model is fragmented.

Funding

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The authors have no conflicts of interest to disclose.

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Self-care for student midwives in times of stressful challenges - workshop on self-compassion strategies

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Introduction

The midwife program in Norway is a 2-year post-graduate master's program. Students spend 50% of their studies in clinical placement. Students report high-stress levels and a high degree of self-criticism to meet the educational demands in the academic arena and the workplace. This is also reported in international findings, lack of confidence, emotional burnout, and fear of making mistakes. There is a need to address student midwives' emotional well-being and support students with strategies to combat this. Hence, to address self-care in times of stress, we present the lecture by a midwife trained in CBT, which has been held for the midwifery master's program in Stavanger, Norway, since 2000.

Material and Methods

The content of this workshop, held after the first eight weeks of clinical placement, addressed the concept of debriefing after a critical incident, the concepts of guilt and blame and the difference between these concepts. Lastly, the introduction of self-compassion was addressed by introducing tools and strategies to balance the emotion regulation system.

Results

These workshops are highly rated as being of significance for the student's well-being and are highly recommended for all students.

Conclusions

Self-care strategies in times of stress and sharing experiences in a psychologically safe climate is critical for building a sustainable future midwifery workforce.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The effect of woman-centred midwifery childbirth care training on the level of woman-centred care competency and job satisfaction levels of midwives

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Introduction

Woman-centred care term is not a new term but there is a huge need midwife who know and use the woman-centred care model. Aim of this research is Woman-Centred Childbirth Care Training (WOCAT) to determine the effect of midwives on woman-centred care competency and job satisfaction levels.

Material and Methods

Quasi-experimental research was carried out with a pretest-posttest control group. The research was carried out between

May 2019 and December 2021. The Patient-Centred Care Competency Scale and the Minnesota Job Satisfaction Scale were used in the study, which included 32 midwives in the training group and 36 midwives in the control group.

Results

It was determined that the sub-dimension scores of the Patient-Centred Care Competency Scale were higher in the midwives in the training group than in the control group in univariate and multivariate analyzes. It was observed that the internal satisfaction scores of the education group obtained in the second evaluation after the education were higher than the control group, and no difference was found between the groups in terms of external satisfaction and job satisfaction total scores.

Conclusions

While WOCAT was effective in increasing the woman-centred care competence levels of midwives, it did not affect the level of job satisfaction. It is recommended to conduct qualitative and quantitative research in Turkey in the development of woman-centred care practices.

Funding

There is no funding for this research.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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Is there a theory-practice gap in midwifery education? Perspectives from midwifery students

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The goal of a professional education program for midwives is to prepare them with the knowledge, skills and competencies required for quality care provision. High quality midwifery education is essential for equipping midwives with competencies needed to provide safe and respectful sexual, reproductive, perinatal care, and maternal-infant-family care throughout the whole reproductive life¹. Educating students in midwifery knowledge and competencies requires evidence base grounded in the physiological and hormone driven processes of childbearing².

In Sweden, midwifery education is 1.5 years on advanced level, following a 3-year higher education in nursing (undergraduate level). Today, midwifery students, clinical supervisors and teachers at the University, involved in midwifery education express that they perceive a gap between what is taught in theory and clinical practice. This actualizes the need to investigate the students learning environment. Thus, the aim is to study if and how students perceive the gap between theory and practice during clinical placements. This as part of a pedagogical project to enhance evidence-based care and education through the strengthening of student-centered learning with a stronger affiliation between research, education and clinical practice using the International Childbirth Initiative framework³ as a guiding tool.

Focus group interviews with semi structured questions were

conducted. A total of eight midwifery students participated. A qualitative content analysis was performed to describe their experiences. Two categories rose, "The midwife's area of expertise" and "Evidence-based care". The midwifery students experienced a discrepancy between clinical practice and theory during their clinical placements. Further, they expressed that not all the competencies in the midwifery profession were met during their education.

A closer cooperation between the university and the clinical placement sites needs to be established to reduce the discrepancy between the education's theory and practice as well as to extend the education to ensure that focus is given to all aspects of midwifery practice.

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Conflicts of interest

All authors declare no conflicts of interest.

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Female sexual satisfaction: What midwives know?

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Introduction

Evidence suggests that masturbation, genital stimulation, body awareness and movement, pelvic floor exercises, depression, anxiety, positive and negative feelings, personality type, emotional and overall well-being, emotional intelligence have been studied in association with female orgasm through the years. However, sexual health providers as well as most women lack information regarding sexual satisfaction and reaching orgasm. However, the available reviews that include studies investigating several factors are rare.

Aim

This systematic review presents the effect of social, behavioral and psychological aspects on female orgasm.

Material and Methods

Three databases (PubMed, CINAHL, Scopus) were searched, a manual search in Google Scholar was performed using keywords and the reference lists of included studies were also screened to identify further articles. The eligibility criteria for inclusion were studies that sampled adult healthy women, used quantitative methodology and explored the

factors influencing sexual satisfaction. The 10-item Critical Appraisal Skills Program (CASP) checklist was used to assess the methodological quality of the studies.

Results

Out of 531 studies, forty-five were further screened. A total of twenty-one studies were included, with the largest portion of them conducted in USA, Portugal and United Kingdom, followed by Switzerland, Iran, Brazil, Sweden, Canada, Hungary and Netherlands. Four major themes influencing sexual satisfaction among females emerged from synthesis: psychological disorders (depression and anxiety), psychological background (emotional intelligence, emotional and overall well-being, personality type, positive emotions), genital stimulation (masturbation, self-stimulation of genitalia, partnered stimulation of sexual organs, different types of sexual activity), body awareness and movement (pelvic floor exercises, pelvic movement during sexual activity, cognizance of sexual arousal).

Conclusions

While many factors affected positively the female orgasm, there were many factors that affected it negatively as well.

Conflicts of interest

The author has no conflicts of interest to disclose.

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Climate change and health in health care professions

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Introduction

As early as 2009¹, climate change was identified as the greatest threat to global health in the 21st century. It is equally important for health professionals to understand the impacts of climate change². Health professionals are developing skills to work with clients to make links between climate-related changes and health promotion.

At the Zurich University of Applied Sciences (ZHAW), Bachelor's programmes in the health professions, the topic "Impacts of climate change on health" is not very firmly anchored in the curriculum. For this reason, the module is offered to students of occupational therapy, midwifery, nursing, physiotherapy and public health. The topic is particularly important for midwives as they care for people in a vulnerable phase of life who are strongly affected by climate change³.

Material and Methods

Since autumn 2022, this module has been looking at different health impacts of climate change (heat effects and air pollution) and analysing the health opportunities of climate change mitigation measures in relation to the concept of 'planetary health'. Ideas for changing one's own way of working and dealing with climate-related consequences will be developed and implemented together. The focus will be on both profession-specific and overarching issues in health care.

Aims

The aim of this module is to discuss the complexity of health and disease in the context of climate, climate change and society. From this, we will identify and derive options for

action for the health professions. This will enable us to take on a role as change agents in the future.

Conclusions

It is clear, that the implementation of the topic “climate change and health” of the undergraduate degree is desired. In order to transformation processes, the topic needs to be implemented in the course of studies. This will enable health professionals to develop competencies to respond to current and future challenges.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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Availability of contraceptive methods in Greek refugee camps: Their application and acceptance based on questionnaires

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Introduction

Currently, there are limited national statistics on the use of modern contraceptive methods among refugee populations in many low-income settings. However, there is evidence that many refugee women face serious reproductive health challenges such as unwanted pregnancies, sexually transmitted infections (STI) and unsafe abortions¹.

Material and Methods

For the purpose of this research, a questionnaire that examines the views of refugee women of different ages has been used in order to research the availability of contraceptive methods in refugee camps. The average time to complete the questionnaire is 15-20 minutes. The collected questionnaire data were coded and processed using SPSS statistics program in order to analyze and present the research results.

Results

At the time of research, a 79.2% of the respondents stated that they have used a contraceptive method in their lifetime, with male condoms (48,3%) being the most popular method. A 60% reported current use of contraception suggested to them by a midwife and a 65.8% stated that the specific contraceptive method they currently use, was provided by an

NGO.

Conclusions

This survey was conducted among refugee populations from Afghanistan, Syria, Iran, Iraq, Congo, Palestine and Kuwait. However, for an effective policy of intervention within the refugee camps in Greece, the findings from other refugee groups or populations regarding perceptions, attitudes and experiences on family planning may be more revealing to the current reality regarding the status of use of contraceptives and the acceptance of these methods by refugees in general.

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Midwives' experiences in providing maternity care at refugee camps: The ORAMMA paradigm

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Background/Aims

Midwives providing care in refugee camps can confront exceptional challenges that demand provision of care in difficult and often unforeseeable circumstances. The purpose of this study was to describe the challenges midwives faced in implementing the ORAMMA project¹, which aimed to provide appropriate perinatal care for refugee women.

Material and Methods

Midwives working in refugee camps participated in focus groups and individual interviews. The interviews were transcribed and analysed with qualitative content analysis using phenomenology method.

Results

The challenges that midwives working in refugee camps reported to have include insufficient resources, poor midwifery workforce, language barriers and cultural differences. Furthermore, providing effective care can present extra challenges for midwives working in refugee camps because they frequently care for women who have undergone traumatic experiences. On the whole, the ORAMMA project was considered to be a good initiative that linked primary health care and hospital care for refugee women.

Conclusions

In spite of the challenges they face, midwives working in refugee camps are dedicated to providing quality care to the women and babies they look after, and, in many cases, they are able to make a notable difference in the lives of those they care for. By addressing the challenges and supporting midwives that work in such settings, we can assist in making certain that refugee women obtain access to the necessary maternity services.

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A dialogue tool supporting health professionals to communicate about loss and grief with children

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Introduction

A baby on neonatology means the start of an emotional, difficult period for parents, but has also an impact on siblings. They often experience feelings of anxiety, uncertainty, loneliness and guilt. It is important to support and involve siblings during the admission of their brother/sister. This support is often provided by sibling boxes with (medical) information. However, siblings should also be able to express emotions and doubts. Therefore, a dialogue tool was developed to communicate with children about loss and grief.

Material and Methods

A descriptive, qualitative design was conducted, using convenience and snowball sampling to evaluate the tool among professionals, parents and teachers. Semi-structured interviews (n=10) were performed online or by telephone and recorded. After transcribing, content analysis was performed.

Results

The dialogue tool was positively evaluated. The manual and conversation cards were experienced as a safe, necessary handhold and guidance for adults. Siblings reacted positive and curious. The tool triggered spontaneous conversations, enabling children to share their experiences. Participants mentioned that the tool was best applied to children between 4-8 years. The toolbox was introduced differently by playing, before bedtime, after dinner or talking circles at school. Participants mentioned that children needed some action afterwards and made suggestions to optimize the tool.

Conclusions

The dialogue tool has an added value by lowering the threshold to communicate with children about loss and grief, thereby breaking the existing taboo. Further attention is needed to integrate the tool in existing mourning boxes and train professionals in its use among families on neonatology.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Perinatal and neonatal outcomes using cardiocography versus STAN and cardiocography: A Systematic Review
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Introduction

ST waveform analysis (STAN) was introduced to improve the interpretation of cardiocography (CTG) resulting in reduction of unnecessary interventions and metabolic acidosis.

Material and Methods

A search of electronic databases (PubMed, Cochrane, Scopus) was conducted to identify randomized controlled trials (RCTs) in English language. Outcomes considered the operative deliveries, fetal blood sampling (FBS), metabolic acidosis, perinatal and neonatal death, neonatal seizures, neonatal encephalopathy, transfer to the neonatal intensive care unit (NICU) and Apgar score.

Results

Seven RCTs included in the review. The first two RCTs showed that the combination of STAN and CTG is a better option than using CTG alone, because a reduction in the rate of operative deliveries due to fetal distress and a reduction in metabolic acidosis was documented. The following studies showed no statistically significant changes with the combination of methods, except from a reduction in FBS.

Conclusions

The findings from the RCTs were different and conflicting. Most studies did not recognize the superiority of the combination in operative deliveries and neonatal outcomes but there were many methodological differences between the trials.

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Factors and causes of secondary post-traumatic stress disorder among pediatric health care providers

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Introduction

Secondary traumatic stress (STS) is the emotional duress that results when an individual hears about the firsthand trauma experiences of another and its symptoms mimic those of post-traumatic stress disorder (PTSD). Pediatric health care providers working and experienced daily with children who suffering and come up against serious diseases and surgeries or even death develop symptoms of PTSD. They are having problems with their relationships, dissatisfaction with their general life and develop emotions like anxiety, depression and burnout syndrome. The aim of this study is to investigate the STS symptomatology between pediatric health care providers and extent to which parameters such as job, gender, department and other factors had an impact on their mental health status.

Material and Methods

We searched all published papers, which were in English language and included in database as PubMed, Google Scholar and Cochrane Library from September to November 2022. From 748 papers we included 12 research articles that

met the admission criteria.

Results

According to our results the prevalence of secondary PTSD ranges from 13% to 94% and as factors contributing to the development of this emotional duress recognized the professional of nurse, the female gender, the department of intensive care units, the past traumatic life events, the burn out syndrome and the psychiatric history.

Conclusions

We came to the conclusion that health policy makers should take seriously into consideration the specificity in the working environment of the pediatric sectors especially the departments of emergency and intensive care units.

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A woman with special needs in maternity care in cooperation with a midwife and an occupational therapist: building up the subject in Tallinn Health Care College in Curriculum of Midwifery

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Introduction

Disability is part of being human. Almost everyone will temporarily or permanently experience disability at some point in their life¹. Being a mother is a human right and an experience that many women desire regardless of their health status. However, for women with special needs, this experience can be a major social and health challenge in addition to a normal life change². Women with disabilities are more likely to miss out on the maternity care services they need because access to healthcare facilities is difficult. Women with disabilities can only choose between service providers whose facilities are accessible, this limits women's freedom of decision to choose a healthcare professional that suits them³. Often women with disabilities perceive that they are not sufficiently socially accepted and are not treated equally with able-bodied women in relation to pregnancy, childbirth, and motherhood⁴. The midwifery guidelines in force in Estonia state that the midwife's task is to support a woman during pregnancy, childbirth, and the postpartum period and throughout her life in matters of reproductive health. A midwife's job is to deal sensitively with patients with special needs and act accordingly⁵. In order to ensure comprehensive maternity care for a woman with special needs, it is necessary to start teaching midwifery students in cooperation with a midwife and an occupational therapist.

Aim

Is to build up the subject in Tallinn Health Care College in Curriculum of Midwifery for woman for special needs in maternity care in cooperation with a midwife and an occupational therapist.

Methods

The subject was developed based on literature reviews and current guidelines.

Results

In cooperation with midwives and occupational therapists, the subject "Women with special needs in maternity care" was created. The volume of the subject is 3 ECTS and it includes an introduction to different special needs and the understanding and support of the special needs arising from them. An important place is empathic support for the woman and family members, teaching the use of personally adapted aids both during pregnancy and in the postpartum period. The cooperation between a midwife and an occupational therapist teaches a midwife student to find the best possible way to offer comprehensive maternity care to a woman with special needs.

Conclusion

Teaching according to the topic enables the future midwife in cooperation with occupational therapists to ensure high-quality maternity care for a woman with special needs and her family.

Funding

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Conflicts of interest

The authors declare that they have no competing interests.

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Midwives' knowledge and attitudes about perinatal care for women with disabilities

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Introduction

Women with disabilities face a lot of barriers in their everyday life including those in perinatal care¹⁻⁴. Midwives have a significant role in the provision of perinatal care and their knowledge and attitudes can have a great impact on health services and women's experiences during such an important period of their lives⁵⁻⁸. However, according to research up to now, there is no adequate data investigation on midwives' behavior and awareness of how to deal with a pregnant

disabled woman. The purpose of this study is to investigate the knowledge and attitudes of midwives towards perinatal care for women with disabilities in Greece.

Material and Methods

The study utilized a cross-sectional design and collected data through self-administered questionnaires. The sample consisted of 149 midwives recruited from hospitals, birth centers, health centers and clinics using purposive sampling. The questionnaires were developed based on a literature review and consisted of closed-ended and open-ended questions covering topics related to midwives' knowledge of perinatal care, attitudes towards women, and perception of their role in providing care. The data were analyzed using descriptive statistics and presented in a report. The study adhered to ethical guidelines, and informed consent was obtained from all participants. Confidentiality and anonymity were ensured throughout the study.

Results

The results showed that midwives had limited knowledge of perinatal care for women with disabilities and lacked training and education in this area. They also had low scores on attitudes towards women with disabilities, which could impact the quality of care provided. In addition, 30.9% of the participants thought that there are people in their working environment that discourage disabled women from getting pregnant or have negative/ judgmental behavior towards disabled pregnant women. The majority of participants, (95.3%) believed in the right of women with disabilities to give birth. Almost all participants (96.6%) stated that they consider further training, specialization necessary for all medical and nursing staff in perinatal care for the disabled, with 20.1% of them stating that it should be done in an undergraduate level. The study found that the lack of services, specially adapted to the needs of disabled women, was the greatest obstacle.

Conclusions

The study highlighted the need for further education and training to improve the quality of care provided to women during the perinatal period. The findings of this study provide valuable information in relation to the knowledge and attitudes of midwives on providing adequate perinatal care to women with disabilities in Greece. The results contribute to the development of strategies to improve the quality of perinatal care and identify barriers that exist and limit optimal treatment and care for these women.

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Evidence to fact umbilical cord clamping in the light of 2023 ICM theme: History and recommendations

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The clamping time of the cord, which covers the third stage of labor, is important for the first minutes of the postnatal period and for the smooth continuation of the advancing process. Umbilical cord and clamping time has been a subject of interest and discussion throughout history. Therefore, from the past to the present, different opinions have been suggested about the clamping time of the umbilical cord at birth, and this issue still continues to be discussed. Cord clamping time may vary according to hospital policies, current guidelines, evidence-based practices and practice habits of healthcare professionals.

Late cord clamping was first mentioned in 98-138 AD, and late cord clamping was also used in primitive cultures. The first cord clamp was used at the beginning of the 19th century, and it was emphasized in the user guide that it should not be applied until the cord pulsation ends naturally. In the 1950s, early cord clamping was proposed differently. Today, important organizations such as ACOG, RCOG, WHO, NICE recommend delayed clamping of the umbilical cord. While late cord clamping has higher hemoglobin levels in term newborns, less iron deficiency in infancy, and positively affects motor and social development in children, intraventricular hemorrhage, sepsis, necrotizing enterocolitis, blood transfusion need in preterm newborns, It reduces mortality rates, the need for hospitalization and resuscitation in the intensive care unit, and increases the 1st minute APGAR score. In addition, polycythemia and hyperbilirubinemia are among the possible risks of late cord clamping, while there is insufficient evidence to support late cord clamping for Rh-incompatibility babies who require resuscitation. Therefore, the general condition of the newborn has a decisive role in

the decision regarding the timing of umbilical cord clamping. The International Confederation of Midwives (ICM) has set its 2023 theme as “together again: from evidence to truth”. This theme draws attention to the importance of evidence-based practices in midwifery practices and can be interpreted as midwives should integrate evidence-based practices into midwifery practice. From this point of view, the history and application time of cord clamping, which is an important midwifery practice that directly relates to newborn health, is discussed in line with evidence-based practice recommendations.

Funding

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Conflicts of interest

The author has no conflicts of interest to disclose.

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Neonatal palliative care in the intensive care unit

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Introduction

Palliative care is a process where health professionals are called upon to reduce the symptoms of newborns’ illnesses in order to significantly enhance their quality of life, even if it is short. Also, professionals are called upon to support the families of newborns, who in many cases do not know how to respond to the needs of their children.

Aim

The purpose of the present study, which is implemented using the method of systematic review, is to investigate the benefits that palliative care provides to newborns in the last stage of their life, but also to investigate the ways in which it is provided, in order to detect points that need improvement.

Material - Method

A systematic review of studies in the international and domestic literature was performed using the databases PUBMED, SCOPUS and SCHOLAR. 6 studies were found that met the criteria for inclusion in the review.

Results

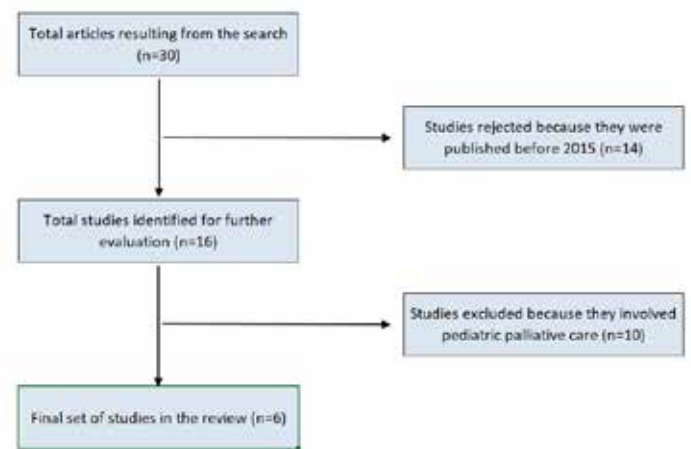
According to the results of the studies, it was found that the provision of palliative care offered significant benefits both in the management of the pain of newborns as well as significant support for their parents.

Conclusions

Palliative care is a right of newborn patients, who need in the short period of their lives to receive high-quality services and to live painlessly in the final stage of their illness. Palliative care also offers significant psychological support to patients’ relatives.

ANNEX

Flow chart No 1. Illustration of the steps of the systematic literature review.



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Table 01. Article search method

Author, year of publication and country	Objective of the task	Participants/ Population	Methodology	Results	Restrictions
Kanada Drolet, C Roy, H. Laflamme J., Marcotte ME. (2015) Feasibility of a comfort care protocol using oral transmucosal medication delivery in a palliative neonatal population.	To determine the feasibility of implementing a protocol for the administration of oral mucosal medication to neonates during the last stage of their life.	12 newborns /18 nurses. Satisfaction was assessed using a questionnaire.	Observation and completion of questionnaires.	Each neonate was assessed for pain and discomfort using the N-PASS scale. The protocol was deemed feasible and safe. No adverse events were reported. Stillness reported in 7 patients - no intervention was recorded.	Adherence to the protocol was judged to be limited as participants did not fully understand the protocol. It was suggested by the authors that the protocol be implemented again and that further research be carried out.
USA Currie, E.R Christian, B.J. Hinds, P.S. Perna, S.J. Robinson, C. Day, S. Meneses, K. (2016) Parents perspectives of neonatal intensive care at end of life.	To explore mothers’ experiences of palliative care end-of-life care of newborns in the NICU.	10 parents 7 mothers 3 fathers	Descriptive qualitative study.	Life and death in ICU. The secondary issues were; 1. Ups and downs of parents in MENN 2. Decision-making challenges in the MENN 3. Parental support	The investigation relied on recall of events, which may not yield clear results due to the passage of time. The research was carried out with a small sample of parents.
Author, year of publication and country	Objective of the task	Participants/ Population	Methodology	Results	Restrictions

USA Falck A.J. Moorthy S. Hussey-Gardner, B. (2016) Perceptions of Palliative Care in the NICU.	To examine the provision of palliative care in the NICU by health professionals to neonates with life-threatening illnesses.	12 interviews in total: 6 mothers 5 nurses 1 doctor	Qualitative research method. Semi-structured interview.	Five themes emerged: 1. Communication 2. Privacy 3. Continuity of care and relationship building 4. Search for native knowledge 5. Emotional turmoil	Exclusion of fathers from the study.
USA Samsel C Lechner BE (2015) End of life care in a regional level IV neonatal intensive care unit after implementation of a palliative care initiative.	The neonatal end-of-life palliative care implementation initiative.	106 newborns	REVI graph	The effectiveness of palliative care implementation is associated with an increase in palliative interventions during the last 48 hours of the newborn's life.	Data only during the last 48 hours of life of the newborns.
USA Younge, N Smith B Goldberg R Brandon DH Simmons C Cotton M Bidegain M (2015) Impact of a palliative care program on end of life care in a neonatal intensive care unit.	Evaluation of the changes brought by the palliative care of newborns in NICUs.	Area 1:82 newborns Area 2: 60 hatchlings	Retrospective research	The study compared deaths before/after the application of a program of palliative care. Without the palliative care there died 82 and with the application of palliative care 68 died. Morphine use was similar, while benzodiazepine use was increased in front. When applying it. front. the results were better.	Exclusion of newborns who died within 24 hours of birth. The survey did not include the assessment of the clinical response to benzodiazepines at the end of life which is in the medication instructions.
Author, year of publication and country	Objective of the task	Participants/ Population	Methodology	Results	Restrictions
USA Zimmerman K Hornik CP Ku L., Watt K Laughon MM Bidegain M Clarke R H Smith B.P (2015) Sedatives and analgesics given to infants in neonatal intensive care units at end of life	Evaluation of the use of sedative and analgesic drugs in neonates in the context of palliative care.	Out of a total of 19,726 newborns who died of 1997 to 2012. And 348 Newborns on NICUs.	Retrospective study	The provision of analgesics increased compared to the past. Based on the research data, the most frequently provided analgesics were opioids and benzodiazepines. Providers increased doses of opioids or benzodiazepines as the time of death approached. A large variability in the provided doses was also observed among the NICUs that participated in the survey.	Limited collection of written information on neonatal deaths.

Maternity care and occupational therapy support for women with impaired physical mobility during pregnancy, childbirth, and the postpartum period in Estonia

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Introduction

Being a mother is a basic human right and an experience that many women desire regardless of their health status¹. All women who decide to become mothers need a support network of family, friends, and a functioning interdisciplinary team^{2, 3}. However, for women with impaired physical mobility (IPM), this experience can be a major social and health challenge in addition to the usual life change. Women with IPM are more likely to miss out on the maternity care services they need, as access to healthcare facilities is difficult. Women with disabilities can only choose between service providers whose facilities are mostly accessible, this

limits women's freedom of decision to choose a healthcare professional that suits them⁴. Several studies have shown that women with disabilities, including women with IPM, do not receive the necessary maternity care from midwives and other healthcare workers, neither during pregnancy nor in the postpartum period^{5, 6, 4}. However, women with IPM may have a higher risk of complications during pregnancy, childbirth, and the postpartum period than women without disabilities⁷. This is a vulnerable target group that needs more support and counselling from both midwives and occupational therapists. This topic has not been studied in Estonia so far, especially from the context of midwifery and occupational therapy.

The aim of the research

To analyse the experiences of women with impaired physical mobility during pregnancy, childbirth, and postpartum period in hospital and at home.

Material and Methods

The research method was qualitative. Semi-structured interviews with women with IPM. Three interviews were carried out among women with IPM aged 37–45 who had given birth in the last ten years. Interviews were recorded and later transcribed verbatim. Qualitative content analysis was used to analyse the transcribed interviews.

Results

Physical environment of health services is a significant problem that requires solutions to support women with IPM in general, as well as during pregnancy and postpartum. For women with IPM, the support network played a major role in starting, growing, and maintaining a family. Interviewees feared negative attitudes from healthcare workers which did not turn out to be true, at the same time negative attitudes were experienced by hospital social and care workers. Women perceived their childbirth experience human centred as they were involved into decisions related to them. Participants perceived a lack of counselling regarding breastfeeding and disability in postpartum. According to women, midwives may need additional training in providing maternity care for women with IPM. During the postpartum period at home, women had a greater need for help in the form of various aids, techniques, and personal assistant. Women IPM emphasized that they would rather need the help of an occupational therapist during the postpartum period, when many problems arise when holding, swaddling, and moving with the baby. There is lack of knowledge among people about the nature of the occupational therapist's profession and service. Women with IPM have a need for specific counselling and information about assistive devices within interventions in occupational therapy to support them during pregnancy and in the postpartum period.

Conclusions

This is the first study in Estonia regarding maternity care and occupational therapy support for women with IPM. The study provides primary information from the perspective of women with IPM and their experiences of pregnancy, childbirth, and the postpartum period. The results of the study highlight the need for an interdisciplinary team to provide sensitive maternity care. Due to the specific nature of disabilities, the target group needs occupational therapy support when using aids. Cooperation between midwives and occupational therapists must also be enhanced to support women more effectively with IPM.

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Attitudes and knowledge of midwives about smoking cessation perinatally

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Introduction

During the perinatal period, exposure to firsthand, secondhand and thirdhand tobacco smoke is without any doubt, the most significant preventable cause for a number of unfavorable pregnancy outcomes¹. Smoking is particularly widespread among the Greek population. According to data from the 2020 Eurobarometer,² the total use of tobacco and related products in Greece reaches 42%. Recent surveys conducted in Greece show that smoking during pregnancy remains a serious public health problem [3, 4]. In a 2019 survey,³ it appears that 46.73% of pregnant women declare themselves smokers at the beginning of their pregnancy while 17.55% of them continue to smoke throughout pregnancy. Another study conducted in 2021⁴ showed that 41.4% of the participating pregnant women were smokers, while the general prevalence of smoking at the end of pregnancy was 19.7%. Midwives who are constantly in contact with women during pregnancy and postpartum period have a direct role in helping them quitting smoking⁵.

Material and Methods

The research was conducted between December 2022 and March 2023. An anonymous questionnaire created according to the objectives of the study, was utilized. The midwives that participated were either working in Health Centers and hospitals of 1st and 2nd Health District or working as freelancers.

Results

The questionnaire was completed by 117 midwives. The outcomes showed that midwives have a positive attitude towards providing smoking cessation support and most of them stated that they do routinely inform pregnant smokers about the risks of smoke exposure. The majority of the participant midwives (86.3%) believe that smoking cessation support is an important part of their professional role. 77% of them reported the need for training in smoking cessation support. It is worth mentioning that only 22% of the midwives who answered the questionnaire, reported that they know

“motivational interviewing” and only 7% know the “5As Model” for smoking cessation. 60.7% of midwives reported that pregnant women were not well informed about the risks of firsthand, secondhand and thirdhand smoking exposure during pregnancy. Furthermore, 64.1% of them reported that they feel capable to provide smoking cessation support to pregnant and women in postpartum period but only 7.7% of the midwives answered correctly all the relevant questions on the effects of smoking during pregnancy.

Conclusions

The results of the survey highlight the importance of training midwives in the techniques and methods of smoking cessation. Although, most of the midwives believe that they can efficiently help pregnant women to quit smoking, actually they lack the necessary knowledge to do so. These findings underline the necessity of having specially trained midwives and the need for maternity hospitals and health centers in Greece to implement smoking cessation programs.

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Pregnant women's knowledge levels on nutrition and effect of nutritional education on their anthropometric measurements and newborn health

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Introduction

A healthy-balanced diet and adequate energy intake during pregnancy prevent many diseases and complaints in mother during pregnancy, while ensuring physical and mental growth and development of the fetus. This research aims to analyze

nutritional levels of pregnant women registered to family health centers in Amasya city center in Turkey with the Nutrition Information System (BeBIS 8.0) software, a valid and reliable one, and to evaluate effects of nutrition training given according to analysis results and Turkey Nutrition Guide on anthropometric measurements of pregnant women and newborn health.

Material and Methods

This research is in experimental design type with pretest posttest control group and repeated measurement (3rd month and postpartum). The research was consisted of 20 in the experimental group and 16 in the control group. Data of the research were collected with a participant information form which includes questions about socio-demographic data of pregnant women, risk assessment and anthropometric measurements form, and daily nutrition record form. According to the results of the analysis and according to Turkey Nutrition Guide, both individual nutritional training was given to the pregnant women in the experimental group and a nutritional recommendation list including the foods they should consume and their amounts was given. In this research, Static Package for Social Science for Windows (SPSS 21.0) was used to resolve, investigate and analyze the data. Mann Whitney U test and Chi square test were used for categorical data, since it did not show normal distribution in the evaluation between groups.

Results

The mean age of all participants was 26.44±5.39 years. It was determined that the mean BMI of the participants was 24.07±4.37, and the mean weight gain was 14.91±6.18 during pregnancy. In the research, no difference was found between the groups in terms of total weight gained during pregnancy, newborn birth weight, delivery type and ideal weight to be gained during pregnancy according to BMI. A statistically significant correlation was found between having problems in the postpartum period and weight gain according to BMI (p=0.04). It was determined that 87.5% of those who had problems gained less or more weight during pregnancy. A statistically significant relationship was found between the state of having problems in the postpartum period and the type of delivery (p=0.02). All those who had problems gave birth by cesarean section.

Conclusions

It was determined that adequate and balanced nutrition during pregnancy is important for both mother and fetus. Changes were observed in the dietary habits of the women in the intervention group. Nutrition and activities should be monitored at more frequent intervals throughout the entire pregnancy.

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There is no conflict of interest between the authors.

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Maternal pre-pregnancy body mass index and gestational weight gain: perinatal outcomes

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Introduction

The presence of abnormal body weight before pregnancy and in the first trimester of pregnancy is a crucial risk factor of preterm birth (PTB) and low birth weight (LBW)¹. The global preterm birth rate has remained constant for over 20 years, amounting to 9.6–11%²⁻⁴. On the other hand, data from the World Health Organization (WHO) show that in recent years an increase in the number of premature births has been observed in many countries (mainly in industrialized countries). Prematurity and low birth weight is one of the most important and still valid challenges of modern medicine, which is also a socio-economic problem. Preterm babies require interdisciplinary, specialist treatment, diagnostics and rehabilitation, sometimes lasting their entire life. Literature data show that approximately 15 million premature babies are born in the world each year^{2,5,6}. In many studies researchers mentioned that abnormal pre-pregnancy BMI is a very important independent risk factor of PTB. This value also determines the recommended maternity weight gain during pregnancy. The data obtained in this way are considered the most important indicators of the nutritional status of a pregnant woman⁷. Abnormal BMI is also associated with an increased risk of gestational diabetes, pre-eclampsia and eclampsia, pregnancy-induced hypertension (PIH) and other perinatal abnormalities^{1,8,9}. The consequences of the increase in the frequency of premature childbirths and low birth weight lead to a critical analysis of the factors that may affect their occurrence and effects (social, medical, psychological and economic). The aim of this study was to assess how pre-pregnancy BMI and inappropriate gestational weight gain are associated with preterm birth, low birth weight and type of birth.

Material and Methods

We conducted a retrospective cross-sectional study of 394 Polish women in the postpartum period. We used a questionnaire with the structure of the medical interview. To analyze factors related to birth outcomes, we used the Pearson's Chi² test of independence and odds ratio (OR), with a corresponding 95% confidence interval (CI), followed by a multiple logistic regression.

Results

The pre-pregnancy BMI affects the way of pregnancy termination - in the group of women with a higher BMI

there were more cesarean sections. Pre-pregnancy BMI also influenced the week of pregnancy termination, i.e. incorrect BMI contributed to an increase in the percentage of premature births. 25% women with normal weight [BMI 18.5 to 24.9] had EWG, excessive gestational weight gain, 40 % had AWG, appropriate weight gain, and 35 % LWG, too little weight gain (recommended WG 11.5–16.0 kg); women with overweight and obesity [BMI 25.0 to <30] had EWG in 62%, AWG in 21% and LWG in 17% (recommended WG 7.0–11.5 kg); women with underweight [>18.5] had EWG in 6%, AWG in 67% and LWG in 28% (recommended WG 12.5–18.0 kg). Inappropriate gestational weight gain affects of category of pregnancy termination and category of newborn's birth weight (p<0,0001).

Conclusions

The pre-pregnancy BMI affects the way of pregnancy termination - in the group of women with a higher BMI there were more cesarean sections. Pre-pregnancy BMI also influenced the week of pregnancy termination, i.e. incorrect BMI contributed to an increase in the percentage of premature births. Our findings indicate that promoting weight management remains a priority in public health policy, and women of childbearing age should be encouraged to adopt or maintain healthy lifestyle during pregnancy in order to avoid sed-entary - and obesity-associated risks affecting birth and newborns' health. Our study suggests that appropriate gestational weight gain recommendations to prevent perinatal complications.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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How can maternal physical activity affect the birth and newborns' outcomes? - an introductory report

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Introduction

The recent data has shown that regular physical activity during pregnancy and before pregnancy has a positive effect on the physical and psychological condition of the future mother, fetal development, parturition, and functioning during postpartum period 1–6. What is more, physical activity started in pregnancy may have impact on a lifelong change to a health-promoting lifestyle. Research has also proved that prenatal physical activity of mothers has a long-term effect on the health of the children, including a reduction in the risk of obesity in later life^{7,8}.

Material and Methods

A cross-sectional study is conducted within a group of healthy women in second trimester of singleton pregnancy and in the postpartum period. The study design included a questionnaire for characterizing sociodemographic, medical history (including pre-pregnancy BMI and weight gain) and International Physical Activity Questionnaire (IPAQ). All statistical analysis will be performed on dedicated software.

Results

The study revealed that women who reported being physically active before and during pregnancy were more likely to have full-term birth and had a lower incidence of very premature and extremely premature births. Women who exercised during pregnancy more often gave birth to children with a normal body weight and were less likely to have children with low, very low or extremely low body weight.

Conclusions

Our findings indicate that promoting physical activity and weight management remains a priority in public health policy, and women of childbearing age should be encouraged to adopt or maintain an active and healthy lifestyle during pregnancy in order to avoid sedentary - and obesity-associated risks affecting birth and newborns' health.

Funding

This research received no external funding.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The association between prenatal posttraumatic stress disorder (PTSD) and preterm birth

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Introduction

Research findings suggest that prenatal posttraumatic stress disorder (PTSD) is associated with poor maternal mental health, and disrupted mother-infant bonding. In addition, a number of studies suggest that prenatal PTSD may also be associated with adverse neonatal outcomes, but this remains unclear. The aim of the present narrative review was to synthesize the available evidence from observational studies on the relationship between prenatal PTSD and preterm birth (PTB).

Material and Methods

Using a set of search criteria, the Scopus and PubMed databases were reviewed. No limitations on the date of publication or geographic location were placed on the inclusion of observational studies that were peer-reviewed and published in the English language.

Results

The database search revealed eight cohort studies and almost all of them were from the United States. The number of participants in the studies ranged from 285 to 9930, and the sample size for those with PTSD included 2155 women. The majority of the studies (n=6) found that women who reported PTSD had higher odds of having a PTB compared to women without antenatal PTSD. Three studies did not find a statistically significant association between maternal PTSD and PTB.

Conclusions

Findings suggest that prenatal PTSD may be associated with an increased risk of preterm birth. This information might lead to midwives screening for PTSD more vigorously throughout the perinatal period.

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The authors have not declared any conflicts of interest.

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The impact of premature birth in postpartum depression

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Introduction

Premature birth is a condition that disrupts the normalcy of the family and can affect the mental health of the mother. The purpose of this study is to seek, analyze and present all the studies that investigate the relationship between premature birth and postpartum depression and have been published in the last 20 years.

Material and Methods

The research method used to conduct this dissertation is the literature review. To conduct it, a literature search of electronic databases containing medical topics was required.

Results

According to research, it seems that premature birth is a difficult and stressful experience for parents. The mother's emotional adjustment can put her at risk by plunging her into postpartum depression, with negative consequences for her baby.

Conclusions

The incidence of postpartum depression ranges from 10-15%, while other studies report a prevalence of 3.5-17.5% when interviewing with weighted diagnostic tools is used and 3-25% when using a questionnaire. In the international literature, however, the term "impact on new mothers" prevails and this is estimated at about 10-20%, a percentage that increases to 26% in adolescent mothers and 38.2% in the firstborn and economically weaker placentas^{1,2}.

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Risk factors of postpartum depression and postpartum posttraumatic disorder after birth in a sample of Slovak women

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Introduction

Pregnancy, childbirth and the postpartum period represent a unique experience in a woman's life that significantly changes their life and brings a wide range of positive and negative feelings that have an impact on a woman's psychological health.

Aim

The aim of the study is to analyze selected sociodemographic and perinatal risk factors of postpartum depression and postpartum posttraumatic disorder (PTSD) after childbirth in a sample of women in Slovakia.

Material and Methods

The research took place in four hospitals in Slovakia. Partial data from the INTERSECT Slovakia project are processed in the study. The City BiTS questionnaire was used to measure PTSD, the Edinburgh Postnatal Depression Scale (EPDS) was used for postpartum depression symptoms, and we also focused on questions related to the subjective perception of childbirth, women's health status, the level of respect and autonomy during childbirth and basic sociodemographic data. We used ANOVA, Chi-square, Student t-test for independent samples and Pearson's correlation analysis for data processing.

Results

The research group consists of 455 female respondents (average age 30.4 ± 4.8). In our study, an increased risk for the development of postpartum depression (EPDS questionnaire cut-off score 12.5) was confirmed in 11.4% of respondents. Women with higher rates of postpartum depression symptoms also had higher scores on the PTSD scale. A higher score of postpartum depression and PTSD after childbirth was demonstrated in primiparous mothers (p=0.01; p=0.003, resp.) as well as in the case of mother's health complications during pregnancy and childbirth (p=0.01; p=0.001, resp.) or child (p=0.01; p=0.001) and also if women subjectively perceived their birth as traumatic (p=0.001; p=0.001, resp.). In the group of women who perceived the preservation of privacy and intimacy during childbirth, a significantly lower score of PTSD symptoms after childbirth was found, as well as postpartum depression (p=0.002; p=0.001, resp.). Women who perceived a higher level of respect and dignity during childbirth, had significantly lower PTSD symptom scores after childbirth compared to women who perceived a low level of respect and dignity from medical staff (p=0.003). Women who subjectively perceived that they were well prepared for childbirth had a significantly lower score on the postpartum depression scale (p=0.025).

Conclusions

Focusing on individual risk factors for the development of postpartum depression and PTSD and choosing the right interventions should be key to improving overall health

care for women during childbirth as well as preventing the development of individual disorders in the postpartum period.

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All authors declare no possible conflicts of interest.

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Post-traumatic stress disorder after childbirth and birth satisfaction as an associated risk factor

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Introduction

Post-traumatic stress disorder (PTSD) after childbirth can occur in women who have experienced a traumatic birth. Symptoms of PTSD represent a great burden for women, but also for whole families, so it is necessary to take care of the mental health of pregnant women and mothers. The highly professional and effective care of a woman during delivery leads to a woman's greater satisfaction with childbirth, which can be a positive factor in the appearance of PTSD. The aim of our study was to determine the interference between birth satisfaction and the risk of developing PTSD in women after childbirth.

Material and Methods

The study included 455 women (mean age 30.4 ±4.8) in the 6-8 week period after childbirth. The sample of women came from four hospitals in Slovakia. A 10-item version of the revised Birth Satisfaction Scale (BSS-R) and the City Birth Trauma Scale (City BiTS; 29-item questionnaire developed to measure birth-related PTSD) were used. The traumatic birth experience was also determined on a scale of 0-10 (0 – not at all traumatic, 5 – mildly traumatic, 10 – extremely traumatic). The design corresponds to a cross-sectional study.

Results

The average score achieved with childbirth satisfaction in the given sample of respondents was 24.5 (± 3.6)/40. The average score of post-traumatic symptoms among respondents, determined on the City BiTS scale, was 8.97(±10)/60. Pearson's correlation analysis performed with BSS-R vs. City BiTS reached a correlation coefficient value of $r = -0.545$, which is a statistically significant relationship ($p < 0.001$). Student's t-test performed between BSS-R vs. the scale of traumatic experience of childbirth showed a significant statistical relationship between the given indicators ($p < 0.001$), as well as between City BiTS vs. scale of traumatic experience of childbirth ($p < 0.001$).

Conclusions

A significant relationship was found between childbirth satisfaction and the incidence of PTSD symptoms among postpartum women, in that lower levels of satisfaction with childbirth were statistically significantly associated with higher scores of symptoms PTSD. At the same time,

women who perceived childbirth as more traumatic showed significantly lower levels of birth satisfaction and higher scores of postnatal symptoms of PTSD than women who did not perceive childbirth as traumatic.

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Impact of symptomatology of selected psychological disorder on maternal functioning six months after childbirth

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Introduction

The functional status of mothers after childbirth includes several areas such as self-care, infant care, mother-child interaction, mother psychological well-being, social support, management, and adjustment. An appropriate assessment of maternal functioning has the potential to provide valuable information about the mother's level of competence in the maternal role. Mental health disturbances, such as perceived stress and depressive symptoms can negatively affect the adequate fulfillment of the role of mother. The main objective of this study was to examine the impact of symptoms of post-traumatic stress disorder, postnatal depression, and perceived stress on maternal functioning.

Material and Methods

A total of 293 women (mean age 31.32±4.85; range 18-45) who were 6-7 months postpartum completed an online questionnaire consisting of Edinburgh postnatal depression scale, City birth trauma scale, Perceived stress scale, Barkin index of maternal functioning, socio-demographic and obstetric questions.

Results

Maternal functioning was significantly and negatively correlated with symptoms of birth trauma ($p=0.000$), postnatal depression ($p=0.000$), perceived stress ($p=0.000$), maternal age ($p=0.025$), health complications of the mother in the postpartum period ($p=0.002$) and health complications of the child after birth ($p=0.015$). When multiple regression was run, only higher levels of perceived stress significantly predicted lower maternal functioning $F(1; 148)=65.807$, $p < 0.001$, $R^2=0.308$.

Conclusions

Information about how psychological problems such as postpartum depression symptoms, birth trauma symptoms, and perceived stress interact with maternal functioning may influence treatment approaches for postpartum women with impaired mental health. At the same time, better functioning could be an immediate and long-term advantage, as it

contributes to the optimal fulfillment of the maternal role.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Introduction of the health promoting project - Mental health counseling in perinatal period

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The aim of the project is to ensure that pregnant women and their families have access to appropriate mental health counseling services to help them make informed decisions about pregnancy-related issues, simultaneously raising awareness of possible risks and being informed about support services and subsidies the state provides. One of the additional objectives of the project is to improve the availability of the service in rural areas.

The second strategic aim of the project was to provide mental health counseling services in at least 11 counties and 13 institutions during the project (in Estonia we have 13 maternity departments/hospitals all around the country).

An additional aim of the project is to update the website and develop mental health counseling during perinatal period services to the online platform.

Chart 1. Mental health counseling in perinatal period.

year	2022	2021	2020	2019	2018	2017	2016
sum	3455	3630	3482	4408	4506	3022	3860
counselled persons	2016	1693	1874	2487	2690	1514	1686
families	380	319	426	766	974	417	466
emergency counselling	284	264	176	282	316	242	284

With the support of the project (in the period 01.01.2022-31.12.2022), 2016 persons (W=1285; M=731) received mental health counseling in the perinatal period on a total of 3455 occasions.

The age distribution of counseled men and women in year 2022 is similar to previous years, the largest number of applicants among women are in the age group 30-35 and 24-29 and among men, the largest number of converts is in the age group of 30-35.

The stakeholders of the project are healthcare professionals who work with the mentioned target group in practice - primarily midwives, gynecologists, family doctors/family nurses and pediatricians, but also social workers, child protection workers, etc.

According to the statistics collected in the framework of 2022, 25% were referred to mental health counseling by a gynecologist, 63% by a midwife, 10% by a family doctor, and in some cases by another specialist.

2022 we also carried out surveys of stakeholders, about the awareness and necessity of referral to the service. Based on this information, we plan for 2023. conduct service information

training for health care providers.

We also asked for feedback from hundreds of service users. The mental health counseling during perinatal period awareness survey was conducted at the end of 2022, during which we collected feedback on the awareness of the counseling service, the need for the service, and the counseling experience. The survey was conducted in the period: November 15 - December 31, 2022. Answering the survey was anonymous and voluntary.

The poster would introduce the nature of the counselling service and present the summaries of both stakeholder and target group surveys.

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Midwifery care for women with recurrent mental illness. A qualitative study from the user's perspective

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Introduction

Women of childbearing age are the largest population group affected by major depression in Germany. Accordingly, with a prevalence rate of 15-20%, mental illnesses are the most frequent complication during pregnancy and in the first year after childbirth. In particular, disease recurrences increase significantly in women with mental illness in the peripartum period. This group of women in particular is more stressed by life changes than psychologically healthy women. Often, recurrent mental illness is accompanied by other stress factors, such as poverty or single parent status. Not only the mothers, but also their children suffer from the illness - 50 percent of them also become mentally ill in the course of their lives, also because the bond between mother and child is made more difficult by the illness.

In addition to medical support, psychosocial care by midwives is central to a successful peripartum period for the vulnerable target group. Midwives usually have a trusting relationship with the woman. In addition to midwifery support, midwives promote bonding between parents and child and refer to other professional groups as needed. For midwives, working with women with mental illness is often considered challenging.

The project will examine the experiences of women with pre-existing mental illnesses with midwifery care during the peripartum period. Of particular interest are the specific needs of women with mental illness for midwifery care. From the user's perspective, factors that increase the quality of care for this vulnerable group should be made visible.

There is hardly any research on the needs of this target group, which could also be taught and increase the quality of care in midwifery. The study results should strengthen this aspect of care in midwifery education. The results will be incorporated into teaching in the form of a recommendation (which will also be further developed).

Material and Methods

The study design corresponds to a retrospective qualitative survey of women by means of problem-centered individual interviews according to Witzel. Guided interviews will be conducted with 10-12 mothers who were diagnosed with a

mental illness and treated by a doctor before pregnancy. The women will be contacted via medical practices, psychologists and mother-child institutions in North Rhine-Westphalia. Included are mothers whose last birth was 6-12 months ago. The data analysis is based on Mayring's content analysis. The results will be discussed in a multiprofessional expert group.

Results

This project sheds light on the professional actions of midwives in caring for women with mental illness. It is expected that midwives will be sensitized to the topic and learn about possible solutions to the challenges of care - also through the recommendations of the project. Furthermore, it is expected that the key function of midwives as mediators of women to further help will be strengthened through teaching. This, too, is expected to improve the quality of care to meet women's needs.

Conclusions

University programs are encouraged to incorporate new research findings on the topic of care for women with mental illness into their teaching and to develop appropriate services.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Perinatal, Paternal and Child Mental Health (PPCMH) to promote sound mental health and wellbeing across the life course

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Background and Rationale

Maternal mental health is an emerging area of interest as a rapidly growing body of evidence reveals both the significance and global burden of common perinatal mental health challenges and the direct and indirect links between mental health issues and maternal and child morbidity and mortality, warranting a whole family based approach to care. There are huge economic and human costs attached to a global failure to take action (Global Alliance for Maternal Mental Health, 2018).

Aim/Purpose

All mothers, fathers and children across Zimbabwe to have equitable access to comprehensive, highquality PPCMH care.

Methods/Innovation

SPANS is proud to be working with the Ministry of health and child care (MoHCC) through training of Family Mental Health Therapists. This abstract comes into force to address.

An Intervention Deficit

This is a result of lack of trained Family Mental Health Therapists at primary health care facilities to conduct the early identification, follow-up or home visits, referral and link between services providers through a multidisciplinary team. The starting point for identifying possible PPCMH issues is through identification.

Findings/Impact

PPCMH Program aims to address undiagnosed and untreated

Perinatal, Paternal and Child Mental Health problems which are a silent public health issue, a national health issue, human rights issue and is not a luxury, all women need sound mental health to contribute productive to their community and family, deserving national recognition and action to save lives.

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Female sexual functioning and level of self - esteem after childbirth - An introductory report

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Introduction

Childbirth brings about changes that can affect a mother's sexuality, including less time, energy, sleep and focus in new family roles. The accepted global recommendations like WHO (World Health Organization), UNICEF (United Nations International Children's Emergency Fund) and AAP (American Academy of Pediatrics) recommend that infants should be exclusively breastfed for the first six months of their life, and breastfeeding should continue for up to two years or beyond to achieve optimal baby's growth¹⁻⁴. Though breastfeeding can be a meaningful, enriching experience, it can adversely influence a woman's sexuality⁵. Changes in hormone levels after labor can impact sexual function and affect desire and arousal⁶.

Most women do not resume sexual activity for 6-8 weeks after labor. However, within three months of the delivery, 80-93% of new mothers resume intercourse⁷. During this time, two out of three women experience at least one problem connected to sexual functioning, including decreased libido, difficulty achieving orgasm, vaginal dryness or dyspareunia⁸. Decreased sexual activity in the postnatal period may result from reduced interest in sex, post-partum pain, tender breasts, and leaking milk^{6,10,11}.

One of the factors affecting sexual functioning after childbirth may be a change in body image. Women's self-esteem during pregnancy and after childbirth may be damaged by changes in physique, and accommodating for motherhood, during which a woman often loses her sense of identity.

The aim of this study is to investigate factors affecting for sexual functioning after childbirth, with particular reference to body esteem.

Material and Methods

A cross-sectional study is conducted in a group of women in the postpartum period. The study design included a questionnaire for characterizing sociodemographic, medical history and breastfeeding variables, the PL-FSFI (Female Sexual Function Index) and Body Esteem Scale and the SES Self-Esteem Scale of M. Rosenberg. All statistical analysis will be performed on dedicated software.

Results

There was statistically significant difference between the groups that practiced different types of breastfeeding. Preliminary results show that 50% of women surveyed,

after pregnancy, consider themselves less attractive than before pregnancy. In turn, 75% report that they did not know about a contraceptive method such as LAM, despite the fact that patients from the 24th week of pregnancy are covered according to the Organizational Standard for Perinatal Care with pre-breastfeeding education. In addition, 12.5% of respondents report feeling psychological discomfort at the thought of breastfeeding.

Conclusions

Sexual activity is an important subject in every woman's life that is still not discussed enough. Realizing the connection between self-esteem and sexual activity is key to helping women have a more satisfying sexual life after childbirth.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Headaches and depressive symptoms among pregnant population

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Introduction

Migraine and depression are known to be comorbid conditions in general population. This correlation is also confirmed to pregnant population. However, there are no studies for other types of headaches and the occurrence of depressive symptoms in women in perinatal period.

Material and Methods

The survey conducted from October 2022 to February 2023 at General Hospital Elena Venizelou Alexandra (ethical approval 20306/6-10-22). A demographic questionnaire, a translated Greek version of EPDS and one for classification of headaches were administered to women who give birth the above period. Women with premature labor were excluded.

Results

A total of 310 women were included. The headaches were classified in four categories Migraine, Possible migraine (PM), Tension Type Headache (TTH) and Unclassified Headache (UH). A statistical significant association was found among the migraineurs and the symptoms, make harm to themselves (p-value= 0,000<0.05), fear (p-value= 0,002<0.05) and sadness (p-value= 0,000<0.05). On the other hand the women with Unclassified Headaches are less likely to feel fear, sadness or want to harm themselves. There wasn't found a statistical significant association between anxiety and headache.

Conclusions

TTH, PM and UH are seemed not to be risk factors for peripartum depression. Depressive symptoms demonstrate stronger correlation among migraineurs.

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Accessibility in maternal health services: a case study of refugee population in hospitality structure of fillipiada

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Introduction

Refugee asylum seekers have the right to free access to Public Health Facilities and are entitled to nursing and medical care. Pregnant refugees face a variety of linguistic, cultural, geographical, administrative, etc. barriers. Inadequate access to health services is a brake that affects all aspects of their lives.

Material and Methods

The research was chosen to be qualitative, where individuals and phenomena are studied in their natural environment. It is characterized as a participatory observational study since the research team participated in the activities being studied trying to facilitate women's access to obstetric services. The research took place at the Refugee and Immigrant Reception Center from July 2020 to July 2021. The communication was made through certified cultural interpreters of the service/organization in two languages. Arabic and Farsi. The data collection method was (34) structured interviews that included eleven questions, categorized according to the type of accessibility studied (social, geographical and organizational). The results of the interviews were audio

recorded and transcribed.

Results

All the women who participated in the survey chose a public hospital. This was an option that was 100% economical. Each respondent visited the doctor from only once to once a month with 50% visiting the hospital 2-3 times. Half of the women answered that they did not need more visits. The problems that most of them faced during the journey to the hospital were difficulties in transportation and the cost of it. The largest percentage (62%) say they did not have any problems with the use of the services. A large percentage (62%) believe that they were not confronted with racist behavior. 21% of women report offensive behavior by staff. Women faced various bureaucratic problems with their social security number, prescription and certificate of marital status. In the process of admission to childbirth, 65% reported various problems regarding the distance of the hospital from the place of residence and the cost of transportation. Women make very positive feedback on the support they received after pregnancy, and only two make negative feedback. The largest percentage of respondents (91%) recognize communication as the biggest obstacle and emphasize the need for a translator in every health service.

Conclusions

The most important problems that arise regarding the accessibility of refugee women to health services are language, geographical and bureaucratic barriers. It is necessary to take the required measures in order to provide satisfactory maternal care within the geographical boundaries of the region without presenting the need to change the place with the accompanying problems that this entails. Health care providers must also recognize, respect and respond to the cultural beliefs and practices of the people they serve. This can be achieved through training programs both at the workplace (hospital, health center, etc.) and at the university (intercultural training). The most important issue that emerges from the literature and is confirmed by the research is the urgent need to provide interpretation services in the health system. Finally, the responsible bodies are required to do their utmost so that the already established mechanisms operate in an organized manner without delays and deficiencies to avoid bureaucratic problems as well as to establish new interventions that cover the geographical and linguistic needs of the population in order to provide refugees with an equal access to health services in general and obstetrics in particular.

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Tubal ligation during caesarian section: A retrospective study from a Greek secondary hospital

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Introduction

Tubal ligation is a safe surgical method of contraception. We retrospectively studied tubal ligations done after caesarian section in a Greek public hospital during a 5-year period.

Material and Methods

We recorded women undergoing tubal ligation during caesarian section, using the records of our maternity ward. We documented parity and number of previous caesarian sections in each patient. Statistical method used was chi-squared test.

Results

Between July 2017 to June 2022, 97 tubal ligations during caesarian section were conducted. In a total number of 107 patients with a previous history of two caesarian sections, 56 tubal ligations were performed i.e., 52.33%. In 13 patients with a previous history of three caesarian sections, 7 tubal ligations were done i.e., 53.84%, while in 3 patients with a previous history of four caesarian sections, none underwent tubal ligation. Women with ≥ 3 caesarian sections were not more likely to have postpartum tubal ligation during caesarian section compared with women with 2 prior cesarean sections. ($\chi^2=0.011$ df=1, $p<0.001$). It is worth mentioning that 12 tubal ligations were performed in women with previous history of one caesarian section due to multigravidity, while 22 women without previous history of caesarian section underwent tubal ligation due to desired sterilization.

Conclusions

Our findings show that, 1 in 2 women in our institution who had a previous history of 2 or more caesarian sections underwent tubal ligation. Despite receiving full counseling for laparoscopic sterilization, 22 women chose, after giving informed consent, to have a caesarian section for the sole purpose of sterilization.

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HPV infection as an incidental finding during dilation and curettage in postmenopausal women

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Introduction

To describe the prevalence of HPV infection in cervical tissue specimens following dilation and curettage in postmenopausal women.

Material and Methods

In this retrospective study we analyzed the overall rate of HPV infection in postmenopausal women found histologically during dilation and curettage (D&C). All surgeries have been performed in the same gynecological department of a Greek secondary hospital during a 10-year period. We recorded patients' age and indication for D&C in all cases with histological sign of HPV infection.

Results

A total number of 650 D&C's were performed in postmenopausal women between 2012 and 2021. We found 105 cases with some histologic sign of HPV infection i.e. prevalence 16.15%. The mean age of patients with an incidental finding of HPV infection was 60 years; age range 47 to 89. Postmenopausal bleeding was the indication for D&C in 45.71% of patients with histological proof of HPV infection, in 29.53% D&C was performed due to thickened endometrium. Endometrial polyps and cervical polyps were indications for D&C, regarding patients with HPV infection found by pathologic examination, in 13.33% and 11.43% respectively. High-grade cervical intraepithelial neoplasia (CIN III) was incidentally found in 4 out of 105 patients.

Conclusions

According to our data, 16.15% of postmenopausal women undergoing D&C in our institution had HPV infection. Corresponding studies from the existing literature, show similar or even higher rates of HPV infection during pathological examination of cervical specimens. Hence, clinicians should have a high level of suspicion for HPV infection also during menopause.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Seroprevalence of toxoplasma gondii infection among pregnant immigrant and refugee women

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Introduction

Toxoplasma gondii is one of the most frequent causes of congenital malformations in a developing fetus. Birth country is considered risk factor for infection, while prevalence differs in populations with a refugee or immigrant background compared to the general population of a country. The aim of this study was to evaluate the seroprevalence of toxoplasma gondii among pregnant immigrant and refugee women from a refugee camp nearby a secondary hospital in the region of Central Greece. A comparative study with a random sample of pregnant Greek women was also performed.

Material and Methods

Retrospective cohort study including 100 women from the maternity ward of a Greek secondary hospital, between 2019 and 2022. IgG and IgM Toxoplasma gondii seroprevalence was recorded for 50 immigrant and refugee women and 50 Greek women. Statistical method used was chi-squared test.

Results

In the immigrant and refugee group, IgG toxoplasma gondii seropositivity was 32%. On the other hand, in the group of Greek women IgG seropositivity rate was 24%. In both groups,

none of the pregnant women were seropositive for anti-toxoplasma gondii IgM. IgG toxoplasma gondii seropositivity was not significantly higher among immigrant and refugee women compared to Greek women ($\chi^2=0.794$, $df=1$, $p<0.001$).

Conclusions

Toxoplasma gondii IgG seropositivity is higher among women with a history of refugee experience. Further studies are necessary in order to assess the need to establish adapted antenatal screening program in immigrant and refugee women.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Maternal request for caesarean section after a negative birth experience: A systematic review

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Introduction

As far as the childbirth is concerned it is well known that it constitutes a major life process for every woman. We should also take into consideration that a positive experience during pregnancy and labor has a beneficial impact on mother's psychological well-being and on mother-newborn relationship. However, many women have a negative birth experience, creating a secondary fear of vaginal birth^{1,2,3,4} and affecting their future birth preference⁵. To be more specific, a previous traumatic birth experience includes insufficient pain relief, dystocia, baby injury⁶, extreme fear because of deficient information and support during or after delivery, increased interventions⁷, lack of trust in healthcare professionals, absence of security and experience of abuse and contempt⁷. Traumatic vaginal birth makes women stressful, unconfident and fearful leading to planned caesarean sections to avoid a repetition of the trauma^{7,9}. Consequently, midwives should provide support and information to women, especially to women who have experienced a traumatic birth, to live a positive labor experience and to prefer a natural mode of delivery instead of a planned caesarean section without medical reasons¹⁰.

Material and Methods

A systematic review was carried out to investigate the maternal request for caesarean section after a negative birth experience using a PubMed Database and Google Scholar search between January 2018 and January 2022. We searched through advanced strategy using the following terms: traumatic birth experience, caesarean section, maternal request for caesarean section, preference for caesarean section. In addition, we included full-text observational

studies and clinical trials, which had full text papers. After the screening process, we included papers with full text papers and which investigated multigravida with a negative birth experience. Papers which did not fulfil the objective of our study, studies conducted over the past five years and systematic reviews were excluded. As a result of the scanning, 144 studies were obtained, of which 81 studies did not meet the inclusion criteria, 25 studies were systematic reviews and 6 studies conducted over the past five years. After excluding all the unrelated articles, 11 studies left discussing the traumatic childbirth experience and 3 associated with the midwife's impact on woman's labor experience.

Results

Three themes were identified: reasons for traumatic birth experience, post-traumatic feelings, the impact of trauma on future delivery mode and midwife's role.

Theme 1: Reasons for traumatic birth experience

The reasons for traumatic birth experience include insufficient information, pain relief, support, distrust of the care professionals, an operative delivery, an experience of abuse, a prolonged labor, no respect to patient rights and dramatic events (Table 1)7,6,8,9,12.

REASONS	TABLE 1 STATEMENTS
Insufficient information [7]	"They don't tell you what's going on, they're just secretive with it and I don't have the energy to confront them. I just want to know what's going on" [8]
Extreme pain and lack of control [7,6,11]	"So, in a way it's the pain that was the reason. But then it wasn't. Because the pain made me lose control ... And when I lost control, I panicked. And the panic made me go completely irrational [7]
Deficient support [7]	"I was lying there like a vegetable. I wanted to live. It was a trauma to just lie there all alone « [8]
Distrust of the health care professionals [7]	"When you are in good hands, you feel it. I didn't trust the staff. They were careless." [8]
Operative delivery [7,6]	"They made it on the 4th [forceps] attempt. But by then I thought I was dead a long time ago. I had no clue what happened... They didn't have time to pay any attention to me when she [the baby] was in bad shape, I get that... When the baby comes, I will go straight back. In my head I'm back on that butcher's bench." [7]
Experience of abuse [8]	"It hurt so much that my soul left me. It hurt so much I wanted to die. The way they pushed it was completely sick they just pushed my stomach (sic -uterus) down." [8]
Prolonged labor [9]	"When my labor was induced, the process took a very long time. I felt left alone for long periods of time after induction started and that I got contradictory information." [9]
No respect to patient Rights [12]	"Suddenly, someone without asking for my permission did the vaginal examination with a harsh and painful move. I wish you were treated like human beings." [11]
Dramatic events (urinary/tract damage, pelvic floor injury, postpartum hemorrhage) [7]	

Theme 2: Post-traumatic feelings

The post-traumatic feelings are reported to Table 212.

TABLE 2 POST TRAUMATIC FEELINGS
Shock
Repression
Depression
Anxiety
Fear
Anger
Sorrow
Despair

Theme 3: The impact of trauma on future delivery mode and midwife's role

According to the surveys, a negative birth experience can create a secondary fear of vaginal birth affecting the future delivery mode. More specifically, women with a previous traumatic labor request for a caesarean section, believing that is a safe and painless procedure. Furthermore, women with a negative birth experience request for a caesarean section because they do not want to recall their painful memories and they anticipate to create a calm birth experience. To reduce the unnecessary caesarean sections, midwives provide support, information¹³, pre-birth training classes and special counselling promoting the vaginal delivery. More specifically, women who receive information and psychological support change their preference from caesarean section to natural delivery. In addition, during the pre-birth training classes multiparous women share their experiences and they deal with their shame and fears feeling that they are not alone. Moreover, through the counselling midwives encourage women, strengthen their self-confidence and discuss their previous experience to correct misunderstandings. The provision of care is also very important, because women prefer to have a vaginal delivery and they have a positive labor experience^{6,14}.

Conclusions

A negative birth experience can be caused by complications, insufficient information, lack of support, loss of control, prolonged labor and operative delivery. As a result, women feel anxious, sad, shocked and fearful during or after the labor and they prefer a caesarean section for their next pregnancy to experience a safe and calm birth. Midwives can contribute to the reduction of unnecessary caesarean sections, providing support, information, pre-birth training classes and counselling promoting the vaginal birth and helping women to face their fears.

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How effective digital technologies in midwifery education

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Midwifery education is the basis of training midwives who are competent to provide quality care for women and newborns in the light of evidence-based and up-to-date knowledge. Global qualifications for midwifery education have defined benchmarks for building quality midwifery education and practice worldwide. ICM set an example for us by itemizing quality education programs and basic competency standards, with the midwifery education standards it revised in 2021. European Union's directives constitute the basic criteria for midwifery education for the European region.

Today, with the advancing technology age, midwifery education has also benefited from these developments. Especially the students called Z generation prefer the convenience of technology in education. In this context, mobile learning has developed. The use of common social media applications among mobile learning methods has had a positive effect on professional learning.

Similarly, the web-based distance education system is for students who cannot attend face-to-face classes; It has advantages such as providing access to information to large masses without time and place limitations, the opportunity to learn at their own learning pace, the opportunity to access information instantly and more easily, and reducing training costs. In the near future, it is predicted that distance education will become the main ground of education instead of an alternative or a support function in face-to-face learning. Although students think that web learning has advantages, there are also studies stating that they find web-based learning less effective when compared to traditional face-to-face learning.

Virtual reality application is also used in order to strengthen the application aspect of education. Approaches to simulation and the use of virtual reality can be beneficial for student midwives. While providing an environment for students to take control of their own learning, it provides an environment where they will be more confident in their abilities and to use their skills in a consistent and reliable way with the continuity of support in care. As a result of a systematic review, learning outcomes were found to be equal when traditional education methods and virtual reality applications were compared. Positive results have been obtained in education in terms of learning and immersion.

Apart from learning theoretical knowledge, midwifery is a section that includes skill practice. Web-based trainings are not sufficient in terms of skill practice. More adequate results will be obtained in training when practice training is supported by simulation programs that reflect the clinical environment, accompanied by realistic scenarios.

The use of mobile technologies in the world is becoming increasingly widespread and the use of mobile technologies in education and training is increasing. It has been revealed that mobile technologies can have widespread educational potential. There are many positive aspects of using technology and digital applications in midwifery education. However, technical infrastructure and equipment deficiencies can create problems in accessing education. In addition, the fact that the technological diversity is high and the technological possibilities of each student are different can also cause digital separation. The use of technology, especially for nursing and

midwifery students who have practical training, has many benefits as well as threats.

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Insights from language discordant service users of UHSussex NHS maternity trust about technology use and implications on pedagogy

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Introduction

Language discordance, i.e., where the midwife and childbearing person do not share the same language, can trigger the need for language support and multilingual communication practices (MCP) with implications on pedagogy. Midwives from UHSussex NHS Maternity Trust have adopted various multilingual practices, including technology-based solutions, to provide language support¹. However, in the United Kingdom (UK), current language support operates sub-optimally, with significant variations in how patients can access interpreters,^{2,3} as well as concerns about quality and trust⁴. This research is part of a larger interdisciplinary study⁵ between Midwifery and Interpreting Studies yielding information about encounters along the midwifery journey (antenatal, intrapartum, postnatal) and variations in MCP use. Ad hoc interpreting may occur, involving the use of a bilingual staff, family member or friend, or professional interpreters may provide in-person or remote interpreting services via telephone. In other cases, language support is provided by using English as a lingua franca or relying on language technology such as pre-translated apps or Google Translate (GT) speech-to-speech or speech-to-text tools.

Material and Methods

The study adopted a Constructivist Grounded Theory (CGT) approach to the analysis of semi-structure interviews to investigate the experience of stakeholders, including 29 service providers (midwives from UHSussex NHS Maternity Trust) and 15 service users (i.e., language-discordant mothers who had their babies between 2018-2021). The analysis process involved utilizing inductive iterative coding on the dataset, which progressed through three stages - initial coding, focused coding, and theoretical coding - culminating in the development of an abstract theory. This paper will focus particularly on those voices who have been silenced or marginalized due to language support issues i.e., service users who may be entwined with social constructs like race and culture⁶. To conduct this study, a purposeful sample of service users was recruited in their respective mother tongues. The sample consisted of 15 participants, including 6 Arabic speakers, 2 Bengali speakers, 2 Polish speakers, 1 Lao speaker, 2 Thai speakers, and 2 Turkish speakers. Out of these participants, seven were primigravidae, and eight were multigravidas. The experience timeline covers three periods: pre-pandemic (January 2018 to 1st UK Covid-19 National

Lockdown- (5 participants); during the pandemic (March 2020-December 2020 -5 participants); emerging from the pandemic (January 2021-December 2021 - 5 participants). Service users' interviews were conducted from September to November 2022 via telephone (lasting up to 1 hour 35 minutes) with professional interpreters (Arabic, Bengali, Polish and Turkish). Thai participants were able to speak directly in their mother tongue without a professional interpreter since Thai is also the mother tongue of the researcher conducting the interviews. Verbatim transcripts in English of respondents' answers were produced and analysed concurrently. Follow-up interviews of three participants were used to clarify the study data. Using CGT iterative analysis may provide insight into the rich service users' perceptions of technology for MCP within this diverse group.

Results

During the CGT analysis of the service users' interviews, several codes (TC 1-6) were generated. Service users' reported that the difficulties in arranging a professional interpreter (in-person or via telephone) could prompt the use of language technology (TC1). However, the use of GT was met with reticence due to concerns about miscommunication, especially when accents or dialects came into play, and the potential for it to be time-consuming (TC2). Participants acknowledged that relational interaction operates differently between midwife-woman. For instance, a human interpreter can understand emotions, yet participants still liked technology as a backup in language discordant scenarios (TC3). Participants also appreciated language technology because it could help childbearing people to feel confident during communication and generally expressed a preference to talk rather than write using such apps (TC4). Some childbearing mothers already use translation apps to check words in short conversations outside of maternity care, which could aid their personal learning of the host language (TC5). Finally, participants suggested that video calls could be an acceptable mode of connecting to a professional interpreter (TC6).

Conclusions

The service user dataset provided early insights into practical and relational suggestions for language support in various situations along the maternity journey. Implications of technology intersection with multilingual communication and midwifery care is complex and requires careful consideration. While participants welcomed the use of a professional interpreter via technology (e.g., telephone or video) issues arise with by pre-translated apps and machine translation. Midwifery training perhaps warrants interdisciplinary practice which creates awareness of these technological differences⁷. For instance, incorporating machine translation should not be relied upon as the sole tool for multilingual conversation automation in midwifery, as it could lead to patients agreeing to something without full understanding and potential interactional difficulties⁸. Therefore, further research is needed around technology in language support and its appropriateness to all midwifery care. In turn, this can address midwifery education and training.

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Classification of medications used by lactating women according to the risk in breastfeeding. A multi-center Greek prospective cohort study

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Introduction

Maternal medication intake may be a significant impediment to meeting breastfeeding goals 1-3. In this study we sought to classify the medications used by lactating women according to the risk in breastfeeding.

Material and Methods

Mothers (N=847) were recruited from five maternity hospitals located in Greece, throughout the year 2020. Data were gathered prospectively by a structured questionnaire via interview during hospitalization after childbirth and via telephone in the first, third and sixth month postpartum.

Results

Lactating women reported overall 89 different medicines, 7 of which had some degree of discrepancy in classification with regards to breastfeeding risk between the two sources used. The results showed that, according to the Lactmed and Hale classification respectively, 63% and 56.2% of the medicines were considered compatible or probably compatible, 12.4% and 28.1% were characterized as judicious, 4.5% and 1.1% referred to medications to be avoided and finally 20.2% and 14.6% were not classified as no information was available. Meperidine, although classified as potentially hazardous pursuant to Hale, was administered as a postoperative analgesic in 0.7% of lactating women. Additionally, azathioprine (0.2%), tramadol (12.5%), ergometrine (60.3%) and cabergoline (0.2%) were also administered to mothers, which according to Lactmed should be used with caution or avoided during breastfeeding. Notably, we observed widespread administration of metronidazole (24.1%), a medicine surrounded by controversy about its compatibility with breastfeeding.

Conclusions

Medicines that may cause an infant's sedation, decrease milk supply or have debatable safety during lactation are commonly used among lactating women. Healthcare professionals should stay updated and provide evidence-based counseling to mothers regarding medicines during lactation 4,5.

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Examining the relationship between female body image and breastfeeding intention,

initiation and duration: A literature review

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Introduction

Breastfeeding is a natural experience that affects women's bodies. In particular, it has not been precisely investigated whether and to what extent women's concerns about their body image and the weight they gained during pregnancy are related to their desire and behavior towards breastfeeding. That is, could a positive body image that a mother has about her body influence her behavior towards breastfeeding? There are studies that have shown that body image plays a role in a woman's choice to breastfeed. Women with weight concerns may prioritize starting weight loss more quickly through dieting and trying to regain control of their body size and shape in the postpartum period. Calorie restriction, a key feature of weight loss efforts, can also make breastfeeding more difficult due to nutrient deficiencies in the woman's body. Thus, early restrictive dietary practices may prevent initiation of breastfeeding or contribute to early weaning.

Methods

To find articles relevant to the literature review, electronic databases such as PubMed and PsycINFO were searched using keywords from February to March 2023. All selected articles were screened for English language and full text accessibility text.

Results

The literature review search identified 126 studies. Twenty-seven studies were reviewed in full text. Five studies were included. All participants were described as female, before, during and after pregnancy. Survey participants were mostly from hospitals or online. All the articles studied examined body image as a measure in various forms. A difference was found between pre-pregnancy body image and pregnancy body image at intention and during breastfeeding. Women with higher body image concerns were more likely to stop due to low breastfeeding confidence. In conclusion, it seems that the mother's intention for a better body image, after giving birth, is greater than her intention to breastfeed.

Conclusions

In conclusion, it was observed that psychosocial factors, such as women's concern about their body image after childbirth, are related to the initiation and duration of breastfeeding. However, the conclusions of this review were based on a small number of studies, so it is important to consider any limitations. Further research is needed to find other factors that may influence women's intention to breastfeed.

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Adolescent sexual health: The role of educational programs for secondary school teachers, Greece

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Introduction

The sexual health of adolescents depends to a great extent

on prevention through informing them by applying school programs of Sexual Education. Through them we can upgrade their knowledge, convince them to adopt healthy sexual behaviors and shape conscientious people.

Purpose

The study aims to investigate the knowledge of secondary school teachers regarding the sexual health of adolescents and to highlight the necessity of organizing educational programs to improve them in this matter, in order to provide valid and timely information to adolescents.

Material and Methods

The research was carried out with a structured questionnaire. Samples were first pilot tested and the value of the Cronbach alpha index was calculated which highlights its reliability since it was equal to 0.72. Statistical analysis was performed with the IBM SPSS Statistics 26.0 program, where the frequency, percentage, median and interquartile range were calculated for the Likert-type questions, while the frequency and percentage were calculated for the categorical variables. Investigating whether a quantitative variable differed between two levels, a t-test was used, and to investigate correlations between quantitative variables, the value of the Pearson linear relationship coefficient was calculated. The level of statistical significance for all controls was 5%.

Results

192 teachers participated in the survey with an average age of 48.04 years and 64.40% women. The average length of service was 15.14 years and 39.60% worked in schools in the Attica region. 83.20% need additional training and 90.80% want training seminars. 85.70% consider that Sexuality Education should be taught by qualified teachers, 83.50% by health teachers and 77.20% by health professionals. The level of knowledge between teachers of the health sector and those of other specialties differs ($t(156) = -3.61, p < 0.001$), with the former having a higher level of knowledge. The level of knowledge in children's psychosexual development also differs between teachers who have attended a training program related to Sexuality Education and those who have not ($t(156) = -2.35, p = 0.020$), with the former again to have a higher level of knowledge.

Conclusions

In conclusion, the findings of the research reinforce the importance of the existence of Sexual Education in the educational work and the teachers themselves recognize that they are the first line of intervention since they need training in order to effectively cope with its teaching. Collaboration with health professionals, such as doctors and midwives, could be beneficial both in conducting training seminars for teachers and co-teaching the Sexuality Education course. Health professionals, especially midwives, are already active and organize updates in the context of prevention and health education since they belong to Primary Health Care.

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Simulation applications in midwifery education

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Midwifery education consists of theoretical and clinical applications¹. Midwifery students may have difficulties, especially in clinical practice. For a student going into clinical practice for the first time, this environment can be stressful and difficult, which can affect the student's learning². Considering this situation of midwifery students, it should be ensured that the education of midwifery students is provided with tools that will help manage and solve emergency and stressful situations in the clinic³. In line with the developments in technology today, various methods have been developed for people to be more effective in their fields. Simulation application comes first among these learning methods⁴. Simulation education is a learning method that is carried out similarly to the clinical environment of people who receive education in the field of health, and contributes to the acquisition of knowledge and skills by students⁵. Use of simulation techniques by midwifery students; it provides benefits such as improving dexterity, reducing anxiety and stress in the clinic, providing a safe environment, and reducing the risk of lawsuits⁶. Simulation education is a strong evidence-based learning method in the health field^{7,8}. There are many studies in the literature showing the benefits of using simulation in midwifery education. In the study in which midwifery students' opinions were evaluated after the computer simulation application, it was seen that the students found this application close to reality, exciting, reducing fears, effective and productive⁹. In a study evaluating the satisfaction and self-confidence of midwifery students of normal and risky birth simulation applications, it was found that most of the students found the simulation training beneficial, and there was a statistically significant difference between their learning satisfaction and self-confidence scores¹⁰. In the study, in which the effect of a fully equipped birth simulation system on students' academic success and problem solving abilities was evaluated, it was observed that students understood care and treatments better after simulation training, and there was a significant difference when pre-test and post-tests were compared¹¹. As a result, when we look at the studies on simulation education, we see that it has benefits on midwifery education. The purpose of this review is to raise awareness by emphasizing the importance of simulation applications in midwifery education.

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The memory box in neonatal loss

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Introduction

A memory box is a therapeutic tool often used in neonatal end of life care to support the parents and the whole family in capturing and preserving memories of the deceased neonate. It can serve as a meaningful means of honoring the neonate and provides a tangible and personal way to hold onto keepsakes linked to the neonate¹.

Aim of a memory box

A memory box aims to provide comfort, emotional support and a sense of connection between the family and the deceased neonate. Key aspects and benefits of using memory boxes in neonatal loss include reminiscence therapy, promotion of identity and dignity, aid in the grieving process, sharing feelings and finding solace in the memories associated with the items by generating a sense of continued presence and cherished memories²⁻⁴.

Creating a memory box

Creating a memory box may involve selecting a box with sentimental value or selecting a new one, usually offered by the Neonatal Intensive Care Unit (NICU) staff. It can be a wooden box, a decorative chest or any container that feels appropriate. Paint, stickers, ribbons or other craft supplies can be used to decorate the exterior. Personalizing the box is critical for the family and can be attained by filling the box with

items that reflect the neonates personality, such as a hospital bracelet, pictures, clothing, footprints or any treasured objects. Preserving pertinent documents, including medical records, birth certificates or other relevant paperwork can provide a sense of continuity and help remember the details of the neonates story^{3,4}.

Conclusions

Overall, memory boxes are valuable to accompany and ease the mourning of the family, by promoting positive memories about the deceased neonate.

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Attitudes and views of midwives toward death in perinatal care

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Introduction

Midwives in clinical practice encounter perinatal death often, and in fact spend a large proportion of their time with critically ill neonates and bereaved parents. Midwives therefore play a very important role in caring for parents who experience the death of their baby between 28 weeks of gestation onwards and before the first 7 days of life. In this context, this study focuses on the mental resilience and attitudes of midwives towards death during perinatal care.

Material and Methods

A convenience sample of 300 midwives from public and private healthcare settings in Athens were surveyed, using the Connor-Davidson Resilience Scale (CD-RISC), the Death Attitude Profile-Revised (DAP-R) and the Maslach Burnout Inventory (M.B.I.). The researchers provided the participants with both verbal and written information on the aims of the study and obtained written consent from those who agreed to take part.

Results

Most participants were women (n=323 92.8%), older than 41 years (n=204 58.6%). In general, moderate to high levels of resilience were found (mean=94.07 standard deviation 11.772). Normality was significantly violated (p=0.000). The fear of death in midwives was of moderate to high intensity (mean value 3.90 with a range of values 1-6). Normality was significantly violated (p=0.000). Regarding burnout, it can be found that there were mild levels of burnout (mean value 39.52 standard deviation 15.732). The normality of the distribution was not violated, but to a marginal extent (p=0.055).

Conclusions

Palliative care work is stressful, and midwives as primary caregivers in both Labor and Delivery units and in the N.I.C.U. are themselves at risk for burnout and compassion fatigue. It is important that staff have a chance to debrief and gain support when working with perinatal loss. Midwifery Staff working with parents facing or experiencing a perinatal loss must be educated on how to work with families under extreme stress and how to have difficult conversations. Concomitantly, perinatal palliative care should be offered as a strategy for family support.

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An overview of the bradley method

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Bradley method, was developed by Robert Bradley (1947), it aims to prepare couples by avoiding unnecessary interventions at birth. In this method, it has stated that the woman in labor needs a dark, quiet environment, physical comfort, controlled breathing, sleep-like eyes, and a supporter. By adding the woman's partner to the birth process, it has turned the birth into a process that is not just a woman's process and that the couples manage together. Couples are expected to take an active role in the Bradley method, such as the practice of taught relaxation and breathing exercises. The role of the father in the delivery room was defined by the classification of Chapman (1992). In the role of coach, the father actively has supported the woman during labor and provides support in controlling the reactions of the woman. In the role of teammate, the father has provided both emotional and physical support to the woman. In the role of witness, the father has observed the woman and the action. In the Bradley method, partners are taken on the "coaching role".

In conclusion, the use of the Bradley method will help pregnant women to cope with labor pain more effectively, to increase their self-control during labor, to better adapt to labor and to take pleasure from birth. Thus, it may be effective shortening the delivery time, increasing birth comfort and maternal satisfaction at birth and also, It may be effective in the adaptation of couples to their new roles in the postpartum

period.

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Natural birth practices from evidence to fact in the light of 2023 ICM theme

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Birth and delivery methods are one of the most discussed topics today. Recently, increasing cesarean rates have caused us to re-question our delivery methods. The World Health Organization advocates that acceptable cesarean rates should be 15 percent. In many European countries, these rates vary between 20-30 percent. These countries are working to bring down these high rates. However, when we look at Turkey, the cesarean section rate is given as 54.4%, according to the data in the Turkey Health Statistics 2019 Report. This ratio is an unbelievable and unacceptable figure and an indication that we are doing something wrong. Every cesarean section performed without medical reasons brings with it many negativities for both the mother and the baby. We see that birth is approached as a medical event that needs to be managed and intervened. Births are now remembered with drugs and medical interventions. However, birth is a physiological event that takes place under the control of the hormones secreted by our body. All kinds of unnecessary interventions to the birth will disrupt the functioning of the birth. If the pregnant women are provided with a safe environment for birth, many births will occur spontaneously. All we have to do is trust the baby and the mother's body.

The basic approach to pregnancy and childbirth today is that birth is a physiological process and requires little medical intervention. Natural childbirth is the birth where the woman actively participates in the birth with her instincts, the health professionals are the spectators, without any anesthesia or intervention as much as possible, except for the health checks. The International Confederation of Midwives (ICM) emphasizes that childbirth is a physiological process, that the primary decision maker in matters related to childbirth is women, and that midwives should contribute to the development of normal births and the prevention of complications by implementing non-intervention-free interventions that increase women's self-confidence. More than 95% of women in the world are capable of giving birth naturally. In this case, the hormones active at birth prepare the baby and mother for birth in the healthiest way possible. Every unnecessary intervention disrupts the natural flow of birth, making this process more risky. However, birth is as natural a process as getting pregnant. Evidence suggests that only support without intervention during labor increases spontaneous vaginal delivery, decreases the rates of cesarean and invasive delivery, and less need for analgesia in labor. For a woman who believes in the instinctive rhythm of her own body and actively participates in her own birth, childbirth becomes something that is enjoyed rather than feared. Supporting natural childbirth should not be perceived as rejecting or opposing modern medicine. Because pregnancy and childbirth are physiological events, not diseases. It is known that natural birth has benefits in terms of being

discharged from the hospital in a shorter time, bonding with the baby in a shorter time, and reducing the risk of infection and bleeding. The World Health Organization (WHO) and Lamaze International have published six evidence-based guidelines for health professionals to increase natural births and to perform birth safely with the least possible intervention. These evidence-based recommendations are;

- Birth should start on its own,
- There should be freedom of movement during birth, other positions should be supported instead of supine,
- Emotional and physical support should be given to the pregnant woman throughout the birth,
- Any unnecessary intervention should be avoided,
- Natural and active pushing techniques should be preferred at birth.
- After birth, mother and baby should stay together.

Today, important organizations such as ACOG, RCOG, NICE also recommend these evidence-based practices.

The International Confederation of Midwives (ICM) has set its 2023 theme as "together again: from evidence to truth". This theme draws attention to the importance of evidence-based practices in midwifery practices and can be interpreted as midwives should adapt evidence-based practices to midwifery practice. From this point of view, practices for natural birth are discussed in line with evidence-based practice recommendations.

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Impact of gender on serum vitamin D level of newborns in Greece

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Introduction

Evidence reported that vitamin D deficiency (VDD) seems to be related with gender, although little is known regarding this association. This study tried to investigate the relationship between the status of infant's 25(OH)D levels and its gender.

Material and Methods

We studied serum 25(OH)D levels on the newborns of Greek mothers, with stratified random sampling, from 27 September 2019 to April 14, 2021. We divided our samples into female and male 25(OH)D measurements. x2 test was used to find an association between neonatal 25(OH)D concentrations and infant's gender. The Pearson correlation coefficient was used to determine the strength of the association between them. Quantitative results of 25(OH)D vitamin levels on the newborns were replaced to qualitative variables assessing lack of 25(OH)D, adequacy, deficiency and severe deficiency of neonatal concentrations and were thus defined. VDD of the newborns was defined as serum 25(OH)D concentrations 16-29 ng/ml, lack of 25(OH)D as concentrations <15 ng/ml, severe deficiency of 25(OH)D as concentrations ≤12.5 ng/ml and adequacy of 25(OH)D as concentrations >30 ng/ml. The means ± standard deviations (SD) of 25(OH)D are presented by frequencies and percentages. The association between

cord blood 25(OH)D levels and its covariates was assessed by logistic regression analysis. P value (P)<0.05 indicated a statistically significant association.

Results

x2 test showed no correlation between 25(OH)D levels and the neonate's gender (P=0.372). The mean values of 25(OH)D levels for young males and females were 14.40 ± 8.72 ng/mL and 14.59 ± 8.32 ng/dL, respectively.

Conclusions

Our study revealed no relation between neonate's VDD and infant's gender, in Greece. Further studies are recommended and deemed necessary that deal with a large multinational sample size and consequently more reliable. If gender is identified as another independent risk factor (RF) for VDD, it may be possible to reduce the incidence of neonate's VDD by modifying it, giving the mothers suitable doses of vitamin D supplements. The effect of prenatal vitamin D supplementation on the occurrence of VDD will be evaluated since may be possible that the timely and effective intake of vitamin D supplements prenatally, in pregnant women or immediately after birth in the newborn itself, can reduce the risk of neonate's VDD.

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Conflicts of interest

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Smoking cessation interventions to parents of neonates hospitalized in the Neonatal Intensive Care Units (NICU)

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Introduction

According to studies, infant exposure to tobacco smoke is associated with increased perinatal morbidity and mortality, placental disorders, preterm delivery, IUGR newborns, premature rupture of membranes, ectopic pregnancy, miscarriages,¹⁻⁴ sudden infant death syndrome,⁵ low birthweight⁶. In addition, infants who live with smokers, during their childhood, may suffer from diabetes mellitus, obesity, hypertension, cancer,⁷⁻¹¹ while during their first year of life, they may suffer from asthma, respiratory infections, recurrent wheezing,¹² otitis media, colic, restless sleep, neurobehavioural disorders¹³⁻¹⁵.

Preterm birth and NICU stay are stressful situations for parents. On the other hand, NICU admission may provide a unique condition for the immediate change in the parents' smoking status as neonatal hospitalization has a positive effect on their embracing a smoking cessation intervention, taking into account their neonate's health. Moreover, during the postpartum period, women often relapse into their previous smoking status, which is usually associated not only with stress and lack of social and medical support but also with cohabitation with a smoking partner. Due to all these, the breastfeeding rate is also affected. Educating the

mother, the partner and all the caregivers will contribute to them not returning to their previous smoking status, to maintain a tobacco smoke free domestic environment, to improve infants, toddlers and young children's health, to avoid re-admission to hospital, to reduce the cost of hospitalization as well as increasing the breastfeeding rates.

Finally, it must be noted that new mothers who smoke are highly likely to show symptoms of depression, which may prevent the success of the smoking cessation intervention and lead to relapse into their previous smoking status^{16,17}. Midwives are the health professionals who come into contact not only with women but the entire family during the antenatal period. More specifically, during the postpartum period, midwives provide women with counsel on a number of issues including both women's and infants' care and health as well as breastfeeding. Therefore, midwives develop a direct, close and durable relationship with women and their family, which makes them some of the most significant professionals capable of providing counselling with regards to smoking cessation and prevention of relapse, making use of well-grounded intervention techniques aiming at smoking cessation, after having been trained in the field. Research suggests that smoking cessation intervention conducted by midwives during the perinatal period has, in fact, high success rates¹⁸⁻²⁰.

Material and Methods

A targeted intervention will be implemented focused on the neonatal primary caregivers who smoke (or are passive smokers) and their neonates had to be admitted to NICU right after birth.

The approach will take place between 1st and 3rd day of neonate's life. During the first meeting, a midwife trained in smoking cessation will administer questionnaires (demographics etc.), and the Fagerstrom Test for Nicotine Dependence as well as recording smoking history. She will also provide information and self-help leaflets on smoking cessation, have the consent form signed, implement motivational interviewing and schedule the next meeting. In addition, emphasis will be placed on beginning, establishing and maintaining breastfeeding. Some of the tools that will be used include the smoking cessation consult form 'TiTan Crete' (University of Ottawa Heart Institute, 2015), the Edinburgh Postnatal Depression Scale (EPDS) and the 5As approach.

There will be three follow-up meetings (on a weekly basis) during which smoking cessation intervention and assessment of the venture will take place. During the first three months of infant's life, there will be a meeting (online, by phone or in-person during the NICU follow-up) so as to ascertain whether the change in smoking status is maintained after the infant has been discharged and has returned to the domestic environment. Also, relapse likelihood as well as second-hand and third-hand tobacco smoke exposure will be examined.

The study sample will consist of Greek adult parents or different nationality parents who will have knowledge of the Greek language. The parents will be smokers (providing they smoke one cigarette on a daily basis, or have stopped smoking upon being informed about the pregnancy or one month earlier or a few days before) or passive smokers, their neonates will be born in the General and Maternity Hospital Helena Venizelou and will be admitted to the Neonatal

Intensive Care Unit. Participants will be excluded from the study if they suffer from severe cognitive impairment or any other psychiatric disorder, which excludes them from the study protocol. The control group (same study inclusion criteria as the intervention group) will only be provided with printed information and self-help material on smoking cessation.

Results

Through the smoking cessation intervention, smoking parents/main caregivers are expected to be supported and aided in quitting smoking so as to maintain a smoke free domestic environment and welcome their neonate after discharge from the NICU. Thus, the risk of smoking relapse is reduced and the infant's health is promoted, as well as the parents' and the family's overall.

Conclusions

Smoking parents and caregivers pose a serious threat to both their own and their infant's health. Second-hand and third-hand tobacco smoke exposure will affect their infants' life until they reach adulthood. Planning targeted smoking cessation interventions during the postpartum period may contribute to promoting the health of not only the entire family but also society as the health of the individual will be maintained at all stages of life (neonate, infant, child, adult) and the cost of pharmaceutical treatment and hospitalization in NICU and ICU will be reduced.

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Prevalence of medication intake during the postpartum period. A prospective cohort study in Greece

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Introduction

Hospitalization after childbirth, complications during the postpartum period, acute and chronic diseases are closely associated with increased maternal use of medicines which

may lead to breastfeeding cessation¹⁻³. The aim of the present study was to determine the prevalence of medication intake among postpartum women in the Greek setting.

Material and Methods

Ultimately, 847 women were recruited from five tertiary maternity hospitals, between January–December 2020. Information was prospectively collected by a structured questionnaire via interview during hospitalization and via telephone in the first, third and sixth month postpartum.

Results

Overall, 100% of mothers reported having taken at least one medicine, even excluding vitamins. In total, 8274 pharmaceuticals were used; mothers cited 114 different medicines, while the median number used was 9 (IQR: 8–11). According to the Anatomical Therapeutic Chemical classification level 2, the most commonly consumed medications were antibacterials for systemic use (98.2%), analgesics (87.5%), anti-inflammatory and antirheumatic drugs (87.2%), pharmaceuticals against anemia (82.9%), anesthetics (79.7%), mineral supplements (68.6%), medicines for gynecological diseases (68.4%), antithrombotic agents (56.8%), thyroid therapy (22.9%), antacids (9.8%) and medicines for gastrointestinal disorders (5.8%). Cesarean section [OR=9.1 (95% CI: 6.4 – 13.0); $p < 0.001$], previous breastfeeding experience ($p = 0.002$) and physician's counseling for ($p = 0.038$) breastfeeding discontinuation due to medication intake were factors significantly correlated to medication intake during lactation, after excluding medications systematically administered during postpartum hospitalization.

Conclusions

The prevalence of medication intake among lactating women in Greece is very high. Polypharmacy is a major concern for the national healthcare system⁴. The results highlight the need for the development and implementation of polypharmacy management initiatives.

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Maternal caffeine intake and breastfeeding duration: A systematic review

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Introduction

Globally, caffeine is the most commonly consumed addictive substance with an estimated prevalence of about 80%¹. Excessive intake is not recommended, especially during the perinatal period due to reported adverse effects². Research on breastfeeding is scarce with the majority focusing on the potential impacts on the breastfeeding child³. We aimed to investigate the prevalence of maternal caffeine consumption during the perinatal period and the associations between caffeine intake and breastfeeding duration.

Material and Methods

The online databases PubMed/Medline, EMBASE, CINAHL and Google Scholar were systematically searched for relevant articles published between 1993–2023 following PRISMA guidelines. Keywords were: “maternal”, “caffeine consumption”, “caffeine intake”, “breastfeeding initiation”, “breastfeeding duration”, “breastfeeding cessation”, “lactation”.

Results

Five cohort studies met the inclusion criteria. Mattar et al.⁴ and Tigka et al.⁵ reported longer duration of breastfeeding in association with maternal caffeine consumption in their studies (mean±SD: 5.32 ± 5.66; $p = 0.031$ and $\beta = 0.09$; SE: 0.04; $p = 0.045$, respectively). On the contrary, caffeine was negatively associated with longer duration of breastfeeding in two prospective studies conducted by Clifford et al. and Rebhan et al. (HR=1.34; 95% CI: 1.06–1.70 and OR=1.49; 95% CI: 1.25–1.79, $p < 0.001$ respectively)^{6,7}. Finally, a Swedish study recruiting 10205 infants did not demonstrate any associations between maternal caffeine intake and breastfeeding duration⁸. The prevalence of antenatal caffeine consumption ranged from 52.6 to 86.6%⁴⁻⁷ and from 49.3 to 84.8% during lactation^{4,5,7}.

Conclusions

The results of the included studies are contradictory, thus preventing safe conclusions on this issue and the provision of evidence-based advice to breastfeeding mothers. Evidence on correlations between maternal caffeine consumption and breastfeeding duration is insufficient, highlighting the need for further research.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Vitamin D intake and preterm birth: A systematic review

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Introduction

Several studies suggest an association between vitamin D deficiency (VDD) and preterm birth (PTB). Most seemed to concur that mothers who delivered preterm infants had lower 25 hydroxyvitamin D [25(OH)D] concentrations compared to women who delivered full term infants, while others focused on the role of vitamin D in the prevention of PTB.

Material and Methods

We searched the PubMed, Google Scholar, Web of Science, Science Direct, Embase, Cochrane, Crossref, and CAS databases for systematic reviews (SRs) of randomized controlled trials (RCTs) and observational studies published from 2016 to 2021. These concerned the association of PTB with maternal 25(OH)D levels, at different gestational ages, with or without vitamin D supplementation or in combination with other vitamins or minerals. We used a measurement tool to assess systematic reviews (AMSTAR), which rated the quality of each SR as low, average or high.

Results

The literature review revealed an association of VDD with prematurity, at values less than 30 ng/dl. Maternal 25(OH)D levels of <30 ng/dl had a greatly increased risk of PTB at a gestational age (GA) of <32-34 weeks. Generally, the risk of PTB was significantly reduced when maternal serum 25(OH)D concentrations were ≥40 ng/dl. In particular, 25(OH)D <20 ng/dl levels, in the second trimester of pregnancy, had an increased risk of preterm delivery. Vitamin D supplementation has been suggested as an intervention to protect against the risk of PTB. Vitamin D supplementation in pregnancy was associated with a reduced risk of PTB compared with no intervention or placebo. When vitamin D supplementation was administered to achieve a 25(OH)D concentration of >40 ng/ml, there was a lower risk of PTB. In high-risk pregnancies, as serum 25(OH)D levels increased, so did GA. The existing evidence regarding universal, preventive vitamin D administration as part of antenatal care to improve adverse pregnancy outcomes and the risk of PTB remains unclear.

Conclusions

In conclusion, taking vitamin D during pregnancy to prevent PTB is controversial and the actual benefits unclear. Further RCTs are needed.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Use of virtual reality applications in birth

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Introduction

Virtual reality interacts with the artificial environment that gives users the feeling of being real is the use of computer modeling and simulations that allows it to enter. Virtual reality has many uses such as diagnosis, treatment, surgical interventions, rehabilitation, exercise and education of health professionals and patients. Anxiety disorder treatment is used in the psychological relaxation and treatment of the individual, such as the reduction of pain and anxiety. It is thought that the use of virtual reality in the health sector will have a more important role in the coming years. With this study, it was aimed to determine the effectiveness of virtual reality applications in labor.

Material and Methods

The study was carried out by examining the published studies on virtual reality applications in labor.

Results

Virtual reality applications increase the level of labor pain, birth duration, birth satisfaction and reduce the anxiety experienced.

Conclusions

The use of virtual reality technologies in the birth process will positively affect the satisfaction of the service recipients as well as increasing the quality of service and contributing to the development of the midwifery profession. Therefore,

evaluating the effectiveness of virtual reality applications in obstetrics is a necessity to improve the quality of intrapartum care.

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Health professionals' satisfaction in an interprofessional simulation on labour ward

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Introduction

A hybrid simulation workshop of an obstetric emergency case was designed as part of the continuing education and training of qualified medical and midwifery staff in a Maternal-Fetal Medicine Department. The aim was to identify an emergent situation in the delivery room, a cord prolapse, and to train communication skills and teamworking.

The setting was a delivery room and an operating theatre where deliveries are attended daily.

The aim is to describe the healthcare practitioners' satisfaction undertaking a simulation workshop in a realistic context on the labour ward in a university hospital in Barcelona.

Material and Methods

A cross-sectional study to healthcare practitioners working at the labour Ward.

Participants were asked to complete an online survey. The survey was composed of 25 items to identify health professional's satisfaction on the simulation-based training in cord prolapse from February to April 2022.

Results

A total of 73 healthcare practitioners from labour ward were trained.

39 questionnaires were completed (53.4% of total participants): 8 obstetricians, 7 midwives, 7 doctors' residents in Obstetrics, 5 anaesthesiologists, 5 doctors' residents in Anaesthesiology, 4 students' midwives, 3 health care assistants.

54% of healthcare practitioners had < 5 years of work experience at delivery suite.

Healthcare practitioners were very satisfied with simulation-based training in labour Ward. The workshop was given an overall score of 9.5.

Conclusions

In situ multi-professional simulation for training in an emergency obstetric situation like a cord prolapse is a valuable tool for regular delivery room healthcare practitioners to improve their clinical management.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Evaluation of the experience of midwifery students in the training of obstetrics

emergencies using clinical simulation-based learning

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Introduction

The benefits of high-fidelity simulation in post-graduate studies are well documented. Despite the solid and extended implementation of this learning resource in undergraduate studies, this methodology is only recently beginning to be used with postgraduate midwifery students. It is necessary to evaluate this training using validated instruments to get knowledge about the learning process and experience of students exposed to high-fidelity simulation techniques.

Objectives

To describe the experience of midwifery students in the training of obstetrics emergencies using clinical simulation-based learning.

Methods

Observational Descriptive Study using the "Debriefing Experience Scale" (DES), in a sample of 15 first year midwifery students of a Multidisciplinary Obstetric and Gynecology Teaching unit. Four high-fidelity clinical simulation scenarios on shoulder dystocia, postpartum hemorrhage, eclampsia and CPR in pregnant women. were carried out.

Results

The score obtained by dimensions were: D1 "Learning and making connections" an average of 4.81 (SD=0.391); D2. "Analysing ideas and feelings" an average of 4.71 (SD=0.439); D3. "The ability of the facilitator in directing the debriefing" an average of 4.59 (SD=0.398) and D4. "Appropriate guidance from the facilitator an average of 4.68 (SD=0.378). Over 90% of participants scored all items with a 4 or more (agree/strongly agree).

Conclusions

High-fidelity simulation in midwifery training contributes to the learning and analysis processes needed in obstetric emergencies.

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Lectures

Myths and misperceptions of midwifery in New Brunswick, Canada

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In this paper, we share our findings from a survey about myths and misperceptions regarding midwifery care in New Brunswick, a small, rural province in Canada. Lagging behind most other Canadian provinces, midwifery care in New Brunswick was implemented as part of the provincial health

network in the fall of 2017. At that time, one small practice (a “demonstration site”) was opened in the provincial capital city Fredericton, a city located in the northwestern corner of the province. To date, the practice has operated with a maximum of four full-time midwives, and for months at a time, at levels far below this. Based on our previous research, we have learned that midwives and other birth care workers in New Brunswick have noted a gross misunderstanding of and a high degree of ignorance regarding what sorts of services, care, and interventions midwives provide as part of their role in the provincial healthcare system. Much (mis) information about midwifery and birth care services in this region circulate through informal networks and social media. We have designed this survey to objectively assess the level of knowledge in the region about the midwifery program, and to explore the level of understanding of the role and scope of midwives as well as the scope and limits of the midwifery program. In this paper we share our findings from this survey and discuss the implications of these findings for advocacy, service delivery, and education. The level of knowledge about this kind of birth care is vital for people seeking reproductive healthcare in order to make informed decisions about the services they seek and choose. It is also important to pay attention to the impacts of a lack of knowledge about the scope of care offered on midwives and those offering birth services. We anticipate our findings will be useful for midwifery associations which might want to develop infographics and other informational products for the general population.

Funding

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The authors have no conflicts of interest to disclose.

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The views of maternity care stakeholders on midwives’ autonomy and its potential impact for midwifery education

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Introduction

While the views of Belgian midwives on their professional autonomy recently is explored, the views of other stakeholders in maternity care on midwives’ autonomy is unknown. This study therefore aims to explore the views of multiple stakeholders in Belgian maternity care on midwives’ professional autonomy and its potential impact for midwifery education.

Material and Methods

We used online synchronous focus group interviews to gather data from health

professionals, policy advisors, hospital managers and consumers. Data analysis included a thematic analysis: transcription of recordings, familiarising with the data and coding into recurrent and common themes.

Results

A heterogenous group of 27 stakeholders involved in maternity care participated (n= 12 health professionals, 3 policy advisors, 4 hospital managers and 8 consumers). Health professionals were represented by obstetricians, paediatricians, general practitioners and a nurse.

The findings of this study revealed that education, competence, experience, safety and collaboration are prerequisites for midwives’ professional autonomy. In this presentation we elaborate on the identified theme ‘The autonomous midwife is adequately educated and committed to continuous professional further education’. Stakeholders suggested various ways to optimise midwifery education and professional training.

Some stakeholders suggested to include additional topics in undergraduate midwifery education, early risk detection and referral are the most mentioned. However, most stakeholders agreed that it might be challenging to include all learning contents, that are considered necessary, in an already compact midwifery education programme.

Majority of stakeholders did not clearly indicate how midwifery education would need adjustment. Nevertheless, they all believe in continuous professional development of all midwives. These further professional training courses should be mandatory, tailored to up to date scientific knowledge and accredited. Additionally, some referred to master’ level postgraduate education aiming at the acquisition of advanced midwifery competences.

To facilitate interprofessional collaboration between maternity care professionals, stakeholders strongly recommended to embed interprofessional courses in undergraduate and continuous professional development education. Healthcare students and professionals from different disciplines are challenged to learn about, from and with each other in a safe learning environment. Stakeholders are convinced that the established connections enhances confidence and facilitates interprofessional collaboration in maternity care teams.

Conclusions

While it remains unclear how exactly midwifery education would need adjustment, stakeholders particularly believe in the idea of continuous professional development and postgraduate education for all. There is consensus that all continuous professional development courses should be tailored to up to date scientific knowledge and are accredited by a supervisory authority. The structural involvement of healthcare students and professionals in midwifery education needs consideration to promote interprofessional collaboration in education and maternity care.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Beyond the EU Directive: The updated UK NMC Standards for pre-registration midwifery

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When the UK left the EU the NMC took the opportunity to review our standards in the light of the EU Directive.

We commissioned an external company to research the views of our key stakeholders and undertook a public consultation. Midwifery wanted to adopt a cautious approach to change but we have made some changes namely; modernised the language of our standards, integrated the skills requirements, enabled widening participation to the programmes and added a new standard on student midwives experiencing leadership and team working in different maternity providers.

We have now published updated standards for pre-registration midwifery and our education institutions are now adopting them.

This paper will present the rigorous co-production process we undertook to develop the updated standards and what the future might hold for midwifery education in the UK.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The implementation of OSCE as a method of evaluation of clinical competencies in the education of midwives in Slovakia

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Introduction

The aim of the paper is present the use of the method of Objective Structured Clinical Examination (OSCE) in the undergraduate professional training of midwives in simulated conditions.

Material and Methods

Regarding the assessment of clinical competencies, we currently find the most effective method, the use of Objective Structured Examination (OSCE) under simulated clinical conditions, through the creation of a database of clinical scenarios embedded in an e-learning environment, which are focused on typical clinical situations in midwifery clinical practice. Clinical scenarios and checklists are developed for the field of obstetrics, gynecology, and neonatology.

Results

By creating scenarios that reflect real clinical situations in midwifery practice, and using structured assessment forms, we attempt to provide an attractive and safe clinical training environment for the student, as well as an objectively structured formative-summative assessment of student-acquired clinical competencies, knowledge, skills, and

abilities.

Conclusions

We consider that Objective Structured Examination (OSCE) under simulated clinical conditions helps increase the quality of midwifery training as well as student professionalism.

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Education for leadership in midwifery;

The start of the Dutch National Master of Science Midwifery

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Introduction

Midwives in the Netherlands face various impactful challenges; there is an increase of pregnant women with multiple health and social problems, a decrease in the number of practicing care providers and hospitals are being closed and centralized, all resulting in less available capacity. In addition, a switch from national to regional guidelines and protocols demands new competences from midwives to stay in the loop as strong collaboration partners in a changing care landscape. Midwifery leadership is necessary to develop new knowledge and to apply this in an evidence-based way in the increasing complexity of maternity care without losing the focus on promoting the physiology of childbirth.

At the same time, Midwifery Science is developing in the Netherlands; Professors of Midwifery are positioned at the various universities, research teams are connected to these chairs and a growing number of midwives are doing a PhD. However, to become a midwife in the Netherlands requires a direct entry Bachelor of Science education. Between this BSc and a PhD exists a gap because there is no regular Master of Science in Midwifery available. This is a problem because midwives in the Netherlands are not able to continue their professional development by a Master of Science to a PhD position as recommended in the Bologna agreements.

Apart from a PhDs, midwives with a Master education are also necessary to enhance leadership in the regional multidisciplinary context. Participation in these contexts requires knowledge and skills for policymaking and innovation from more and more midwives.

Material and Methods

Over the past decade, the various Universities of Applied Sciences in Midwifery have tried to establish a Master of Science in Midwifery in the Netherlands through different pathways. None of the pilots have resulted in a sustainable national Master of Midwifery program. Time for a new approach. All Dutch Universities of Applied Sciences in Midwifery and the national Royal Dutch Midwifery organization (KNOV) have joined hands. They started the trajectory, according to the guidelines of the Dutch Ministry of Education, to develop a new regular national Master of Science Midwifery. For this procedure, it was necessary to develop a vision document, a profile with end competences acknowledged by different

stakeholders (especially practicing midwives but also other professionals in maternity care), a macro-efficiency analysis (for government financing of the master), a curriculum program and the accreditation by the Ministry of Education. A project team with participants from all organizations involved worked with united force to develop all necessary documents and the full program.

Results

Midwives and stakeholders in maternity care have nationally recognized the need for Master-educated midwives, additional to Bachelor-educated midwives. The Master curriculum is based on the framework as reported in the Lancet Midwifery series (2014). In a two years part-time program of 60 ECTS, midwives will be educated in advanced midwifery, science, leadership, quality of care and policy-making, ending with a master thesis. This will contribute to midwives, who are equipped to take leadership roles in science, management, and innovations in maternity care.

To organize this new Master of Science Midwifery, all three Universities of Applied Sciences in Midwifery started a unique joint degree collaboration. Unique in working so closely together and unique for national Dutch education, where joint programs are still scarce. The Master program will be offered 'blended' with weekly online sessions, self-study and periodic physical meetings, rotating between the different locations of the Universities of Applied Sciences in Midwifery, making it feasible for midwives to combine work and education. Science education and the Master thesis are connected with the Midwifery research groups and of course, the professors of Midwifery are expert teachers in this Master.

Conclusions

The necessity of an education continuum and the raising complexity in maternity care led to the start of the national joint degree Master of Science Midwifery in September 2023. This government financed Master offers those midwives who want to take on extra roles in maternity care or those who plan to start a PhD, the opportunity to develop the necessary competencies.

We will start with 30 students in the first year and will grow over the following years. Already, many more registrations are lining up for this Master. The new team of lectures originating from the different research groups and Universities of Applied Sciences in Midwifery are enthusiastic and ready to go.

In our presentation, we will disclose further details of the process and the Master program. We experience a lot of interest for this Master. Interest for the joint degree organization from the whole education field and interest for the midwifery master skills in health care. Therefore, you will definitely hear more from this Dutch Master of Science Midwifery.

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The birth of a father: A film tool developed in Switzerland for perinatal support

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Introduction

The literature is unanimous that the positive involvement of men in the perinatal period improves the health of all family members. However stress and anxiety, fostered by a lack of information and a sense of exclusion within health care facilities are among the main adjustment problem experienced by fathers. As a result, there is a lack of prevention and 10% of fathers can experience postpartum depression. In response, a documentary film was produced with the aim to open up a dialogue and capture the emotions and experiences of fathers that are often overlooked.

Material and Methods

The first stage of the project consisted in giving the floor to 18 men who had become fathers and 14 health professionals in French-speaking Switzerland.

The second stage of the project was to subtitle the film in English, German, Italian and French to be shown in Switzerland and abroad. The film was intended to be used as a tool in public or professional meetings to raise awareness of the specificity of the transition to fatherhood and measures to include fathers.

Results

The film was constructed in five episodes of 12 minutes each: (1) Nine months to become a father, (2) The father at childbirth, (3) The father's first steps in family life, (4) the fathers seen by professionals, (5) Fathers' visions on fatherhood and parenting. Episodes were shown in several "face-to-face" meetings (cinemas, associations, institutions). During the lock-down due to the COVID pandemic the meetings were transformed in webinars. Reactions aroused by the film focused on the loss of bearings during pregnancy and childbirth, the first contacts with the child, the weight of new responsibility, the sexuality that will no longer be like before. So many entry points for exchanges and for considering how to improve the involvement of fathers in care. Furthermore, since being posted for free access on YouTube, the film has generated 59000 views, all episodes and languages combined.

Conclusions

The great resonance to films is very heartening. Experiences around the film The Birth of a Father show the power of testimonies and how they can be used as a vehicle for discussion and for improving the well-being and health of the whole family.

Funding

The Research funding on pregnancy, childbirth, child development, and parenthood (5 October 2017) and the University of Applied Sciences Western Switzerland (14.017) financed the production of the film. Health Promotion Switzerland financed the implementation of health promotion activities based on the film (PF05.021).

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The knowledge of and educational interest in sexual medicine among medical and midwifery students - A web-based study

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Introduction

Many elements of life, such as contraception, pregnancy and childbirth, can affect sexual health; thus, health care professionals require good knowledge of sexual medicine to meet and treat patients with sexual health issues. We aimed to study the medical and midwifery students' self-reported knowledge of factors associated with sexuality and the knowledge of how to evaluate and treat patients with sexual problems. In addition, educational interests were assessed.

Material and Methods

A web-based questionnaire was distributed to final-year medical and midwifery students in Finland.

Results

Altogether, 233 medical students and 131 midwifery students participated in the study. Both student groups self-reported insufficient knowledge of how to evaluate sexuality in mentally ill patients, how to encounter victims of domestic violence/sexual abuse, and how multiculturalism affects sexuality. In addition, compared to the midwifery students, the medical students were more likely to self-report insufficient knowledge of the basics of sexual pleasure and its treatment (OR 3.90, 95% CI 2.35–6.48), including how to treat sexual problems due to relationship problems (OR 2.24, 95% CI 1.32–3.81) or chronic diseases (OR 2.72, 95% CI 1.45–5.08). Although several educational fields of interest were mentioned, both student groups identified the same two topics as most desirable to learn: 1) reasons for dyspareunia and its treatment (n=117/233, 50.2% for medical students; n=60/131, 45.8% for midwifery students) and 2) lack of sexual desire and its treatment (n=100/233, 42.9% for medical students; n=55/131, 42.0% for midwifery students).

Conclusions

In both student groups, the self-reported knowledge of sexual medicine was insufficient. Thus, more education on sexual medicine should be included in the curricula of medical and midwifery education programs.

Funding

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Conflicts of interest

None of the authors have any conflicts of interest relating to this manuscript.

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Exploring the social and healthcare professionals' needs for the development of an educational mobile application for domestic violence prevention - DOMINO project

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Introduction

Domestic violence includes wide range of violations, which affects people of all socioeconomic backgrounds and education levels and can happen to anyone. It effects on the well-being of the whole family and results in serious physical, mental, sexual- and reproductive health problems. It is a public health issue that needs to be addressed with social and healthcare professionals playing an essential role in prevention and early intervention. These professionals need more education and easily accessible tools to identify and intervene in domestic violence. In order to address these needs, Erasmus+ funded project "DOMINO – Educational mobile application for prevention of Domestic Violence" was developed with the aim to provide knowledge and education for current and future social- and healthcare professionals by developing an educational DOMINO mobile application for prevention and early intervention of domestic violence. The aim of the current study, which is part of the project, was to explore and describe social- and healthcare professionals' educational needs on domestic violence and its prevention.

Material and Methods

Qualitative study approach was used to get to obtain the perceptions and in-depth picture of the social- and healthcare professionals' educational needs on domestic violence and its prevention. In order to obtain useful material, two panel discussions were conducted in Finland, Greece and Portugal among professionals and higher education teachers in the field of social and health care during summer-autumn, 2021. Total number of participants were 31 (Finland n=12, Greece n=12, Portugal n=7). The transcribed data were analyzed by thematic content analysis.

Results

Participants' perceptions of domestic violence and its prevention were that domestic violence is a multidimensional phenomenon, which has various consequences for several aspects of life. Professionals told also to have difficulties addressing their concern of domestic violence due to absence of knowledge and tools. Education, intervention, and strategies were seen as solutions to prevent domestic violence. Education was seen to be most important one. Also, professionals' communication and situation management skills as well as national and international strategies were mentioned as valuable methods. Educational needs for prevention of domestic violence were expressed based on content, methods and practices, such as service system and legislation. Participants suggested multidisciplinary methods for sufficient education. Especially, digital learning methods were seen significant and useful.

Conclusions

The findings of the current study highlight the social- and healthcare professionals' need for education about domestic violence and its prevention. There is also a growing demand of online education as well as mobile learning, which is available and accessible for all interested stakeholders. The results of this study provided insights for the design of an open access online DOMINO course (5 ECTS) on this important topic, which can be used for training purposes by all interested stakeholders (see: <https://domino.turkuamk.fi/domino-course/>). In addition, a DOMINO mobile application available in English, Greek, Portuguese, Latvian, Finnish and Swedish has been developed to allow further accessibility (in Google Play store: DOMINO – stop domestic violence).

Funding

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Conflicts of interest

The authors declare that they have no conflict of interest.

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Empowering Nordic and Baltic midwifery students and teachers in multinational collaborating learning of research

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Introduction

The How to Protect Normal Birth project is a multinational project involving students and teachers from 10 midwifery programs in Northern Europe. Students are conducting theses on midwives' perspectives on what constitutes a normal birth and the ways they provide support to labouring women in a hospital setting. Data is collected through interviews analyzed with content analysis. Teachers provide guidance on research methods and encourage student participation. Results have been shared at conferences, fostering mutual learning about international research and midwifery practices. In the current presentation, we evaluate the project as a collaborative learning and teaching method.

Material and Methods

In 2022, an evaluation of the study as a collaborative teaching method was conducted through a questionnaire distributed to the participating teachers and students. The questionnaire included open-ended questions to encourage reflection on their involvement in the project. The responses were analysed using content analysis.

Results

The results of the evaluation of being part of the project as student midwives and teachers includes the following: 1) Being a part of a multinational study on a fundamental topic as normal birth can be empowering for both students and teachers within midwifery, 2) Engaging in collaborative learning can enhance the research skills of both the student and teachers 3) Students and teachers describe both similarities and differences across counties and settings recognizing the diversity in how normal birth is described and understood by participating midwives.

The students' feedback regarding their involvement in the study was mostly positive. They were excited to participate in a study closely related to their upcoming profession and highlighted the differences and similarities in midwifery practice across countries and individual midwives. Being part of an international project provided opportunities to network with midwifery students and teachers across borders, and gave them an understanding of research and interview techniques for data collection. They felt empowered to participate in oral presentations at international conferences alongside their teachers.

The teachers described how participating in the project provided an opportunity to learn from each other's teaching and supervising methods, and the differences between their respective education programs. To build a positive learning environment and include the students in the project, research and presentations of the findings was described as empowering. By embracing such opportunities for collaboration, the teachers included students in international research and gave them an opportunity to learn about normal birth in an international perspective.

Conclusions and further research

Collaborating learning is empowering for both students and teachers. The topic, "Normal birth", is essential and of interest for midwifery and midwifery education. The results from this study will be further analysed by the teachers and published in a scientific journal relevant for midwifery. Teachers are united in the project and will continue with the project including new perspectives on normal birth such as midwifery students' and the women's perspectives. The inclusion of students in the project may help shape their perspectives as future midwives and prepare them for the globalized healthcare environment.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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The role of the midwife for sexual, reproductive and perinatal health in Sweden- a system that might after contextualization, fit others

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Introduction

A midwife led care project targeting to decide what to do to achieve the SDG 2030 in maternal and child health, made a project team develop a tool to analyse what health care systems need, to adopt the MIDWIZE Conceptual Framework. The MIDWIZE Conceptual Framework wish to introduce the comprehensive midwifery-managed care provided women in Sweden to other countries, regions, and units where the framework is not fully applied.

Material and Methods

In order to determine what resource needs would have to be met to improve midwife led care, a tool was developed using Delphi study technique.

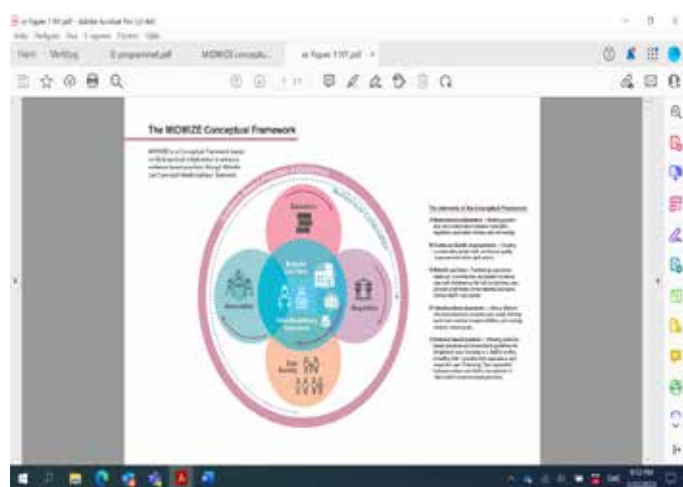
Results

Using Delphi study technique together with on-site visits to two Sub-Saharan African countries, members of a project team went to Ethiopia and Uganda, where they visited governments, clinical or educational institutions and together with African leaders developed availability and efficiency of a tool to determine resource needs.

Conclusions

If at some future time, a single country, region or unit, might want to use the tool for quality improvement purpose of midwife led care, then the tool might aid in taking the first step to determine what resources might be required and what changes might be recommended as concerns policy at the clinical or educational institution level that are part of already existing health care structures.

Figure of the MIDWIZE Conceptual Framework



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Reflection groups for midwives supervising students in a hospital setting

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Introduction

Midwives practicing in busy labor wards with a high number of midwifery students needing supervision and teaching, can experience challenges regarding balancing the needs of birthing women and students. In the spring of 2021 reflection groups for midwives were started at the University hospital in Stavanger.

Material and Methods

The reflection groups were organized as focus groups, with groups consisting of 6-8 participants. They met twice during spring in 2021. The topic for reflection was work situation, and how to best supervise midwifery students in a busy delivery ward. The focus of the reflections was reflections and solutions.

Results

The midwives expressed that sharing concerns in a safe environment was a positive experience. Being motivated to discuss and reflect upon possible solutions on how to improve the situation was equally reported to be useful.

Conclusions

Because of the nature of their work, and increasingly complex and heavy workload, midwives need a safe place where they can openly reflect their many concerns regarding their work. Reflecting, and finding possible solutions to the many challenges also regarding supervising students were deemed positive and motivating. The moderator should preferably not be part of the management, but anonymously report back to the managing team various concerns and suggestions for improvement reported by the midwives participating in the reflection groups.

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Student midwives' experiences on using a Hands-off Approach in breastfeeding counselling

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Introduction

The days after birth are very important for establishing successful breastfeeding. Adequate support and counselling for mothers during this period are essential to initiate and maintain adequate milk supply. Early discharge from hospital after vaginal birth has become common practise in Slovenia, which unfortunately means that mothers may experience most breastfeeding problems at home and with less support from health care professionals. Using hands-off technique to empower and to teach breastfeeding mothers who need to be able to attach their baby to the breast by themselves could be the key to successful breastfeeding after returning from hospital. This is, apart from the importance of not invading woman's intimate space without necessity, one of the main reasons why midwifery students are taught how to use a hands-off approach in breastfeeding counselling session. One of the planned study activities after clinical training, where they learn about different approaches to breastfeeding support, includes a mandatory written reflection on the counselling process/event using Gibb's model for reflective analysis as part of the clinical reasoning.

Material and Methods

A qualitative methodological approach was used to analyse the textual content of 24 final-year student midwives enrolled in the elective course Breastfeeding and Lactation in 2022/2023. The aim of the study was to explore midwifery students' experiences of the hands-off approach in clinical training. Conventional qualitative content analysis was used

to first determine the unit of meaning, which in this case was the third and fourth steps of Gibbs' reflective cycle. This was followed by condensation and coding. The codes were then categorised, and the final step was to identify the main theme. Both researchers conducted an independent analysis and after discussion a final consensus was reached.

Results

Through the interpretation of the analysed text nineteen loose categories emerged revealing concepts that were subsequently integrated to form seven minor categories and ultimately refined into three major categories; "not easy at all" "personal satisfaction", and "the importance of being insistent" –building towards the one core category– "awareness of effectiveness".

Conclusions

Supporting women in their breastfeeding journey is very important. Showing them how to attach the baby by themselves is an important step in empowering them which may in long term lead to improved breastfeeding rates. The transition from the classical use of hands-on to a hands-off approach had proved challenging for the students. At the same time, they felt a sense of achievement when breastfeeding was successful for the breastfeeding dyad. The main conclusion to emerge from this study is that the students greatly valued the opportunity to counsel breastfeeding mothers. Through their activity and persistent but not intrusive help, they saw the results of their work - a confident mother who breastfeeds successfully.

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Perceived well-being factors of student midwives at the Midwifery Academy Amsterdam Groningen

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Introduction

From the first year of midwifery training, students are confronted with unique life experiences, labour pain and, in some cases, confrontation with death. Dealing with these emotions can affect the well-being of student midwives. International research shows that health care students are exposed to more academic, clinical and psychosocial stressors than students in other professions. In various countries similar factors are identified as either promoting or inhibiting the well-being of student midwives. As the Dutch maternity care system is quite unique, with most midwives in the Netherlands working independently in a primary care setting, it cannot be assumed that Dutch student midwives experience the same factors as other student midwives. This study was conducted due to the lack of research on study demands, study resources, personal demands and personal resources among Dutch student midwives. The aim of this research is to explore the perceived well-being factors of

Dutch student midwives. This is based on the following research question: Which factors do student midwives at the Midwifery Academy Amsterdam Groningen perceive influencing on their well-being?

Material and Methods

An exploratory qualitative research design was used. Midwifery students from each academic year at the two sites were asked to participate in this study. Data were collected through seven semi-structured individual interviews and two focus groups (n=13). Thematic content analysis was carried out using Maxqda 2022. Approval from an ethical review board was not required for this type of research in the Netherlands.

Results

Results were grouped into four themes based on the JD-R model. Factors that emerged as study demands were: high study load, being away from home during placements, not getting a chance to breathe, relationship with placement supervisors, relationship with fellow students and constantly being on call. Factors that emerged as study resources were: relationship with lecturers, small academy, relationship with internship supervisors and relationship with fellow students. Factors that emerged as personal demands were: high personal standards and loneliness. Having a positive attitude towards the midwifery profession emerged as a personal resource.

Conclusions

There is an imbalance between study demands and study resources among student midwives at the Midwifery Academy Amsterdam Groningen. This imbalance is mainly reflected in the organisational and social study demands. By creating more space in the curriculum and making placement supervisors aware of their influence on student midwives, their well-being can be improved. This will provide the students with more resilience to thrive as future midwives.

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Everyone knows about it, everyone knows how important it is, but the question is always: How?

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Introduction

Good sexual and reproductive health implies a state of complete physical, mental and social well-being. It implies that individuals are able to lead satisfying and safe sexual lives by having the capacity to reproduce and the freedom to decide for themselves whether, when, and how often to reproduce¹. Sex is a determinant factor of health².

Unequal power relations between men and women, social norms that reduce access to education and paid employment opportunities, an exclusive focus on women's reproductive

role, and potential or actual experiences of physical, sexual, and emotional violence are sociocultural factors that prevent women and girls from accessing quality health services and thus achieving the best possible level of health³. One in three women between the ages of 18 and 74 in Austria has experienced physical or sexual violence within or outside of intimate partnerships during their adult lives⁴. In Austria, there is no statistical recording of abortions; it is assumed that a quarter to half of all women in Austria have an abortion performed once in their lives⁵.

These issues are still taboo and stigmatised topics within society, which is reflected in particular in the healthcare system.

The literature offers hardly any references or didactic forms and models that provide a methodological approach for integrating sensitive topics into general teaching in the course of healthcare professionals' training. The goal is to build awareness and enable sensitivity in order to make taboo topics visible and manageable. Furthermore, the topics are to be understood as a mission within the framework of women's health, in order to recognise and discuss them in a socio-political context. It is a major concern to help health professionals out of uncertainty and into security, in order to subsequently act adequately, mindfully with the respective affected persons* and to be able to offer rapid support services, if necessary. The health professionals' own attitude to the topic and access to resources available to them also play a role.

In the context of these considerations, the researchers have chosen the topics domestic violence and abortion for 'social reasons' from their own gender research. As part of this, backgrounds, contexts and needs on the part of women and healthcare professionals are made visible and models are developed from the results in each case, which are applicable to the healthcare professions and contribute to educational design in a broader sense.

The focus is on the sensitivity of the two research topics, not on the fundamental comparability of the two.

A similarity of approach is evident in the attitude. Everyone knows about it, everyone knows how important it is, but the question is always: How? How should the topic be addressed? How should and may this be implemented and reflected in the respective work? What networking possibilities are there despite the complexity that these vulnerable topics can entail? Healthcare workers are often helpless in the face of these different challenges, although professional help for the needs of women and families is expected from experts.

"Efficient assistance requires a common knowledge base" according to Erdemgil Brandstätter. Common knowledge standards need to be implemented. In the best case, this can be achieved by including them in the curricula of healthcare training programmes and by implementing gender-sensitive teaching.

Goal

The primary goal was to identify the needs of women and healthcare professionals on the respective topics in order to establish possible algorithms of action/corresponding models of the two gender-guided topics as the secondary goal, helping to make these models more manageable for the women and the experts working in the healthcare sector.

The tertiary concern is reflected in the establishment of the models a) in teaching at bachelor and master level on a disciplinary and interprofessional level and b) in the context of both face-to-face and online training events. This creates multipliers who live and pass on an open approach to the respective vulnerable topics.

Methods

Both research projects were based on qualitative data collection.

The data collection on domestic violence took place from 2018–2022 in Tyrol/Austria. In order to determine the needs, wishes, best practices for networking and support of professionals working in women's health, the data collection was divided into three phases.

1. At the start of the project, two focus groups (one group in an urban and one group in a rural area) with experts from violence protection institutions were conducted (n=10). The focus was to define common goals on domestic violence. Initial results were presented during a training on domestic violence planned by the research team. Subsequently, the experts from the focus groups volunteered to participate in a panel discussion in order to promote a dialogue and to minimise any fears or concerns healthcare professionals, in particular midwives, might have with regards to contacting violence protection experts.

2. In the next phase of the project, meet and greet events took place in five different districts in Tyrol (Innsbruck, Kufstein, Reutte, Lienz, Landeck). The group of participants consisted of midwives (n=20) and experts (n=24) from violence protection institutions, and the aim was to facilitate networking between midwives in practice and experts from specialised institutions in these districts in order to enable rapid and adequate mediation in practice when needed. The analyses were based on a thematic content analysis according to Mayring. After the meet and greet events, the research group developed guidelines based on theoretical knowledge, recent research on domestic violence and resilience, and the described needs, experiences from the meet and greet groups.

3. In a further step, another qualitative study design was implemented using semi-structured interviews (n=22) and a reflection on thematic analysis according to Braun and Clarke. The focus was on the one hand on the findings of the conducted meet and greet events, and on the other hand on the feedback on the brochure/guide "Let's talk – guidelines for midwives on talking about violence", which was developed in parallel to the project and made available to the participants. A qualitative cross-sectional study with semi-structured individual interviews with 26 women in German-speaking countries was conducted from March to November 2021 to investigate women's motives for abortion and possible needs after abortion. This was preceded by a positive ethics vote from the Research Committee for Scientific Ethical Questions (RCSEQ 2815/20). The interviews were analysed using qualitative content analysis according to Mayring.

Based on the results of the individual interviews, a model for dedicated care after abortion was developed. This was evaluated in January and February 2023 on the basis of expert interviews with midwives, gynecologists, social workers and psychotherapists. The expert interviews were evaluated using the qualitative content analysis according to Mayring.

In both projects, all interviews were recorded and transcribed with the consent of the participants.

MAXQDA software was used for data analysis.

Results

The results of the survey on domestic violence showed that networking between professional groups in the context of pregnancy and violence is low. It was also found that midwives who received training on violence against women (VAW) were generally more perceptive of VAW. In order to enable midwives and other healthcare professionals to communicate about domestic violence with the women they care for and to reduce inhibitions such as apprehension and/or fear of raising this issue in practice, guidelines on talking about violence were developed using the findings.

The guidelines are divided into four sections: preparation, questions, strengths and follow-up. Before asking questions about violence, enough time should be spent preparing. This includes attending a training on domestic violence, self-reflection on violence and self-care, and networking with violence prevention organisations in advance. To talk about domestic violence, consider conversation-opening questions in advance. When women report domestic violence, they should be empowered in what they can do and contacts with victim protection agencies should be facilitated. The follow-up is all about documenting the experiences and acceptance for the path that the woman subsequently takes for herself.

The results on abortion for 'social reasons' show that the motives for which women decide to have an abortion are diverse, individually different and can be found in the After an abortion for 'social reasons', many women would like to be offered a voluntary, free and low-threshold follow-up consultation. They would like to be able to talk openly about this life event with empathetic and non-stigmatising professionals, as this does not seem possible for them in their private environment without experiencing stigma. The model of committed care after an abortion for 'social reasons' should contribute to the implementation of this follow-up consultation.

The model for committed care after abortion consists of four pillars: attention, accountability, competence and resonance. In a state-organised healthcare system, responsibility for the legal and monetary design of care lies with the state (attention). Once a need for action is identified, implementation must be delegated to appropriate organisations (accountability). The caring activity itself, in the form of a psychosocial consultation service, is in the hands of trained professionals (competence). The model is a process defined by its interdependence. The fourth phase serves the evaluation, from which necessary changes in the implementation can result (resonance).

Conclusions

On the basis of the theoretical description and the results presented, a high need for preparation and pedagogical, didactic support for midwives and other healthcare professionals is evident in relation to sensitive, taboo and stigmatised topics.

In connection with the presented topic areas, the question is how issues such as domestic violence and socially indicated abortion can be didactically mediated in order to replace uncertainty with security in healthcare services.

Here in particular models and action algorithms are presented,

which are to be integrated in the basic training of midwives, but also for advanced training and master programmes with an interprofessional approach circularly over the course of semesters and module units.

Funding

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Conflicts of interest

There are no conflicts of interests regarding the studies.

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- Eur J Midwifery 2023;7(Supplement 1):A181**
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Your wish is my command: Developing an employer-led advanced clinical practice masters apprenticeship programme for midwives

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In order to meet the challenges of providing healthcare to an increasingly complex population, the UK NHS produced a 'Multi-professional Framework for Advanced Clinical Practice' (ACP) in 2017. This described how 'New solutions are required to deliver healthcare to meet the changing needs of the population. This will need new ways of working, new roles and new behaviours' – with the role of the ACP in Midwifery being seen to encapsulate these requirements from a maternity care perspective.

In 2019, Liverpool John Moores University was approached by four Hospital Heads of Midwifery to develop an ACP Masters programme for midwives via a 'Degree Apprenticeship' route. The ethos of the degree apprenticeship is a programme that is driven by employers' workforce needs, facilitating a strong collaboration between those employers and those delivering the programmes. A dynamic collaboration ensued, led by NHS Heads of Midwifery alongside academics. The final programme comprised of clinical modules, non-medical prescribing, third trimester ultrasound and a dissertation. It was underpinned by a 'treat and street' concept, whereby the ACPs upon qualification would be based in community hubs in an effort to reduce patient attendance to hospitals.

Three years later the first cohort have just graduated as ACPs

in midwifery with a multitude of skills to enable them to 'treat and street' the women they are caring for. This presentation will discuss the development of an education programme which is employer led, along with the evolving role of the ACP in midwifery.

Funding

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Conflicts of interest

The author has no conflicts of interest to disclose.

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Midwifery interventions, a concept analysis to gain further understanding of the concept

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Introduction

Interventions are a common part of clinical practice for women and newborns before, during and after birth. In principal interventions are evidence-based and contribute to positive outcomes of childbirth for both the mother and the baby. Still, there is a worldwide debate if in reality interventions are always used in the right way, at the right time, for the right person¹.

Midwifery looks critically at intervening in the natural process of birth, as having a physiological birth has short- and long-term benefits for mother and baby. However, midwives also intervene, e.g. encouraging women to walk around during labour to stimulate the physiological process of childbirth is sometimes called a midwifery intervention. The concept of 'midwifery intervention' or 'midwife intervention' regularly comes up in the literature. But what does it actually mean, what makes it appropriate to add the label midwifery to an intervention? A clear definition and description of this concept seems to be missing.

In our systematic review of the literature, we aimed to gain a deeper understanding of the concept midwifery intervention as it is used in research and non-research literature. More clarity will be beneficial for research and education, but also for implementing innovations and policies in care.

Material and Methods

We performed a concept analysis according to Morse et al. (1996)² to clarify the concept of 'midwifery intervention' and delineate a definition.

We searched scientific literature for texts where 'intervention' and 'midwifery' are linked as one joint concept (e.g. midwifery intervention, midwife-led intervention or midwifery counseling intervention) and that offer some explanation of what is meant with this concept. We used the databases Embase, Cinahl, PubMed, PsychINFO and SocialINDEX to identify relevant papers, which we extracted and analysed to generate defining attributes, boundaries, antecedents and consequences. Subsequently, we analysed our findings to gain deeper understanding of the concept, relating it to the ICM Philosophy of Midwifery Care, and we propose a definition. We followed the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-analysis) statement for conducting and recording the in- and exclusion process.

Results

From our search, yielding 500 unique hits, we selected 71 full papers, which gave further information about the concept. The actual term 'midwifery intervention' was used in 20 papers. Many papers used this term or related terms, such as midwifery-led intervention, to specify that the intervention was performed by a midwife without further indications of what this implied or aimed for, and/or without describing that midwives were involved in the development of the intervention. However, a number of papers gave the concept a broader consideration. They described how the benefits of this type of intervention were the midwifery approach towards care and related this closely to several or all aspects of the ICM Philosophy of Midwifery Care³. They mainly aimed at strengthening health (with a salutogenic approach), empowering women and promoting physiology of childbirth.

Conclusions

The term 'midwifery intervention' should be used for interventions where midwives (and women) are involved in designing the actual intervention and that focus on an approach and aim that links closely to a philosophy of midwifery care in which women's involvement, health and physiological childbirth are promoted. Clarity and establishing this concept will be useful for both research and education.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Augmented reality simulation training for midwifery students: First train the trainer

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Introduction

As part of the Heb@AR project, augmented reality (AR) simulation training was developed for midwifery students (practice in the skills-lab and at home). This is a smartphone-based app that enables the training of 3 exemplary emergency scenarios^{1,2}.

Material and Methods

To ensure sustainable implementation of AR simulations, experts in midwifery, medical didactics and informatics

designed and conducted six training sessions for lecturer (N=11), in-person and digitally, with an emphasis on implementing learning objectives and didactic design. Although the training units are designed to be taken in sequence, lecturers have the option to attend specific modules. Furthermore, the training units were developed and evaluated using the Design-Based Research method¹.

Results

Lecturer training sessions have a significant impact on personal attitudes towards the use of AR learning scenarios for emergency training of midwifery students ($p=.049$). Prior to the training sessions ($n=11$), 9% of the participants ($n=1$) held a skeptical, 27% ($n=3$) a neutral attitude and 63% ($n=7$) held a (very) positive attitude. Following the completion of the training programme ($n=10$), 40% ($n=4$) had a positive attitude and 60% ($n=6$) of participants had a very positive attitude. Lecturers were surveyed on their additional needs for implementing AR, identifying technical support, networking with other users, and dedicated time for independent training as relevant factors.

Conclusions

Individualised teacher training programmes, early involvement, practice time, and familiarity with AR technology are crucial for sustainable AR simulation implementation. Integrating didactic fundamentals and providing assistance for application challenges are also recommended.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Interdisciplinary collaboration in the care of vulnerable pregnant women: Experience of community midwives in Norway

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Introduction

In Norway, as in many other countries, vulnerable pregnant women may need additional care, involving interdisciplinary collaboration. This study was performed to describe how Norwegian community midwives experienced collaboration with other professionals in the care of vulnerable pregnant women.

Material and Methods

A quantitative cross-sectional survey was distributed through both Norwegian midwives' associations and on a Facebook-group for midwives in summer 2020. Community midwives were asked about their experience of collaboration. Associations between background factors and collaboration variables were assessed. Descriptive analyses using SPSS statistical software were performed.

Results

Norwegian community midwives reported good collaboration with public health nurses, while experienced communication with GPs, child welfare-, drug welfare- and mental health-services as poor. Patient coordination meetings, regular meetings with collaborative partners and the Individual Care plans were not regularly used. Collaboration was enhanced by >10 years of experience and having completed a training program to identify and support vulnerable women called "Early start".

Conclusions

This study indicates that interdisciplinary training programmes for professionals involved in the care of vulnerable pregnant women can improve collaboration.

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Using digital branching scenario technology in midwifery education

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Background

The face of midwifery education is rapidly evolving; innovative and exciting technologies are becoming a core aspect of training. This reflects societal changes and reliance on technology and ensures our curriculums follows the same trajectory. Branching scenarios have regularly been used in gaming technology and can be applied to bridge the theory-practice gap. This technology allows midwifery students to approach clinical decision-making in a safe and non-judgmental environment. The aim of this game was to place the learner at the centre of a realistic scenario and give them the opportunity to navigate the complexities of communication in clinical practice in a theoretical environment.

Development

After student consultation, scenarios were chosen that enabled them to approach challenging communication situations, such as deescalating a conflictual situation or language barriers. Scripts were written in collaboration with the Arts and Creative department. Scenarios were filmed and incorporated into branching scenario technology that fully was fully integrated to the virtual learning environment.

This game was incorporated into the midwifery curriculum and after ethical approval, was tested with midwifery students across the UK. Qualitative feedback showed that students found the game engaging, realistic and that they wished to see more scenarios and continue to learn in an interactive environment. There is a considerable body of research that shows that effective feedback leads to effective learning.

Implications for education

Digital technology can appear dehumanised, but the inclusion of realistic scenarios and environments centres the learner within a virtual environment. Branching scenarios present an opportunity for feedback as the learner makes decisions and gains precise, concise, and contextualised feedback without direct educator involvement. This project demonstrates the capacity to implement technology-based learning in the midwifery curriculum in an engaging and interactive way and makes learning enjoyable.

Exposing students to realistic scenarios also enables educators to demonstrate positive role modelling in terms of communication, which can be difficult to guarantee in practice. Students will naturally assimilate behaviour they witness and demonstrating good practice improves patient care and experience. Watching a role model will increase student motivation and lessen student anxiety.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Innovative and culturally sensitive educational package for migrants' sexual health education – ICEX project

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Introduction

Sexual health education for migrants is an important part of public health. Migrants should have access to culturally sensitive and comprehensive information on sexual health. Education should be provided according to the needs of the migrant population, and it needs to be easily accessible. Sexual health is an important part of an individual's overall health and well-being, and sexuality is a natural part of humanity throughout life. To accomplish good sexual health requires that the individuals have comprehensive and good-quality education about sexuality and access to sexual health care. Best practices in sexual education include a holistic approach and involve trained professionals. Although

there is available a plethora of sexual education material, professionals working with migrants underutilize them. Often, the obstacle is that people working with migrants do not know how to address the sensitive subjects, such as sexuality. Cultural competence and sensitivity, which are important approaches in sexual health education, are often lacking. To address these educational needs the development of open access online learning material was seen as a solution in the consortium of Erasmus + funded ICEX project - Innovative and Culturally Sensitive Educational Package for Migrants' Sexual Health Education. The aim of the project is to increase the knowledge of sexual health among adult migrants and professionals working with them by creating open access, comprehensive and easy-to-use online tools for migrants' sexual health education. The ICEX project aims to strengthen the professionals' competencies on sexual health education with the ultimate goal to improve sexual health among migrants.

Material and Methods

Two panel discussions will be held during April-May 2023 in each partner country (Finland, Estonia, Greece, Portugal) for adult migrants (18-55 years) (n= 16/country, N=64) to address the perception of sexual health and the needs of content for sexual health education. In addition, two panel discussions per country will be held for professionals working with migrants (n=12/country, N=48) to gather the knowledge of sexual health and the professionals' pedagogical skills and needs of content and methods on sexual health education. The findings of the panel discussions will be analyzed with content analysis.

Results

The results of the panel discussions will provide the basis and assessed structure of online learning materials, to be developed online learning materials. ICEX educational package, where the adapted learning needs of adult migrants and best available knowledge and pedagogical practices of sexual health education among adult migrants and professionals will be collected, will provide innovative and culturally sensitive materials for sexual health education for adult migrants and professionals working with them. In addition, an eHandbook will be developed to provide supportive online guidelines for professionals working with migrants. It will contain information on how to use innovative and culturally sensitive teaching methods, as well as evidence-based theory of sexual health.

Conclusions

The project and its results will meet the needs of migrants' increased knowledge of sexual health. Furthermore, the results will give the needed online tools in migrants' sexual health education, and it will promote the professionals' pedagogical skills and knowledge in that field. The ICEX educational package will lead to a systematic approach on improving the sexual health education among adult migrants, and it will be easily available online in different languages for the target groups and other interested stakeholders across the Europe.

Funding

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Conflicts of interest

The authors declare that they have no conflict of interest.

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The development of a blended course focusing on the self-regulation of a cohort of student midwives through peer-learning

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Introduction

Metacognitive skills are increasingly important and are considered as one of the 21st century skills. Students with strong metacognitive skills are masters of their own learning process: they are able to learn, unlearn and relearn. Metacognition is the performance to think about one's own thinking. Metacognitive skills deal about strategies that the student can use to complete her/his tasks: for example, planning, (self-)evaluation and monitoring. Metacognition is an important transversal skill for today's employers¹⁻².

Self-regulation is a cyclical process in which the student assesses, plans, monitors and adjusts his/her own learning activities in an independent way, based on previous experiences and feedback within a specific learning context. Self-regulation includes that a student is able to reflect on her/his learning process and her/his approach. It also implies that the student adopts the received feedback and previous experiences into a next preparation phase³. Moreover, there are essential skills that students must master in order to reach self-regulation, including (meta)cognitive skills. According to Devlies, cognitive skills, together with metacognitive skills, contribute to the most to self-regulatory skills⁴⁻⁶.

Peer learning is an interactive & instructional model allowing students to develop their metacognitive skills & consequently contributing to self-regulation. Learning from each other and supporting each other by sharing, reading & giving feedback on each other's texts and assignments give the students the opportunity to concentrate in an active way on their self-regulation skills. They work this out in a structure way through evaluation criteria, but also freely, through discussions in online or face-to-face synchronous teaching moments⁷.

These challenges demonstrate the societal and educational importance to train bachelor students towards self-regulating young professionals. These future health professionals are able to estimate and adjust their own performance, according to the expected standards.

The aim of our project was therefore to develop a digital, blended educational course focusing on self-regulation of a cohort of students enrolled in the bachelor midwifery of a Flemish University of Applied Sciences and Arts located in Brussels, Belgium.

Material and Methods

The Analysis, Design, Development, Implementation and

Evaluation (ADDIE) approach⁸ was used as a framework for the development of the digital, blended educational course.

All the midwifery students enrolled in the blended course 'Evidence Based Midwifery: empowering the midwifery profession' received instructions to train their feedback literacy. These instructions were given in advance and through the blended course. Their assessment literacy was also trained by using structured evaluation criteria, which they could consult any time through the blended course.

Results

In the analysis phase learning goals and objectives were identified and information about what the students already knew and what they needed to learn was gathered. In the design phase informed decisions were made about creating the learning program, including specific learning objectives, content structure, mental processes needed by the students, retention of knowledge or skills, time management, and peer-learning. The development phase involved constructing the blended course based on the decisions took in the previous phase. During the implementation phase the blended course was created, tested and approved in an iterative process. In the evaluation phase, the blended course's effectiveness and clarity were assessed for the students. Information was gathered to revise and improve the course and assignments with peer feedback. The extent to which students grew in their self-regulating skills was measured by reflective assignments that required them to describe their own learning process.

Conclusions

The blended course is still running until June 2023. The authors expect to draw conclusions about optimizing the course, the assignments using peer-feedback, and evaluating self-regulation skills during the first semester of the next academic year.

Funding

Voorsprongfonds for colleges and universities, project digital didactics and examinable learning materials.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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The development of a midwifery degree apprenticeship programme in England and its role in increasing access to the midwifery programme

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Background

In 2017 the NHS bursary was stopped in England leading to a reduction in applications for midwifery, particularly amongst more mature candidates. There were a number of experienced and able maternity support workers interested in becoming midwives but discouraged by financial implications. The apprenticeship was developed to encourage local, mature students into midwifery, providing development for support workers who were already familiar with the demands of the service and had developed resilience. It supported widening participation and 'transforming the maternity workforce of the future' (HEE 2019).

Development and delivery

Partnership working was essential involving Health Education England, Apprenticeship organisations, Nursing and Midwifery Council, Royal College of Midwives and the local NHS Trusts in the development phase. Apprentice students remained NHS employees and were recruited for the programme in joint interviews between the Trust and the university. They followed an identical degree programme as the other direct entry midwifery students within the university.

Evaluation

The first cohort of midwifery degree apprentices graduated in January 2023 and all are now in employment. In comparison to direct entry students, their academic attainment was comparable and attrition was lower. Feedback from NHS Trusts highlighted the MDAs proactive approach and resilience – Trusts have continued to support and increase the number of midwifery apprenticeships.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Hands off, eyes on: Student midwives' education on normal birth

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Introduction

To facilitate 'normal birth' is a midwifery competence, that should be achieved during midwifery training. This is made difficult by the raising level of birth medicalisation. Considering these premises, it is important to question what are midwives and students' perspectives about normal birth. This study aims at knowing the perception of normal birth for midwives and student midwives, how much of it is possible to experience in reality and how this can influence midwifery education.

Material and Methods

A qualitative study was conducted following the methodology of the Grounded Theory. Data were collected by focus groups and online survey. Participants (midwives and student midwives) were recruited from the hospitals linked to the same Italian university, for a total of 6 focus groups (with 8 students and 18 midwives). 28 online survey were completed.

Results

Five themes were identified: "Ideal midwifery vs real midwifery", "Empowering normal birth", "Learning the art of midwifery", "Growing as midwives", "Full immersion in pathology", "Resources to improve". Students witness very poorly normal birth in placements. However, there is an effort from mentors to facilitate the acquisition of these skills. Although its definition was not always clear, participants described that 'normal birth' skills involve the ability to not interfere, while thoroughly observing ("hands off, eyes on"). The role of continuity between student and mentor a tool that can help the acquisition of these skills, despite the presence of medicalisation.

Conclusions

This elements can be helpful when projecting midwifery training, as the philosophy adopted by the course university, in planning placement and educational activities as a strong influence on students experiences.

Conflicts of interest

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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Introduction of QR code cards at Staffordshire University: supporting students and practice partners in midwifery education

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Introduction

Staffordshire University's midwifery team have created a digital method of communicating information with midwifery students and with practice staff (registered midwives overseeing midwifery students' training in the clinical environment), via the use of a quick response (QR) code, in order to improve the support they receive.

Background

Following a poor National Student Survey score for overall

student satisfaction (18.2%) and a Nursing and Midwifery Council (NMC) Monitoring Visit which highlighted that students and practice partners required additional support, Staffordshire University decided to use a digital method of communicating information that could be accessed 24 hours per day and would always be up to date. This came in the form of a QR code on a plastic card that fits into an ID holder.

Analysis

The student version of the QR code card was launched in September 2022 and the landing page has been viewed 378 times, the practice assessor and practice supervisor version of the card was launched in December 2022 and the landing page for that code has been viewed 224 times. Early feedback has been received from students, practice partners, the NMC and Health Education England and all has been positive. A short evaluation questionnaire has been sent out to students and practice partners to gain views and seek improvement ideas.

Conclusions

Ongoing evaluation is required to ensure effectiveness along with sharing of best practice. The operating department practice team have adopted their own QR code card for use and other universities have also shown an interest.

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Evaluating the effect on learning of a virtual reality and 3D mobile pregnancy anatomy and physiology and fetal positioning application

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Introduction

The internal physiological and anatomical changes in pregnancy are challenging for students to comprehend. Technologies, such as virtual reality (VR), have the potential to aid student visualisation and provide concrete learning experiences. However, the use of such technology in midwifery education is not fully established¹. Therefore, to support student learning, the University of Newcastle, Australia (UoN) has developed the 'Road to Birth' (RtB) VR, augmented reality (AR), PC and 3D mobile/tablet application. The RtB app provides a dynamic, immersive internal visualisation of pregnancy anatomy and physiology and fetal and placental positioning in utero.

The UoN is engaged in various international collaborative research projects utilising the RtB app². UK participation, with the University of Surrey (UoS), is in two phases and is the subject of this abstract.

Aims

Phase 1 evaluated the acceptability and usability of the RtB 3D mobile app as an additional learning aid. Phase 2 aims to determine the impact on knowledge, learning motivation and preparation for practice of the combined use of the RtB immersive VR version and the 3D mobile app as complementary learning tools, compared with use of the 3D

mobile app only.

Methods

Phase 1 is an international, cohort, technical feasibility study. N=97 UoN midwifery and medical students and n=81 UoS midwifery students participated. Students download the RtB 3D mobile app from a link to their mobile devices to use at any time. Surveys were used to understand student general technology use and their views of the usability and acceptability of the app as a learning tool.

Phase 2 is a mixed methods, longitudinal, feasibility study involving UoS midwifery and paramedic science students (c.150). An intervention and comparator group are proposed to compare the effect of the RtB VR app in tutor-led sessions and also use the RtB 3D mobile app on phones/tablets for ongoing self-learning, compared to use of the 3D mobile app only. Students will engage in tests, surveys, focus groups, and self-reflection to evaluate the impact of the RtB app on knowledge, learning motivation and practice preparation. Additionally, lecturers will be interviewed to evaluate the feasibility of using the RtB app to complement traditional teaching methods.

Results

Overall, Phase 1 findings indicate students are strongly supportive of the 3D mobile RtB app. 83% reporting the app enhanced their learning, with 90% indicating the app is more engaging than traditional methods, and 93% of finding the app convenient. 87% reported improved understanding of pregnancy anatomy and physiology and 98% indicated increased awareness of fetal positions in utero. In addition, 90% of students found the program easy to use, visually engaging and a fun aid to learning.

The second phase has commenced and is scheduled to complete at the end of 2023.

Discussion

This international project explores engagement with the RtB app and its impact on midwifery and healthcare student learning. The Phase 1 study provides evidence that the RtB 3D mobile app is a feasible, acceptable and usable educational tool. The Phase 2 study will explore the RtB app in VR and 3D modes to understand the effects of this technology on learning and preparation for practice.

Conclusion

Research to understand the acceptability of the multi-platform RtB and its impact on learning, will aid the development of the app and identify how this technology can be effectively utilised in maternity education.

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ICM midwife competencies: A student-led hands-on learning solution using ICM competencies on a digital platform to increase quality in midwifery education

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Introduction

Quality midwifery education is urgently needed to prepare competent midwives and improve quality of care, end preventable maternal and newborn deaths and stillbirths, as well as deliver the agenda of Universal Health Coverage. There is a global shortage of 900000 midwives, this is most severe in low-middle-income countries which will experience a shortage of 750000 by 2035. Investing in midwifery education can save 4.3 million maternal and newborn lives each year by 2035 (WHO, UNFPA, ICM).

International Confederation of Midwives (ICM) and Laerdal has a joint mission in ensuring that women have access to a well education and competent midwife and have an established long-standing partnership to co-develop educational solutions to achieve that goal.

Laerdal's experience with education and training for decades has made way for products such as SimCapture for Skills, a digital platform for student-led learning, for psychomotor skills and interactive and timely performance feedback. The ICM competencies are globally well acknowledged and form the fundament for quality of education and care provided by midwives.

The ICM-Laerdal new student led solution; ICM Midwife Competencies builds on a hypothesis that combining and building the digital solution with the ICM Competencies, will strengthen and help scale up midwifery education, which as a result will reduce the faculty shortage, and meet the coverage gap of 900000 midwives needed globally.

The co-developed solution will help midwifery institutions who want to produce proven competent graduates ready to graduate by bridging the quality of the program and meet educators' gap of adequate resources.

Material and Methods

Implementation of a quality and efficient midwifery program is a challenge for many universities, faculty, and students globally. Time constraints for deliberate practice and resource shortages also impede midwifery school programs in education and retaining students. To alleviate faculty burden and provide timely feedback to students, midwifery university programs would benefit from data-capture solutions with competency checklists that are co-developed and endorsed by ICM.

ICM and Laerdal's intervention is a competency-based education solution that aims to strengthen the quality of midwifery education and develop competent and confident midwives by integrating skills and simulation in midwifery curricula, based on ICM competencies.

Results

ICM has taken steps to develop a complete ecosystem around Midwifery Education globally – including an accreditation (MEAP), essential competencies, Midwifery Education Development Pathway (mPATH) including e-learning, OSCE-like assessment criteria, and a competency assessment tool

in development. To ensure scalability and ease of adoption, the presentation will focus on the findings from the test sites using the solution as well as the principals for student led learning. The presentation will also focus on student-led efficient and data-driven education centred around essential ICM competencies. rove and scale the solution in alignment with the MNH community.

The ICM, Laerdal intervention is unique in the sense that it addresses the challenge many faculty face today, not limited to the following: lack of resources, low budgets, crowded classrooms, the opportunity for repetitive skills practice, lack of digital infrastructure to evaluate assessments, and slow feedback. The intervention drives change by combining technology with simulation skills training. The technology component of this intervention supports faculty in optimizing evaluations of student performance and improving learning outcomes. The skills training component is fully linked to the ICM competencies to help students achieve skills mastery through self-driven practice.

Conclusions

Laerdal's partnership with ICM to develop this intervention will benefit 600000 midwifery students by 2025, equating to 70% of the midwifery student population, many in low- and middle-income countries, a largely underserved student population. To ensure those who need this intervention most a sustainable model is in development to secure increased access in low-resource settings.

ICM and Laerdal believe this intervention will contribute to the transformation and expansion of the health workforce by producing competent and confident midwives and increase the potential to accelerate inclusive economic growth and progress toward health equity.

Partners

International Confederation of Midwives and Laerdal Medical

Funding

This educational solution is co-funded by ICM and Laerdal.

Conflicts of interest

There is no conflict of interest related to this presentation.

Additional text

Partners

International Confederation of Midwives and Laerdal Medical.

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Development of web-based support for clinical supervisors of midwifery students

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Introduction

Clinical supervisors are expected to help and support midwifery students to develop needed skills and reflect on their progress and achievements and on provided care. But not all midwives working in clinical work are used to supervise students or have the required continued education to supervise midwifery students. At the same time, there is a lack of midwives and clinical supervisors; hence the need to explore if there are other ways to support clinical midwives in their supervision of midwifery students.

Material and Methods

We have developed web-based support for midwives

supervising students in clinical practice with, for example, information about the expected outcomes of the clinical practice, what to prepare before supervising a student, and the assessment of the student's skills. Furthermore, it covers what to do when students do not fulfil the requirements for their clinical practice.

Results

We would like to present and demonstrate the web-based port, our experiences of using it, and its implementation in clinical practice at the conference.

Conclusions

Web-based support can be an aid and a cost-effective way to support clinical supervisors, especially those who are inexperienced or seldom supervise midwifery students. Furthermore, this support may improve the teaching situations for midwifery students.

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Resilience and retention in newly qualified midwives

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Introduction

Midwives in the UK are leaving the profession in greater numbers than in previous years¹. Newly qualified midwives (NQMs) are one of the most vulnerable groups, yet they have successfully completed a midwifery education programme. The transition between student and NQM is a reality shock for many midwives, but it is important to retain NQMs in the profession to safeguard the midwifery workforce of the future. Building resilience during pre-registration midwifery education may be one way to address this.

Material and Methods

A mixed-methods study asking 'Why do newly qualified midwives stay?' was undertaken in London. In phase 1, midwives of all levels of experience were surveyed and asked to complete two resilience scales. One was a previously validated scale² (measuring personal resilience) and one scale was developed for this research (measuring professional resilience), based on a previous study about resilience in midwifery³. In phase 2, eleven NQMs were interviewed about their experiences of transitioning to NQM. The statements in the resilience scales that were most negatively scored were also explored.

Results

The survey demonstrated that the professional resilience scale had a significant ability to predict those midwives who had thought of leaving their post/midwifery within the last six months. The interviews revealed that NQMs with a high level of personal and professional resilience were more likely to stay in midwifery. Those with high personal but low professional resilience were more likely to consider leaving their post or midwifery. Professional resilience was undermined by adverse workplace factors such as a bullying culture, poor staffing levels and lack of flexible working.

Conclusions

The new professional resilience scale (Bower Professional Resilience Scale) has the potential to predict NQMs who are considering leaving or who actually leave midwifery. If those

NQMs who are more at risk of leaving can be identified, it would be possible to target specific interventions so that these NQMs are retained. In addition, building personal and professional resilience during pre-registration education programmes may equip students to make a more successful transition to newly qualified practice.

Funding

There is no funding for this research.

Conflicts of interest

The author has no conflicts of interest to disclose.

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Midwives – adaptable and dynamic: reflections on midwifery education transformation during the Covid-19 pandemic

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We could never have anticipated the immense impact that the Covid-19 pandemic had on midwifery education globally. The profound and surprising consequences have been far-reaching, not only on a personal and professional level, but across all groups of midwives – from students to educators, researchers and practice-based supervisors, as well as clinical midwives, managers and leaders.

Overnight, education programmes, which traditionally have been delivered face-to-face, had to be switched to online virtual delivery and midwifery educators had to learn about digital technologies very quickly. Students had to cope with significant changes, with synchronous and asynchronous learning requiring self-motivation.

Placement learning was also challenging as students needed to be supported to achieve clinical skills and competencies while wearing full PPE and dealing with the constant stress of contracting Covid and taking this to family members. The need for emotional and psychological support increased significantly and educators needed to develop innovative and dynamic ways to support learning to enable the pipeline of graduates to continue.

This presentation will share three publications that I have co-authored during the pandemic which study the effects of the pandemic on midwifery education, from experiences of Lead Midwives for Education who organised extended placements for students¹, to the attitudes of student

midwives to online learning². The third paper considers how to sustain quality education during a pandemic and beyond, critically appraising the learning, so as to adapt it to any future situations³. Reflecting on this last three years is essential and the immense learning can be applied globally. What these papers all show is that midwives are adaptable and dynamic.

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Exploring the emotions of midwifery students in Greece and the U.K using art as a medium

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Introduction

In 2016 the Royal College of Midwives (RCM) stated that in the U.K and internationally, 5-10% of newly qualified midwives (NQM) left the profession within six months of qualifying. The retention and confidence of midwives, particularly newly qualified midwives (NQM), is essential to the workforce in maternity care. Drawing provides the freedom to be expressive in ways that verbalising may inhibit, giving a raw expression that is not tainted by any common narrative. Using art as a medium is a relatively untapped resource when exploring and understanding some of the challenges and emotion's students and NQM face.

Material and Methods

Art has become a lens by which new phenomena can be observed opposed to the traditional collection of data collected via questionnaires, observational and narrative approaches (Pentassuglia 2017). It is aimed at another perspective and offers questions acting as the illuminator of an aspect that might have otherwise been left unseen (Barone & Elliot 2012). An International National Study involving 30 midwifery students from the U.K and 31 Greek midwifery students were asked to 'draw' their thoughts and emotions regarding completion of their course and becoming registered midwives. Two senior midwifery educators, one from Greece and one from the U.K., were then asked to interpret the drawings, without knowing whether the students were U.K. or Greek based and give their perspective of the drawings.

Results

Using art as an expression helped to identify some of the individual thoughts and feelings of midwifery students who were nearing qualification. The results from the lecturer's interpretation of the drawings showed that overall, they agreed on the vast majority of the drawings and their meanings. However, surprisingly, the response of the lecturers to the stress of the students interpreted through the drawings was very different. For example, one lecturer discussed the lack of resilience of the students and how they were no longer prepared to tolerate poor working conditions, while the other talked about compassion fatigue and the transfer of the mother's stress onto the student. Neither lecturer could tell the origin of the drawings, Greek or English.

Conclusions

The work enables a new dialogue by bringing a fresh perspective and a collective and innovative approach to how students are prepared for practice. While work has already begun demonstrating the importance of providing a supportive environment for not only students and NQM's but also the midwifery workforce in general. Art is another tool to support the journey of novice-to-expert.

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Health workers training related to respectful maternal care: preliminary results of IMAGINE EURO project in 12 countries

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Introduction

The IMaGiNE EURO project is currently ongoing in 23 countries. It documents the perspective of both mothers and health workers (HWs) on the quality of maternal and newborn

care around the time of childbirth, during and beyond the COVID-19 pandemic. Within the IMaGiNE Euro Project this study aimed at investigating training on respectful care, across HWs from 12 countries of the WHO European Region.

Material and Methods

HW providing care to women and newborns in facilities for at least 1 year between March 1st 2020 to March 1st 2023, were invited to answer an anonymous, validated, online survey based on WHO Standards Quality Measures. We performed a descriptive analysis on indicators related to respectful maternity care training courses and subgroup analyses to look at differences by facility type (private vs public) and by health profession (midwife vs other HWs).

Results

Among 4143 HWs more than a half were midwives (2500, 60.3%), with the larger sample was from Italy (589, 14.2%). There was a large variation of frequencies across countries for all Quality Measures and no country was free from gaps. More than one third of HWs reported “need of significant improvement” on training events on counselling and communication (1406, 34.2%; country range: 20.1%-64.3%), pain relief practices (1496, 36.4%; 36.1%-58.0%), emotional support (1595, 38.8%; 29.1%-60.7%), informed consent practices (1757, 42.7%; 33.1%-71.3%), and rights of women/newborns (2050, 49.8%; 47.9%-82.6%). HWs in public facilities reported significantly higher “need of significant improvement” for all Quality Measures on respectful care training. Midwives perceived higher need of significant improvement for counselling and communication ($p=0.001$) and rights of women/newborns ($p=0.002$).

Conclusions

HWs from both maternal and newborn area in 12 countries of the WHO European region call for improvements on training to strengthen their respectful care skills. Training delivery and HWs competences should be routinely monitored to ensure high quality care for all women.

Funding

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The authors have no conflicts of interest to disclose.

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A toolbox to improve simulation training in midwifery education

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Introduction

Simulation training is known to have a positive impact on students' learning. Learning takes place as a social process, where the members construct their own share of the collective

knowledge and competencies. In a didactic relational way of thinking, midwifery faculty has to take into consideration prerequisites for learning, the setting and actual framework, the learning process, learning goals, the content, and the evaluation of the learning program.

To develop a toolkit for skills- and simulation training to be used in midwifery education globally, the authors will elaborate on factors that are likely to support essential learning.

Material and Methods

We have used a descriptive research design. We present the most relevant literature that we identified based on a literature search using terms like “midwifery”, “education” and “simulation”. Additionally, we present experiences from simulation training sessions at the Arctic University of Norway. A group of 20 first year midwifery students took part in a two-days mandatory training event. The training comprised relevant theory, skills training according to learning objectives, four realistic and relevant scenarios followed by debrief for reflective learning, repetition of scenarios and another debrief. The faculty comprised very experienced clinical and academic midwives.

Results

We have identified the following factors that are likely to ensure high-quality training for midwifery students, like; commitment by the institution and the midwifery faculty, a safe learning environment, adequate resources, competent faculty, simulation integrated in the competency-based curriculum, motivated midwifery students with sufficient pre-knowledge, a well-managed simulation lab, clear learning objectives, realistic and relevant scenarios, re-simulation for enhanced learning, and adequate assessment resources.

Conclusions

Simulation training is a powerful tool for enhanced learning within midwifery. However, it takes ownership, competent faculty and thorough planning to enable students to gain sufficient competence and confidence to meet the challenges they will face as certified midwives.

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Medical manual for emergencies related to the use of psychoactive substances

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The treatment of substance use disorders is carried out by specialized treatment providers with a trained multidisciplinary team, with or without pharmaceutical support. However, apart from the treatment of the addiction itself, contact of various health services with people who use drugs at any level is a daily routine. People who use psychoactive substances often refer to Emergency Departments, but also clinics of many specialties that deal with co-morbidities.

The recent “Medical Manual for Emergencies Related to the

Use of Psychoactive Substances” aims, on the one hand, to provide clinical guidelines for the provision of care in various therapeutic conditions, when clinical problems such as toxicosis and withdrawal are faced by the non-specialist clinician, in all tiers of health care in various therapeutic settings, and on the other hand in facilitating the interface between health services and addiction agencies.

Particular emphasis is placed on the treatment of withdrawal syndrome in women during the various phases of pregnancy, puerperium and breastfeeding, and the particular requirements of overdose treatment in pregnant women users of psychoactive substances.

Speakers will present the clinical guidelines and they will discuss illustrative clinical cases with the audience.

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Women's views on moderate and low alcohol consumption: stages of the subjective transition from pregnancy to postpartum

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Introduction

Public health policies recommend stopping alcohol consumption for expectant and breastfeeding mothers, due to the risk of a range of adverse neonatal outcomes, including Fetal Alcohol Spectrum Disorder (FASD). However, about 16 to 25% of women in Europe, including Switzerland, consume alcohol during pregnancy and breastfeeding. Little is known about how women perceive this risk and how risk perception changes during the transition to motherhood. The present study aims to explore the subjective transition from woman's perspective on perceptions of alcohol as a risk, changes in alcohol consumption in daily life and experienced support from health professionals.

Material and Methods

This study uses the theoretical framework of sociocultural risk and life course transition.

Qualitative longitudinal interviews were conducted with a purposive sample of 46 women in the German and French speaking parts of Switzerland. They were interviewed first during pregnancy and then until six months after birth. We applied the principles of thematic analysis to the data, using Atlas.ti software.

Results

Five significant stages of transition related to low and moderate alcohol consumption were identified: (1) Around conception and getting pregnant: the intangible risk of alcohol consumption, (2) Manifestation of pregnancy: weighing the psychosocial and medical risks of alcohol consumption, (3) Being pregnant: dealing with the concept of abstinence, (4) The first weeks after birth: alcohol consumption incompatible with childcare (5) The public mother: the risk of being criticised for consuming alcohol.

Conclusions

Pregnant and breastfeeding women perceive alcohol consumption as a risk to the health of the child. Abstinence is sought especially during

pregnancy, but this does not preclude occasional and low-level consumption. Exceptions are not motivated in the same way in the different stages. From the women's perspective, there was a lack of counselling from health professionals. Stages 1 and 2 should be taken more into account, as women experience themselves as particularly vulnerable during this time. Low-threshold counselling should be offered from the stage around conception until the end of the breastfeeding period overcoming the barriers faced by professionals in addressing the issue of alcohol with pregnant and breastfeeding women.

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Enhancing cultural sensitivity in sexual and reproductive health care among midwives with Collaborative Online International Learning (COIL): A mixed method evaluation study

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Introduction

Midwives globally are serving women with a great variety of ethnical backgrounds and cultures. Counselling women in sexual and reproductive health requires a sensitive approach regarding individual experiences and needs, which is also reflected by the person's cultural background. The Norwegian funded project Midwifery Research and Education Development (MIDRED) is a collaboration between Universities in Ghana, Palestine, and Norway, that started up during the Covid-19 pandemic. To enable the collaboration despite travel restrictions we piloted a Collaborative Online International Learning (COIL) program in Women's Health - Sexual and reproductive Health (WH-SRHR), based on the curriculum of the International WH-SRHR course at the master's program in Midwifery at Oslo Metropolitan University. The course has a study load of five credits in the European Credit Transfer and Accumulation System (ECTS). We anticipated that involving midwives from different parts of the world would give an opportunity for all to be introduced to and share various cultural approaches to the topic. For University of Ghana and Birzeit University the synergy of the experience was meant to help the development of a similar local course for midwives in their region. The course used blended learning, combining online videos, texts, and quizzes (moocs) with face-to-face lectures and discussions on zoom. It also had a component of practical training in providing contraceptive counseling. Teachers from all the three involved universities gave lectures and joined in online group discussions. The three-weeks course included mandatory assessments and a home-exam. To prepare for the exam the students developed their own research question and were offered teacher supervision in the process. The first pilot

course was conducted in 2021 and the second pilot course in 2022. The design of the second pilot course was revised based on students and teachers' evaluations from the pilot in 2021. The aim of this study is to evaluate if the design of the COIL and the experience of transforming a regular onsite course to an international online collaboration learning program can enhance midwives' cultural knowledge when providing sexual and reproductive health care.

Material and Methods

To evaluate the pilot process, we will use mixed methods in analyzing data from the two years. Numbers of students and teacher's attendance will be presented, as well as quantitative and qualitative analysis from the students' individual voluntary evaluations and focus group discussions of the teachers' experiences. We will also present learning analytics to evaluate how the students used the online material as a part of the course.

Results

The results from analysis are still in progress and will be presented orally at the 7th EMA Education Conference.

Funding

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Climate impacts on health – communicating with care

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Health Professionals have woken up to the impact that Climate Change can have on people's health, amidst the unfolding Climate Crisis. From heatwaves and floods, from wildfires and spread of diseases, these extreme climate events put additional burden on our fragile healthcare systems. Strengthening health systems in the face of these impacts – from burning of fossil fuels to health policy – calls for strategic communication efforts. For the first time in history, the Conference of Parties (COP) 28 summit taking place in Dubai in December 2023, will have one day dedicated to Health.

In the socio-political context, an in-depth public understanding of the human health relevance of climate change is a key component to develop effective local and national policies. However, despite the importance of public understanding of the issue of climate change and its associated health effects, limited studies have been conducted in the past to determine public attitudes, beliefs, awareness, and knowledge levels. Climate Change is a profound threat to the health and well-being of the public. A small but growing body of research suggests that presenting information about the health relevance of climate change significantly increases public engagement in

the issue. Therefore, reporting on climate change as a health issue holds promise for heightening public engagement. To assess reporting on climate change as a health issue more broadly, we collected and analysed newspaper reporting from two of the world's most populous countries – India and China. We looked at whether these reports use health professionals and research organisations as trusted sources of information. The results have implications for healthcare professionals to communicate with great clarity and care, about the most pressing issue of our century.

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Similarities in midwifery education, regulation, and practice across Europe – a literature review

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Introduction

Evidence shows that well-educated, regulated, and supported midwives working in an enabling health system are the most appropriate caregivers for women and their newborns¹. Midwives play a vital role in reducing maternal mortality, newborn deaths and still births and contributing to healthier families and more productive communities^{1,2}. There are significant variations between the European countries in the way midwives are trained and in how they fulfill their scope of practice^{3,4}. Most of the countries efforts to strengthen the midwifery profession, to improve the education, and to follow the best international standards and guidelines^{4,5}.

Objective

To identify similarities between the European countries in terms of midwifery education, regulation, and practice, that could be the starting point for an alignment of midwives' regulation and education in Europe for obtaining a strong midwifery workforce and stable/performance maternity services for all European women.

Methods

To achieve the proposed objective, a literature search was performed for the relevant published articles between 2013 and 2023 by using electronic databases of Medline, PubMed, Web of Science, Scopus, and Google Scholar.

Results

The most evident and benefic similarity found was that in our days, the (1) midwifery education is at the academic level in the majority European countries. Other similarities that are associated with the strong position of midwifery in Europe and with high quality of midwives' services are the (2) preserved cult and respect of midwifery, the (3) supervising and mentoring practice in midwifery training and (4) a curriculum with a holistic approach in which theoretical knowledge is very well reinforced practically with a tutor as a role model.

Conclusions

There is clear progress in the education of midwives in most European countries, being now at the academic level, which positively influences their performance in practice. However,

the type of studies, direct entry or master's degree does not influence the regulation of the midwifery profession, it does not help to obtain the full scope of practice or the full level of autonomy. The midwifery profession works best in countries where the cult/respect towards this profession has been preserved and the government and health system invest in midwives and in their work environment, education, and regulation.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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Round Tables

The controversy of gender-neutral midwifery titles: The case of Norway

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Introduction

In 2018, the Norwegian government decided that all public working titles should have gender neutral names. All titles that referred to a specific gender were changed to a name without referring to any gender. For example, the special nurse called health sister was changed to health nurse. The midwifery associations in Norway did not come up with any suggestion to change the word for midwife in Norway, who is currently jordmor (earthmother).

Material and Methods

We want to discuss the pro and cons for changing the Norwegian midwifery title to a gender-neutral name.

One of the participants will argue for why changing the name is a good idea and will also come up with a suggestion for a name that could both include the history of midwifery as well

being able to include alle genders in the professions name. The other opponent will argue why tradition is important and that the name "jordmor" have a special place in the Norwegian vocabulary and women's history and should be protected and kept as it is today.

Conclusions

In many countries, but not all, midwifery is a profession that almost only recruits women. A serious discussion about the name of midwives and midwifery is highly appropriate, so that all genders can feel welcome to this important profession.

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Father groups in perinatal period. The Fainareti paradigm

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Introduction

The father's role during perinatal period has been studied more systematically during the last decades. Fathers seem to participate more actively both prenatally and antenatally, as long as during labor and delivery, than before. However, despite their desire, fathers often feel that the perinatal care experts do not pay much attention to their role and needs. Feeling excluded may lead to lesser paternal involvement and less paternal satisfaction as well. Furthermore, limited caution to father's needs by the experts may result in undiagnosed paternal mental health issues, such as anxiety, depression etc. It is very important for fathers to feel included and secured in order to be more enabled to express their feelings and needs during perinatal period. In Greece, NGO Fainareti has organised father groups meetings which are coordinated by a mental health expert and a midwife.

Material and Methods

Fainareti has been running father group meetings since February 2018. Their purpose is to create a safe place for the fathers-to-be, where they can feel free to talk about their worries around perinatal period. Qualitative data were collected through observations of the groups by the experts who coordinated them. The observations are about the questions fathers addressed to the experts regarding their new role as fathers, the thoughts, feelings and concerns they express to each other and the dynamics of each group generally.

Results

Father group meetings in Fainareti consist of 3 meetings. The first meeting takes place postnatally, around 1 month before of the probable date of delivery, the second and the third meeting takes place around 3 and 6 months after the birth of the child, respectively. It seems that the fathers who participate in these groups tend to be more prepared for their new role as fathers, both practically and psychologically.

Conclusions

It is crucial for the fathers, their wives and the experts to give more attention to father's needs during perinatal period. Fathers can more easily express how they feel when they are included. Their narratives and their personal experiences are important to be considered by the perinatal care experts.

Father group meetings in Fainareti have been organised to actively hear the fathers needs and perspectives.

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Expectant fathers' worries and needs: data from a primary mental health care setting in Greece

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Background

Traditionally, pregnancy has been viewed as a woman's experience, with men having a supporting role. However, even though they often feel excluded, men want to take a more active role during pregnancy. The transition to fatherhood is a complex process that requires adaptation to the new role and the new circumstances in the family. When fathers feel that they have not been sufficiently informed and prepared for the new situation, they experience anxiety and stress. Because of the complexity of their new role, fathers need to be supported so that they can, in turn, support their partner and discover their own unique way of interacting with the infant.

Aim

This presentation aims to describe fathers group meetings, coordinated by a psychologist and a midwife, in the "Day Center for the Care of the Mental Health of Women (Perinatal Mental Health Disorders)", a primary mental health care setting in Athens (Greece), funded by the Greek Ministry of Health. This Day Center was created in 2009 by Fainareti, a Non-Profit Organization that aspires to improve perinatal care in Greece through specialized midwifery and psychosocial intervention.

Results

The meetings are exclusive to fathers and are aimed at creating a space where the participants can share personal experiences, express their questions, receive emotional support and learn newborn care skills (e.g. learn about breastfeeding and how to connect and communicate with the newborn).

Conclusions

Healthcare professionals, usually, focus their attention on the mother and the newborn, neglecting the fathers and the care they need during this critical period for their family. It is extremely important to focus attention on fathers, so that they also receive the required support, given that their presence and active participation will allow the emotional and practical support of the mother and the child, and benefit the family as a whole.

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Midwives' educational program in a human milk bank and breastfeeding counselling

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It is widely agreed that the best source for nutrition for infants is the milk of their own mother. Human Milk Banks (HMBs) play an essential role to the health of infants by providing

human milk and supporting breastfeeding as a bridge between mothers and their infants. These roles of HMBs has definitely positive clinical and physiological advantages for both mothers and their infants. According to the World Health Organisation (WHO)¹, American Academy of Pediatrics², UNICEF and European Society of Pediatrics Gastroenterology, Hepatology and Nutrition³ the feeding of preterm infants with mothers' own milk is recommended as the first choice and when this isn't available the use of human milk from other sources should be the first alternative. In those cases and especially in very preterm and very low birth weight infants (VLBWI), as well as other newborns in need, the preferred choice is pasteurised donor milk from an established HMB. The main benefits for preterm infants is the protection of two devastating medical complications, such as necrotizing enterocolitis and sepsis. Also, improves neonatal gut growth and maturation, neurodevelopmental outcomes, retinopathy and visual development.

The sharing of human milk has existed since the beginning of time. Mothers have either breastfed children who weren't biologically related to them or expressed and shared milk with a child other than their own. In early times, HMBs have been developed for offering safe human milk to infants who are in need. The first HMB was established 114 years ago in Vienna (1909) and over 700 milk banks have opened in 66 countries worldwide⁴. In Greece the first HMB was established in 1947, reorganised in 1985 and since then it has been operating according to the National Institute for Health and Clinical Excellence (NHS) guidelines (2010)⁵.

How much do we as midwives know or are we educated about the operation and the role of a HMB?

Milk Banks are health institutions responsible for the collection, screening, storing, processing and distribution of donor milk. Donor milk is breast milk that has been expressed by a mother and provided freely to a HMB to be fed to another mother's child. Donors are healthy women usually nurse their own infants or breastfeed their babies and have a milk supply that exceeds their own infants' needs. Donors are carefully selected and screened for Human Immunodeficiency Virus (HIV-1, HIV-2), Hepatitis B (HBV), Hepatitis C (HCV), Syphilis (VDRL or RPR) and Cytomegalovirus (CMV IgG and IgM). In the HMB handling, storing, processing, pooling and bacterial screening follow recommendations from European Milk Bank Association (EMBA). Pasteurisation – a heat treatment (at 62 °C for 30 minutes) of human milk kills any harmful bacteria or viruses that may be in the milk, but also diminishes cellular components, anti-infective properties, growth factors and nutrients. Nevertheless, the beneficial effects of donor milk remain significant for preterm infants or infants in need and remains the first choice for feeding them compared to formula⁶⁻⁸.

One of the key roles of all scientists and especially those who treated preterm and fullterm infants hospitalized in Neonatal Intensive Care Unit (NICU) (e.g. neonatologists, midwives and nurses) is to support their growth and development during this critical period. In the same page, HMBs are organised to ensure that donor milk is made available for the benefit of vulnerable NICU infants.

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Midwives' educational program in a public maternity hospital, the past, the presence and the future

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Introduction

The methods to improve both the quality of midwifery education and promote further motivation in improving the midwives' education levels rely on promoting and reinforcing the position of midwives not only in community services but also in the maternity yards.

Material and Methods

A literature review was conducted regarding international educational standards regarding midwifery education.

Results

Establishing an efficient and powerful monitoring system to control the practice of midwives, promoting the collaborative practice of midwives, and encouraging teamwork with respect to midwifery care maybe are the most important strategies to improve the midwifery educational systems. Authorities and policymakers may set the stage for developing high quality educational systems concerning midwifery.

The main concern of the midwives is to improve the quality of midwifery care based on their educational models, by developing and improving the educational status of midwifery

students and graduate midwives in order to increase their capabilities. The midwifery training programs should be constantly reviewed, as far as hospital and community training is concerned, so that after graduation the midwives can provide independent and high quality services to women. After graduation, mandatory courses at the beginning of their career, as well as in-service training courses, are of high necessity. In-service training should not be neglected. A professional license conditional upon passing some clinical courses should be necessary. Educating midwives should be offered free by a scientific association, universities and or the multiple skill training centers. Having a midwifery supervisor in education is one way to improve the quality of education in hospitals. Midwives in the delivery room and postpartum ward, as they have the greatest role in reducing both maternal and neonatal mortality and morbidity rates, as well as the rate of infection rates, should be charged with extra and special educational programs concerning the handling of emergency circumstances. Paying attention to the factors affecting burnout due to special working conditions in the care of mothers and infants is also a special matter in education. Finally, effective management in education based on the participation of all healthcare professionals in midwifery education leads to improved quality in education. Qualitative characteristics in education is one of the most important criteria, as the main mission of the health system is to provide quality care and meet the needs and expectations of women. Improving the quality of education can meet the expectations and needs of women and families, and improve indicators related to maternal and infant health. Setting service standards and clinical guidelines in clinical education is the main factor in achieving the high quality in education. Also, practical instructions that are issued by midwifery services must be taught to midwifery students. There should be no gap between theoretical and clinical courses.

Conclusions

In conclusion, educational opportunities to improve midwifery education and creativity should be provided to everyone. Creating flexible, due to student interactions, opportunities is the main purpose.

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Workshops

How to address the topic of sexuality with midwifery clients?

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In order to provide optimal midwifery care for clients, midwives should also assess the aspect of sexuality with women/couples in all stages of perinatal health care. However, due to own insecurity (fear of miscounseling, shame, feelings of intrusiveness, etc.) this aspect of holistic care is rather rarely covered by midwives.

This workshop offers a concrete model for integrating

sexuality into midwifery care or midwifery teaching. It will be composed of a lecture that will focus on the main milestones of midwifery practice where sexuality should be included and practical part that includes skill transference and role play in small groups, moderated by experienced midwifery educators, knowledgeable in the field of midwifery and sexuality.

Funding

There is no funding for this research.

Conflicts of interest

The authors have no conflicts of interest to disclose.

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How to make midwifery students understand the connection between scientific perspectives and research questions when writing assignments: Workshop as a method for teaching professional philosophy

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Introduction

In Denmark, we experience that midwifery students find it difficult to understand how research questions and scientific perspectives are related.

To promote appreciation and understanding of how the scientific perspective is incorporated in the research questions and choice of methods, we have invented a workshop focusing on scientific perspectives and their influence on a specific chosen problem.

In this workshop the students are actively participating working in groups with their chosen research question/problem.

The students have been introduced to research methodology within humanity, natural- and social sciences before the workshop.

This workshop has not been presented outside the midwifery department at UCN.

Material and Methods

In the workshop the students work in groups of 3-4. Three teachers from humanity, natural- and social sciences facilitate the workshop.

At the workshop day the students define a research question/problem that they want to focus on. Then they "carry around" the question/problem to three different workstations:

Workstation 1 humanistic science

Workstation 2 natural science

Workstation 3 social sciences

The workstations take place in three separate rooms, where a lecturer representing one of the three scientific perspectives is present. During the workshop a lecturer and two groups of students are present in each workshop at the same time. One of the groups starts presenting their question/problem and all students discuss how the scientific perspective represented in this room influences the chosen

research question as well as methods. All groups visit all three workstations which means that their question/problem is subjected to all scientific perspectives.

Afterwards they choose a specific scientific perspective and method to present for the whole class.

Plan for doing the workshop at EMA

- Three lecturers from UCN Denmark will lead the workshop.
- The participants in the workshop are divided into six groups where each group get 20 minutes to develop a research question relevant for midwives.
- Then we make three workstations in the room. In workstation 1 one lecturer from UCN represents humanistic sciences, in workstation two one lecturer represents natural sciences and in workstation three one lecturer represents social sciences.
- The lecturers from UCN make a rotation-plan for how the groups are going to circulate around the workstations.
- In each workstation the research questions from the participants are discussed from the represented scientific perspective.
- When all participants have visited the three workstations we have an evaluation of the workshop in common.

Results

The students evaluate the workshop as very useful in beginning to understand how a scientific approach is related to and influences research questions and methods. Therefore, we want to share this teaching method with other lecturers.

The result of the workshop is that other midwives/lecturers understand how we work with Professional Philosophy and inspire others to use this workshop as a teaching method.

Conclusions

We have found a way to facilitate the understanding of the importance of the connection between scientific approach, research question and choice of methods.

Funding

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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Shoulder dystocia workshop with high-fidelity simulation and fetal head force-monitoring

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Shoulder dystocia is an obstetric emergency at childbirth that can lead to significant neonatal morbidity and mortality. The aim of this workshop is to improve the knowledge and skills on shoulder dystocia management of the participating Midwives with use of high-fidelity simulation and with integrated force-monitoring systems. A high-fidelity simulator that consists of a pelvic model and a computerised neonatal mannequin with an embedded force-monitoring system will be utilised for the purposes of shoulder dystocia management in this workshop. In specific, the high-technology simulator to be used will be the 'PROMPT Flex Birthing Simulator – Advanced, product

No. 80106 (<https://limbsandthings.com/uk/products/80106>) as it offers the capacity for high-fidelity simulation and applied fetal head force feedback via computer software and advanced sensors. This is the simulator that is also proposed by the Royal College of Midwives and the Royal College of Obstetricians Gynaecologists in the United Kingdom and can be used both as a training and as an assessment tool. This will be a standardised 90-minute workshop with a group of 15 participants. During the 90 minutes of this workshop, there will be a 30 minute theoretical and hands-on demonstration of a shoulder dystocia scenario by the accredited instructors on the pelvic model and neonatal mannequin. For the next 60 minutes, the participants will have the chance to practice and train on the maneuvers on the high-fidelity simulator and to have immediate visual and numerical feedback of the forces they apply on the fetal head so as to acquire efficiency in head delivery and improve safety at childbirth. The primary objective of this workshop is for the participants to improve the performance of the obstetrical maneuvers needed to manage a shoulder dystocia, to make fetal head delivery safer as they master the ability to control the maximum force applied to the fetal head, to improve their communication skills and to build high levels of confidence. The high-fidelity simulator to be used in this workshop has been tested in Greek settings and has been utilised in the SAFE study, which is a research project that was funded by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the "2nd Call for H.F.R.I. Research Projects to support Post-Doctoral Researchers" (Project Number: 153; PI: D. Papoutsis). This workshop serves both training and assessment purposes and forms part of the SAFE study strategy for dissemination of its results and enhancement of its scientific and societal impact to relative stakeholders.

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SimBegin in midwifery education - An introduction to student driven simulation

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Introduction

Simulation has been recognized to be highly valuable in teaching and learning in nursing and midwifery education with positive outcomes for both students and patients. SimBegin is a faculty development program developed as a collaboration between SAFER simulation center and Laerdal Medical. Simulation needs planning, is challenging, and requires resources from educators. The faculty for the midwifery master program at the University in Stavanger requested SAFER's help to increase student driven learning activities and increase the use of simulation-based training in the midwifery curriculum after a presentation of the SimBegin training program.

To prepare students for their first clinical placement, we have implemented a module SimBegin, a beginner level of simulation.

Aim, methods and learning Objectives

The participants will be introduced to the method, viewing an

introduction video, participate in simulation training in relevant midwifery cases, followed by group reflection. The debrief will follow the tool CORE (Context, Observation, Reflection, Evaluation). Finally, a film of the students' evaluations will be presented.

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Four good habits for communication skills in midwifery - simulation and group reflection

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Introduction

The importance of quality communication skills in midwifery care are considered of great importance to ensure that women have a positive experience of maternity care. At Midwifery Education, we have implemented a module focusing on an empathic and respectful communication method called "four good habits" (4GH). 4GH consist of four steps in a structured empathic and respectful conversation, and is well-known in medical communication¹.

Aim, Method and learning outcome

The participants will be introduced to the method, midwifery relevant cases, observing role play, followed by simulation training in a small group. We follow the four steps in the communication model 4GH in relation to given cases followed by reflection sharing experiences.

This workshop might be inspirational for both professional development and relevant for midwife student education.

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Low fidelity training with high impact for women's care

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Introduction

More than half of all women who give birth vaginally suffer a perineal injury requiring care. The skills of midwives and obstetricians in diagnosis and suturing have a great influence on the physical and emotional well-being of the women for the rest of their lives.

Material and Methods

GynZone has developed blended learning scenarios for midwives and obstetricians. The online course platform contents convey all necessary procedures, step by step. Measures are explained in three levels of complexity, in awareness that the real field of operation is not as simple as a scientific graphic.

In addition, GynZone offers regular hands-on workshops because the opportunity to acquire clinical skills through traditional textbooks or e-learning is notoriously limited.

In order to make simulation training widely accessible for learners, we need training models as close as possible to the

anatomical structures but also to be accessible, durable and sustainable, and the per-simulation cost to be low.

Results

Our team of expert midwives and obstetricians has developed woman-friendly, cruelty free, medical models for 1st through 4th-degree perineal injuries.

Our blended learning strategies include access to GynZones e-learning with animated videos, simulation training instructions with medical models, and surgery videos with real patients before the hands-on training on medical models. The outcome of the surgical training sessions can be improved by 40% through further continuous training and reflection.

The learners will practice their skills by suturing through a design on low fidelity, take-home training models, which are lightweight, low cost, and represents the important anatomy for the task. The models can be adapted to the requirements of increasing learning levels, from stress-free home training, to science labs, peer group work, and complex postpartum situations.

Conclusion sustainable

Never first on a patient: We want learners to have an adequate level of skills and competence, before suturing a living person for the first time. After more than 15 years experience, we have learned that the reality of our teaching requires models must adapt to the competence of beginners and not be too sophisticated and expensive for that. In addition, they must be able to be used in different learning levels and settings.

Conflicts of interest

Sara Kindberg, Midwife, PhD. Founder and CEO of GynZone and Vulva Enterprise

Peggy Seehafer, Midwife, Anthropologist, no conflicts of interests.

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Midwives Moving On (MiMO) - An international network in midwifery; forming a strategic partnership in midwifery education & research

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The aim of this workshop is to inform midwives working in the education sector across Europe about our network that supports partnerships among different institutes in Europe and in Australia. This network allows midwifery students to visit for 2 weeks in autumn and 2 weeks in the spring semester different university and hospital settings among the alliance members. At the same time midwifery educators have the chance to work alongside with colleagues from different countries and to promote common educational standards and values to their students. Finally, collaboration for research protocols is supported among the participating institutes.

The COIL (Collaborative Online International Learning) project will also be presented. Midwifery Schools in Belgium, Estonia, Australia, and Greece have participated in this project offering

a 10-week online course to their students. This course creates a collaborative online learning environment to promote the development of intercultural competence across shared mutual learning environments. It is specifically designed to link midwifery students who have different cultural and geographical perspectives and experiences. During these weeks the students from two different countries work together as a group, with their lecturers' support, and gain a greater understanding of the role of the midwife internationally and how these impacts on respectful maternity care. At the end of this course, students need to prepare and present their assignment on an everyday clinical midwifery issue i.e breastfeeding or birth positions, in both their countries using the principles of respectful maternity care.

The educational objectives of this workshop consist of familiarizing with an educational network among European and Australian midwifery universities that promotes cultural responsiveness and team working for both educators and students. There will be discussions about enhancing these collaborations among midwifery schools to promote the implementation of the ICM Standards for Midwifery Education (2021) to more midwifery schools around the world.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

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From midwifery competencies on sexual wellbeing to teaching and training midwives on sexuality

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All around the world midwives are educated to assist women go through the reproductive phase of their lives in a way that enables them to be happy and healthy women, partners and mothers before, during and after pregnancy. While sexual wellbeing is increasingly recognised as an intricate part of general health and wellbeing midwifery schools around the world struggle with integrating sexuality into their curriculum. This chapter offers the building blocks for easily integrating sexuality and sexual wellbeing, both on a theoretical and a practical level, into existing midwifery curricula. It presents a tool for screening current curriculum on sexuality-related topics already addressed and describes content for theoretical and practical lessons, while also connecting content to existing international midwifery competence profiles. Finally it provides practical guidelines for both identifying suitable midwifery tutors to teach on sexuality, as well as providing concrete examples for building practicals concerning sexuality within midwifery contexts.

'From midwifery competencies on sexual wellbeing to

teaching and training midwives on sexuality' is a part of the larger publication 'Sexuality & Midwifery', an open access textbook published by Springer Nature, geared at midwives and related healthcare professionals providing an overview of the current scientific knowledge on sexuality and midwifery, presented in a practice oriented way.

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Workshop: Working Group for Technical Consultation on Building a European University Curriculum for Direct Entry Undergraduate Midwifery Program

Midwifery education in the Netherlands, meeting the requirements of a changing world

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In the Netherlands, three Universities of Applied Science offer midwifery education program in four places: Amsterdam, Groningen, Maastricht and Rotterdam. It is a 4-year direct entry program resulting in a Bachelor of Science degree. On graduation, students are fully qualified for midwifery practice and are registered as midwives in the national registration for health professionals (BIG-registration: <https://english.bigregister.nl/>). A total of 250 students (regulated in a national numerus fixus) are admitted annually after a selection procedure.

A Master of Science program in midwifery has started in 2023 as a joint degree offered together by the three Universities of Applied Science. It allows midwives to advance their competences in midwifery, leadership, innovation and research. Midwives also have access to a Physician Assistant Master program, specialising in hospital-based maternity care. PhD possibilities are available for midwives through two professors of midwifery at research universities (or professors in other university health departments).

The bachelor program meets the EU-directives. Additionally, it has to meet Dutch legal education requirements for midwives (<https://wetten.overheid.nl/BWBR0024254/2023-01-01>). These requirements prescribe theoretical topics that need to be taught in the midwifery program, and the content and duration of the practical training, including the number of actions (e.g. birth). The practical training needs to meet 100 ECTS spend in primary (60 ECTS) and secondary care (40 ECTS). Finding sufficient clinical placements, especially in secondary care, is a challenge.

The ICM professional framework is covered by the program, including the underlying requirements.

Formative and summative assessments are part of the

program. The final examination of the bachelor midwifery program is a summative portfolio assessment, where students show their competences as a midwife through successfully completing 1. their last clinical placement (in primary care), 2. the final competence test, 3. simulations of emergencies skills, 4. the bachelor thesis.

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Development of midwifery education in Iceland – experiences and challenges

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Midwifery education in Iceland has a long history (from 1761) of a direct-entry programme but from 1982 and onwards, a nursing licence became required before admission to midwifery programme. Midwifery education in the country was transferred to the University of Iceland in 1996 as a post-nursing two-year programme and from 2019 it became a full master's degree. From our point of view it is of importance to place the education within universities as university education is a pathway which holds a social recognition and prestige in societies, it allows access to government student loans and provides an access to postgraduate education and research. As such, university education can be a tool for midwifery knowledge development which is a driving force in helping midwives to have an impact on policy and practice in maternity care and compete on an equal standing with other similarly credentialed health professionals.

Despite the changes in midwifery education over time and a recent change in the curriculum towards a master's degree, there is still an ongoing debate about the structure of the midwifery education in Iceland and how it is corresponding to theoretical base and philosophy of midwifery care.

The aim of this presentation is to give an overview of the development of midwifery education in Iceland and share our experiences of implementing a new curriculum and future challenges in midwifery education in the country.

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Status of midwifery training in Luxembourg

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Midwifery training in Luxembourg is currently at higher education level, with direct entry after the baccalaureate. It is a 3-year training programme during which candidates have to acquire 180 ECTS (4134 hours). At the end of the training, candidates obtain a BTS diploma (brevet de technicien supérieur = advanced technical certificate).

As from September 2024, due to a major reform of many health professions in Luxembourg, midwifery training will move up to university level. To obtain a bachelor's degree, candidates will take part in a 4-year training programme, that requires 240 ECTS for its completion. This program is currently being developed.

For us, a 4th year of training programme is essential to be

able to organize a curriculum with the required hours in the ED and to achieve the needed midwife competencies in our country.

An ED that would specify the number of ECTS required on a European level to obtain a degree in midwifery would make things considerably easier for a European-wide consensus on the matter.

Since November 2019, midwives in Luxembourg have new and more professional responsibilities. These are more complex and adapted to the competencies of the midwife as described by the ICM. The biggest changes include more involvement in pre-natal care by the midwife and a list of medicines and tests that can be prescribed by the midwife.

The modification of these responsibilities has led to changes in the current curriculum, but will only be totally achievable in the new 4-year Bachelor's degree.

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Midwifery education landscape in Portugal

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Introduction

Multiple changes in Midwifery in Portugal are the results from the demographic, social, cultural and political contexts. Building an European Midwifery Curriculum emerges as a challenge of the contemporary globalized world. The EMA meeting in 2023 appears as an opportunity to jointly discuss this topic.

Objective

We intend to Share the Addressing needs and advancements in Midwifery Education in Portugal by sharing our experience with the new ESEL Master Plan in Midwifery at ESEL in Lisbon. Current state of Midwifery Education in Portugal Midwifery in Portugal are in the higher Education (Polytechnique system) requires a degree in nursing (4 years), at least two years of prior experience as a nurse and an Obstetrics and Maternal Health Nursing course (master's degree since 2010 - 2 years/3360 hours-theoretical and practice).

Alignment with Eu directives and ICM professional framework Similar level of competence and specialization is recognized by all European countries, as stated in the Community Directives issued by the European Council and Portugal is not an exception.

The actual Study Plan in Maternal Health and Obstetric Nursing (master's degree), was based on the Legal Regime of Higher Education Degrees and Diplomas in Portugal, in the Dublin Descriptors, common and specific Competencies of the Specialist Nurse (Order of Nurses Regulations, 2019) and according to ICM professional framework.

Insights and recommendations

The trajectory of midwifery education in Portugal has been a successful process. However, we must ensure the full range of activities available to the Obstetrics and Maternal Health Specialist Nurse.

In a global world it would be important to invest more in

diversity (cultural, sexual, gender), vulnerability and equity, and sexual health, which must include men.

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Midwifery education landscape in Slovakia

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The education of midwives in Slovakia has a long history, since the 17th century. University education began in 2000. In Slovakia, we have four faculties, that offer three years bachelor study program in the present form. The study program follows EU directives and ICM standards. After gaining the first level of a university degree in a bachelor study program, midwives can continue their education by completing the second level of university education (Master's degree – Mgr.), or even the third level of doctoral study (PhD. study). Universities offer special courses for horizontal development for midwives. During the COVID pandemic, digital education, virtual patients, e-learning, and simulation as a didactic method were strongly introduced into the educational process. These methods are very popular with students. Some universities have problems to build simulation centers for financing. Despite the efforts of the Ministry of Health Care, Ministry of Education, and universities, in Slovakia we have a lack of midwives in the practice. Each year approximately 30 students graduate from the first level of higher education. The population of midwives in Slovakia is aging. In 2000 the average age of midwives was 40.9 and this increased by 6.4 by 2019 – reaching an average of 47.4. We see a lot of problems for stabilization midwives in Slovak healthcare facilities.

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Empowering future midwives: Midwifery education in Slovenia

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The current midwifery education in Slovenia is designed as a three-year direct-entry Bachelor's degree programme based on midwifery activities as defined in the EU Directives, the Principles of European Higher Education (Bologna Declaration) and the Higher Education Act of the Republic of Slovenia. Accordingly, the programme includes both theoretical courses and practical clinical training and includes all content and other requirements related to the EU Directive on midwifery education and practise, with specific focus and adaptations for the Slovenian context.

In order to improve the quality of midwifery education, introduce necessary improvements and new topics such as continuity of midwifery care, and reduce the burden of the currently very intensive programme with a high number of hours in three years, a new four-year direct entry Bachelor's programme and a Master's programme in midwifery are being prepared. The new programme has been built on the ICM competency framework and the competencies and professional activities for Slovenian midwives, of course considering the EU

Directive and the Bologna Declaration. The programme will be enhanced compared to the current programme by ICT, PBL, flipped learning, global collaboration, individual learning, etc. At the same time, students will continue to gain practical clinical experience in a variety of settings, as it is important that students are prepared and empowered for real life situations and labour market.

In Slovenia, as elsewhere in Europe and the world, there is currently a shortage of midwives, but the lack of interest in studying midwifery is not a problem here. Our problem is that the newly graduated midwives do not want to work in midwifery after graduation. Instead, they go into professions outside the health sector. So, one of our biggest challenges is to find out the reasons for these decisions and find solutions to attract midwives back to the profession.

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Direct entry studies in Lithuania: Review of organisational aspects

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Midwifery studies in Lithuania are the oldest one in higher education institutions. Direct entry midwifery studies in Lithuania include the education and training of individuals who wish to become midwives without prior nursing qualifications. Organizational issues surrounding these direct entry programs are essential to ensure effective midwifery education and training. The main organizational issues related to direct entry midwifery studies in Lithuania are:

Regulatory framework: One of the key organizational issues is the need for a clear and comprehensive regulatory framework. This framework defines the qualifications, curriculum, and accreditation requirements for direct entry midwifery programs, as well as the licensing and certification process for graduates.

Curriculum Development: It is very important to have a well-structured curriculum. Organizers define the core subjects, practical training and clinical experience needed to develop competent midwives. Curriculum development must meet international best practices and standards.

Faculty and Staff: Recruitment and retention of qualified faculty and staff are vital to the success of direct entry midwifery programs. The faculty teachers and lecturers have experience in midwifery and can effectively teach the necessary skills and knowledge.

Clinical placements: Organizing clinical internship placements is a major challenge. Students need practical experience in hospitals, clinics and other healthcare settings. It is very important to coordinate these places and ensure that students have access to a variety of cases. Each semester students can choose their preferable hospital to have an internship.

Financial Support: Funding for direct entry study program is essential. This includes not only supporting students with scholarships or financial aid, but also ensuring that educational institutions have the necessary resources to

maintain high-quality facilities and equipment. Thus, every year in Lithuania is preparing new material base, simulation classes for students practical learning outside the hospital words.

Accreditation and quality assurance. Ensuring the quality of direct entry midwifery programs is essential. Accreditation processes are in place to allow for regular evaluation and monitoring of programs. These processes focus on learning outcomes and graduate competence. In Lithuanian midwifery study program are accepted and evaluated with the high-quality rate for seven years.

Relationships with health care providers and non-governmental organizations: It is very important to establish and maintain strong relationships with health care providers and non-governmental organizations. These include hospitals, clinics, and birth centers where students gain hands-on experience. Partnerships with health care facilities help ensure that students receive a well-rounded education. Regarding the Midwifery EU regulation there is seek for students to take care of forty birth during all study years.

Admission and Selection Criteria: In order to select candidates who have the aptitude and commitment to succeed in the field, it is established clear admission criteria for midwifery programs. All students who are trying to seek midwifery studies must have significantly higher than the national average score for admission to higher education institutions.

Student Support Services: Providing academic and emotional support services to students can help them succeed academically. Midwifery programs include mechanisms for mentorship, counseling and academic support.

Continuing education and professional development. It is very important to provide opportunities for graduates to continue their education and professional development. Midwifery is an evolving field and midwives keep up with the latest research and practice. After finishing studies midwives can seek for higher education in Master and later in PhD studies in Lithuanian and foreign countries.

It can be said that direct midwifery programs in Lithuania face several organizational challenges. Addressing these issues is critical to ensuring that students receive a high-quality education, that midwives are well prepared to serve their communities, and that the profession maintains high standards of care. Effective collaboration between educational institutions, regulators and healthcare providers is critical to addressing these challenges.

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