

KNOWLEDGE AND ATTITUDES BETWEEN NURSES, MIDWIVES AND STUDENTS**ABOUT VOLUNTARY TERMINATION OF PREGNANCY:****A SCOPING REVIEW OF THE LITERATURE**

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Review article

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Background: Voluntary termination of pregnancy (VTP) is influenced by ethical convictions, religious orientations and knowledge of the law. The latter is essential for students to be improved in University curricula, in order to develop attitudes among future nurses and midwives with the objective to reduce stigma and reluctance in providing VTP. Previous research has shown that nursing and midwifery students' attitudes and knowledge can be improved.

Aim: The aim of this study is to describe literature regarding knowledge and perception about abortion and voluntary termination of pregnancy in several countries of the world among nurses, midwives and university students.

Methods: This is a scoping review of the literature conducted by following the recommendations of the PRISMA-ScR Statement. The authors selected studies in MEDLINE, Scopus, CINAHL, PsycINFO, Academic Search Index, Science Citation Index and ERIC, published in English and Italian in the last decade. Quality assessment was performed using the Jadad scale.

Results: Initially, 434 studies were selected. A total of 11 articles met the inclusion criteria. The articles included in the scoping review deal with the issue of abortion from different perspectives. From the analysis it emerged that the barriers for VTP are the lack or inadequate knowledge of the legislation and of the practical / technical phases of the procedure.

Conclusions: Health professionals and students have different perspectives and attitudes toward VTP. Nurses and midwives have inadequate knowledge of procedures and legislation. Therefore, it is recommended to implement university curricula on the topic.

Keywords: knowledge, attitudes, voluntary termination of pregnancy, nurses, midwives, students.

INTRODUCTION

Abortion, originated as birth control, is the termination of pregnancy before 20 weeks of gestation or with the foetus weight less than 500 gr at birth [1,2]. It can happen when at least three events occur: spontaneous or habitual abortion (also called Voluntary Termination of Pregnancy - VTP), criminal or illegal abortion, and therapeutic or legal abortion [3]. In the last decades of the 20th century, many countries all over the world legalised this practice. The World Health Organization (WHO) states that 3 out of 10 (29%) of all pregnancies, and 6 out of 10 (61%) of all unintended pregnancies, ended in an induced abortion [4]. In many societies, a deep conflict about the legality and morality of abortions manifests itself in restrictive laws and strong antiabortion attitudes. Women, including adolescents, with unwanted pregnancies often resort to unsafe abortion when they cannot access a safe one. Barriers to accessing safe VTP include: restrictive laws, poor availability of services, high cost, stigma, conscientious objection of health-care providers and unnecessary requirements, such as mandatory waiting periods, mandatory counselling, provision of misleading information, third-party authorization, and medically unnecessary tests that delay care [5,6]. Kumar et al. [7], defined abortion stigma as “a negative attribute ascribed to women who seek to terminate a pregnancy that marks them, internally or externally, as inferior to the ideals of womanhood”. According to this definition, women who experience VTP challenge social norms regarding female sexuality and maternity, and their doing so elicits stigmatising responses from the community. Where opposition to abortion is widespread, abortion-related stigma is likely to negatively influence women’s abortion experience.

Increased knowledge and improved attitudes among health care providers and university students have the potential to reduce stigma and reluctance to provide abortion [6]. In a recent study conducted by O’Shaughnessy et al. [8], it was reported that “low levels of knowledge among staff suggests that training is required to ensure the provision of a safe and effective VTP service”. Midwifery and Nursing schools do not provide termination of pregnancy education or, if they do, it

is inadequate and so, most staff were left to navigate this procedure without support or prior practice.

Termination is only possible in the rarest of cases: when the pregnancy poses a serious risk to the woman's life or in the event of foetal malformations [7]. In Italy, as in many countries, it is set at 12 weeks' gestation according to the law No. 194 enacted on May 22nd, 1978. Before that date, VTP was considered illegal by the criminal code [9]. The law regulates VTP with the aim of guaranteeing the bio-psycho-social integrity and well-being of women. A woman can have an abortion within the first 90 days, or within the fourth and fifth months only for therapeutic reasons [9]. Conscientious objection status does not exempt the professional from assisting the woman before and after the procedure, but from carrying out only those procedures directed towards and aimed at the termination [10-13]. The nurse can raise a conscientious objection to assisting the VTP with a declaration that can be withdrawn at any time [9]. Termination is a woman's right, and the staff involved must act in accordance with the law and the woman's right to free choice. A better understanding of factors influencing perceptions may be useful in determining the curricula of university programs and in giving nurses and midwives the tools to cope with their own beliefs towards late abortions [14-16]. Thus, this review seeks to contribute to research on abortion stigma by exploring literature regarding attitude, knowledge and perception differences toward abortion among nursing, midwifery and students, assessing the scientific evidence available to date and thereby delineating directions for future research.

METHODS

Identification of Relevant Studies

A scoping review was chosen as the research methodology [17]. This supports what is referred to as a systematic approach to the synthesis of evidence, helping to identify gaps for future studies. In this case, the goal is to determine the strength of the evidence using a consistent best practice

approach. The search of the international literature was conducted in accordance with the PRISMA-ScR Statement (PRISMA extension for Scoping Reviews)[18] and was conducted within some main databases of biomedical interest: MEDLINE, Scopus, CINAHL, PsycINFO, Academic Search Index, Science Citation Index and ERIC. The review was carried out from October 2021 to February 2022. The keywords used were “*knowledge; attitude; perception; nurse; student; abortion; midwife and questionnaire*”. The latter were useful in formulating the research question according to the PCC (Population, Concept and Context) methodology (Table 1).

POPULATION	Nurses, Midwives, and Students
CONCEPT	Knowledge, Attitudes and Perceptions
CONTEXT	Voluntary Termination of Pregnancy

Table 1. Clinical research question identified through the PCC methodology

Study Selection and Eligibility Criteria

Research question: “*What are the differences in knowledge and attitudes between nursing and midwifery staff and the corresponding university students?*”. The search string was created using the Boolean operators (AND and OR), the terms MeshTerms and the truncation function, to ensure maximum search sensitivity and specificity:

(Knowledge OR Attitude OR Perception) AND (Abortion) AND (Nurse OR Midwife OR Student) AND (Questionnaire OR Assessment)

The study population were nurses, midwives and nursing and midwifery students. The primary studies concerning the assessment of attitudes, perceptions and knowledge about abortion between the two groups and the efficacy and validity of these arguments within the degree programs were considered eligible. The studies included experimental or quasi-experimental studies and

observational studies. Since grey literature (i.e., unpublished conference proceedings or theses or dissertations) was not considered, other potentially relevant studies were not included in this review. The selection criteria listed below were met to identify suitable studies for the purpose of this review.

Inclusion criteria

- Literature from the last 10 years.
- Italian or English language.
- Experimental and observational studies: RCT (Randomised Controlled Trial), quasi-experimental research designs, pretest-posttest, cross-sectional.
- Nurses, midwives and corresponding university students.

Exclusion criteria

- Other healthcare professionals, physicians, medical students or students of other healthcare professionals.
- Grey literature.
- Qualitative and mixed-methods studies.

Data Extraction

In the first phase, the results obtained from the research were imported into a software for the management of bibliographic references and duplicates were eliminated. In the second phase, each article uploaded to the database was carefully and independently examined. Initially, they were analysed by reading their title and abstract and, according to the previously established eligibility criteria, the irrelevant ones were excluded, while those relevant for full-text reading were selected. Thanks to the in-depth reading, it was possible to exclude the articles that did not answer the

research questions. Two reviewers worked independently. The following data was collected for each article: study title, first author, year of publication, study sample and study design, objective, assessment and a summary of the results. The approach used to group the articles was thematic: the main objective of the thematic analysis is to identify similar concepts in the collected dataset, exploring their relationships of meaning. These reports can be used to further develop and corroborate the interpretation of theories that seek to investigate the phenomena studied [19].

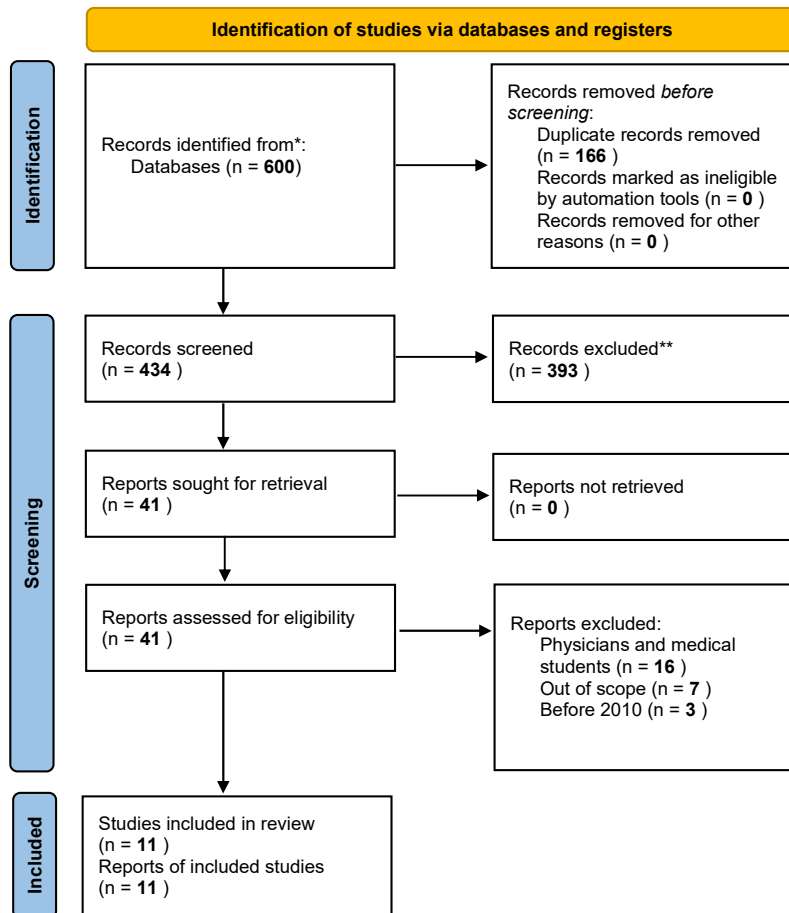
Quality Assessment

The quality of the studies was assessed using the Jadad Scale [20], focusing on methods for random allocation, double blinding, and withdrawals and dropouts. Total scores ranged from 0 to 5 points, where studies with 0-2 points were considered poor quality and those with 3-5 points represented high-quality evidence [20].

RESULTS

Initially, 434 articles were selected with duplicates removed (Figure 1). Of these, 11 met the inclusion criteria and underwent the review process. The main information of the relevant articles was organised in a data extraction table (Table 2). Studies were conducted in 11 different countries: Belgium, Ghana, Iran, Brazil, Israel, Spain, Ethiopia, Finland, Canada, Pakistan and South Korea. This demonstrates a notable absence of literature in Italy. The studies included a sample ranging from a minimum of 74 to a maximum of 647 participants. The most recent one dates to 2020, while the oldest one dates to 2010. From the analysis it emerged that the barriers for abortion treatment are the lack or inadequate knowledge of the legislation and of the practical/technical phases of the intervention [21-24]. The possession of skills is often not enough as in the study by Romina et al. [22] where it emerged that there was no significant relationship between the knowledge of the law and the care performance of health professionals while a statistically significant relationship was

observed between their opinion of abortion and their active collaboration[22].



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

Figure 1. - PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only.

Personal and religious beliefs have been considered to have a profound influence on opinion and behaviour, in some cases resulting in the inability to take care of the patient for fear of remorse [21; 25-27]. The presence of moral and/or religious values in health workers was significantly correlated with the occurrence of the request for conscientious objection (CO) [21-26].

TITLE, AUTHORS, YEAR	SAMPLE AND STUDY DESIGN	AIM	ASSESSMENT	RESULTS
Knowledge, attitude, and practices regarding miscarriage: a cross-sectional study among Flemish midwives. M. De Roose et al. (2017)	N = 647 midwives Cross-sectional study.	To examine the knowledge, attitude and practices (KAP) of midwives regarding miscarriage.	A semi-structured, self-administered questionnaire.	Several barriers regarding miscarriage care, e.g., lack of knowledge, incapability and fear of being overwhelmed by their own feelings, were found.
Midwifery tutors' capacity and willingness to teach contraception, post-abortion care, and legal pregnancy termination in Ghana. G. Voetagbe et al. (2010)	N = 74 midwives Exploratory study.	To assess the capacity and willingness of midwifery tutors to teach contraception, post abortion care and legal termination in Ghana.	Structured self-administered questionnaires.	Only 18.9% of the participants knew all the legal indications under which safe abortion could be provided. It was also revealed that personal and religious beliefs greatly influence teaching of abortion care.
Relationship of Knowledge and Attitude Towards Legal Abortion Laws with the Performance of Midwives in Qazvin, Iran S. Romina et al. (2019)	N = 122 midwives Descriptive-correlational study.	To assess the relationship of knowledge and attitude towards legal abortion laws with the performance of midwives in Qazvin, Iran.	Four questionnaires: demographic characteristics, knowledge, attitude, and performance questionnaires.	Half of the midwives had good knowledge about abortion laws; however, their attitude was mostly negative. In addition, their performance was reported as average. There was no significant relationship between the knowledge and midwives' performance, but a significant statistical relationship was observed between their attitude and performance.
Perspectives of healthcare workers on the morality of abortion: a multicentre study in seven Brazilian public hospitals. D. Barbosa Cacique et al. (2019)	N = 254 participants Quantitative, multicenter study	To evaluate the perspectives of physicians, nurses, social workers, psychologists and pharmacists on the morality of abortion.	The questionnaire "Mosaic of Opinions on Induced Abortion".	The inadequate knowledge on Brazilian abortion laws was the only determinant negatively associated with morality about abortion.
Nurses' and nursing students' attitudes towards late abortions. M. Ben Natan, et al. (2011)	N = 100 participants Descriptive study.	To compare the attitudes of nursing students and nurses working in maternity wards towards late abortions.	A self-report questionnaire constructed based on the literature review.	Differences in attitudes were found between nursing students and nurses. Their personal religious belief, as well as the reasons for practicing abortion were influential in determining their attitudes.

<p>Knowledge, attitude and practice (KAP) of health providers towards safe abortion provision in Addis Ababa health centers.</p> <p>E.M. Assefa (2019)</p>	<p>N = 405 nurses and midwives</p> <p>A cross-sectional study.</p>	<p>To assess health providers' knowledge attitude and their practice of safe abortion services.</p>	<p>A structured self-administered questionnaire.</p>	<p>The majority claimed to know the law; however, many failed to understand the details. Type of profession and seniority were important in providers' knowledge about abortion. Being male and having high knowledge significantly influenced providers' attitude.</p>
<p>An ethical issue: nurses' conscientious objection regarding induced abortion in South Korea.</p> <p>C. Mee Ko et al. (2020)</p>	<p>N = 167 Nurses</p> <p>Cross-sectional study.</p>	<p>To explore perioperative nurses' attitudes towards conscientious objection regarding abortion.</p>	<p>A self-reported survey method.</p>	<p>Religion, conscientious objection and nurses' right to conscientious objection were significantly associated with supportive attitudes toward abortion.</p>
<p>Opinions on conscientious objection to induces abortion among Finnish medical and nursing students and professionals.</p> <p>P. Nieminen et al. (2015)</p>	<p>N = 177 Nursing students N = 131 Nurses</p> <p>Descriptive study.</p>	<p>To study how Finnish nursing students and professionals assess conscientious objection.</p>	<p>A structured survey.</p>	<p>While the respondents mostly seemed to consider the continuation of adequate services important if conscientious objection is introduced, the viewpoint was often focused on the staff and surgical abortion procedure instead of the patients.</p>
<p>Health professionals' practices and attitudes about miscarriage.</p> <p>J. Engel et al. (2016)</p>	<p>N = 72 Nurses N = 38 Midwives</p> <p>Descriptive study.</p>	<p>To explore relationships between attitudes, beliefs and practices of healthcare professionals caring for women and families experiencing miscarriage and to identify gaps and barriers in follow-up services and supports.</p>	<p>The survey questionnaire was developed ad hoc for this study.</p>	<p>Attitudes, beliefs and behaviours of healthcare professionals influence access to care. They felt less knowledgeable and prepared about abortion and how to provide support. There is a need to develop knowledge and confidence to enable professionals to effectively care for women experiencing abortion.</p>
<p>Knowledge, attitude, and practices of mid-level providers regarding post abortion care in Sindh, Pakistan.</p> <p>M. Baig et al. (2017)</p>	<p>N = 116 nurses and midwives</p> <p>Cross-sectional study.</p>	<p>To determine the knowledge, attitudes and practices of mid-level providers regarding post abortion care.</p>	<p>The questionnaire was prepared by the research team in English, and it was reviewed for content validity by five experts.</p>	<p>There is a need for providing comprehensive training and mentorship to the groups of midwives about post abortion care and building strong networks to enable improved referral processes.</p>

<p>Healthcare professionals' attitudes towards termination of pregnancy at viable stage.</p> <p>E. Roets et al. (2020)</p>	<p>N = 92 nurses and midwives</p> <p>Descriptive study.</p>	<p>To study attitudes towards late termination of pregnancy of all tertiary nurses and midwives involved in late termination of pregnancy practice.</p>	<p>They adapted the questionnaire used in a similar previous study on neonatologists' and neonatal nurses' attitudes towards end-of-life decisions in the neonatal period.</p>	<p>nurses and midwives practicing late termination of pregnancy have a high degree of tolerance towards it, despite sociodemographic factors.</p>
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Table 2. Data Extraction Table.

In South Korea, where about half of the population declared themselves irreligious, Chung Mee Ko et al. [26] assessed the opinions of 167 nurses regarding CO; the majority replied that patients' rights to health care should take priority over nurses' right to refuse health care, concluding that the nursing profession should seriously consider whether it is necessary to insist on nurses' right to CO and should be actively involved in the determination process of new abortion laws and related policies [26]. Nieminen et al. [6] studied CO among Finnish nursing students and practitioners. Most of them seemed to consider the continuation of adequate services to patients in the event of the introduction of CO as crucial, while emphasising the surgical act over patient support. Despite their views and beliefs, health workers sometimes faced a conflict with their commitment to care; in the work of Ben Natan et al. [15], they stated that bioethical dilemmas, as well as the reasons for abortion, influenced their ability to actively collaborate during the termination of pregnancy [15]. Nurses attitude and ability to actively participate in late abortions were found to be strongly conditioned by the level of religious observance [21-22]. The study by Roets et al. [28] found that in several neonatal intensive care units in Belgium, healthcare workers practicing late abortion had a high degree of tolerance towards late termination of pregnancy, regardless of the patient's socio-demographic factors, so much so that they asked the institutions to provide for a change in legislation [28].

Ben Natan et al. [15], however, found that nursing students had more prejudices towards late abortions than experienced nurses, evidence in line with the study conducted by Assefa et al. [24] where it turned out that a predictor of a positive attitude towards VTP was seniority [24]. The role of health workers is very important, especially on a psychological level, even more so when they must help women to deal with a negative event such as a miscarriage. To this end, Engel et al. [27] suggested that health workers should receive specific training to be able to support women and their families [27]. Previous research has shown that university education programs do not provide the tools necessary to achieve the objectivity required in preparation for abortion and that this may have contributed to anti-abortion attitudes and misconceptions about legal regulations that are common among students¹⁰. Same results emerged from the work of Baig et al. [29] who studied the knowledge, attitudes and practices of midwives in post-abortion care services [29]. The work highlighted the need to provide comprehensive training and mentoring to midwives and students, building strong networks to enable the development of broader initiatives to reduce the stigma of abortion.

DISCUSSION

Although the total number of studies investigating abortion stigma among undergraduate students and nurses and midwives such as nurses and midwives is low, results indicate that knowledge, personal and religious beliefs significantly affect attitudes about VTP. This is in line with the findings by Madziyire et al. [10] where incomplete comprehension of abortion laws highlights the urgent need for providers education as a key step in reducing stigma and mortality associated with unsafe abortion [10]. Additionally, the lack of expertise evidenced by most of the studies, suggest that even nurses and midwives who have good intentions may unwittingly disseminate misinformation. One study underlined the fact that type of profession and seniority were important in providers' knowledge about abortion. Also, being male and having high knowledge significantly

influenced providers' attitude. The same findings were highlighted by Hammarstedt et al. [30] who stated that gynaecologists and midwives were less restrictive towards legal abortion the more experience they had, being especially influenced by recently obtained experience within the last year [30]. Claims of conscientious objection must be ethically justified, and not become a strategy to hide prejudices or fear of lawsuits and moral accusations. Such an instrument cannot be an obstacle for women to have access to abortion [31]. Humanized care in the abortion process is part of the reproductive and sexual rights of women, and ensuring it is a duty of all health professionals. Abortion laws and practice differ between cultures, religions and countries. The Finnish healthcare system is relatively liberal regarding the right for induced abortion until the 12th gestational week. Despite lively discussion, there is no legislation in this country on the possibility of CO [32]. Post-abortion care is important especially in countries like Pakistan, where half of pregnancies are unintended. Demand for abortions is high in Jamaica, but many doctors refer clients to another provider. Patient assessment is good, but support services need improvement [33]. This has been reported in other surveys in other countries. In Ghana, for example, only 45% of surveyed physicians said that they would perform abortions, whereas another 36% said that they would provide counselling prior to abortion but not the procedure itself [33]. Women deserve a well-prepared, informed personnel and similarly, students deserve a thoughtfully inclusive curriculum that accurately addresses ethical topics, as most programs do not require sexual health courses as a part of their curriculum [34-35].

CONCLUSION

The role of the health professional assisting the woman who decides to undergo a voluntary termination of pregnancy is very important, especially in the phases before and after the intervention. Assistance must always be provided with respect for the woman's dignity, confidentiality and freedom of choice. Nurses need to provide a source of support for the woman by

establishing a relationship based on trust. Health professionals and students have different perspectives and attitudes toward VTP. Nurses and midwives have inadequate knowledge of procedures and legislation. It is important that the health professional realises the crucial importance of their role in the woman's grieving process to ensure good care.

Limitations of the study

Our study has some limitations that should be mentioned. In our analysis, only research articles published in English and Italian were included, which may have produced a language bias regarding the conclusion, as some scientific papers were published in other languages. Additionally, only studies published in peer-reviewed journals were included; this criterion was meant to ensure reporting quality but may mean that relevant grey literature was missed.

Practical implication

Nurses need to have adequate training in the bereavement context: they should know what interventions to implement and what to avoid. The aim of the scoping review was to analyze the international panorama regarding abortion as a point of departure on which to develop an Italian study to compare legislation knowledge, attitudes and perspective differences among students and nurses and midwives. Therefore, it is recommended to implement university curricula on the topic.

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Conflict of interests

The authors declared no conflict of interest.

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