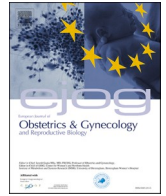




Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.journals.elsevier.com/european-journal-of-obstetrics-and-gynecology-and-reproductive-biology

Variations in sexual and reproductive health services for the provision of comprehensive contraceptive and abortion services across Europe: A questionnaire-based study commissioned by the European Board and College of Obstetrics & Gynaecology (EBCOG) and European Society of Contraception (ESC)

Hajra Khattak^{a,*}, Sofia Tsiapakidou^{b,1,*}, Sambit Mukhopadhyay^c, Tahir Mahmood^d, Sharon Cameron^{e,f}, Ali Kubba^g, Gabriele Merki-Feld^h, Charles Savona-Ventura^{i,j}, Jure Klanjscek^k, Johannes Bitzer^l

^a Elizabeth Garrett Anderson Institute for Women's Health, University College London, UK

^b 1st Department of Obstetrics and Gynaecology, Aristotle University of Thessaloniki, Greece

^c Department of Obstetrics and Gynaecology, Norfolk and Norwich University Hospital, Norwich, UK

^d Spire Murrayfield Hospital, Edinburgh, and Chair EBCOG Standing Committee on Standards of Care and Position Statements, UK

^e Sexual and Reproductive Health, NHS Lothian, Edinburgh, UK

^f Department of Obstetrics and Gynaecology, University of Edinburgh, Edinburgh, UK

^g Department of Obstetrics and Gynaecology, Guy's and St Thomas' NHS Foundation Trust, London, UK

^h Department of Reproductive Endocrinology, University Hospital Zurich, Zurich, Switzerland

ⁱ Department of Obstetrics and Gynaecology, University of Malta Medical School, Mater Dei Hospital, Msida, Malta

^j Member of EBCOG Standing Committee on Standards of Care and Position Statements, Belgium

^k Department of Gynaecology and Obstetrics, General Hospital Nova Gorica, Slovenia

^l University Hospital Basel, Basel, Switzerland

ARTICLE INFO

Keywords:

Questionnaire based study
Contraception
Access
Quality
Abortion care
Pre-pregnancy care
Sexual and reproductive healthcare
European Board and College of Obstetrics and Gynaecology (EBCOG)
European Society of Contraception (ESC)

ABSTRACT

A questionnaire-based study was jointly organised by European Board and College of Obstetrics and Gynaecology and European Society of Contraception to evaluate the current status as regards access and quality of care regarding contraception, abortion care, and pre-conceptional counselling and care among the 26 European countries. There are considerable variations among these countries as regards the provision of contraceptive services and abortion care. There is ample room for improvement through European training and education programs.

However, the most important difference is the absence of a comprehensive network of healthcare providers in various countries to deliver these services at different points of access. There is notable absence of educational programs and instructional materials tailored specifically for nurses and midwives in several countries. This deficiency impedes the professional development and skills enhancement of these healthcare professionals, potentially compromising the quality of healthcare services provided to women in these countries.

Introduction

The World Health Organization (WHO) has recognised Sexual and Reproductive Health (SRH) as a human right and a crucial element of universal health coverage [1]. Access to comprehensive SRH services

has been shown to prevent unintended pregnancies, reduce incidence of sexually transmitted disease, allow family spacing, reduce maternal morbidity and mortality and improve overall reproductive health outcomes [2]. SRH encompasses a broad range of services, including family planning, contraception, maternal and child health, prevention of

* Corresponding authors.

E-mail addresses: h.khattak@doctors.org.uk (H. Khattak), sofiatsiapakidou@gmail.com (S. Tsiapakidou).

¹ Note: Sofia Tsiapakidou is added as a co-first author with equal contribution.

<https://doi.org/10.1016/j.ejogrb.2024.05.026>

Available online 22 May 2024

0301-2115/© 2024 Published by Elsevier B.V.

sexually transmitted diseases (STI) and treatment, access to safe and legal abortion and sexual health care [3]. Despite the importance of SRH, access to quality assured SRH services remains a significant challenge for many individuals and communities across Europe [4]. Several factors influence the availability and quality of SRH services, such as socio-economic status, legal and policy frameworks, geographic location, cultural attitudes towards sexuality and reproductive health, and the availability of adequately trained and competent health care professionals. All these factors can and do vary considerably across different regions and countries. For example, access to safe and legal abortion remains limited or restricted in some countries, and there are significant disparities in access to contraception, particularly for young people. Furthermore, while the availability of SRH services is crucial, the quality of care provided is equally important. High-quality SRH services must be evidence-based, patient-centred, and respectful of human rights.

The European Parliamentary Forum for Sexual and Reproductive Rights (EPF) including Education, Empowerment and Equality has developed the European Atlas of Contraception (EAC) and the Combined SRH Ranking Atlas (SRHRA) which both provide an overview about the SRH Policies across Europe including reimbursement, counselling and prescription requirements for contraceptives, availability and quality of on-line information, abortion and HPV prevention [5,6]. The focus is on the legal framework for SRH care and public health policies. Given the importance of SRH for overall health and wellbeing, there is a need for continued efforts to improve access, availability, and quality of SRH services across Europe. European Board and College of Obstetrics and Gynaecology (EBCOG) and European Society of Contraception and Reproductive Health (ESCRH) are both committed to improving standards of care for women and their families in SRH.

Both professional organisations have been working together for the past 5 years to develop strategies to respond to these challenges by providing education and training for different health care professionals involved in providing these services. Both organisations have identified that in a number of European countries, there are no organised training and assessment programmes for different health care professionals [4,5,7,8].

The purpose of this questionnaire-based study, developed jointly by both professional organisations, was to identify gaps in the current services provision in SRH and the constraints especially within the workforce. Findings of this questionnaire would help both organisations to launch unified teaching and training programmes to cater the needs of different healthcare professionals such as Nurses, Midwives, Family Doctors (Primary Care Specialists) and Obstetricians and Gynaecologists.

Aims and objectives

- This study aims to explore the status of access, availability, and quality of SRH care across Europe as described by national experts engaged in EBCOG and ESCRH. By providing a comprehensive overview of the current state of SRH care in Europe, this paper aims to inform policymakers and healthcare providers about the critical areas that require attention to ensure that everyone has access to the care they need to maintain their sexual and reproductive health and rights.
- The study also aims to identify gaps reported by the national experts with a focus on identifying those factors which are accessible to a European program of continuous education and collaboration in SRH care.

Methods

EBCOG in collaboration with ESCRH decided to undertake this survey based descriptive study to assess the access, availability, and quality of Sexual and Reproductive Health Care (SRHC) in the member countries represented in both organisations.

A questionnaire was developed via Delphi procedure to gather information on SRH services in five key areas:

- Contraceptive counselling and care
- Termination of pregnancy care
- Pre-conceptual care
- Sexually transmitted disease prevention and treatment
- Sexual health care, sexual dysfunctions in males and females and sexual violence

A detailed questionnaire was sent to the country representatives in both professional organisations (EBCOG and ESCRH) in November 2021 separately. Where there was more than one response received from one country, and if there was a disparity in the data submitted, then the response with the lower value was chosen over the higher one. This was done to ensure consistency in the data analysis process. Data collected through the survey were analysed using descriptive statistics, including frequency distributions and percentages. No ethics committee approval was required for this anonymous survey of HCPS.

Results

All representatives from member countries on the councils of both organisations were sent the questionnaire electronically. Thirty-four responses from 26 countries were recorded, with some countries providing more than one response. Specifically, 16 questionnaires were filled out by EBCOG representatives, 16 by ESCRH representatives, and 2 by both societies' representatives. The representatives were from: Austria, Belarus, Belgium, Croatia, Czech Republic, France, Georgia, Greece, Hungary, Ireland, Latvia, Malta, Portugal, Romania, Serbia, Slovakia, Sweden Switzerland, The Netherlands, Turkey, and the United Kingdom.

This paper only outlines the responses regarding the first three components of the questionnaire which provides a comprehensive information as regards the provision of contraceptive services including access to termination of pregnancy.

Contraceptive service provision

This section was further subdivided into questions about a) **access** to contraceptive counselling and care, b) the **quality** of contraceptive counselling and care, c) the health care **professionals** involved in contraceptive counselling and care, d) **guidelines** and available **training programs**, e) access to **emergency contraception**, and f) on **availability of contraceptive methods**.

Of the 26 countries, nine reported that they had no established national guidelines for contraceptive counselling and care. The clinicians used international guidelines, which varied across the countries, with WHO and UKFSRH, the most commonly used [9,10].

Variations in access and quality of contraceptive counselling and care

The **accessibility to contraceptive services** was rated by the representatives on a Likert scale: from no access (1) to very easy access (5). There are considerable inequalities between European countries. (see Fig. 1). Representatives of 4 countries described the access as difficult for women, 5 countries found that access was basic and 17 rated the access in their country as easy or very easy.

The **quality of contraceptive counselling and care** was rated by the representatives on a Likert scale varying from very low quality (1) to very high quality (5). Fig. 2 shows six countries reported as very low or low quality, and five countries reported as very high quality. Most countries stated as neutral the level of the quality of contraceptive care in their country.

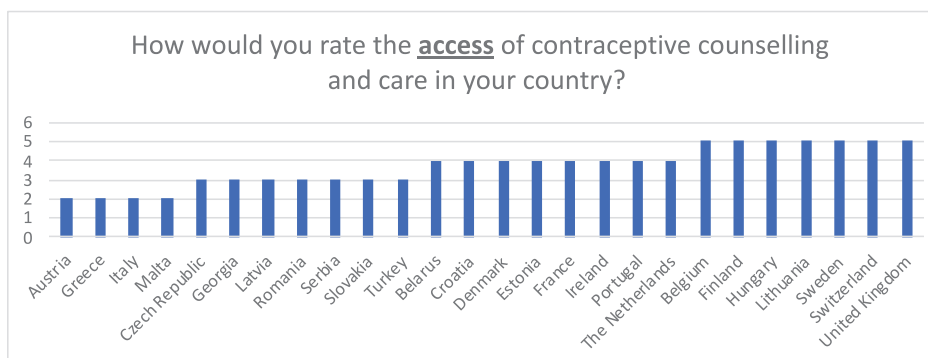


Fig. 1. Access rate of contraceptive services.

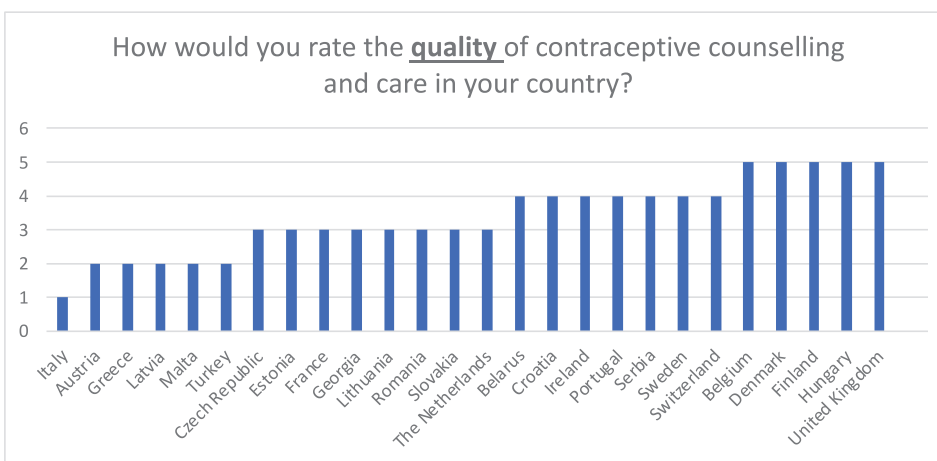


Fig. 2. Quality rate of contraceptive counselling.

Health care professionals involved in contraceptive counselling and care

Regarding the number of different types of healthcare professionals (5 options were given) who were providing the contraceptive counselling and care, differed among the countries included (see Figs. 3 and 4). In eight out of 26 countries, the counselling and care is provided exclusively by obstetricians and gynaecologists. Counselling in two countries (Finland and United Kingdom) is provided by a variety of healthcare professionals such as nurses, midwives, public health nurses or counsellors, and by the SRH experts for women with complex issues (UK). In Switzerland, the counselling is also provided by family doctors, but care only provided by the gynaecologists.

The provision of contraceptive care is mostly by gynaecologists (16 out of 26, 61.5 %), followed by family doctors (or 4 out of 26, 15.4 %), and primary health care centres (3 out of 26, 11.5 %). Family planning clinics/centres offer the service in only 7.7 % (2 out of 26) of the

countries (Supplementary Figs. 1 and 2).

Education & training programs for professionals and use of international guidelines

In 16 out of 26 countries, a structured educational program and material for nurses, midwives, and counsellors were not available. Furthermore, there were no formal training programmes for medical doctors in 11 countries. Five countries reported a structured educational and training program for medical doctors only (Table 1). There was formal educational training program for midwives and nurses in 10 countries (38.5 %), while in 16 countries (61.5 %), such a program was not available. As for medical professionals, 15 countries (57.7 %) answered “Yes” with regards to having a formal education and training programme, while 11 countries (42.3 %) responded “No” to the question. (See Table 1 below).

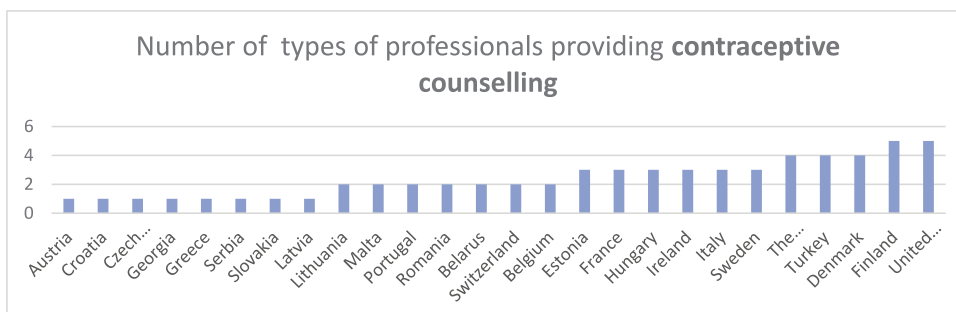


Fig. 3. Number of different types of healthcare professionals providing contraceptive counselling.

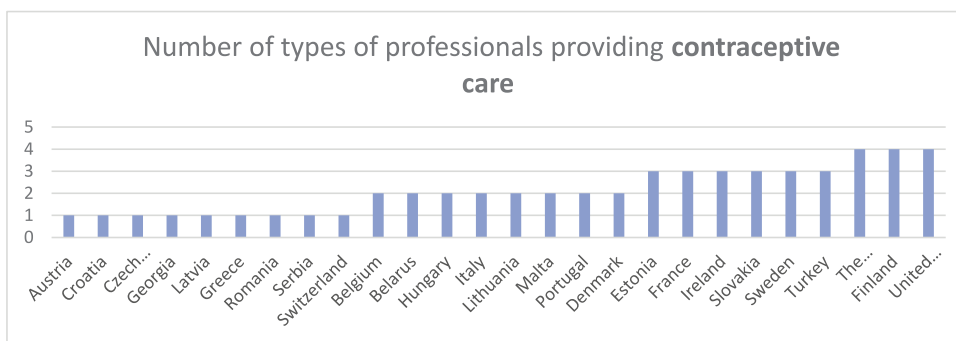


Fig. 4. Number of different types of healthcare professionals providing contraceptive care.

Table 1

Countries with and without a dedicated education and training program in contraceptive counselling and care.

A defined education and training program in contraceptive counselling and care		
	Countries with dedicated training	Countries without dedicated training
Nurses, Midwives or Counsellors	Croatia, Estonia, Finland, France, Hungary, Ireland, Italy, Sweden, Turkey, United Kingdom	Austria, Belarus, Belgium, Czech Republic, Denmark, Georgia, Greece, Latvia, Lithuania, Malta, Portugal, Romania, Serbia, Slovakia, Switzerland, The Netherlands
Medical doctors	Belarus, Croatia, Estonia, Finland, France, Georgia, Hungary, Ireland, Italy, Lithuania, Portugal, Sweden, Turkey, United Kingdom, Romania	Austria, Belarus, Belgium, Czech Republic, Denmark, Greece, Latvia, Malta, Serbia, Slovakia, Switzerland, The Netherlands

Access to various forms of emergency contraception

All surveyed countries had access to emergency contraception. Our inquiry included the types of emergency contraception available, such as Levonorgestrel (LNG), Ulipristal, and Intrauterine Copper Device (IUD), as well as the availability and means of access for these methods (See Fig. 5). Out of the 26 respondents, 57.7 % reported that LNG emergency contraception was available over the counter in pharmacies, while 15.4 % stated that it was available in pharmacies but only with a prescription. 11.5 % of respondents reported that LNG emergency contraception was available only with a prescription, and the remaining 15.4 % confirmed the availability of LNG emergency contraception without specifying the means of access.

Out of the 26 respondents, 50 % reported that Ulipristal emergency contraception was available in over the counter pharmacies, while 15.4 % stated that it was available in pharmacies but only with a prescription. Furthermore, 7.7 % of respondents reported that Ulipristal emergency contraception was available over the shelf (supermarket), 7.7 % confirmed the availability of Ulipristal emergency contraception only with a prescription, and the remaining 11.5 % reported that they were not sure about its availability or did not specify.

Online contraception services

The availability of online emergency and contraceptive counselling services was offered in only 23 % of the countries, while the majority, accounting for 77 %, did not provide online support for emergency and contraception. Table 2 below show countries that offer online contraception services including emergency contraception

Termination of pregnancy (TOP) service provision

This section was further subdivided into questions about a) access to termination of an unplanned pregnancy, b) the quality of TOP counselling and care, c) the health care professionals involved in TOP counselling and care, d) guidelines and available training programs, e) availability of TOP methods, and f) protocols of care followed when a TOP is performed.

Accessibility to termination in 1st trimester was available in almost all countries except Malta. Abortion was offered based on woman’s decision only in Belgium, Denmark, France, and Finland. The limited access to abortion in an unplanned pregnancy was related to local legislation or healthcare guidelines in most countries, except Austria, Belarus, Czech Republic, Georgia, Sweden, Switzerland, and the Netherlands. Abortion care in the second trimester was available in 11 out of 26 countries (Austria, Italy, Sweden, Denmark, The Netherlands, Slovakia Romania, Portugal, Finland, United Kingdom, and Switzerland).

The accessibility of TOP counselling and care was rated by the representatives on a Likert scale reaching from no access (1) to very easy access (5). We found that in majority of Europe the access is easy, except from Malta, Italy, Turkey and Slovakia (see Fig. 6).

With regards to the quality of TOP counselling and care, Fig. 7 shows that the majority of the countries reported ‘high to very high quality’, except from Malta, Italy and Turkey.

Health care professionals involved in termination of pregnancy for counselling and care

The provision of TOP counselling is provided mostly by gynaecologists (25 out of 26, 97 % excluding Hungary), followed by Family doctors (9 out of 26, 35 %), and midwives (8 out of 26, 31 %). Public Health nurses/counsellors or Social workers offer the service in only 12 % (3 out of 26) of the countries (Fig. 8).

The provision of TOP management was available in all surveyed countries but Malta, where women were to travel abroad for access to these services. Gynaecologists were the main healthcare professionals with the ability to offer TOP management (25 out of 26, 97 %), followed by family doctors (8 out of 26, 35 %) and midwives (7 out of 26, 31 %) as depicted in Fig. 9.

Methods of termination of pregnancy

It was found that both surgical and medical methods are available for termination of pregnancy (TOP) in these countries. Medical care with mifepristone/misoprostol was available in most of surveyed countries, specifically 62 % (16/25) countries offer it as an option. Surgical management was available in 50 % of the countries that responded. Other forms of termination of pregnancy were rarely offered (Fig. 10).

Screening prior to any TOP management was performed in more

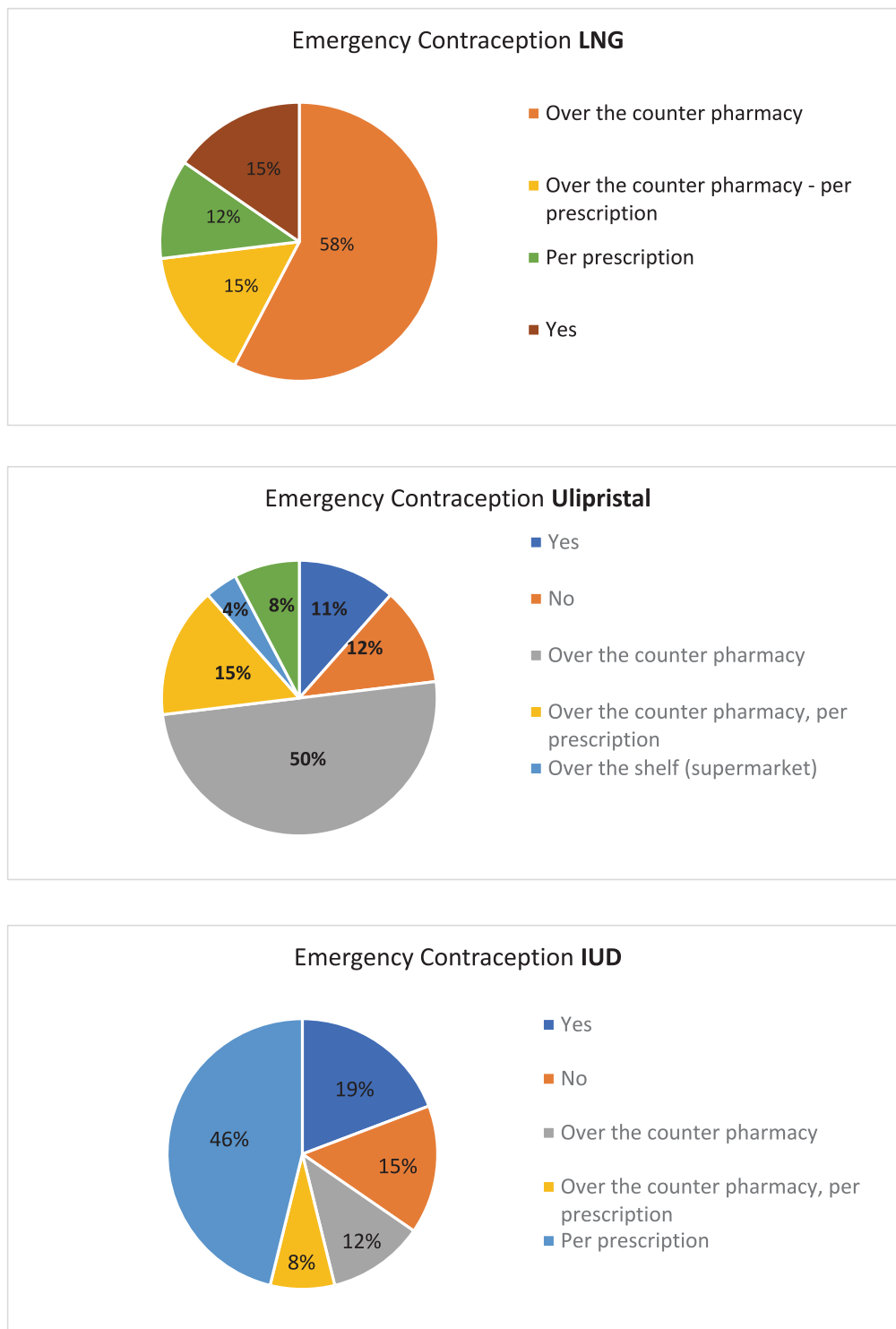


Fig. 5. Provision of different types of emergency contraception *LVG: levonorgestrel, IUD: intrauterine device.

than half of the represented countries. Prophylactic antibiotics were given in 44 % (11/25) of the countries before or during the surgical TOP treatment. However, in medical TOP, prophylactic antibiotics were not included in the regular protocol of care in 80 % (20/25) of the countries (Fig. 11).

Pre-conceptional care and counselling service provision

This part of the survey was subdivided into questions about: a)

access to pre-conceptional counselling and care, b) the presence of guidelines on pre-conceptional counselling and care, and c) the health care professionals involved in pre-conceptional counselling and care.

As regards the availability of pre-conceptional counselling for women and couples, we found that 23 out of 26 countries (88.46 %) had access to such counselling, while the remaining 3 out of 26 (11.54 %) did not have access to it.

Furthermore, the results of our enquiry regarding the presence of national or international guidelines on pre-conceptional care and

Table 2
List of countries that offer online counselling for contraception services.

Countries that offer online counselling for contraception	
Yes	No
Italy, Estonia, Denmark, Finland, Lithuania, United Kingdom	Austria, Belarus, Belgium, Croatia, Czech Republic, France, Georgia, Greece, Hungary, Ireland, Latvia, Malta, Portugal, Romania, Serbia, Slovakia, Sweden, Switzerland, The Netherlands, Turkey

counselling revealed that out of the total respondents, 15 (58 %) were not aware of presence of any guidelines. On the other hand, 8 (31 %) respondents confirmed the presence of such guidelines. Furthermore, 3 (12 %) respondents answered, “do not know,” indicating a lack of awareness or knowledge on the subject.

Health care professionals involved in pre-conceptual counselling and care

Of all the healthcare providers included, gynaecologists provided pre-conceptual care in 19 countries (73 %). Family doctors accounted for 8 % of the total healthcare providers who offered pre-conceptual care, while primary health care centres provided such care in 15 % of the cases. Only 3.85 % (1 country) provided such services in family planning clinic/centres (Fig. 12).

Discussion

Findings and interpretation

Access and quality of care regarding contraception, abortion care, and pre-conceptual counselling and care varied among the 26 countries reaching from very low to very high. One notable gap identified in most included countries is the absence of comprehensive educational programs and instructional materials tailored specifically for nurses and midwives. This deficiency impedes the professional development and skills enhancement of these healthcare professionals, potentially compromising the quality of healthcare services provided in these regions.

Regarding contraception, there is ample room for improvement through European training and education programs. These programs should acknowledge that these services are provided by various professionals, necessitating variations and adaptations based on professional background and function within the services.

Regarding **abortion care**, the national regulations and health policies significantly influence the framework and conditions under which abortion care is provided, including access and available methods for termination of pregnancy (TOP). However, it remains crucial to equip professionals with the necessary knowledge and skills to deliver high-quality care within these regulatory frameworks.

Pre-conceptual counselling and care represent crucial preventive activities that are not well-established and provided in several

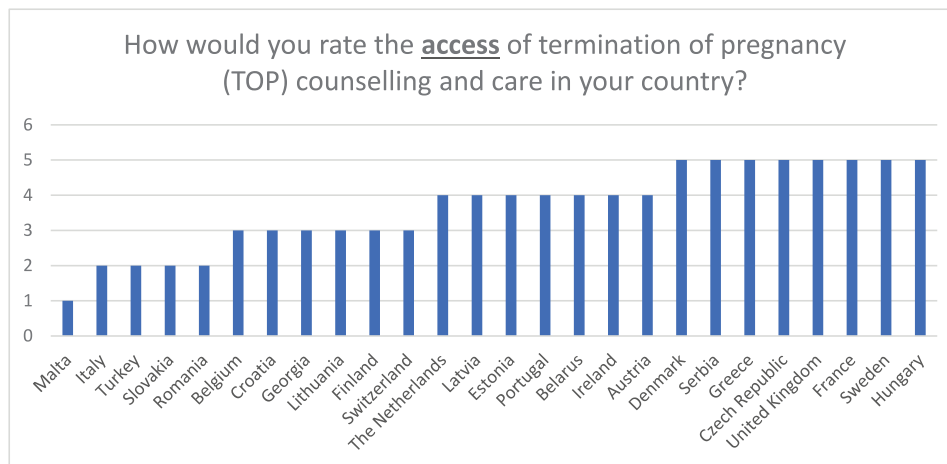


Fig. 6. Access rate of termination of pregnancy services.

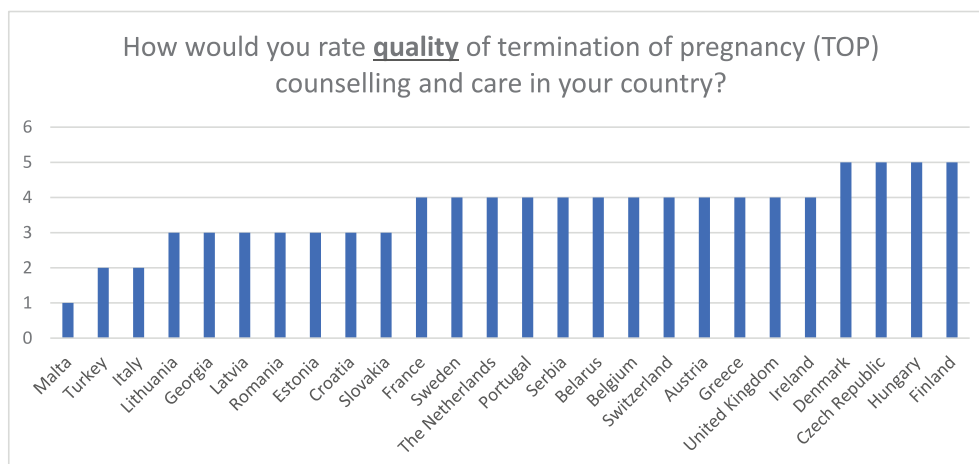


Fig. 7. Quality rate of termination of pregnancy services.

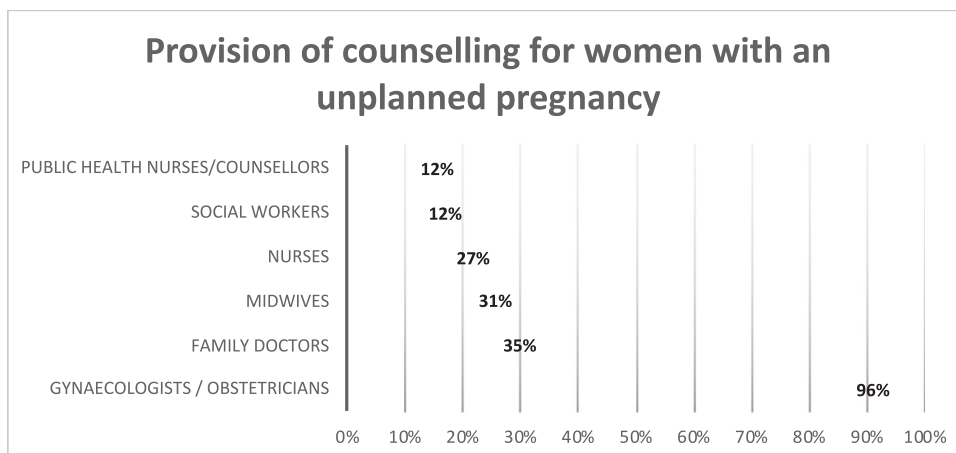


Fig. 8. Provision of termination of pregnancy counselling in Europe.

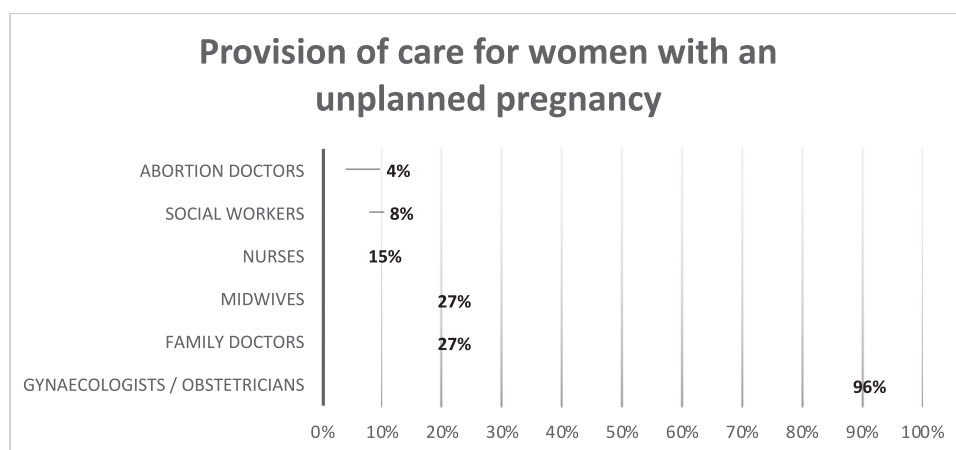


Fig. 9. Provision of termination of pregnancy care/management in Europe.

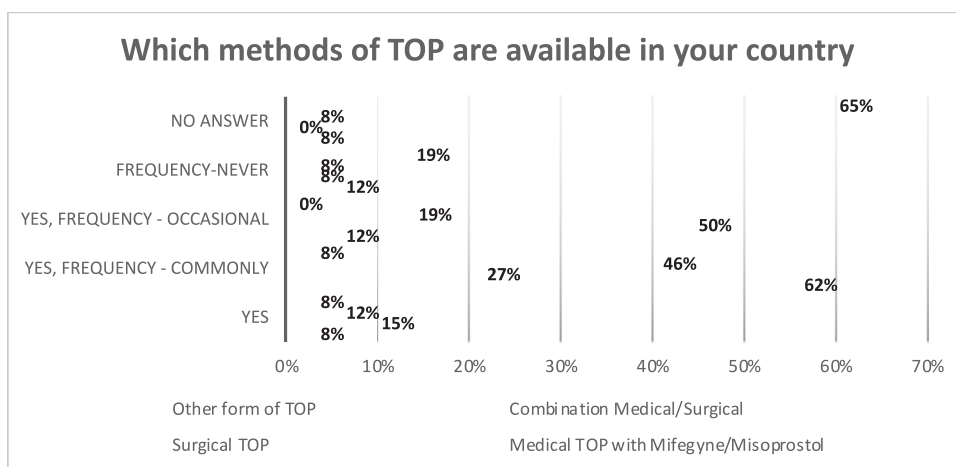


Fig. 10. Methods used for termination of pregnancy.

countries. Implementing these services into existing family planning consultations is essential. Educational materials and professional training could serve as foundational elements for catalysing this change.

Strength and limitations

To the best of our knowledge, this survey represents a sincere effort

aimed at offering a comprehensive overview of the disparities in SRH Care. Through this survey, we have shed light on the existing gaps and domains that require addressing, areas where collaborative educational initiatives and quality control measures by the European Board and College of Obstetrics & Gynaecology (EBCOG) and the European Society of Contraception and Reproductive Health (ESC) could bring about meaningful improvement.

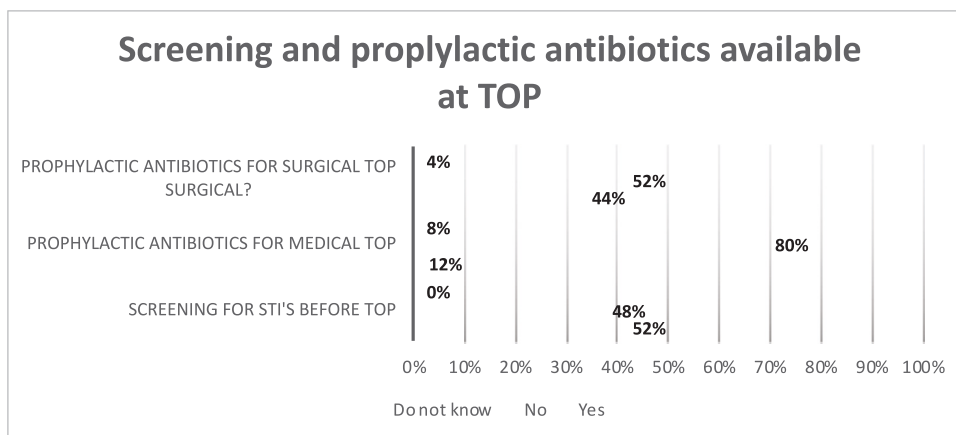


Fig. 11. Extra protocols of care during termination of pregnancy.

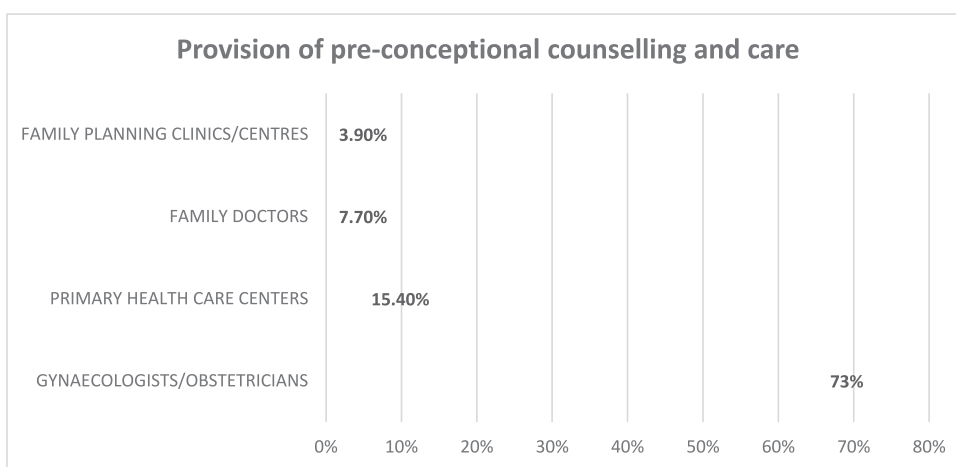


Fig. 12. Provision of pre-conceptual counselling and care.

The data accumulated in this survey stem from the insights and expertise of professionals associated with EBCOG and ESC who are actively engaged in the delivery of SRH care. Consequently, this study doesn't adhere to a conventional empirical approach reliant on statistical data; rather, it offers a qualitative overview, serving a pragmatic purpose by pinpointing areas where European training programs could catalyse advancements. The qualitative nature of this study is instrumental in elucidating why certain disparities exist. While it doesn't delve into a detailed analysis of the factors contributing to these differences, its primary focus is to identify gaps that could potentially be addressed through collaborative efforts among European countries, particularly through educational and training initiatives targeting healthcare professionals.

This study serves as a valuable qualitative supplement to existing resources such as the Contraception Atlas and the SRH Care Ranking Atlas, which primarily concentrate on policies and empirical data. By providing a practical and practice-focused perspective, it enriches the discourse surrounding SRH care, offering insights into areas ripe for improvement and collaborative action within the European healthcare landscape.

Future developments

This study was designed to find inequalities in SRH Care across Europe and provide insight into the need for a formal European Educational Program and Accreditation in Sexual and Reproductive Health Care for the different professional groups. A group of Experts of

EBCOG and ESC are working together on the development of curricula and examinations in SRH Care, based on the recent publications: A Handbook of Contraception and Reproductive Healthcare" and "Textbook of Contraception and Sexual and Reproductive Health Care" [11,12]. Both organisations are about to launch a joint European Diploma in Contraception and Reproductive Healthcare along with supportive educational material for capacity building.

Conclusion

Improving accessibility, quality and inclusivity to sexual and reproductive health services requires a multi-faceted and multi-level approach involving policymakers, healthcare providers, educators, and communities. Understanding the interplay of legal, social, and healthcare factors is crucial for assessing the extent of reproductive autonomy and choice available to women seeking for SRH care. Addressing these various factors collectively can contribute to better reproductive health outcomes for individuals and communities. This implies that in addition to their educational and quality assurance endeavours, both EBCOG and ESC must continue with their advocacy initiatives at the health policy and legal fronts.

Authorship contribution statement

The co-first authors HK and ST were responsible for data analysis and writing of the manuscript. Co-author SM, JB, TM, SC, AK, GMF were involved in the project were responsible for the questionnaire formation,

and manuscript editing. JK was responsible for the data collection and manuscript editing. Professor Bitzer conceptualised this study, supervised the project and made significant contribution to development of the survey, data collection and proof reading and editing the original draft.

CRediT authorship contribution statement

Professor Bitzer conceptualised this study, supervised the project and made significant contribution to development of the survey, data collection and proof reading and editing the original draft.

Declaration of competing interest

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

Acknowledgements

The questionnaire was developed as a joint project by EBCOG and ESC. The members of the group from EBCOG were Johannes Bitzer, Tahir Mahmood, Ioannis Messinis, Sambit Mukhopadhyay, Charles Savona-Ventura. The authors from ESCRH were Frans Roumen, Teresa Bombas, Anne Gompel, Kai Haldre, Ali Kuba, Gabriele Merki-Fed, and Katarina Sedklecky. Jure Klanjscek created of the on line questionnaire in Google Forms and coordinated data collection and analysis by the country representatives of both organisations.

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ejogrb.2024.05.026>.

[org/10.1016/j.ejogrb.2024.05.026](https://doi.org/10.1016/j.ejogrb.2024.05.026).

References

- [1] World Health Organization. Investing in sexual and reproductive health and rights: essential elements of universal health coverage; 2023.
- [2] World Health Organization; Defining sexual health: Report of a technical consultation on sexual health, 28–31 January 2006 Geneva; 2006.
- [3] Wiklund I. Sexual and reproductive health and rights: a matter of life and death. In: Sexual & reproductive healthcare : official Journal of the Swedish Association of Midwives, Netherlands, vol. 6; 2015. p. 197.
- [4] European Society of Contraception and Reproductive Health. Position Paper on Sexual and Reproductive Health and Rights 2019 (The Madrid Declaration); 2019.
- [5] Rights E parliamentary forum for sexual and reproductive. The Combined SRHR Ranking Atlas: EPF's Contribution to the 30 Review of the ICPD Programme of Action in Europe; 2023.
- [6] European parliamentary forum for sexual and reproductive rights. Contraception Policy Atlas Europe [Internet]. 2023. Available from: https://www.epfweb.org/sites/default/files/2023-01/EPF_Contraception_Policy_Atlas_Europe_2022.pdf.
- [7] Mahmood T, Bitzer J, Nizard J, Short M. The sexual reproductive health of women: unfinished business in the Eastern Europe and Central Asia region. *Eur J Obstet Gynecol Reprod Biol* 2020;247:246–53.
- [8] Mahmood T, Bitzer J. Accelerating progress in sexual and reproductive health and rights in Eastern Europe and Central Asia – Reflecting on ICPD 25 Nairobi Summit. *Eur J Obstet Gynecol Reprod Biol* 2020;2:247.
- [9] John Hopkins University, World Health Organization; Family Planning: a Global Handbook for Providers; 2022.
- [10] FSRH-guideline-Contraceptive Choices for Young People Clinical Effectiveness Unit March 2010 (Amended May 2019) ISSN. 2010; 2010 (March 2010). Available from: <https://www.fsrh.org/standards-and-guidance/documents/cec-ceu-guidance-young-people-mar-2010/>.
- [11] Bitzer J, Mahmood TA. *Handbook of contraception, sexual and reproductive health*. Cambridge University Press; 2023.
- [12] Bitzer J, Mahmood TA. *Textbook of contraception, sexual and reproductive health*. Cambridge University Press; 2024.