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## The unmet need for safe abortion in Turkey: a role for medical abortion and training of medical students

Sare Mihciokur,<sup>a</sup> Ayse Akin,<sup>b</sup> Bahar Guciz Dogan,<sup>c</sup> Sevkat Bahar Ozvaris<sup>d</sup>

a Researcher, Woman-Child Health and Family Planning, Research and Implementation Center (BUWCRIC); and Lecturer, Department of Public Health, Medical Faculty, Başkent University, Ankara, Turkey  
Correspondence: [saremihciokur@gmail.com](mailto:saremihciokur@gmail.com)

b Director, Woman-Child Health and Family Planning, Research and Implementation Center (BUWCRIC); and Head of Department of Public Health, Medical Faculty, Başkent University, Ankara, Turkey

c Professor, Department of Public Health, Medical Faculty, Hacettepe University, Ankara, Turkey

d Director, Women's Research and Implementation Center; and Professor, Department of Public Health, Medical Faculty, Hacettepe University, Ankara, Turkey

**Abstract:** *Abortion has been legal and safe in Turkey since 1983, but the unmet need for safe abortion services remains high. Many medical practitioners believe that the introduction of medical abortion would address this. However, since 2012 there has been political opposition to the provision of abortion services. The government has been threatening to restrict the law, and following an administrative change in booking of appointments, some hospital clinics that provided family planning and abortion services had to stop providing abortions. Thus, the availability of safe abortion depends not only on permissive legislation but also political support and the ability of health professionals to provide it. We conducted a study among university medical school students in three provinces on their knowledge of abortion and abortion methods, to try to understand their future practice intentions. Pre-tested, structured, self-administered questionnaires were answered by 209 final-year medical students. The students' level of knowledge of abortion and abortion methods was very low. More than three-quarters had heard of surgical abortion, but only 56% mentioned medical abortion. Although nearly 90% supported making abortion services available in Turkey, their willingness to provide surgical abortion (16%) or medical abortion (15%) was low, due to lack of knowledge. Abortion care, including medical abortion, needs to be included in the medical school curriculum in order to safeguard this women's health service.*

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**Keywords:** abortion law and policy, abortion methods, medical abortion, medical students, medical education and curriculum, Turkey

Abortion has always been a sensitive issue in Turkey. During a previous pro-natalist period, the Turkish Penal Code, ratified in 1926, considered induced abortion to be a crime.<sup>1</sup> Amendments to this law, introduced in 1936 and 1953, penalized any attempt to avoid conception and increased the penalties for induced abortion. However, research showed that the practice of abortion continued on a large scale, irrespective of the laws or the penalties.<sup>2</sup> It was estimated that at the end of the 1950s, the number of illegally induced abortions approached half a million per year, with around 10,000 deaths annually from complications.<sup>3</sup>

Maternal mortality also remained high. According to a survey in 1959, the estimated maternal

mortality ratio in rural areas was 280 deaths per 100,000 live births. It was also estimated that 53% of maternal deaths were abortion-related.<sup>4,5</sup> A number of prominent obstetrician – gynaecologists (ObGyns) in Ankara launched an initiative to change the pro-natalist population policy and legalize contraception to reduce maternal deaths due to unsafe abortions.

In the process of changing these policies, advocacy was extremely important. A 1963 national survey on knowledge, attitudes and practice related to childbearing and contraception and several smaller studies clearly showed a favourable attitude toward family planning among Turkish families. As a result of advocacy, in 1965 a “population”

law was enacted. Besides allowing the sale and use of contraceptive methods, the law also stipulated strict conditions under which abortion and sterilization were allowed and the penalties for violations.<sup>6</sup> Despite the progress in family planning services and people's increased knowledge of modern contraceptive methods, the services did not fully meet the needs of the public. Traditional methods remained the most frequently used means of contraception. And even though induced abortions were prohibited, estimates indicate that there were 300,000 induced abortions and 50,000 self-induced abortions in 1981.<sup>7</sup>

### ***Abortion law reform 1983***

Several studies of health services, and local and national epidemiological studies, were carried out and the results used for advocacy activities in Turkey. The findings helped to support the ratification of Law No. 2827 in 1983, which provided for voluntary termination of pregnancy up to ten weeks' gestation. Methods used to terminate pregnancy were surgical methods such as dilatation and curettage (D&C) and electric and/or manual vacuum aspiration (EVA/MVA). The law, still in force today, allows ObGyns and trained and certified general practitioners (GPs) to provide abortions up to ten weeks by MVA. It also permits certified nurse-midwives to provide counselling, including on reproductive and sexual health issues and unwanted pregnancy, and to insert intra-uterine devices (IUDs).<sup>8</sup>

During the 20 years following the enactment of the law, there was an abundance of research on implementation, pilot studies and several efforts at outreach. A great number of health specialists and medical practitioners were trained, especially in the 1980s and 1990s, to provide contraceptive methods and abortion services within the framework of the law. Numerous efforts were made for the development and expansion of reproductive health services, and despite numerous social obstacles and limitations, Turkish women have been fortunate when it comes to benefiting from reproductive health services.<sup>9</sup>

After 1983, the numbers of unsafe abortions and their adverse effects decreased sharply. According to Turkish Demographic and Health Survey (TDHS) data, the number of abortions per 100 pregnancies dropped from 19.0 in 1983 to 10.0 in 2008.<sup>10,11</sup> The prevalence of induced abortions rose initially, but started to decrease

in the 1990s and continues to do so. The incidence of abortion per 100 women aged 15–49 fell to a negligible level as the use of contraceptives increased, resulting in fewer pregnancies and more pregnancies being planned and wanted.<sup>6</sup>

However, despite legalization, only 20% of abortions have been provided by public health institutions,<sup>12</sup> and more than half in private practices or private hospitals. The reasons given for this were the high workload of ObGyn specialists, insufficient number of certified GPs at public hospitals, and shortages of time for surgical interventions. As a result, the unmet need for abortion services remains high.<sup>12,13</sup>

### ***Introduction of medical abortion – expected but delayed***

Many ObGyns believe that the introduction of medical abortion and approval of mifepristone and misoprostol for this purpose would decrease the unmet need for public abortion services in Turkey.<sup>13</sup> However, medical abortion is still not available, as mifepristone has not been licensed, and misoprostol is licensed for other indications but not for obstetric and gynaecological indications. In order to introduce and make medical abortion available, three phase III studies were carried out in Turkey, published in 2004, 2005 and 2013.<sup>14–16</sup> In all these studies, the opinions of both providers and users of medical abortion were elicited. It was found that the success rate was high, satisfaction levels were also very high and it was well accepted by both providers and users. Nothing changed, however.

Another generation has now entered medical school. In order to keep up the momentum generated by such research, we launched a descriptive study to determine the level of knowledge of and views on medical abortion in four provinces in Turkey, with the collaboration of WHO. In this study, both abortion providers, medical and nursing students were surveyed. The sample included 919 providers – ObGyn specialists (187), GPs (268) and nurse-midwives (464), 209 medical students and 200 nursing students.<sup>16</sup> The findings were disseminated in June 2012 in Ankara and in February 2013 in İzmir.

The Ministry of Health (MoH) was very supportive of the introduction of medical abortion in routine reproductive health services, and the topic was discussed extensively and favourably by the MoH scientific committee. We therefore hoped

that medical abortion pills would be licensed and the method made available in the public sector.

However, in the last decade there has been a reaction against the provision of abortion services generally. Since 2012 this has become more pronounced; high-level politicians “condemned abortion as a crime” and “asked women to have at least three, even five children each”.<sup>13</sup> Attempts have been made, so far unsuccessfully, to change the existing population policy and ban abortion totally or reduce the legal time limit to only four weeks of pregnancy. The lack of success in these attempts so far is in large part due to the efforts of women’s groups and the scientific community. However, abortion has become more “sensitive”, including among providers, and plans to introduce medical abortion have been put on hold.

Some hospital units where family planning and abortion services were provided became unwilling to provide abortion services.<sup>17,18</sup> There is growing concern that some women are being forced to give birth to unwanted children or are putting their health, or even their lives, at risk.<sup>17–19</sup>

### ***Abortion and the role of medical students***

The continuing availability of abortion services depends on the willingness of physicians, and of medical students as future physicians, to provide the service. Hence, the training of future physicians in abortion care is a critical public health concern.<sup>20</sup>

There are 87 medical schools in Turkey. Medical education lasts six years, including a one-year internship to pursue a medical degree as a general practitioner. Students are then required to serve for one year as family physicians, who are responsible for primary health care, including reproductive health/family planning services.

Since 2002, the Pre-Graduation Medical Education National Core Training Program (National CTP) was developed and implemented. Medical schools currently prepare their curricula according to the National CTP 2014, which has four main components: pre-graduation medical education outcomes/competency areas, symptoms and conditions, core diseases/clinical cases, and basic medical applications. The medical schools are required to specify in detail pre-graduation medical education proficiency within the scope of the National CTP framework. However, while guidelines are available to ensure medical students meet specified women’s health care competen-

cies, fixed learning objectives and curriculum requirements do not exist on reproductive health care, family planning education or abortion care. Thus, curriculum content, method of teaching, and amount of time allocated to reproductive health and family planning vary considerably from school to school. Abortion is only mentioned under genitourinary system disease.<sup>21</sup> Although it is expected that all the medical schools include abortion in their curriculum, most do not even have lectures on abortion as a primary focus. In some medical schools, abortion is only mentioned during lectures on public health, gynaecology and obstetrics in the third, fourth and sixth (last) year of medical education.<sup>22–25</sup>

Although, all medical school curricula include training in reproductive health, family planning and abortion care, training in abortion care and counselling remains inadequate and the impact on students’ knowledge, attitudes about abortion and intention to provide abortion and counselling services in the future has not been well evaluated. This is a serious international problem, as it is for Turkey.<sup>26–28</sup> A survey of North American medical students, for example, published in 2011, revealed that the teaching time dedicated to all aspects of abortion ranged from 15 minutes to eight hours only, depending on the institution. Overall, one-third of North American medical schools provided less than 30 minutes of formal education on abortion.<sup>29</sup>

However, since 1992, 15 medical schools in different parts of Turkey initiated a two-week, certificate training program for final-year students on reproductive health, family planning counselling and IUD insertion, that includes a lecture on abortion methods. Baskent University has also included this programme in its final-year medical education curriculum since 2011.<sup>30</sup>

In Turkey, there has been no research before the study reported here that explored medical students’ knowledge, opinions and attitudes on abortion methods and whether they would be interested in providing abortion services in their future practice. Our second objective was to develop recommendations for policy makers and medical school educators for constructing their curricula to encourage future health professionals to consider providing abortion services, especially medical abortion, with the aim of improving women’s access to these services in the future.

## ***Participants and methods***

The larger study focused on the knowledge and perspectives of ObGyns, GPs, medical and nursing students on abortion in general and medical abortion in particular.<sup>31</sup> The providers' views have been the subject of two national and one international publication.<sup>16,32</sup> This paper covers the views of the 209 medical students surveyed. Nursing students' views will be described in another paper. The study protocol was approved by the Ethical Review Committee of Baskent University and the WHO Research Ethics Review Committee. The self-administered questionnaire was completed in medical schools in each survey province in the presence of a provincial survey coordinator in May 2010.

The intended study population comprised all 127 final-year medical students at Dokuz Eylül University medical school in Izmir; all 78 at Celal Bayar University in Manisa; and all 45 at Yuzuncu Yil University in Van. The students were informed about the survey and the objectives of the study prior to distribution of the self-administered questionnaire. No incentives were offered for participation. Of the 250 eligible participants, 209 completed the questionnaire (response rate 83%). The main reason for the high non-response rate was that the students were doing their internships in different departments/hospitals, and it was not easy to gather them all together on the day.

To prepare the questionnaire, a panel discussion on students' knowledge of abortion was organised at a medical school in Ankara. Based on the findings, the survey questionnaire was developed, pre-tested in another medical school in Ankara, and finalized. It consisted of five parts, with a combination of multiple-choice and open-ended questions. Part I covered personal and socio-demographic information (5 questions), including age, sex, marital status, and having received any family planning training. Part II covered knowledge and opinion of surgical and medical abortion (30 questions), including legal status of abortion, abortion methods, definition of "unsafe abortion", safety and effectiveness, advantages and disadvantages of both methods, regimens used for medical abortion, and contraindications and complications of surgical and medical abortion. Part III (3 questions) covered personal experiences related to clinical provision of abortion services, such as having observed an abortion or not, and costs of surgical and medical abortion services. Part IV (10 questions) was

on willingness and opinions on providing medical and surgical abortions as future health care providers, and the advantages and disadvantages from their point of view. Part V (15 questions) asked about their perspectives on and perceptions of provision of both abortion methods.

Trained research assistants explained the study objectives to the students in their classrooms and pointed out that participation was voluntary and participants' identity was confidential. They also explained that the results would be used only for scientific purposes. The students were asked to put the completed questionnaires in the sealed envelope provided.

Data were entered, verification and analysis were done using SPSS software (version 15.0). Descriptive univariate analysis and frequency distributions were used to examine the independent and dependent variables.

## **Strengths and limitations of the study**

The survey was conducted in only three universities and did not collect information on abortion education at these medical schools. The questionnaire was quantitative and used attitudinal scales with some well-documented weaknesses for the measurement of ethical concerns. However, with a questionnaire one gets the chance to have an overall picture of respondents' attitudes and knowledge, without an explanation of why they think that way.

While we accepted "Lectures in which abortion is mentioned" as education about abortion, the value of such lectures may have been limited. The students were also not asked whether any abortion education took place in their pre-clinical years. We hypothesize that students respond favourably to the concept of education about abortion when abortion is presented as an integral, mainstream part of women's health services.

## **Findings**

### **Demographic characteristics of the medical students**

Of the 209 medical students, 54% were male; 95% were aged 24 years or older (mean  $25 \pm 1.8$ , range 21–43); 82% had received reproductive health and family planning education at medical school (Table 1).

Almost all the students knew that abortion in Turkey is legal; 73% knew this was up to 10 weeks'

Table 1. Distribution of medical students by university and selected characteristics (%)	
	(n=209)
<b>University (Province)</b>	
Dokuz Eylül University (Izmir)	47.4
Celal Bayar (Manisa)	33.5
100. YIL (Van)	19.1
<b>Sex</b>	
Male	54.5
Female	45.5
<b>Age</b>	
≤23	4.7
24–25	69.5
≥26	25.8
<b>Received reproductive health/family planning lectures</b>	
Yes	82.1
No	17.9

gestation and 53% had participated in or observed a surgical abortion. Only 2% were aware that the law dated from 1983.

Students were given correct and incorrect statements about abortion in Turkey and asked whether they agreed or not. Many had incorrect knowledge on some aspects of the current law. For instance, although the law specifies that unmarried women aged 18 years and older do not need anyone's consent to have an abortion, 84% of students thought they did need partner consent. 28% believed there were legal barriers to providing medical abortion other than availability of the medications. In addition, although 92% believed that legal abortion can be performed only by a certified physician, many had a poor understanding of the types of providers who could be certified. Just 13% knew that certified GPs could perform abortions while 5% thought nurses and midwives could do so, which is not (yet) the case in Turkey.

### Knowledge and opinions on surgical and medical abortion

One open-ended question asked: "Please explain the basic methods you know that can be used for an abortion." Eighty-three per cent (174) answered the question. Responses included traditional methods (e.g. mechanical trauma, high jump, kicking the abdomen), surgical methods (D&C,

electric or manual vacuum aspiration (EVA/MVA), fractional curettage, induction of birth, IUD insertion) and medical methods (using a medicine for abortion, misoprostol, prostaglandin, mifepristone, methotrexate, chemotherapeutics). Surgical abortion, the most common method used in Turkey, was known by 76% (158) of the students. These students mentioned D&C (97%), MVA (75%) and EVA (55%) as surgical abortion methods. Without probing, 56% (117) mentioned medical abortion, even though it is not available in reproductive health services in Turkey (Table 2). However, in response to the question: "Have you ever heard of a method of medical abortion?", when medical abortion was named, 82% (171) remembered having previously heard of it, but only 14% knew of misoprostol and 27% knew of mifepristone.

To ensure that respondents answered the remaining questions on abortion methods based on a correct understanding of the two methods, the questionnaire gave a brief description of surgical (D&C and EVA/MVA) and medical abortion (mifepristone and misoprostol) methods and detailed steps involved in providing them.

The questionnaire used the term "surgical abortion" but did not distinguish D&C from vacuum aspiration throughout, since D&C is the most commonly used method and also the most known by students. The questionnaire asked them to mark the advantages and disadvantages of surgical abortion from a woman's point of view from multiple options given. The students marked as the top three advantages that the surgical method is fast (78%), can be completed in at least 10 minutes (72%), and the success rate is higher (65%) than for medical abortion. They thought that the main disadvantages of the surgical method (D&C) for women were that it is a

Table 2. Proportion of medical students aware of different abortion methods (%)	
Abortion methods <sup>a</sup>	(n=209)
Surgical methods	75.6
Medical methods	56.0
Traditional methods (e.g. mechanical trauma, high jump, kicking the abdomen)	5.7
No response	16.7

<sup>a</sup> Respondents could give more than one answer.

surgical intervention (95%), anaesthesia is applied when needed (79%) and it is more of a physical intervention (87%).

As regards the advantages and disadvantages of medical abortion, the students named as the top three advantages from a woman's point of view that it was less invasive than surgical abortion (91%), no surgical intervention was needed (90%), and no anaesthesia (77%). The main disadvantages for women they thought were that it took longer to complete the abortion (58%), had a higher failure rate (56%) and required multiple clinic visits (45%).

To find out their knowledge on possible complications of surgical and medical abortion the students were asked: "Mark the possible complication which the woman needs to be informed about, from the complications listed below." The students marked, as possible complications of surgical abortion, bleeding (91%), uterine perforation (84%), cervical laceration (70%), incomplete abortion (60%) and pelvic infection (83%). As regards the possible complications of medical abortion, the students marked bleeding (86%), incomplete abortion (79%), failed abortion (86%), drug reaction (76%) and pain shock (40%) (Table 3).

**Table 3. Proportion of medical students who thought women should be informed about these possible complications of surgical and medical abortion (%)**

Complication <sup>a</sup>	
<b>Surgical abortion</b>	<b>(n=158)<sup>b</sup></b>
Bleeding	91.1
Uterine perforation	83.5
Pelvic infection	82.9
Cervical laceration	69.6
Incomplete abortion	59.5
Failed abortion	42.0
<b>Medical abortion</b>	<b>(n=117)<sup>c</sup></b>
Bleeding	86.3
Incomplete abortion	78.6
Failed abortion	85.5
Drug reaction	76.1
Pain shock	40.2

a Respondents could give more than one answer.

b Students who spontaneously mentioned surgical abortion.

c Students who spontaneously mentioned medical abortion.

Most of the students thought that an ultrasound examination, counselling, and hemoglobin measurement were necessary for women who wished to undergo surgical abortion or medical abortion. Nearly half the students also thought additional tests should be done for sexually transmitted infections, HIV status, and cervical smear tests, none of which WHO guidelines recommend as a precondition for any abortion.<sup>33</sup> Post-abortion antibiotic prophylaxis was regarded as a requirement for surgical abortion by 89% of students and for medical abortion by 52%. However, this is not required for medical abortion.

Most students lacked a correct understanding of the possible complications of both methods. However, all of them realised that women need information about recognising possible complications and also contraception post-abortion.

#### **Students' willingness to provide abortion in their future practice**

The students were asked to indicate the extent to which they thought abortion services should be available and to indicate whether they would personally be willing to provide these services as future physicians. Although most of the students thought that surgical abortion (86%) and medical abortion (86%) should be available in Turkey, only a small proportion expressed willingness to provide surgical abortion (16%) and medical abortion (15%) themselves in the future. There was no significant relationship between their willingness to provide abortion services and having previously received reproductive health and family planning training.

When asked to mark the main barriers to the widespread implementation of surgical abortion and the use of medical abortion in Turkey, the following were cited: lack of knowledge of abortion (60% of the students), lack of training in medical abortion provision (66% of the students), lack of awareness among patients of medical abortion (54% of the students), lack of approved protocols and guidelines (50% of the students), and legal obstacles (47% of the students).

#### **Discussion and recommendations**

To our knowledge, this study was the first of its kind in Turkey to explore, in a systematic manner, medical students' knowledge and opinions regarding abortion in general and specifically surgical and medical abortion, and to ask about their

willingness to provide abortion services in their future practices.

The students' level of knowledge of medical abortion methods was relatively low. However, the lack of familiarity, especially with mifepristone and misoprostol, was not unexpected, especially as mifepristone is not yet licensed in Turkey and misoprostol is not included in Ministry of Health guidelines for abortion, and therefore neither is in use in the country.

It is notable, however, that despite having attended lectures and completed a two-month gynaecology and obstetrics internship, most of these students still had poor knowledge of the possible complications of surgical and medical abortion. It was not investigated in the study from where these students acquired this misinformation. However, these results call for a standardized curriculum, covering more comprehensive sexual and reproductive health topics for all final-year medical students to ensure that they acquire the necessary, correct knowledge. A study carried out at the University of British Columbia in Canada in 2008 on the knowledge of medical students of abortion methods and procedures, and their readiness to provide abortions, also found limited knowledge of abortion and of medical abortion.<sup>34</sup> A quick look at such studies on PubMed indicates this is a common problem in many other countries too.<sup>35–38</sup>

Many students had an incorrect understanding of some aspects of the national legislation on abortion. Approximately one-third of the students believed that there were legal barriers to offering medical abortion other than lack of availability of the two medications. This is not the case.<sup>6,32</sup>

On a positive note, the present study demonstrates that nearly 90% of the students supported making surgical and medical abortion services available in Turkey. This is a fact that the present government should be made aware of because it is in line with the widespread support for legal abortion demonstrated by Turkish women in response to the threat of legal restrictions. A far smaller proportion of students indicated their willingness to provide surgical abortion (16%) and medical abortion (15%) themselves, but this was due to a lack of knowledge of abortion law and the procedures themselves, and also insufficient training in counselling and techniques of abortion, not because they were opposed to abortion. Clinical experience with abortion would affect

these medical students' knowledge, attitudes and intentions to provide abortions in the future, and their ability to counsel women, which would help to ensure women's access to comprehensive reproductive health care.

Although the study collected data from only three medical schools out of 87 in Turkey, and the results may not be generalizable to all medical students, there is no reason to expect that the students surveyed were better (or in fact less) informed about induced abortion compared with those in other medical schools in Turkey. However, to ascertain this, a study of the medical curricula modules on abortion of a larger, representative sample of medical schools would be necessary.

Abortion with MVA and medical abortion pills are safe, legal and simple procedures, yet they are not routinely taught under a separate heading in the undergraduate medical curricula in Turkey, even though it is important for medical students to learn about abortion – its technical aspects as well as the social, political and public health issues involved. Regardless of an individual physician's personal beliefs about abortion, every physician has a responsibility to help patients achieve optimal mental and physical health, to inform patients of their reproductive health options, and to serve as patient advocates. Only through comprehensive education and training will future physicians be able to meet the reproductive health needs of women,<sup>39–41</sup> including with regard to abortion.

We therefore recommend that in the curriculum of all medical schools in Turkey, existing laws and regulations on safe abortion and abortion methods, and training in the provision of abortion and abortion services, including post-abortion contraceptive provision, should be integral to medical students' training. Medical school may be the only opportunity for students who do not go into obstetrics and gynaecology or a family physician speciality to learn about and have practical training in abortion methods, unless after graduation they attend optional training courses on family planning and menstrual regulation methods and are certified. Abortion care is also necessary in relation to and as part of emergency obstetric care. Since so many of the students' future patients will face or have faced an unintended pregnancy and may present seeking abortion, their understanding of the various aspects of induced abortion, as



well as how to terminate a pregnancy, are important for all medical students who will care for women and an essential part of education on women's health care.

As a component of comprehensive reproductive health care education, the public health aspects related to providing safe abortions, the number of women seeking the procedure, the human rights aspects involved and the effects of unsafe abortion on women's health should all be covered. If abortion were taught in this way, graduates from the medical schools would acquire knowledge and understand this issue far better; this is also likely to influence their attitudes in a positive way and help to encourage medical students to become future providers. The two-week internship for final-year medical students on reproductive health and family planning, which includes comprehensive theoretical and practical sessions on reproductive health, including family planning and abortion methods, should be routinely implemented in all medical schools.

The unmet need for abortion remains high in Turkey. Although legal approval for medical abor-

tion should ease this situation, some politicians and providers have reacted strongly against abortion access and have even called for legal restrictions. While abortions are readily available in private hospitals and surgeries, this comes at a high cost to women and their families. To help convince the future doctors of the country while they are medical students that safe abortion is a much needed and safe intervention, there is a need for training in the provision of abortion and information on the benefits of medical abortion. Advocacy is also required to help combat any negative perceptions of abortion provision among the general public and politicians, as well as advocacy for safe abortion provision with decision makers.

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#### References

1. Tokgoz T, Akin A. Türkiye'de Aile Planlamasi Calismalari. In: Hekimler İcin Aile Planlamasi El Kitabı. Akin A, editor. 1983, p.22–29.
2. Kısınacı H, Akin A. Türkiye'de Dusuklerle İlgili Epidemiyolojik Bir Arastirma. In: Türkiye'de Nufusun Yapisi ve Nufus Sorunlari – 1973 Arastirmasi, Ankara Hacettepe Publications 1978. p.113–32.
3. Fisek NH. Cocuk Dusurmenin Sosyal Yonu. Reprinted in 1998 in Kitaplamamisi Yazilari-II in – Ana Cocuk Sagligi, Nufus Sorunlari ve Aile Planlamasi. Dirican R, editor. Ankara: Turk Tabipleri Birligi Publications, 1998. p.177–81.
4. Fisek NH. Türkiye'de Nufus Planlamasi Calismalari, Reprinted in 1998 in Kitaplamamisi Yazilari-II in – Ana Cocuk Sagligi, Nufus Sorunlari ve Aile Planlamasi. Dirican R, editor. Ankara: Turk Tabipleri Birligi Publications, 1998. p.171–72.
5. Fisek NH. Türkiye'de Nufus Sorunlarinin Ele Alinis Tarzi ve Planlar. Reprinted in 1998 in: Kitaplamamisi Yazilari-II in – Ana Cocuk Sagligi, Nufus Sorunlari ve Aile Planlamasi. Dirican R, editor. Ankara: Turk Tabipleri Birligi Publications, 1998. p.161–70.
6. Akin A. Emergence of the family planning program in Turkey. In: The Global Family Planning Revolution, Three Decades of Population Policies and Programs. Robinson WC, Ross JA, editors. World Bank: Washington DC, 2007. p.85–102.
7. Akin A. The present and future of family planning in Turkey. In: Planning for the Future of Family Planning in Turkey: Proceedings of the Abant/Bolu Meeting, Ankara, Ministry of Health, 1992. p.40–55.
8. [Law No. 2827 on Population Planning, Official Gazette, Nr., 18059, 1983.] In Turkish. [www.saglik.gov.tr/TR/belge/1-462/rg-tarihi27051983-rg-sayisi18059-2827-sayili-nufus-pla-html](http://www.saglik.gov.tr/TR/belge/1-462/rg-tarihi27051983-rg-sayisi18059-2827-sayili-nufus-pla-html).
9. Bulut A. From curettage to induced abortion. Turkish Journal of Public Health 2012;10(Special Issue 1: Abortions):ii–viii.
10. Turkish Population Health Survey 1983. Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey. Hacettepe University, Institute of Population Studies, Westinghouse Health Systems, 1987. p.103–11.
11. Turkish Demographic Health Survey (TDHS) 2008. Hacettepe University, Institute of Population Studies, Ministry of Health, State Planning Office, Science and Technological Research Council of Turkey 2009. p.98–110.
12. Akin A, Ergor G. The place and importance of induced abortions in Turkey among reproductive health. In: Abstract Book of 3rd National Demography Conference,

- Ankara, 1997. Publication of Hacettepe University Institute of Population Studies 2003;1:395–406.
13. Akin A. Future perspectives on induced abortion and reproductive health services in light of the changing population and health policies in Turkey. *Turkish Journal of Public Health* 2012;10(Special Issue 1: Abortions):43–60.
  14. Akin A, Blum J, Ozalp S. Results and lessons learned from a small medical abortion clinical study in Turkey. *Contraception* 2004;70:401–06.
  15. Akin A, Guciz Dogan B. Mifepristone–misoprostol medical abortion: expanding women’s options. Report of multi-center Phase III project conducted under the coordination of Hacettepe University Faculty of Medicine, Department of Public Health, with the support of Gynuity Health Projects (Protocol No.314). Ankara, 2005.
  16. Akin A, Guciz Dogan B, Bahar Ozvaris S, et al. *Turkiye İcin Yeni Bir Secenek “Tibbi Dusuk”, A New Choice for Turkey: “Medical Abortion”*. Akin A, editor. 2013. ISBN-978-975-8571-53-6.
  17. “Abortion is actually prohibited”, “Kurtaj fiilen yasaklanmis!”. 7 July 2012. <http://www.sendika.org/2012/07/kurtaj-fiilen-yasaklanmis/>.
  18. “Abortion is legal but actually seems to be banned”, “Kurtaj yasal ama fiili olarak yasak” <http://www.etha.com.tr/Haber/2013/01/15/kadin/kurtaj-yasal-ama-fiili-olarak-yasak/> 15 January 2013.
  19. Toubia N. Pregnancy termination in Turkey: ‘Nereden Nereye...?’ *Turkish Journal of Public Health* 2012;10(Special Issue 1: Abortions):30–35.
  20. Pace L, Sandahl Y, Backus L, et al. Medical Students for Choice’s Reproductive Health Externships: impact on medical students’ knowledge, attitudes and intention to provide abortions. *Contraception* 2008;78:31–35.
  21. Mezuniyet Oncesi Tip Egitimi Ulusal Cekirdek Egitim Programi. 2014. p. 15/23. <http://tip.kocaeli.edu.tr/docs/ulusalcep2014.pdf>.
  22. Suleyman Demirel University, Medical School, 2013–2014 Academic Year Education Program and Curriculum. <http://tip.sdu.edu.tr/tr/egitim-rehberi/2013-2014-ders-programi-4989s.html>.
  23. Ankara University, Medical School, 2013–2014 Academic Year Education Program and Curriculum. <http://www.medicine.ankara.edu.tr/ders-programlari/>.
  24. Hacettepe University, Medical School, 2013–2014 Academic Year Education Program and Curriculum. <http://www.tip.hacettepe.edu.tr/egitim/moe.php>.
  25. Baskent University, Medical School, 2013–2014 Academic Year Education Program and Curriculum <http://tip.baskent.edu.tr/egitim/mezuniyetoncesi/dersprg.php>.
  26. Shotorbani S, Zimmerman FJ, Bell JF, et al. Attitudes and intentions of future health care providers toward abortion provision. *Perspectives on Sexual and Reproductive Health* 2004;36(2):58–63.
  27. Foster AM, Polis C, Allee MK, et al. Abortion education in nurse practitioner, physician assistant and certified nurse-midwifery programs: a national survey. *Contraception* 2006;73:408–14.
  28. Akin A. From research to practice: use of non-physicians in family practice services in Turkey. *Cahiers de Sociologie et de Demographie Medicales* 2010;50(4):445–61.
  29. Steinauer J, LaRochelle F, Rowh M, et al. First impressions: what are preclinical medical students in the US and Canada learning about sexual and reproductive health? *Contraception* 2009;80:74–80.
  30. Akin A, Bilgili Aykut N, Mihciokur S, et al. Certificate Program on Reproductive Health and Family Planning Program on Reproductive Health and Family Planning Counseling and IntraUterine Device (IUD) Application, 2010–2013. Baskent University, BUWCRIC. (Unpublished report).
  31. Akin A, Guciz Dogan B, Bahar Ozvaris S, et al. Perspectives and perceptions of providers on medical abortion. Akin A, editor. BUWCRIC, HUWRIC, 2012.
  32. Akin A, Guciz Dogan B, Bahar Ozvaris S, et al. Introducing medical abortion in Turkey: perspectives of physicians. *International Journal of Gynecology and Obstetrics* 2012;118:S57–S61.
  33. World Health Organization. *Safe Abortion: Technical and Policy Guidance for Health Systems*. Geneva: WHO, 2012.
  34. Cessford TA, Norman W. Making a case for abortion curriculum reform: a knowledge-assessment survey of undergraduate medical students. *Journal of Obstetrics & Gynaecology of Canada* 2011;33(1):38–45.
  35. Wheeler SB, Zullig LL, Reeve BB, et al. Attitudes and intentions regarding abortion provision among medical school students in South Africa. *International Perspectives on Sexual and Reproductive Health* 2012;38(3):154–63.
  36. de Leon Aguirre Deyanira Gonzalez, Deborah L. Billings, Attitudes towards abortion among medical trainees in Mexico City public hospitals. *Gender and Development* 2001;9(No.2).
  37. Kumar R, Malik A, Qureshi IM, et al. Comparative analysis of knowledge, attitudes and perceptions about induced abortions among medical and non-medical students of Karachi. *Journal of Pakistan Medical Association* 2002;52:492.
  38. Buga GA. Attitudes of medical students to induced abortion. *East African Medical Journal* 2002;79(5): 259–262.
  39. Espey E, Ogburn T, Chavez A, et al. Abortion education in medical schools: a national survey. *American Journal of Obstetrics and Gynecology* 2005;192:640–43.
  40. Atsuko K, Williams R. Abortion in medical school curricula. *McGill Journal of Medicine* 2005;8(2):157–60.
  41. Tey NP, Yew SY, Low WY, et al. Medical students’ attitudes toward abortion education: Malaysian perspective. *PLOS One* 2012;7(12):e52116.

### Résumé

L'avortement est légal et sûr en Turquie depuis 1983, mais les besoins non satisfaits en services d'avortement sûr demeurent élevés. Beaucoup de praticiens pensent que l'introduction de l'avortement médicamenteux pourrait y répondre. Néanmoins, depuis 2012, les services d'avortement suscitent une opposition politique. Le Gouvernement a menacé de restreindre la législation et, après un changement administratif dans la prise des rendez-vous, certains centres hospitaliers assurant des services de planification familiale et d'avortement ont dû cesser de pratiquer des avortements. La disponibilité d'avortements sûrs dépend donc non seulement d'une législation permissive, mais aussi du soutien politique et de la capacité des professionnels de santé à les pratiquer. Nous avons étudié les connaissances sur l'avortement et les méthodes d'avortement d'étudiants en médecine dans trois provinces, pour tenter de comprendre leurs intentions quant à leur future pratique. 209 étudiants en médecine de dernière année ont répondu à des questionnaires structurés testés au préalable et autoadministrés. Les étudiants connaissaient très mal l'avortement et les méthodes d'avortement. Plus des trois quarts avaient entendu parler de l'avortement chirurgical, mais 56% seulement ont mentionné l'avortement médicamenteux. Même si près de 90% soutenaient la disponibilité des services d'avortement en Turquie, ils étaient peu disposés à pratiquer l'avortement chirurgical (16%) ou médicamenteux (15%), en raison d'un manque de connaissances. L'avortement, notamment médicamenteux, doit être inclus dans le programme des études de médecine afin de garantir ce service de santé des femmes.

### Resumen

En Turquía, el aborto es legal y seguro desde 1983, pero aún hay una gran necesidad insatisfecha de servicios de aborto seguro. Muchos profesionales médicos creen que la introducción de servicios de aborto con medicamentos resolvería esta situación. Sin embargo, desde 2012 ha habido oposición política a la prestación de servicios de aborto. El gobierno ha estado amenazando con restringir la ley y, tras un cambio administrativo en la programación de citas, algunas clínicas hospitalarias que ofrecían servicios de planificación familiar y aborto tuvieron que dejar de realizar abortos. Por tanto, la disponibilidad de servicios de aborto seguro depende no solo de una legislación permisiva sino también del apoyo político y de la capacidad de los profesionales de la salud para proporcionarlos. Realizamos un estudio entre estudiantes de facultades de medicina en tres provincias, acerca de su conocimiento del aborto y los métodos de aborto, con el fin de entender sus intenciones de ejercer su futura profesión. Cuestionarios estructurados, autoadministrados y pre-piloteados fueron contestados por 209 estudiantes de medicina en su último año. Su nivel de conocimiento del aborto y los métodos de aborto era muy bajo. Más de tres cuartas partes habían oído hablar del aborto quirúrgico, pero solo el 56% mencionó el aborto con medicamentos. Aunque casi un 90% apoyó hacer los servicios de aborto disponibles en Turquía, pocos estaban dispuestos a proporcionar servicios de aborto quirúrgico (16%) o aborto con medicamentos (15%), debido a la falta de conocimiento. Los servicios de aborto, que incluyen el aborto con medicamentos, deben integrarse en el currículo de las facultades de medicina a fin de salvaguardar este servicio de salud de las mujeres.