Abortion from a Public Health Perspective

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Introduction

Abortion is one of the most controversial issues in the medical and public health fields worldwide and is unlikely to be resolved in the near future. It is one of the topics that can spark debate between those who support it and those who strongly oppose the procedure which is mainly related to the intersection of religion, law, politics and bioethics. Abortion is classified as spontaneous and induced depending on whether it is the result of miscarriage or is willfully terminated. Induced abortion is associated with lack of safety especially in legally restricted settings. Unsafe abortion has been discussed and included in the agenda of different non-governmental organizations owing to its significant contribution to maternal mortality worldwide. The International conference on Population and Development (ICPD) held in Cairo in 1994 was the first to discuss the public health impact of unsafe abortion stating that:" Every attempt should be made to eliminate the need for abortion". Following the ICPD, the platform for action developed in 1995 during the Beijing conference on women insisted on countries to "deal with the health impact of unsafe abortion as a major public health concern" due to its damage to the health of the population (Dickens & Cook 2007). Last, governments across the world have committed themselves to achieve the millennium development goal number 5 of reducing maternal mortality by three quarters by 2015 which is closely linked to expanding the occurrence of safe abortions. Despite the commitment of governments to the promotion of safe abortion and a decrease in its practice, funding for family planning has decreased and informed debate about abortion has been stifled by political, religious and financial pressures. The burden of unsafe abortion is disproportionately borne by the poor, the disadvantaged and the young in most countries.

This paper will focus on induced abortion which is the main concern of the public health community especially in legally restricted settings, such as Lebanon, owing to its lack of safety. The paper will start by a review of the medical and non-medical practices used to induce abortion and will introduce some of the complications arising from unsafe abortions. A presentation of the situation worldwide and in Lebanon and a discussion of the potential implications of legalization of abortion on the health of women in Lebanon will follow. The paper will end by presenting the different steps that are needed in order to ensure that abortion will not be over-utilized in case of legalization in Lebanon. Recommendations are mainly based on the experiences of other countries while keeping a culturally sensitive approach. The paper is following the public health perspective and stand regarding abortion, leaving religious and legal stances to be discussed by their respective professionals.

Historical and medical Facts

The practice of abortion transcends culture, religion, social status and the law. Worldwide and throughout history women have been willing to risk their lives and health to end unwanted pregnancies (Rosenfield, 1994). In fact, historical data reveals that induced abortion is one of the oldest practices dating back to ancient Egyptians and Greeks (Stotland 1998). Abortion is as old as the practice of medicine and surgery itself. Even centuries before Christ, Hippocrates included in his oath the prohibition of inducing abortion in a pregnant woman (Benagiano & Pera 2000).

Techniques of inducing abortion have varied over time and across cultures and range from non-medical methods (traditional) to medical and evidence-based techniques. Non-medical methods are hazardous to the woman's life, and include among others, inserting sharp objects, strenuous physical activity, excessive abdominal massage, starvation and ingestion of corrosive substances such turpentine, detergents and acids (Grimes et al. 2006). Non-medical techniques are usually performed by desperate women belonging to low socio-economic status with no access to medical services and in countries where abortion is illegal or restricted by law. These women risk their lives because they do not have the financial means to pay for abortion in private clinics.

Surgical abortion remains the primary method of inducing abortion although the use of medical abortion is increasing worldwide. The safest, simplest and most medically effective surgical means of inducing abortion or treating an incomplete abortion is vacuum aspiration or suction curettage. This procedure is done under local anesthesia usually on an out-patient basis and does not take more than few minutes to complete. Vacuum aspiration can be used up to 12 weeks of pregnancy. Dilatation and Curettage (D & C) is the safest method for second trimester abortion and should only be performed by skilled professionals and in well equipped settings under general anesthesia. Abortion after 22 weeks is extremely rare and is performed mainly in cases of severe congenital abnormalities. It is noteworthy that in developing countries including Lebanon, D&C is widely practiced even in first trimester abortions because of the lack of appropriate medical training on safer methods as a result of the restricted legalization of the procedure and failure of the medical profession to practice evidence based medicine.

Medical abortion, the use of pills to cause a miscarriage, is mainly done by using mifepristone followed by misoprostol during the first 9 weeks of pregnancy (Hessini 2005) while some also report safety of the method up to 24 weeks of gestation (Berer 2005). Mifepristone is an anti-progesterone drug that causes softening and opening of the cervix and detachment of the gestational sac or embryo or fetus depending on the stage of pregnancy. Misoprostol is a prostaglandin that causes contraction of the uterus causing the expulsion of the products of conception. Medical abortion is increasingly being used by women worldwide especially in areas where legal restrictions are in place as an alternative to less safe methods. Medical abortion reduces the number of deaths and complications resulting from unsafe abortion and is contributing to empowerment of women by providing them with the right to terminate an unwanted pregnancy safely (Berer 2005). However the costs of the medications remain a limiting factor resulting in limited accessibility for the underprivileged women.

Studies and observations have shown that the availability of safe and affordable abortion is determined by the legal status of induced abortion in the country (Amado 2004). While abortion performed by trained professionals and in well-equipped areas is one of the safest medical and surgical procedures, unsafe abortion which is practiced at home or in clandestine unequipped areas is the leading cause of maternal mortality and morbidity in developing countries (Bernstein & Rosenfield, 1998). WHO defines unsafe abortion as a procedure for terminating an unintended pregnancy either by individuals without the necessary skills or in an environment that does not conform to minimum medical standards, or both (WHO, 1992). Complications of unsafe abortion are either immediate or delayed. Immediate complications include uterine perforation, hemorrhage, cervical or vaginal lacerations, while delayed complications such as sepsis and infections result from the lack of sterile techniques leading often to permanent infertility and even death. In addition to their effect on women, unsafe abortions also affect the women's families who must care for them and who will temporarily or permanently lose their support secondary to complications (Bernstein & Rosenfiled 1998). Furthermore, in addition to the tragic impact on women and their families, unsafe abortion has a significant adverse effect on the health care system, in terms of costs, resources and time (Fa´undes & Hardy 1997).

Abortion practices worldwide

Accurate statistics on the incidence of abortion are still lacking in several countries given the sensitivity of the topic and its legal status. The World Health Organization estimates that around 25% of pregnancies worldwide end up in an induced abortion with almost 19 million abortions being performed using unsafe procedures and 68,000 deaths (50,000-100,000) being attributable to unsafe abortion complications every year (Grimes et al.2006). The majority of unsafe abortions (97%) occur in developing countries where abortion is mainly legally restricted

and contrary to popular belief, over half of the induced abortions are performed by married women who already have several children (Shah & Ahman 2004). Moreover, about two thirds of unsafe abortions are done by young women aged between 15 and 29 with a peak observed in the 20 to 24 age group (Shah & Ahman 2004) with 14% of deaths resulting from unsafe abortion affecting women younger than 20 years old (Hessini 2005). The WHO estimates that around 30% and 40% of unsafe abortions lead to reproductive tract infections and infertility, respectively (WHO 2004). The complications of unsafe abortion are mainly due to poor contraceptive knowledge, awareness, or advice or also an unmet need for contraceptives.

In countries where abortion is illegal or restricted by law, the situation is especially precarious for single women especially adolescents who generally do not have information on reproductive health and contraceptive methods or do not have easy access to such services (Shah & Ahman 2004). In Latin America for example where abortion is illegal, poor women and adolescents are the most at risk for the adverse consequences following a badly performed abortion. Wealthy women in all societies have the financial means to obtain a safer procedure independently of the legal status (Bernstein & Rosenfield, 1998). In Egypt where abortion is restricted by law, the incidence of abortion has been estimated at 265 per 1000 live births in rural Egypt (Yassin 2000). A study assessing the determinants of abortion in rural Egypt found out that lower socio-economic status and high parity were the main drivers for abortion while religion, contrary to traditional views, did not appear to be a significant barrier to seeking abortion or medical care for abortion complications (Yassin 2000). Another study highlighted the fact that wealthy women were able to buy safety for abortion in Egypt while poor women's lack of financial resources put their lives at great risk because of the legal restriction of the procedure (Lane et al. 1998).

In the MENA region, it has been estimated that one in 10 pregnancies ends with abortion with unsafe abortion accounting for at least 6% of maternal deaths in the region (Hessini 2007). Abortion remains a taboo topic in the MENA region except in Tunisia where it is legalized and despite the fact that there is a diversity of opinion among Islamic schools (DeJong et al. 2005).

Abortion in Lebanon

In Lebanon, abortion is only permitted before 22 weeks of gestation if the health of the mother is in danger and the Lebanese law states that:" Any Woman who, by whatever means, whether utilized by herself or a third person with her consent, aborts herself, shall be punished by imprisonment from six months to three years" (Kaddour et al. 2003). It also punishes those who attempt or perform the abortion. This law dates back to the French mandate time and has not been reviewed since 1969 unlike other countries in the region (AGI 1990). In fact most of the countries that place legal restrictions on abortion have taken these laws from the colonial era and it is noteworthy that abortion has been legalized in colonial countries while colonized countries still follow old laws.

The abortion law in Lebanon favors the patriarchal notion that women's bodies and sexuality belong to their families and societies (Amado 2004). Although policy makers are well aware that abortion is practiced in Lebanon, they are overlooking violations of the law and at the same time are not willing to modify the law to meet the need they acknowledge (Kaddour et al.2003). This discrepancy is mainly a consequence of the religious and political structure of the Lebanese community whereby politicians mostly depend on religious leaders to get elected and hence, they tend to keep abortion laws at its status quo. The main hindering factor behind the opposition of legalization of abortion by religious leaders is the fear of promoting premarital sex. This is however not a valid reason as young people are actually engaging in premarital sex as depicted in several studies in Lebanon and at an early age (Jurjus & Kahhaleh 2004). The responsibility of public health professionals is therefore to educate and make accessible to young individuals different contraceptive methods in order to decrease the need for abortion.

Despite the legal restrictions, induced abortions are happening in Lebanon based on personal communications cited in Kaddour et al (2003) from the Lebanese Family Planning Association, and investigations by journalists in the region (Salama 2006). It is noteworthy that both social and therapeutic abortions are performed on a private basis as a legal operation under a different

name (Zahed et al. 2002). However, accurate figures on the practice are lacking owing to its illegality. Based on published estimates from the Global Health Council (2002), the number of abortions in Lebanon amounted to 177,298 between 1995 and 2000 (estimated rate of 38.4 per 1000 women per year) with 16% of the maternal deaths resulting from abortion. However these figures are underestimates of the true incidence of abortion in Lebanon mainly because of its illegal status and because of lack of reporting and incompleteness of deaths certificates in Lebanon (Sibai et al. 2002). The cost of abortion varies between 300 and 1200 USD depending on the location of the operation and the economic situation of the woman (Kaddour et al. 2003).

It is expected that the need for abortion will increase in Lebanon as a result of the increase in the age of marriage, an increasing number of single young women, and a decrease in the age at sexual initiation (Hessini 2007 & DeJong et al 2005). Engagement in premarital sex has not been given enough attention by health professionals leaving adolescents and young people without access to reproductive health services including contraception and education about sexually transmitted infections including HIV/AIDS (DeJong et al. 2005). As a result of social stigma and taboos, young people are reluctant to go buy contraceptive pills or condoms for the fear of being discriminated against and judged by health professionals themselves. Moreover, young people who marry at an early age often do not have enough knowledge about and access to reproductive health services including contraception (DeJong et al. 2005).

The attitudes of health care professionals and women towards legalization of abortion are not widely researched in Lebanon mainly because of the status quo. However a study among health professionals revealed that the majority of health care professionals would not agree to perform an abortion for a married woman without the knowledge of her husband (60%) and only 40% would agree to abort a single mother. However the vast majority (95%) would agree to do an abortion in case of rape. It is worth mentioning that males, muslims and older practitioners, had a more favorable attitude towards social abortion compared to their counterparts (Zahed et al. 2002).

Consequently, despite the legal restriction abortion is widely practiced in Lebanon (Figure 1) compared to other countries where it is legalized and most of the time it is done under inadequate conditions leading to high maternal mortality rates. From a pubic health point of view, the following question arises:" Should abortion be legalized in Lebanon?". The coming section will discuss the advantages of legalizing abortion in Lebanon, to the public health sector, using the experiences of other countries.

Should abortion be legalized? A public health perspective

It is well known that induced abortion is mostly practiced in countries where it is illegal or restricted by law. However, the main concern among public health professionals is the safety of abortion. In most cases, whether abortion is safe or unsafe equates with its legal status and in the majority of countries, women with higher socio-economic status can easily pay for a safe abortion at a private clinic while it is those belonging to the poorest section of the community who have to hold the burden of undergoing unsafe abortion leading to high maternal mortality rates (Grimes et al. 2006).

Most countries that have legalized abortion have done it for public health purposes namely to reduce (with great success) maternal mortality and morbidity resulting from illegal abortion which is unsafe in the majority of cases. Reports from other countries have shown that legalization of abortion significantly drops the number of deaths and complications resulting from unsafe abortion (Hessini 2005). For example, unsafe abortion dropped by 50% in New York state after legalization in 1970 leading also to a similar drop in maternal deaths resulting from abortion (Tietze et al. 1973). Romania illustrates the best example on the positive impact of legalization of abortion on one hand, and the negative impact of criminalizing it, on the other. Between 1966 and 1989, the Romanian government during the regime of Nicolae Ceausescu banned all contraception and abortions to promote an increase in birth rates. This resulted in Romania having the highest maternal mortality rates in Europe with 85% of the deaths attributable to unsafe abortions (Benagiano & Pera 2000; Bernstein & Rosenfield 1998; Grimes 2006). After the fall of the Ceausescu regime, abortion was again legalized in 1989 leading to a significant drop of maternal mortality from 159 deaths per 100,000 live births in 1989 to 60 per 100,000 at the end of 1990 (Benagiano & Pera 2000; Bernstein & Rosenfield 1998).

Poland is another example showing the negative consequences of restrictive legislation. In 1993, the government issued a law restricting abortion to cases when the pregnancy threatened the mother or in case of fetal malformations, rape or incest. This decision led to a surge in illegal abortions and in women traveling to other countries for abortion. Following this, the abortion law was relaxed again although it is still causing tension between the different political parties (Benagiano & Pera 2000).

The above examples underscore the fact that restricting abortion by law does not decrease the number of women who resort to the procedure. Such law however has two main negative consequences:

1- It increases the adverse effects on the reproductive health of women due to the high rates of maternal mortality and morbidity that ensue.
2- Owing to the illegal status of abortion, policy makers do not give it the appropriate attention and do not work towards decreasing its incidence or addressing the issues that are leading to it.

Lebanon has a maternal mortality of 100 to 130 per 100,000 live births (Roudi-Fahimi 2003; Global Health Council 2002) with unsafe abortion being one of the important contributors of this high maternal mortality (16%). Hence, legalization of abortion can on one hand decrease maternal mortality, and promote the achievement of the MDG goal number 5, and on the other hand it is an opportunity for proper monitoring of the safety of the procedure and of cost containment by the government.

In addition to the contribution of abortion to high maternal mortality and morbidity, forcing women to carry on with an unwanted pregnancy has been documented to lead to detrimental effects on the woman's physical and mental health and also on the unwanted child. Studies have shown that children born to mothers who were denied abortion for an unwanted pregnancy ended up being less socially adjusted, were more often admitted to psychiatric wards and were more frequently registered for crimes compared to children born from accepted pregnancies (David 2006). Therefore, denying abortion to the mother will negatively affect the psychosocial development of the child later in life.

Making abortion legal, safe, and accessible does not appreciably increase demand. As depicted in figure 1, abortion is lowest in countries that have legalized it. It is remarkable that Lebanon is estimated to have one of the highest abortion rates in the region (38.4 per 1000

women) despite legal restrictions. Abortion in contrast is significantly lower in Tunisia (10.4 per 1000), the only country in the MENA region that has legalized abortion, compared to other Arab countries (Global Health Council 2002). Similarly, European countries that have legalized abortion and provided easy accessibility to contraceptives have the lowest abortion rates worldwide (Figure 1). Therefore, legalizing abortion will primarily shift previously clandestine, unsafe procedures to legal and safe ones. Hence, governments need not worry that the costs of making abortion safe will overburden the health-care infrastructure. Countries that liberalized their abortion laws such as Barbados, Canada, South Africa, Tunisia, and Turkey did not have an increase in abortion. By comparison, the Netherlands, which has unrestricted access to free abortion and contraception, has one of the lowest abortion rates in the world (AGI 1999). Following the legalization of abortion in France and Italy, the number of abortion per live births and the number of abortion per women significantly decreased. It is notable that the availability of contraception in both countries was also a major driver in decreasing abortion rates (Benagiano & Pera 2000).

Legalizing abortion does not necessarily mean challenging the religious beliefs or disrespecting them. In fact legalizing abortion involves respect for religious diversity and tolerance. Separation of religion from the state is an essential value in a pluralistic society with many spiritual groups such as in Lebanon. Moral values imply respect for religious diversity and not imposing one's own values and beliefs on others. Respect for diversity demands an understanding that each individual knows his/her best and can make the decisions for themselves, while humility reminds us not to judge others. Although assisted fertilization is forbidden by the Catholic Church, this did not hinder its wide availability in Lebanon so why is abortion an exception?

Steps to follow based on other countries' experiences

Concurrently with legalization of abortion, several steps are needed to ensure adequate implementation. The transition form unsafe to safe abortion demands several steps and changes at the national policy level. It is important to mention that abortion should not be seen as a family planning method. First availability and accessibility of contraceptives is essential to decrease abortion use, second appropriate training of health care providers on evidence-based abortion techniques and monitoring the safety of abortion practice is essential. Last,

sensitization of the public regarding the need for abortion in certain cases is required to reduce discrimination against women who do not have other choices.

Availability and Easy access to contraception

Availability of contraception is the cornerstone for the fight for reducing abortion. Worldwide, aggregate patterns show that contraceptive accessibility is inversely proportional to abortion rates. Data from several developed countries such as France, Italy, Scandinavian countries and the Netherlands shows that a well established and utilized contraception program associated with proper sex education substantially decreases the need to resort to an abortion (Benagiano & Pera 2000). Two main steps are needed to promote contraception:

1- Educating the population at large and women in particular about sexual and reproductive health including the different forms of family planning methods.
2- Promoting government support for contraception is compulsory for the availability and accessibility to contraceptives especially in the underserved areas and for those most in need for contraceptives.

Monitoring Safety of Abortion and training health professionals

Although availability of contraceptives would significantly decrease the need for abortion, this is not an excuse to keep abortion restricted by law as the most effective contraceptive methods such as tubal ligation and IUD implants carry some failure rates of approximately 0.4 to 0.8 pregnancies per 100 users per year (Yanda et al. 2003). Estimates reveal that even if all users of contraceptive methods perfectly use them all the time (which is very unlikely), there would still be nearly 6 million accidental pregnancies annually worldwide (Berer 2004). Therefore abortion remains a necessary procedure. However it is important to mention that legalization of abortion does not guarantee access to safe abortion. Legal reform efforts must focus both on reforming legislation and building the capacity of health systems to provide safe quality services for women. Safety is about making sure that abortions are carried out by skilled providers who operate in situations that do not endanger a woman's life. Although abortion is legal in India and Zambia, women are still forced to turn into dangerous and unsafe methods to obtain an abortion mainly because of obstacles in putting the law into practice (Berer 2002b; Bernstein & Rosenfield, 1998). The main obstacles were provider unwillingness to perform abortion, and lack of trained personnel and resources to perform the operations (Berer 2002b; Bernstein & Rosenfield, 1998). Therefore the medical community needs to be sensitized on the reproductive rights of women starting from the early years of medical education. In addition, obstetricians in training need to be taught abortion techniques that are evidence-based.

Working on the attitude of Society

Abortion is not just illegal as far as the law is concerned, but it is also in people's minds. Until a society accepts that abortion is a human right for women and that providers should not be punished for it, legal abortion will rarely be provided except in exceptional circumstances (Berer 2002). There is a need to educate the public on safe techniques in order to improve reproductive health. It has been shown that abortion as a public health issue, as opposed to a political or religious issue, has been ignored by the obstetrical community, policymakers and the media. In Turkey, obstetricians originally opposed legalization of abortion because the procedure in its illegal status was providing them with high fees (Hasini 2007). It is also critical to address the factors that lead to unprotected sex and unwanted pregnancies through KAP studies.

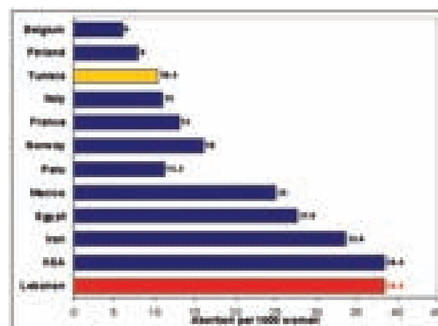
Moreover, gender education is needed as a women's ability to control her fertility is tightly linked with gender dynamics and gender roles in a particular society. In Lebanon, some women might not be able to negotiate contraceptive or condom use with their partners. Hence there is a need to promote gender education in schools and address this topic in the media especially television, a widely accessible media in the country. Finally, a rights-based approach to abortion provision emphasizing rights such as nondiscrimination and equality, dignity, freedom of information, protection of physical integrity needs to be implemented. It is also crucial to include individuals mainly women and groups in the debate of issues and the implementation of policies that affect them in order to promote a good reproductive health policy.

Conclusion

In summary, studies and facts clearly show that criminalizing abortion on one hand does not lead to a lower incidence, but on the contrary, it increases abortion rates and leads to higher rates of complications and deaths. Whereas legalizing abortion on the other hand does not entail an increased utilization but on the contrary, it helps decrease its incidence provided that it is accompanied with other public health measures including safety, availability and easy accessibility to family planning methods such as contraceptives (Benagiano & Pera 2000). Moreover, legalization is an opportunity for proper monitoring of the safety of the procedure and of cost containment decreasing subsequently the exploitation of desperate and poor women. Opponents and proponents of legal abortion have a common goal of decreasing abortion rates to a level as low as possible. This can be accomplished by providing comprehensive reproductive health services which are founded on a Human rights-based approach (Amado 2004).

Access to safe and legal abortion is critical for women's equality and right to physical autonomy. Full participation in society is not realistically possible without the ability to decide when to become a mother. Legal abortion is also essential for social equity and justice. Poor women cannot have access to safe abortion while those who are wealthy can easily buy safety. The paper ends by a thought provoking sentence by Marge Berer (2002): *"The way a country deals with abortion is highly symbolic of the women's status and how it treats women generally. Those who believe there are more important things to put right than unsafe abortion are in effect making a statement that women's health and lives do not count"*.

Figure 1: Number of abortions per 1000 women between 1995 and 2000 in selected countries worldwide.



Numbers adapted from Global Health Council (2002)

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