Contraception and Induced Abortion in the West Indies: A Review

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ABSTRACT

Background: *Most islands in the West Indies do not have liberal laws on abortion, nor laws on pregnancy prevention programmes (contraception). We present results of a literature review about the attitude of healthcare providers and women toward (emergency) contraception and induced abortion, prevalence, methods and juridical aspects of induced abortion and prevention policies.*

Methods: *Articles were obtained from PubMed, EMBASE, MEDLINE, PsychINFO and SocIndex (1999 to 2010) using as keywords contraception, induced abortion, termination of pregnancy, medical abortion and West Indies.*

Results: *Thirty-seven articles met the inclusion criteria: 18 on contraception, 17 on induced abortion and two on both subjects. Main results indicated that healthcare providers' knowledge of emergency contraception was low. Studies showed a poor knowledge of contraception, but counselling increased its effective use. Exact numbers about prevalence of abortion were not found. The total annual number of abortions in the West Indies is estimated at 300 000; one in four pregnancies ends in an abortion. The use of misoprostol diminished the complications of unsafe abortions.*

Legislation of abortion varies widely in the different islands in the West Indies: Cuba, Puerto Rico, Martinique, Guadeloupe and St Martin have legal abortions. Barbados was the first English-speaking island with liberal legislation on abortion. All other islands have restrictive laws.

Conclusion: *Despite high estimated numbers of abortion, research on prevalence of abortion is missing. Studies showed a poor knowledge of contraception and low use among adolescents. Most West Indian islands have restrictive laws on abortion.*

Keywords: Contraception, induced abortion, medical abortion, West Indies.

Contracepción y Aborto Inducido en West Indies: Una Revisión

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RESUMEN

Antecedentes: *La mayoría de las islas en West Indies no tienen leyes liberales sobre el aborto, ni programas para la prevención del embarazo (contracepción). El presente trabajo presenta los resultados de una revisión de la literatura sobre la actitud de los proveedores del cuidado de la salud y las mujeres hacia la contracepción y el aborto inducido (emergencia), prevalencia, métodos y aspectos jurídicos del aborto inducido y políticas de prevención.*

Métodos: *Se obtuvieron artículos de PubMed, EMBASE, MEDLINE, PsychINFO y SocIndex (1999 a 2010) que usaban como palabras claves* contracepción, aborto inducido, terminación de embarazo, aborto médico y West Indies.

Resultados: *Treinta y siete artículos correspondían al criterio de inclusión: 18 sobre contracepción, 17 sobre aborto inducido y 2 sobre ambos asuntos. Los resultados principales indicaron que los conocimientos de los proveedores de cuidado de la salud acerca de la contracepción de emergencia, eran pobres. Los estudios mostraron un conocimiento pobre de la contracepción, pero las sesiones de counseling aumentaron su efectividad. No se encontraron números exactos sobre la prevalencia del aborto. Se estima que el número total de abortos por año en West Indies es de 300 000. Uno de cada*

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cuatro embarazos termina en aborto. El uso de misoprostol disminuyó las complicaciones de abortos inseguros.
La legislación sobre el aborto varía ampliamente en las diferentes islas del Caribe: Cuba, Puerto Rico, Martinica, Guadalupe y San Martín tienen abortos legales. Barbados fue la primera isla angloparlante con legislación liberal para el aborto. Todas las otras islas tienen leyes restrictivas.
Conclusión: *A pesar del alto número de abortos, según se estima, no hay investigaciones sobre la prevalencia del aborto. Los estudios mostraron un pobre conocimiento de la contracepción y un uso bajo entre los adolescentes. La mayoría de las islas del Caribe tienen leyes restrictivas contra el aborto.*

Palabras claves: Contracepción, aborto inducido, aborto médico, West Indies

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BACKGROUND

Contraceptive use and induced abortion are major topics in reproductive healthcare studies. In most countries where induced abortion is legally restricted, women suffer high risks and consequences because of difficult accessibility to abortion providers, high fees for abortion, risks of complications and stigmatization. The West Indies is a heterogeneous group of islands in terms of ethnic variations, religion, size and type of economy, type of governance, and different (colonial) historical backgrounds. But there are also similarities: most islands are small island developing states with a variety of descendants of people from countries all over the world. Most islands have a democratic structure built on the laws of the former dominators. Also healthcare laws are mostly based on the former colonial governance. Most West European countries have more liberal laws and prevention programmes regarding contraception and abortion than their former colonies. Some of these islands governments have made liberal changes in these (former) laws or legalized induced abortion, but in a lot of the islands induced abortion is still prohibited (1). The consequences are illegal practices on all of these issues, some with high social and financial risks (2, 3). Illegal abortion often has strong physical and psychological consequences for women and is a great burden to healthcare institutions because of hospital admissions due to complications. Modern contraception like condoms, oral contraceptives, intra-uterine devices and injectable contraceptives is available in most islands but several cultural and economic reasons lead to no use or restricted and inconsistent use.

Forbidden or not, there is a high estimated number of induced abortions. A literature search was performed on research on attitudes and knowledge of contraception among healthcare providers and women as potential users, prevalence and methods of induced abortion, the attitude of healthcare providers and women toward induced abortion, juridical aspects of induced abortions and on prevention policies.

SEARCH

A systematic search strategy was executed including the following databases. PubMed (free text and MeSH), EMBASE, MEDLINE, PsychINFO and SocIndex were searched (1999 to 2010) using the keywords “Induced abortion” OR “Termination of Pregnancy” OR “Medical abortion” OR “Contraception” and “West Indies”. In the description of our results we made a distinction in: (a) knowledge and attitudes of healthcare providers and women toward emergency contraception, (b) contraception, (c) prevalence and methods of induced abortion, (d) knowledge and attitude of healthcare providers and women toward abortion, (e) prevention policies and (f) juridical aspects.

RESULTS

A total of 37 articles were identified: 18 on contraception, 17 on induced abortion and two on both subjects. Cochrane reviews were not found. On Google, an interesting paper on abortion laws in the West Indies was obtained (Table 1).

Most studies originated from Jamaica and the Dominican Republic. Studies from Jamaica had contraceptives as the most frequent subject, with emphasis on emergency contraception pills (ECP). Two studies from the Dominican Republic focussed on contraception and one study described the relation between the rise of misoprostol in relation to the decline of abortion-related complications. Studies from Cuba focussed on abortion. Two studies presented results from medical abortions, one from Curaçao and one from Guadeloupe.

Knowledge of and attitudes toward emergency contraception of healthcare providers and women

The subject of most research was the female and male contraceptive methods to avoid unplanned pregnancies. Delay of sexual debut, condom use, female sterilization, as well as ECP are mentioned as possible methods to avoid pregnancies and the literature showed that encouraging the use of contraception has positive effects (4−8). Poor knowledge of proper use and safety of ECP among pharmacists, general practitioners, obstetricians-gynaecologists and nurses was described in three studies (9−11). Know-

Table 1: Results of literature review (1999−2010) on contraception and induced abortion in the West Indies

Subject	Country	Journal	Year	Author and summary
a. Knowledge and attitude toward contraception	Jamaica	Contraception	2010	Chin-Quee et al (4). Effect of discount for oral contraceptive pills on ECP
	Bahamas	J Health Pop Nutr	2009	Stanton et al (5). Knowledge of condom-use and condom-use skills checklist
	Bahamas	Sex Health	2008	Yu et al (60. Predictability of sexual behavourial intentions among pre-adolescents. Knowledge of condom use
	Jamaica	Int Perspect Sex Repr Health	2009	Baumgartner et al (7). Delay in sexual debut and reduction of sexual partners and unintended pregnancies
	Dom Rep	J Biosoc Sci	2004	da Costa Leite et al (8). Attitude of women toward female sterilization
	Jam/Barbad	Int Fam Plann Persp	2007	Yam et al (9). Knowledge/attitude among healthcare providers about ECP
	Puerto Rico	P R HealthSci	2007	Fuentes et al (10). Knowledge among pharmacists about ECP
	Jamaica	Contraception	2002	Sorhaindo et al (11). Knowledge ECP among university students
	Trinidad	Int J Adol Med Health	2009	Ali et al (12). Prevalence of unplanned pregnancies related to lack, failure and misuse of reliable contraception
	Trinidad	Int J Adol Med Health	2010	Saroop et al (15). Contraceptive knowledge not in line with attitudes and practice
	Dom Rep	AIDs Edu Prev	2009	Lara et al (16). Acceptability of female controlled barrier methods
	Bahamas	Pediatrics	2009	Gong et al (17). Protection motivation for HIV prevention resulted in changes on condom use intention among youth
	Jamaica	Contraception	2007	Steiner et al (18). Knowledge of condom-use decreased rates of slippage and breakage
	Jamaica	Am J Obstet Gyn	2006	Steiner et al (19). Knowledge about effectiveness of contraception
b. Contraception	Jamaica	BMC Womens Health	2008	McFarlane et al (42). Effect of hormonal contraceptives on risk of cervical cancer
	Cuba	Eur J Contrac Reprod H	2007	Esteve et al (43). Results of emergency contraception with 10 mg mifepristone
	Dom Rep	Contraception	2007	Sitruk-Ware et al (44). Dual protection method with levenorgestrel vaginal gel
	Dom Rep	Contrac Technol Update	2000	No author (45). Norplant results
c. Prevalence and methods of abortion	West Indies	Lancet	2006	Singh (1). Estimates of unsafe abortion
	Netherlands	Ned Tijdschr Geneesk	2002	Stuart et al (22). Abortion rates among Antillean teenage girls in Amsterdam
	Curaçao	West Indian Med J	2009	Boersma et al (25). Medical abortion in primary care
	Cuba	Contraception	1999	Elul et al (26). Side effects medical *versus* surgical abortion
	Guadeloupe	Contraception	1999	Guengant et al (27). Medical abortion, mifepristone and home administration of misoprostol
	Curaçao	Ned Tijdschr Geneesk	2008	Boersma et al (28). Medical abortion with methotrexate and misoprostol in Curaçao
	Dom Rep	BJOG	2005	Miller et al (29). Misoprostol and declining abortion-related morbidity
	Jamaica	Int J Gynec Obstet	2002	Clark et al (46). Misoprostol use in obstetrics and gynaecology

Table 1 (cont'd): Results of literature review (1999−2010) on contraception and induced abortion in the West Indies

Subject	Country	Journal	Year	Author and summary
	Dom Rep	Obstet Gynec	2004	Gomez et al (30). Para cervical block in incomplete abortion in the Dominican Republic
d. Knowledge and attitude toward abortion	Caribbean	Contraception	2004	Espinoza et al (31). Physicians' knowledge about medical abortion in the Caribbean
	Dom Rep	Am J Nursing	2008	Proujansky (32). Women on a maternity ward
	Trinidad	J BioSocSci	2010	McCarraher et al (34). Provider training in PAC
	NE Car	Repr Health Matter	2009	Pheterson (33). Visions of physicians on abortion services in North east Caribbean
	Trinidad	Repr Health Matters	2007	Martin et al (35). Knowledge and perceptions on abortion and abortion laws
	Dom Rep	Pop Research _ Policy Review	2001	Magnani et al (36). Adolescent fertility rates rise, also rates of induced abortion increase
	Cuba	Stud Fam Plan	2009	Belanger et al (37). "Abortion culture" in Cuba. Views on abortion and contraception
e. Prevention policies	Cuba	J Womens Health	2002	Olson et al (39). Compulsory sex health education: report on attitudes/perceptions on sexuality, contraception, abortion and family planning
	Cuba	Int Fam Plann Persp	2003	Marston et al (40). Relationships between contraception and abortion
f. Juridical aspects	Trinidad	Hugh Wooding Law School	2008	Christo (41). Analysis of legalization of abortion in Barbados, Guyana and The United Kingdom with the intention of discovering the best way forward in legislation in other Commonwealth Caribbean jurisdictions

Abbreviations: ECP − emergency contraception pills; PAC− post abortion care; Barbad − Barbados; Dom Rep − Domincan Republic; Jam – Jamaica; NE Car – North-east Caribbean.

ledge among professionals about ECP is necessary to diminish the risk of unplanned pregnancies and abortions.

Misinformation, fear of health consequences and concern about side-effects are well-known barriers to effective contraceptive use and lack, failure and misuse of contraception are reasons for unplanned pregnancies (12−14). Different studies showed that knowledge and opinions about contraceptives are positively influenced by education and information, although adequate knowledge of contraception is not always in line with the practice (15−20). One study emphasized the gender differences in sexual perspectives. Girls are influenced by peers' sexual behaviour and a limited understanding of the adverse consequences of sexual intercourse; intention to have coitus among boys is predicted by low perceived self-efficacy to avoid sexual intercourse and with positive feelings about having coitus (6).

Prevalence and methods of induced abortion

The abortion rate is estimated at 35 per 1000, with a relative high rate of 16 per 1000 for safe abortions in countries where abortion is legalized: Cuba, Puerto Rico, Guadeloupe, Martinique and Barbados (21). The abortion rate is calculated from the number of abortions divided by the number of women in the age range of 15−45 years, multiplied by 1000.

Exact numbers of induced abortion in most parts of the West Indies were not obtained in the literature. The annual number of unsafe abortions in the West Indies is estimated at 100 000 and the total number of abortions at 300 000 (1). Hospital admissions as a result of unsafe abortions are estimated to be 3 to 16 per 1000 abortions with a high level of safe abortions in Cuba, reasonably safe provisions in some other islands and a high rate of estimated hospital admissions of 10 per 1000 in the Dominican Republic as a result of unsafe abortions. Exact numbers are also unknown in the Netherland Antilles. A large population of Antilleans live in the Netherlands, where abortion registration is obligatory and registered abortion rates of Antillean women in the last 10 years is about 40 per 1000 (21, 22).

In medicine, two methods of abortion can be distinguished: instrumental *versus* medical abortion. The instrumental method, used since the beginning of the last century, became dominant in most West European countries and the United States of America (USA). In the mid-nineties,

medical abortion was an upcoming method. Medical abortion is known as a safe alternative to instrumental abortion, especially in countries where abortion is legally restricted (23, 24). In the West Indies, medical abortion is used in some islands under legal circumstances as well as in islands where abortion is prohibited under all circumstances. Different methods of medical abortion are used due to these circumstances. Mifepristone or methotrexate in combination with misoprostol is used by general practitioners or in hospital clinics with good results (25). Misoprostol alone is mostly used under illegal circumstances by women without medical help. Although not the most effective method, the use of misoprostol diminished the complications of unsafe abortions (1, 26–29). Although the use of medical abortion is increasing, surgical abortion is still widely used, but research about this topic is scarcely mentioned (30). Comparative research on both methods was not found in the literature.

Knowledge and attitude of healthcare providers and women toward abortion

Research on knowledge of healthcare providers and their attitude toward abortion is scarce. There were conflicting opinions regarding safety, efficacy, acceptability and potential for self-medication for medical abortion. Furthermore, a lack of reliable sources of information for both providers and women was mentioned (31). Studies, performed in countries where abortion is restricted, showed that there is little respect for women requesting abortion or who have been hospitalized due to complications of abortion. Physicians and abortion providers in the North-east Caribbean accept the legal restrictions of abortion as satisfactory and do not care about the discrepancy between their liberty to practice illegal abortions and the restrictions in legal rights to these services for women. According to some studies, in countries where the procedure is illegal, there are medical practitioners selling misoprostol for medical abortion at very high prices without proper follow-up (32, 33). Counselling on contraception during post abortion care is rare, but improves with provider training (34). A research in Trinidad concluded that people would like to broaden the legal grounds for induced abortion and do not want abortion law reforms based on personal beliefs of politicians (35). The authors emphasize that the wide variances in views toward abortion should be discussed, but public opinion should not override public health and human rights. A rise in adolescent fertility rates in the nineties was noted in the Dominican Republic, where induced abortion is totally prohibited. The age of first sexual contact is declining without a decline in mean age at first contraceptive use (36). Studies about the attitude of women toward abortion are missing.

In contrast with the preceding, abortion is legalized in Cuba which has the highest abortion rates in the world for many years. There is a longstanding awareness of abortion and it is seen as a personal choice. There is skepticism about contraceptives, leading to high rates of unplanned pregnancies (37). Although there are no social taboos on contraceptives, there is limited use, because of unavailability and a certain hesitation about the working of contraceptives. Nevertheless, Cuban women are able to exercise their reproductive rights of deciding when, and how many children they want to have (14).

Prevention policies

Literature shows clearly that modern contraceptive use is the important factor in declining abortion rates (38). A Cuban study acclaims the open sex education programmes for the masses encouraged by the Cuban government. These programmes resulted in a decrease of teenage pregnancies, lower fecundity rates among women older than 40 years and a better acceptance of homosexuality by overcoming religious, cultural and taboo barriers (39). In a study of prevention of unintended pregnancies, the relation between contraception use and abortion showed a decline in abortion rates if contraceptive use rises in countries with stable fertility rates. In countries where fertility rates decline, contraceptive use rises parallel with abortion rates (40). This indicates that if women have the choice to determine their family size, both contraception and abortion are used to manage this.

Juridical aspects of induced abortion

We did not obtain any research on juridical issues on abortion in our literature search. On Google, we noticed a paper on the liberalization of abortion laws in the West Indies. The author pleaded for legislation to liberalize abortion on islands where governments did not approve induced abortion (41). The author categorizes the West Indian islands in respect of induced abortion into six groups (Table 2). In the third group, women suffering from severe diseases like heart or kidney diseases, sickle cell anaemia, diabetes or severe hypertension, who become pregnant, have the choice of an abortion in order to avoid serious health complications. The fourth group also includes pregnancy due to rape or incest with a severe threat to mental stability being a cause for abortion. Abortions in cases with fetal defects having a great likelihood of causing death within a year after birth can be seen as saving women the physical or mental trauma of pregnancy and birth. Legislation for induced abortion in most countries is not at the request of the woman. Interestingly, as long as it is not the woman's wish, but something else, like diseases, rape or poverty, it can be legally a reason for abortion. Providing abortion as a result of the wish of a woman seems to be very difficult to realize in legislation.

Cuba followed the communist world in legalizing abortion; Puerto Rico is part of the USA where abortion is legal and Martinique, Guadeloupe and the French side of St Martin (all overseas territories of France) have legal abortions. Barbados was the first country in the English-speaking West Indies with legislation on abortion, following the path

Table 2: Legality of abortion in West Indian countries

Legality of abortion	West Indian countries
1. Prohibited altogether	Dominican Republic, Netherland Antilles, Haiti
2. To save the life of a woman	Dominica, Antigua and Barbuda
3. To save the life of a woman and to preserve/protect physical health	Bahamas, Grenada
4. To save the life of a woman and to preserve/protect physical and mental health	Trinidad and Tobago, St Lucia, Montserrat, Anguilla, Virgin Islands Jamaica, St Kitts and Nevis, Cayman Islands
5. To save the life of a woman, to preserve/protect physical and mental health and on socio-economic grounds	Barbados, St Vincent and the Grenadines, Bermuda
6. On woman's request	Cuba, Puerto Rico, Guadeloupe, Martinique, St Martin

of the international community and has developed a solid legal framework for abortion. In the democratic world, the right of freedom of choice has become an indisputable fact for decades and in this, the right of privacy is embedded. The reproductive rights of women are part of one's right to privacy and make anti-abortion laws discriminatory to women. Anti-abortion laws affect poor women even more because of the limited possibilities for them to travel to a foreign country where abortion is legal. Poverty, economic and social factors are the main reasons for women undergoing abortions.

DISCUSSION

The first issue in this literature review was the knowledge and attitude toward reliable contraceptives. Scholars show that knowledge about reliable contraception in some countries is very poor, but counselling increases effective use of contraception and more knowledge changes attitudes and causes a decline in high abortion rates. Research also shows the cultural intolerance to contraceptives and the negative influence on the abortion rate. Main subjects on contraception are the motives of inappropriate use, reasons for unplanned pregnancies and methods to avoid it. Also, evaluation studies on policy prevention programmes show that sex education is effective, particularly when these interventions are on cultural aspects and relate to gender differences to increase the use of modern contraception. The rate of unintended pregnancies will decline dramatically as reliable contraceptive use increases.

A possible limitation of this study is the absence of unpublished data, performed by governmental health departments in the different islands, which might be complementary to this review.

Literature on prevalence of induced abortion during the last 10 years in the West Indies is missing. This is remarkable because estimates of abortions are high. Although the use of medical abortion is increasing, surgical abortion is still common, but not registered nor evaluated in literature. Most governments do not make changes in their laws to legalize induced abortion and in some islands, induced abortion is still totally prohibited. The laws in the West Indies are stricter than in the former motherlands of these countries. Healthcare and abortion providers have to work in a difficult, illegal environment where women asking for abortion are highly vulnerable. Scholars indicate that changes in law towards liberalization of abortion will improve the safety of induced abortions substantially and, therefore, save the lives of women.

Missing is comparative research in the Caribbean studies compared to international studies on the subjects of contraception and abortion, prevalence and complications of (medical and surgical) abortion, the use of mifepristone and misoprostol in countries with restrictive abortion laws and the attitude of women toward abortion. Future research should be targeting these subjects in the West Indies.

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