Asian Population Studies
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/raps20

Contraceptive behaviour of abortion seekers in Sri Lanka

W. Indralal De Silva , R. Asoka Dayananda & N. W. P. D. B. Nishanthi Perera

Published online: 02 Feb 2007.

To cite this article: W. Indralal De Silva , R. Asoka Dayananda & N. W. P. D. B. Nishanthi Perera (2006) Contraceptive behaviour of abortion seekers in Sri Lanka, Asian Population Studies, 2:1, 3-18, DOI: 10.1080/17441730500441442

To link to this article: http://dx.doi.org/10.1080/17441730500441442

CONTRACEPTIVE BEHAVIOUR OF ABORTION SEEKERS IN SRI LANKA

W. Indralal De Silva, R. Asoka Dayananda and **N. W. P. D. B. Nishanthi Perera**

Data collected from 306 abortion seekers were used to investigate their knowledge of contraception, the type of contraceptives used at the time of conception, and their intentions for future fertility and post-abortion contraception. Even though three-quarters of the clients were using a contraceptive method at the time of conception, 74 per cent of these were relying on safe period and/or withdrawal. Only half of the users of traditional methods possessed correct knowledge of a woman's fertile period. The unwanted conceptions among these respondents were primarily due to non-use or relying on less effective contraceptives, despite the fact that modern contraceptives are available throughout the country. The acceptance of post-abortion contraception was only 66 per cent, indicating lack of effective counselling. The practice of traditional contraception could lead to repeated abortions, and in that scenario women may consider induced abortion as a contraceptive method or back-up procedure for contraceptive failure.

KEYWORDS: induced abortion; contraceptive dynamics; side effects; Sri Lanka; non-use of contraception

Introduction

Induced abortion has been practised in one form or another from the beginning of human society. However, recently the practice of induced abortion appears to have increased significantly in many countries of the world. Estimates indicate that approximately 40–50 million induced abortions take place throughout the world annually (Henshaw *et al.* 1999). Of the total induced abortions, a large share take place in the developing countries using unsafe methods (Mundigo 1991; WHO 2003). Thus many international organizations and governments have seen induced abortion as one of the reproductive health issues that require immediate attention. The International Conference on Population and Development held in Cairo in 1994 drew special attention to reproductive health, which led to a global discussion on the issue of abortion (Hardee *et al.* 1998).

Although de-criminalization of abortion is a feature of evolving legal systems in many parts of the world, the law still restricts induced abortion in many third world countries (Rahman *et al.* 1998; WHO 2003). In some countries it is legal with no conditions, whereas in others it is allowed only under very strict and justifiable conditions. Hence, some women have access to a legal and safe procedure while others are exposed to unsafe methods. However, women in many developing countries do not have access to safe abortion techniques (Barreto *et al.* 1992; Paxman *et al.* 1993).

Asian Population Studies, Vol. 2, No. 1, March 2006
ISSN 1744-1730 print/1744-1749 online/06/010003-16
 DOI: 10.1080/17441730500441442

In Sri Lanka, legislation allows the termination of pregnancy only to save the life of the mother (article 303 of the penal code of 1883). Medical termination of pregnancy (MTP) is hardly performed in contemporary Sri Lanka; thus almost all the induced abortions that take place in the country are technically illegal. Even though it is illegal, many women in Sri Lanka who have unwanted pregnancies use induced abortion to prevent birth. Estimates indicate that about 150,000–175,000 abortions take place annually in Sri Lanka compared to about 325,000 live births per annum (De Silva 1996; Rajapakse 2000; Rajapakse & De Silva 2000).

Despite the fact that over 71 per cent of currently married women of reproductive ages are using contraceptives and 99 per cent of women know at least one method of contraception, there is a high incidence of induced abortion in Sri Lanka (Department of Census and Statistics 2002). In order to throw some light on this mismatch between the high prevalence of contraception and high incidence of induced abortions, the present study has a number of objectives: first, to investigate whether abortion seekers were practising any kind of contraception at the time of conceiving and if so the contraceptive method used; second, to investigate attitudes and knowledge on contraceptives among abortion seekers; third, to obtain information from abortion seekers about their intentions on future fertility and post-abortion contraception.

Data and Methodology

An abortion may occur naturally due to various health reasons (spontaneous abortion), or it can be carried out purposely (induced abortion). In medical terms induced abortion is defined as the termination of a pregnancy after implantation of the developing fertilized ovum in the lining of the uterus but before the foetus has attained viability (WHO 1996). The lowest weight of a potentially viable foetus is considered to be about 500 grams (only with availability of newborn intensive care units) or up to 19 weeks' gestation.

Reliable data on induced abortion are notoriously difficult to gather in almost all the developing countries (Dixon-Mueller 1988; Johnston & Hill 1996). Thus, induced abortions are typically under-reported in many countries including Sri Lanka. Women may wish to conceal their having had one either because abortion is illegal or due to the social stigma associated with the procedure (Henshaw 1990; Potts *et al.* 1997).

In Sri Lanka, the 1993 and 2000 Demographic and Health Surveys (DHS) have unsuccessfully attempted to collect information on induced abortion from ever-married women of reproductive age (Department of Census and Statistics 2002). Only a few women in both surveys reported having had induced abortions during their lifetime. Not only did few women report having an induced abortion, but the number reported has been declining from 152 in the 1993 DHS to 76 in the 2000 DHS (Department of Census and Statistics 2002).

Apart from the significant under-reporting of the practice of induced abortion in Sri Lanka in the two DHS surveys, primarily due to its legal and cultural associations, several important factors such as the timing of the reported induced abortions and the practice of contraception at the time of conceiving those unwanted pregnancies were also not collected in these surveys. Thus the two DHS databases do not permit a detailed investigation of contraceptive dynamics of abortion seekers in Sri Lanka.

Another source of data—studies based on the reports of patients who were admitted to hospitals for post-abortion complications—represents a selected group of

abortion seekers who had developed serious complications, while others, i.e. those who had developed serious complications but were not admitted to hospital and those who had not developed any serious complications, are not represented (Kodagoda & Senanayake 1982). Therefore obtaining information from clients at abortion clinics seemed the best way to represent all abortion seekers in Sri Lanka.

Data for the present study were collected at two abortion clinics located in the Western Province of Sri Lanka, namely in the cities of Colombo and Ja-Ela.[1] The clients were interviewed with the assurance that confidentiality of the clinics as well as the abortion seekers would be maintained. Interviews were carried out in a room at the clinic as it ensured privacy and gave the respondents the chance to answer freely.

The two clinics selected for the study primarily used the menstrual regulation[2] (MR) method for termination of pregnancy. It is believed that a large proportion of abortions in Sri Lanka is presently done using the MR procedure in more-or-less the same kind of clinics. Even when health professionals and researchers in Sri Lanka were questioned to find out the most popular procedure adopted for induced abortion in Sri Lanka, MR has been reported to be the most common procedure (62 per cent) (Singh *et al.* 1997).[3] The same respondents believe that in Sri Lanka physicians and other medically trained providers perform the vast majority of abortions in urban and rural parts of the country.

The clinics in principle perform the MR procedure for women at less than 12 weeks of gestation. If a pregnant woman falls above this cut-off point she is usually referred to some other provider who performs second-trimester abortions.

Women who came for an abortion were selected randomly to be interviewed while they were waiting to undergo the procedure. All those selected for the interview responded to the questionnaire. However, there were a few, only Tamil-speaking women, who could not understand the main language, Sinhala. Such respondents were assisted by the bilingually trained female graduate interviewers, who had some previous experience in interviewing abortion seekers in same type of clinics. Using an interviewer administered questionnaire, 306 abortion seekers were interviewed; 213 from the Colombo clinic and 93 from the Ja-Ela clinic. After about two months of work, the interviews were completed by September 2001.

The questionnaire included 56 questions, both structured and unstructured. It was developed in Sinhala since virtually all women who come to these two clinics could communicate fluently in Sinhala. The questionnaire was pre-tested to ensure its suitability as a data collection tool and also to check that the language used would be understood by the abortion seekers. They were interviewed using both prompted and unprompted methods, particularly in the case of contraceptives.

Information was gathered on demographic, socio-economic and biological characteristics of abortion seekers, their knowledge of contraceptives, contraceptive behaviour and their future intentions on fertility and post-abortion contraception. Emphasis was placed on examining in detail the contraceptive method(s) used at the time of conception.

Profile of the Abortion Seekers

The ages of the 306 clients interviewed ranged from 15 to 46 years, with a mean age of 32 years. Fewer than 3 per cent of the sample were 19 years or younger, most of whom were unmarried (Table 1). It is the clinics' policy to provide abortion to all women who request it and not to intimidate single women by asking more than routine family

TABLE 1
Distribution of abortion seekers by demographic and socio-economic variables.

Variable	Number	%
Age group		
15–19	9	2.9
20–24	35	11.4
25–29	78	25.5
30–34	69	22.5
35–39	82	26.8
40+	33	10.9
Marital status		
Never married	27	8.8
Married	276	90.2
Divorced/legally separated	3	1.0
No. of living children		
0	38	12.4
1	57	18.6
2	110	35.9
3	67	21.9
4	21	6.9
5+	13	4.2
Level of education		
No schooling	7	2.3
Primary (Year 1–5)	18	5.9
Secondary (Year 6–9)	97	31.7
GCE Ordinary or Advanced Level	179	58.5
Graduates	5	1.6
Work status		
Working	99	32.4
Non-working	207	67.6
Gestation period (weeks)		
4	5	1.6
5	28	9.2
6	85	27.8
7	64	20.9
8	67	21.9
9	29	9.5
10+	28	9.2
Total	306	100.0

questions. Even though only a small proportion of the total sample interviewed was reported to be single (8.8 per cent), the actual percentage of single women may be slightly higher than this, as some women may have misreported their marital status to protect themselves from the socio-cultural taboos of pre-marital pregnancy. However, it is the unanimous opinion of the enumerators, the researchers and the service providers that the 'overwhelmingly large majority', about 90 per cent of the interviewed clients, were married.

Among the unmarried clients, the majority were terminating their first pregnancy. This was due to the influence of their parents or male partner, or as a result of the partner's desertion or refusal to accept paternity. Among the married, only a small proportion were terminating their first pregnancy. All these married women intended to postpone the birth

of their first baby, probably to pursue employment or to otherwise conserve the limited financial resources of a young family. The number of living children of all clients ranged from 0 to 7 with a mean of 2, consistent with the replacement-level fertility[4] achieved in Sri Lanka (De Silva 1994).

The majority of the clients had a high level of education while 32 per cent were working outside their homes at the time of the survey (Table 1). Only a small proportion had an unemployed husband/partner. Even though income levels of the clients or their households were not obtained in the study, presumably an overwhelmingly large proportion of the clients were from middle- or low-income households.

Of the total sample a large proportion of women who sought to terminate their pregnancy were at an early stage of gestation (Table 1). The MR procedure is performed on some occasions as late as 14–16 weeks of gestation, but only a small fraction of women seek an abortion after 12 weeks. Many of these cases end up as incomplete abortions and require hospital admission to evacuate retained products of conception.

Contraceptive Dynamics

Jacobson (1988) states that the 'reality of abortion signals a social failure—the failure of millions of individuals to prevent pregnancy through the use of contraception and the failure of governments in developing countries to fill the unmet need for family planning' (p. 5). Although the situation may be more complex than Jacobson suggests, the implication of a connection between contraception and abortion cannot be denied.

The relationship between contraceptive use and induced abortion is a long debated one and difficult to study (Bongaarts & Westoff 2000; Rahman *et al.* 2001; Marston & Cleland 2003). Basically, the difficulty arises due to the complex interaction of several social, cultural, religious and economic factors in determining ideal family size, and the demand for abortion and contraception.

Although the trend in contraceptive use among the general population is well documented in Sri Lanka, data on contraceptive dynamics among abortion seekers hardly exist (De Silva 1996). As noted earlier, contraceptive dynamics among abortion seekers could not be analysed effectively using data from the DHS surveys.

Ever Use and Knowledge

During personal interviews, a few questions were posed to determine the contraceptive history of abortion seekers. Never-users of contraception were identified by asking the question 'Did you or your husband/partner ever use any contraceptive method?' About 93 per cent of the total of 306 abortion seekers had ever used some kind of contraceptive. Virtually all the clients (99 per cent) knew at least one method of contraception and over 97 per cent knew at least one modern method. The corresponding estimates for all currently married women aged 15–49 in the DHS 2000 were lower for ever use of contraception (84 per cent) but much the same for knowledge of contraception (Department of Census and Statistics 2002).

Hence, it is difficult to maintain that the reason most abortions have taken place in Sri Lanka is the lack of knowledge on contraceptives among the abortion seekers. The more relevant question concerns the contraceptive behaviour of the clients at the time of the unwanted pregnancy and the method used.

Contraceptive Use at the Time of Conception

The study identified that out of the 306 clients interviewed, 226 (74 per cent) were using a contraceptive method at the time of conception. Interestingly the current user rate in the study is even higher than the figure reported in the DHS 2000 (71 per cent).

It should be noted that information on current user status of abortion seekers was obtained by asking the question 'Did you or your husband/partner use any contraceptive method at the time of conceiving the present pregnancy?' Both unprompted and prompted approaches were used to gather information from clients since those who had been using traditional methods of contraception did not identify them as contraceptives. The prompted approach was particularly adopted in this study since the findings of an earlier study (Ban *et al.* 2002) recorded that none of the abortion seekers reported the use of traditional methods of contraception at the time of conceiving. Even today a large segment of Sri Lankan women think that it is only the modern family planning methods that are contraceptives and not the traditional methods. Thus with the prompted approach many clients reported practising traditional methods during that cycle.

Despite having relied on contraception to avoid conception, these women failed to achieve their intentions. What, then, could be the reason for conceiving: method failure or user failure? If it was user failure, then what methods did they use? Respondents were therefore asked, 'What was the contraceptive method you or your husband/partner used at the time of conceiving?'

More than half (56 per cent) of the users among the abortion seekers were practising safe period (rhythm) as a contraceptive method at the time of conceiving (Table 2), while another 18 per cent relied on withdrawal. Overall, nearly three-quarters (74 per cent) were using traditional methods. Among modern method users, the condom was the most popular followed by the pill.

It is important to note that modern contraceptive methods were much less popular among these abortion seekers (26 per cent of those using contraception) than among current users in the Sri Lankan population, 71 per cent of whom relied on modern methods (Department of Census and Statistics 2002). Moreover, since the 1980s there has

TABLE 2
Distribution of clients using contraceptive method at the time of conception, by method used.

Contraceptive method used	%
Modern method	
Pill	12.0
Condom	13.7
Injectable	0.4
Any modern method	26.1
Traditional method	
Safe period (rhythm)	56.2
Withdrawal	17.7
Any traditional method	73.9
Total	100.0
Number	226

been an increase in the use of modern methods amongst general population while reliance on traditional methods has gradually declined (De Silva 1994).

Sometimes, when a woman feels that the method she is relying on to avoid pregnancy is less effective, she may simultaneously use another method in order to gain higher overall effectiveness. Thus 118 women were using more than one contraceptive method at the time of conceiving (Table 3). Of these, about 89 per cent were using safe period and withdrawal methods together. About another 8 per cent were using safe period and condom simultaneously. Only one abortion seeker was using pills and condoms together. Presumably with their own understanding of the limited effectiveness of the safe period, most of them had combined that method with withdrawal, which is another less effective traditional method. Apart from the large number of users who have combined two traditional methods there is also a significant number who relied on the safe period or withdrawal method separately.

Knowledge of Fertile Period

Since nearly 55 per cent (167 of 306) of the total abortion seekers were relying on safe period or withdrawal or both methods together to avoid conception, it would be crucial for them to have a sound knowledge about a women's fertile period during a given menstrual cycle. Thus all respondents were asked 'When during a monthly cycle do you think a woman has the greatest chance of becoming pregnant?'

Even though a majority of women were using traditional methods (safe period or withdrawal) at the time of conceiving, a large proportion of them did not know the fertile period of their menstrual cycle (Table 4). Clearly unwanted pregnancies have occurred to them not because of method failure, but mainly due to user ignorance. Only 27 per cent, 28 per cent and 16 per cent of the clients who used modern methods, traditional methods and used none respectively gave the correct answer for this question (i.e. middle of the menstrual cycle). Even if we add to this group those who answered '14 days after the first date of menstruation' (an only partially correct answer), the knowledge of the fertile period remains low, being only 52 per cent and 54 per cent respectively of modern and traditional method users. As expected, the poorest knowledge on the fertile period was reported by the non-users of contraception (Table 4).

Incorrect knowledge about the fertile period made many in this group vulnerable, as evidenced by their unwanted pregnancies and resort to clinics for termination. Apart from

TABLE 3
Distribution of clients who used more than one contraceptive at the time of conception, by methods used.

	Condom		Safe period		Withdrawal		Total	
Method used	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Pill	1	0.8					1	0.8
Condom			9	7.6	3	2.5	12	10.2
Safe period					105	89.0	105	89.0
Total	1		9		108		118	100.0

TABLE 4
Distribution of clients by knowledge on fertile period and type of contraceptive used at the time of conception.

Time location of fertile period	Knowledge among users			
	Modern	**Traditional**	**Non-use**	**Total**
At the menstruation	—	—	1.3	0.3
Soon after the menstruation	10.2	14.5	15.0	13.8
14 days after first date of menstruation	25.2	26.4	18.5	24.2
Middle of the menstruation circle	27.1	28.5	16.3	25.0
Days very close to menstruation	3.4	5.5	3.8	4.6
Any day	—	0.6	—	0.3
Other*	20.6	18.4	14.0	17.6
Do not know	13.6	6.1	31.3	14.1
Total	100.0	100.0	100.0	100.0
Number	59	167	80	306

*Includes particular time periods such as 0–7, 8–14, 15–21 and 22 or more days.

possessing correct knowledge on the fertile period, strong husband–wife communication is an essential factor for efficient use of traditional methods of contraception, which may be lacking here (Salway 1994; De Silva 1997).

Knowledge and Use of Emergency Contraception

After having unprotected sexual intercourse, some of these women could have avoided getting pregnant had they known about 'emergency contraception' or 'morning-after method' ('postinor'), although the high cost (Rs 100.00 = US$ 1.02) would still be a deterrent to using it. Even though the abortion procedure is more costly than 'postinor', it allows more time to accumulate the required money.

As shown in Table 5, a large number of abortion clients (68 per cent) did not know 'postinor' as an emergency contraceptive method. As expected, users of modern methods frequently reported that they knew 'postinor' as an emergency contraceptive. However, only 25 per cent of the non-users and about one-third of traditional method users knew it. Those who had knowledge of 'postinor' were asked, 'Have you ever used

TABLE 5
Distribution of clients by knowledge on 'postinor' and type of contraceptive used at the time of conception.

Heard about 'postinor'	Knowledge among users			
	Modern	**Traditional**	**Non-use**	**Total**
Yes	42.4	31.7	25.0	32.0
No	57.6	68.3	75.0	68.0
Total	100.0	100.0	100.0	100.0
Number	59	167	80	306

'postinor'? Only 36 clients out of those who knew about it had ever used it. Thus only 12 per cent of the total abortion seekers had ever used 'postinor' in their lifetime (table not shown). Though the Family Planning Association of Sri Lanka has been trying to promote the knowledge and use of 'postinor', only a very few abortion seekers knew of it. Presumably the large majority of users of 'postinor' in Sri Lanka are unmarried young people. Among the abortion seekers the proportion of unmarried young women is significantly lower.

Emergency contraception offers women the chance to protect themselves against pregnancy in some cases of contraceptive malfunction or unprotected intercourse. Where the therapy is known, its use is frequently associated with the treatment of rape victims (Ellertson *et al.* 1995). The majority of these abortion seekers, however, could also have benefited from emergency contraception if not for the cost or their unawareness of the method. Women who knew about 'postinor' might have had concerns about its side effects, or lacked knowledge of where to obtain it.

Reasons for Non-use of Modern Contraceptives

Undoubtedly modern methods of contraception are far more effective than the traditional methods in preventing conception. The majority of the traditional method users and non-users may have a perception that modern methods have a number of side effects. Among the modern method users some could also hold this view even though they relied on these methods. Therefore all the clients were questioned on their perception about side effects of modern contraception. About 71 per cent of clients said that there are side effects in modern contraceptive methods. When the clients' responses about side effects in modern contraceptives were cross-tabulated with the contraceptive method that they were using at the time of conceiving, an interesting picture emerged. About 72 per cent of the clients who relied on modern methods of contraceptives believe that practising modern methods create a number of side effects (Table 6), but presumably they continue to rely on such contraceptives due to their effectiveness. The highest proportion of abortion seekers who believe there are side effects of modern contraceptives were the current users of traditional methods. Presumably, most of them refrain from using modern methods primarily due to their fears about side effects of modern contraception.

In order to identify the range of side effects perceived by those abortion seekers who indicated that there are side effects of modern contraception, they were asked what these side effects are. As shown in Table 7, about a quarter of those who mentioned side

TABLE 6
Distribution of clients by perception on side effects of modern contraceptives by type of current use.

Are there any side effects	Modern methods	Traditional methods	Non-use	Total
Yes	71.7	75.3	62.5	71.3
No	16.7	5.4	15.0	10.1
Do not know	11.6	18.7	22.5	18.3
Other	—	0.6	—	0.3
Total	100.0	100.0	100.0	100.0
Number	60	166	80	306

TABLE 7
Distribution of clients who mentioned side effects by their perception of the type of side effects of modern contraceptives.

Type of side effect	Number	%
Risk of not having a child	5	2.3
Risk of getting disabled child	2	0.9
Headache	51	23.4
Vomiting	17	7.8
Gastritis	3	1.4
Getting too thin	26	11.6
Getting too fat	56	25.5
Will have a cancer	58	27.1
Total	218	100.0

effects said that there is a risk of getting cancer by using modern contraceptive methods, while another quarter mentioned headaches, another quarter getting too fat and a smaller proportion getting too thin.

Future Fertility and Contraceptive Intentions

The majority of the abortion clients (43 per cent) did not wish to have any more children, while another 12 per cent were undecided about their future fertility (Table 8). Findings of studies on fertility intentions and the subsequent behaviour of Sri Lankan women (De Silva 1991) would suggest that over half of the total abortion clients do not wish to have any more children. In addition to the 43 per cent of respondents who said 'no', at least half of those who were undecided about their future fertility intentions would wish to cease their childbearing. Thus post-abortion contraception is an essential requirement for these women. On the other hand clients who wish to have a child may also adopt contraception with a view to spacing.

Of all these abortion seekers a large majority had to rely on contraceptives in order to achieve their future reproductive intentions. Thus all the clients were asked the question 'Are you intending to use a contraceptive method after the present induced abortion'? Over two-thirds (68 per cent) of the clients stated that they intended to use contraception for limiting or spacing births (Table 9). Indeed it has been shown in many studies that contraceptive use often rises following an induced abortion (Rajan & Devi 1980; Bulut 1984; Royston & Armstrong 1989; Henshaw 1990).

TABLE 8
Distribution of clients by future fertility intentions.

Do you expect a baby in future?	Number	%
Definitely yes	96	31.4
Yes	32	10.5
Definitely no	132	43.1
Not decided	37	12.1
Do not know	9	2.9
Total	306	100.0

TABLE 9
Distribution of clients by intended use of contraception after the current abortion.

Intended use any contraceptive	Number	%
Yes	207	67.6
No	17	5.6
Not decided	82	26.8
Total	306	100.0

Of the total clientele only 6 per cent do not expect to use any contraceptive method after the present induced abortion. These may fall in the unmarried category who may not have any immediate plans to use any particular type of contraceptive. They could also be women whose husbands/partners are opposed to contraceptive methods or who are themselves opposed to these methods for various reasons. There is also a significant number of women (27 per cent) who have not yet decided to use a contraceptive method. There are a number of possible reasons, including ambivalence about pregnancy, lack of knowledge about contraception, partner's opposition to family planning, poor access, fear of side effects and the woman's perception that she cannot become pregnant easily. On the other hand if these women again conceive, the majority of them may rely on induced abortion, which they may consider as a substitute for contraception.

Those who intended to use contraceptives were questioned about the type of method they wished to use. Out of 207 clients, 63 women (30 per cent) expected to use a permanent method, vasectomy or LRT (Table 10). Among the modern temporary methods, the injectable method was very popular among abortion seekers as it can be used easily and it is a more successful method. Only 12 and 8 per cent of women expected to use the pill or condoms, respectively.

TABLE 10
Contraceptive method intended by respondents intending to use contraception in future.

Contraceptive method	Number	%
Modern method		
Pill	24	11.6
Condom	16	7.8
IUD	39	18.9
Injectable	52	25.2
Vasectomy	59	28.2
Tubectomy (LRT)	4	1.9
Noplant	8	3.9
Any modern method	202	97.6
Traditional method		
Safe period	3	1.5
Withdrawal	2	1.0
Any traditional method	5	2.4
Total	207	100.0

Among those who wished to rely on contraception only about 2 per cent reported the traditional methods as their intended contraception. The analysis presented earlier shows that about three-quarters of the respondents in the study sample did conceive while they were relying on traditional methods. Having experienced a failure (unexpected/unwanted pregnancy), they may not wish to report a traditional method again as intended future use. The question is whether the remaining 98 per cent of the respondents, who wish to practise modern methods of contraception after the present abortion, will actually be able to obtain and practise such methods without any unintended conception during their remaining reproductive period.

Discussion and Conclusions

Abortion largely remains a taboo subject in Sri Lanka because of its legal, religious and cultural implications. Under the Penal Code of 1883 abortion is a criminal offence in Sri Lanka except when performed to save the life of the mother. During the course of the last three decades several attempts were made by the government with the support of non-governmental organizations to change the law relating to abortion. Some of the reasons highlighted in these discussions, in addition to economic factors and the right of women to decide, were teenage pregnancies, rape and increasing HIV infection among women. However, these attempts were not successful, as at the time there was strong opposition from different sections of society. In 1995, when withdrawing the amendments proposed to liberalize the abortion law, the Minister of Justice stated, 'Decriminalization of abortion is a feature of evolving legal system in many parts of the world and I do not see any reason why Sri Lanka should be out of step with that general development.' With the withdrawal of the amendments, the conservatives secured a significant victory.

As in many countries, in Sri Lanka many women of reproductive age are faced with unwanted pregnancies and the majority terminate them through abortion. In the past, methods used for abortion in Sri Lanka were sub-standard and carried substantial risks of complications, thus jeopardizing the lives and health of women. However, over the course of the last two or three decades, the emergence of MR as the principal method of induced abortion in Sri Lanka has been accompanied by a substantial decrease in the number of cases of septic abortions at hospitals throughout the nation (Singh *et al.* 1997). With the availability of a large number of clinics that provide MR facilities, the practice of induced abortion in Sri Lanka is becoming more medicalized. Apart from a significant number of abortion service centres, a number of private medical practitioners also provide MR and dilation and curettage (D&C) services through their own clinics. There are also a few private hospitals that provide the same facility and even late abortion services

No precise statistics could be collected from abortion clinics and private hospitals on their induced abortion services due to abortion's illegality. Thus the estimate of 150,000–175,000 annual induced abortions in Sri Lanka, put forward by the authors, is derived by using daily average attendance in known abortion clinics and making some allowance for those performed by private hospitals and practitioners. Since it is extremely difficult to gather information about the use of herbal and other natural substances, manufactured products and physical techniques used to induce abortion, the above estimate does not include such cases. However, with the medicalization of induced abortion in Sri Lanka, the number of women who rely on such methods for pregnancy termination has declined significantly (De Silva 1996; Ban *et al.* 2002).

Somewhat higher annual incidence of induced abortions was reported by Rajapakse (2000), utilizing the Randomized Response Technique (RRT).[5] The abortion rate of 45 per 1000 women of age 15–49 estimated for the year 1998 translated to an annual incidence of 240,055 (95% CL 201,388–278,184) induced abortions in Sri Lanka.

The findings of this study reveal that the knowledge on contraceptives in general, and on modern methods of contraceptives among the abortion clients remains exceptionally high. Contraceptive use at the time of conception among the 306 abortion clients stood as high as 74 per cent. However, the method mix remains ineffective in preventing unwanted pregnancies. Of the total users of contraception, almost three-quarters have relied on less effective traditional methods for preventing conception. Limited knowledge on the fertile period during a given menstrual cycle had clearly resulted in many unintended pregnancies. At the time of latest conception the majority of the clients were practising the safe period or withdrawal or both methods together, but clearly ineffectively.

Thus the high incidence of induced abortions to prevent unwanted births among women in Sri Lanka was primarily due to non-use of contraception or reliance on less reliable contraceptives. In fact more reliable modern contraceptives are available throughout the country through many distribution channels including governmental, non-governmental and private sector with a cafeteria approach. The high incidence of induced abortion also resulted from lack of knowledge on family planning methodologies and lack of negotiation skills where unintended pregnancies have occurred frequently.

The clinics in which the study was conducted do have a programme for providing modern temporary methods of contraception or referral for a permanent method for the abortion clients according to their wish. Trained counsellors were deployed and also the clinic staff were given incentives in order to promote acceptance of post-abortion contraception by these clients. However, observations and discussions at the clinics revealed that a significant proportion (33 per cent) of the abortion clients 'did not accept' or 'did not decide' post-abortion contraception from the clinics. It was also noted that about one-third of the abortion clients had one or more previous induced abortions. Among clients who had repeated abortions, the majority had utilized the same type of clinic. If those clients had accepted and practised contraception after the previous abortion, a smaller proportion would have been identified in the present study as repeaters.

Those who have decided to use contraception, after the present abortion, preferred sterilization, injectable, IUD and pill but not the traditional methods. Even if they decided to use these methods due to pressure from the clinic staff, the majority might have declined to use them subsequently. This situation could arise due to husband's/partner's disapproval of the method, perceived or experienced side effects, or perceived infecundity status (Ross *et al.* 2002). On the other hand, the use of more effective modern contraception will be influenced by a number of factors, some of which the woman may not have any control over.

In order to suppress the high incidence of repeat abortions, which usually leads to reproductive morbid conditions, the clinics could have a general policy that termination is performed only if the client wishes to accept at least semi-permanent modern contraceptives (IUD, injectable, Norplant) from the clinics after the procedure. This is the procedure adopted in MTP clinics in India when they perform induced abortion at government institutions (Chabra *et al.* 1998).

As observed from the abortion clients themselves, an overwhelmingly large percentage (75 per cent) do not know the fertile period of their menstrual cycle. Among

the ever-married women aged 15–49 years in Sri Lanka as a whole, about 60 per cent do not know the fertile period (Department of Census and Statistics 2002). Therefore, the high incidence of induced abortion in Sri Lanka could also possibly be curtailed by providing scientific knowledge of reproductive health to the relevant sections of the population. Even though reproductive and sexual health education is already in the school curriculum, it is not dealt with comprehensively, and in fact what is in the curriculum is also not received by the students systematically due to a scarcity of qualified teachers.

Marston and Cleland (2003) observed that in many populations, contraceptive prevalence and the incidence of induced abortion can rise in tandem, contrary to what one might expect. The abortion incidence might rise along the way to low fertility as both women's years of exposure to potential unintended pregnancy and the incidence of contraceptive failure increases. As childbearing and childrearing expenditure along with opportunity cost accelerate in almost all countries in the world, couples become more interested in limiting the number of their births. When couples are incapable of limiting or spacing their births through contraception, the majority may terminate them through abortion. Sri Lankan fertility has decreased below replacement level; consequently the length of potential exposure to unwanted pregnancies increases. Even though it may be difficult to avoid all unplanned pregnancies, in the long run, a good family planning programme with high levels of efficient contraceptive use and strong reproductive and sexual education programme could lead to a lower abortion incidence.

ACKNOWLEDGEMENTS

This article was written during the author's three-month term at the Asia Research Institute, National University of Singapore, as a Visiting Research Fellow. A revised version of this article has been accepted as a conference paper in the Sixth Annual Research Conference of the Population Association of Pakistan, November 29 to December 1, 2005.

NOTES

1. It was not an easy task to obtain the permission of service providers to interview clients in such a setting, but they finally agreed and the research team was allowed to interview clients inside the clinics.
2. Menstrual regulation (MR) technique, which can be used to terminate early pregnancies, involves evacuation of the uterus with a plastic tube or cannula 4–6 mm in diameter and approximately 25 cm in length. The advantage of this technique is that the patient need not undergo anaesthesia or sedation. However, MR technique has to be performed by a qualified and trained doctor in a doctor's surgery under aseptic conditions.
3. The Sri Lankan study was a part of a large study conducted in selected countries of South Central and Southeast Asian region by the Alan Guttmacher Institute of New York, USA to investigate health professional's perceptions about induced abortion. The first author of this article (W. I. De Silva) contributed to the development of the list of respondents and field work of the study in Sri Lanka with the guidance of the Alan Guttmacher Institute.
4. The declining fertility rate of Sri Lanka has been evident since the early 1960s. The TFR decreased from 5.32 in 1953 to 3.45 live births per woman in 1981, and it dropped further

from 2.26 in 1988–1993 to 1.96 in 1995–2000 (Department of Census and Statistics 2002).

5. The Randomized Response Technique developed by Warner (1965) intended to assist in obtaining valid answers to questions that respondents may be reluctant to answer in an interview situation. The method ensures anonymity of responses given to a sensitive question and has been shown to be feasible and useful in estimating induced abortion rates.

REFERENCES

BAN, D. J., KIM, J. & DE SILVA, W. I. (2002) 'Induced abortion in Sri Lanka: who goes to providers for pregnancy termination?', *Journal of Biosocial Science*, vol. 34, pp. 303–315.

BARRETO, T., CAMPBELL, O. M. R., DAVIES, J. L., FAUVEAU, V., FILIPPI, V. G. A., GRAHAM, W. J., MAMDANI, M., ROONEY, C. I. F. & TOUBIA, N. F. (1992) 'Investigating induced abortion in developing countries: methods and problems', *Studies in Family Planning*, vol. 23, no. 3, pp. 159–170.

BONGAARTS, J. & WESTOFF, C. F. (2000) 'The potential role of contraception in reducing abortion', *Studies in Family Planning*, vol. 31, no. 3, pp. 193–202.

BULUT, A. (1984) 'Acceptance of effective contraceptive methods after induced abortion', *Studies in Family Planning*, vol. 15, no. 6, pp. 281–284.

CHABRA, S., GUPTE, N., MEHTA, A. & SHENDE, A. (1998) 'MTP and concurrent contraceptive adoption in rural India', *Studies in Family Planning*, vol. 19, no. 4, pp. 244–247.

DEPARTMENT OF CENSUS AND STATISTICS (2002) *Sri Lanka Demographic and Health Survey 2000*, Department of Census and Statistics, Colombo.

DE SILVA, W. I. (1991) 'Consistency between reproductive preferences and behavior: the Sri Lankan experience', *Studies in Family Planning*, vol. 22, no. 3, pp. 188–197.

DE SILVA, W. I. (1994) 'Ahead of target: achievement of replacement level fertility in Sri Lanka before the year 2000', *Asia-Pacific Population Journal*, vol. 9, no. 4, pp. 3–22.

DE SILVA, W. I. (1996) 'Silent cry: socio-cultural and political factors influencing induced abortion in Sri Lanka', paper presented at the International Union for the Scientific Study in Population seminar on Socio-cultural and Political Aspects of Abortion from an Anthropological Perspective, Trivandrum, India, 25–28 Mar.

DE SILVA, W. I. (1997) 'Desired fertility and family planning: husband and wife communication in Sri Lanka', *Asian Profile*, vol. 25, no. 5, pp. 397–412.

DIXON-MUELLER, R. (1988) 'Innovations in reproductive health care: menstrual regulation policies and programs in Bangladesh', *Studies in Family Planning*, vol. 19, no. 3, pp. 129–140.

ELLERTSON, C., WINIKOFF, B., ARMSTRONG, E., CAMP, S. & SENANAYAKE, P. (1995) 'Expanding access to emergency contraception in developing countries', *Studies in Family Planning*, vol. 26, no. 5, pp. 251–263.

HARDEE, K. K., AGARAWAL, N., LUKE, E., WILSON, M., PENDZICH, M., FARRWELL, H. & CROSS, H. (1998), *Post-Cairo Reproductive Health Policies and Programmes: A Comparative Study of Eight Countries*, Policy Occasional Papers, US Agency for International Development (USAID).

HENSHAW, S. K. (1990) 'Induced abortion: a world review 1990', *International Family Planning Perspectives*, vol. 16, no. 2, pp. 59–65.

HENSHAW, S. K., SINGH, S. & HAAS, T. (1999) 'Recent trends in abortion rates worldwide', *International Family Planning Perspectives*, vol. 25, no. 1, pp. 44–48.

JACOBSON, J. L. (1988) 'Choice at any cost', *World Watch*, vol. 1, no. 2, pp. 1–6.

JOHNSTON, H. B. & HILL, K. H. (1996) 'Induced abortion in the developing world: indirect estimates', *International Family Planning Perspectives*, vol. 22, no. 3, pp. 108–114.

KODAGODA, N. & SENANAYAKE, P. (1982) 'Some aspects of abortion in Sri Lanka', paper presented at the International Symposium on Reproductive Health Care, Marie, Hawaii.

MARSTON, C. & CLELAND, J. (2003) 'Relationships between contraception and abortion: a review of evidence', *International Family Planning Perspectives*, vol. 29, no. 1, pp. 6–13.

MUNDIGO, A. (1991) 'Mortality and morbidity due to induced abortion', paper presented at the seminar on Measurement of Maternal and Child Mortality, Morbidity and Health Care: Interdisciplinary Approaches, International Union for the Scientific Study in Population, Cairo, 4–7 Nov.

PAXMAN, J. M., RIZO, A., BROWN, L. & BENSON, J. (1993) 'The clandestine epidemic: the practice of unsafe abortion in Latin America', *Studies in Family Planning*, vol. 24, no. 4, pp. 205–226.

POTTS, M., DIGGORY, P. & PEEL, J. (1997) *Abortion*, Cambridge University Press, Cambridge.

RAHMAN, M., DAVANZO, J. & RAZZAQUE, A. (2001) 'Do better family planning services reduce abortion in Bangladesh?', *Lancet*, vol. 358, no. 9287, pp. 1051–1056.

RAHMAN, A., KATZIVE, L. & HENSHAW, S. K. (1998) 'A global review of laws on induced abortion, 1985–1997', *International Family Planning Perspectives*, vol. 24, no. 2, pp. 56–64.

RAJAN, R. & DEVI, K. A. (1980) 'Abortion and concurrent contraception', *Journal of Obstetrics and Gynecology of India*, vol. 30, pp. 764–769.

RAJAPAKSE, L. (2000) *Estimates of Induced Abortion in Urban And Rural Sri Lanka*, Faculty of Medicine, University of Colombo, Colombo.

RAJAPAKSE, L. & DE SILVA, W. I. (2000) *Profile of Women Seeking Abortion*, Faculty of Medicine, University of Colombo, Colombo.

ROSS, J., HARDEE, K., MUMFORD, E. & EID, S. (2002) 'Contraceptive method choice in developing countries', *International Family Planning Perspectives*, vol. 28, no. 1, pp. 32–40.

ROYSTON, E. & ARMSTRONG, S. (1989) *Preventing Maternal Deaths*, World Health Organization, Geneva.

SALWAY, S. (1994) 'How attitudes towards family planning and discussion between wives and husbands affect contraceptive use in Ghana', *International Family Planning Perspectives*, vol. 20, no. 2, pp. 44–47.

SINGH, S., WULF, D. & JONES, H. (1997) 'Health professionals' perception about induced abortion in South Central and South Asia', *International Family Planning Perspectives*, vol. 23, no. 2, pp. 59–67.

WARNER, S. (1965) 'Randomized response: a survey technique for eliminating evasive answer bias', *Journal of the American Statistical Association*, vol. 60, pp. 63–69.

WORLD HEALTH ORGANIZATION (1996) *Definitions and Indicators in Maternal Child Health and Family Planning*, World Health Organization, Geneva.

WORLD HEALTH ORGANIZATION (2003) *Safe Abortion: Technical and Policy Guidance for Health Systems*, World Health Organization, Geneva.

W. Indralal De Silva (author to whom correspondence should be addressed)**,** Professor of Demography (Chair), Department of Demography, University of Colombo, PO Box 1490, Colombo 03, Sri Lanka. E-mail: isilva84@mail.cmb.ac.lk

R. Asoka Dayananda, Senior Project Co-ordinator, Population Services Lanka, Colombo.

N. W. P. D. B. Nishanthi Perera, Research Officer, Faculty of Education, University of Colombo, Colombo.