

Factors related to choice of modern *vs* traditional contraceptives among women in rural Sri Lanka

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Abstract

Objectives: Sri Lankan family planning programme aims to promote modern contraceptives. This study was aimed to assess factors associated with choice of traditional versus modern contraceptives among women in a rural setting in Sri Lanka

Methods: Two groups of traditional method (n=217) and modern method (n=217) users were studied using an interviewer-administered questionnaire.

Results: Age >35 years (p<0.001), Muslim ethnicity (p=0.045), living with extended families (p<0.001), not having children (p<0.001), youngest child being >6 years (p=0.012), non-receipt of detailed information on modern methods (p<0.001), public health midwife (PHM) not visiting homes (p<0.001), living >1 km from field clinic (p=0.002), non-utilization of field clinic services (p<0.001), negative opinions about PHM's services (p<0.001), negative opinion regarding services at field clinic (p<0.001) and poor knowledge on modern contraceptives (p=0.015) were associated with the choice of traditional methods.

Conclusions: Choice of traditional method was associated with personal factors as well as service gaps.

Key words: traditional contraceptives, rural Sri Lanka, modern contraceptives.

Introduction

Use of contraceptives facilitates planning of families. Contraceptive methods are broadly categorized into two main groups as modern and

traditional. In general, traditional methods have a markedly high failure rate compared to the modern methods. Use of contraceptive methods with high failure rate may lead to unplanned pregnancies.

Thirteen percent of all maternal deaths globally have been found to be due to illegal abortions performed to get rid of unplanned pregnancies and these deaths are seen more in developing countries¹. Unplanned pregnancies can also affect the woman in other ways. They are less likely to seek care than a woman who has planned her pregnancy resulting in undetected maternal complications². Psychological distress associated with unplanned pregnancy makes them more prone to postpartum psychosis³. As unplanned pregnancies are usually closely spaced with a previous pregnancy, it results in deterioration of mother's health. Unplanned pregnancy could affect child's life also in several ways⁴.

Sri Lanka is a developing country situated in the southeast Asian region with health indices almost similar to developed countries. Family planning services in the state sector is well established and contraceptives are provided to clients free of charge⁵. The state aims to promote modern contraceptive methods. Oral contraceptive pills, Depo Medroxy Progesterone Acetate injection (DMPA), intrauterine devices, hormonal implants, female and male condoms and male and female sterilization are the modern methods practiced in Sri Lanka⁶. Induced abortions are illegal in the country. Coitus interruption and periodic abstinence from intercourse are the main traditional methods used by couples in the country⁶.

The country's decentralized field health system delivers contraceptives to clients. A Medical Officer of Health (MOH) area is the smallest level in field health system. There are 280 MOH areas, in the country at present⁵. Field health services are delivered by a team of health workers and public health midwives (PHM) are the grass root level health workers delivering family planning services. A single PHM is responsible to provide services for a population of 3000-5000 residents. PHM pays home visits to eligible families distributing oral contraceptive pills and condoms. Intrauterine devices, hormonal implants and DMPA are provided through field clinics conducted within the MOH area. Clients are referred to curative health institutions with surgery and gynaecology services for male and female surgical sterilizations⁷.

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Though, the family planning service delivery network in Sri Lanka is cited as one of the best in the south Asian region, among the regional countries Sri Lanka is estimated as one of the countries with high proportions (15-21%) of who rely on traditional methods⁸.

The Demographic and Health Surveys (SLDHS) in 2006/2007 revealed that out of 15068 married women 70.2% used contraceptives with 17% practicing traditional methods and 53.1% using modern methods. Among users, the proportion of traditional method users was 24.2%⁶. There is also evidence that maternal deaths as a complication of illegal abortion to get rid of unplanned pregnancies are a problem in Sri Lanka⁹. Of the maternal deaths in 2005, 39% were due to unplanned pregnancies^{10,11}. Septic abortions has been placed as the fourth leading cause for maternal deaths in 2005¹¹. De Silva (1996) estimated that in Sri Lanka, the number of illegal abortions to be 125,000-175,000 each year and that seven illegal abortions take place for every 10 births¹². Rural women were the majority among those who sought illegal abortions.

Despite high use of traditional contraceptives with high failure rates and evidence of adverse consequences of resultant unplanned pregnancies, factors associated with choice of traditional methods have not been studied in Sri Lanka. It is imperative that such factors need to be addressed by targeted interventions, encouraging the traditional method users to take up modern methods. The present study aimed to compare factors associated with choice of traditional and modern family planning methods among women in a rural setting in Sri Lanka.

Materials and methods

We conducted a community based comparative cross-sectional study among traditional and modern contraceptive users in Haliela MOH area which is a rural setting in the Badulla district in Uva province.

We calculated the sample size which was 217 per group, based on estimates of education level of women using traditional methods and modern methods^{6,13}. We defined a traditional user as a married woman in reproductive age who was using only a traditional method at the time of the study while a modern contraceptive user was defined as a married woman in reproductive age who was using only a modern method at the time of study. We utilized cluster sampling technique and considered rural public health midwife area or an estate as a cluster. We conducted the study in 12 clusters. In keeping with

the proportion of 28 rural public health midwives areas and 12 estate public health midwives areas, we randomly selected 8 rural area clusters and 4 estate clusters to be included in the study. Eligible study units were selected by a household survey. Upon informed verbal consent, trained interviewers (first author and two other medical officers) administered pre-tested questionnaire in local language. We collected data during August 2009. Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Kelaniya. Statistical analysis was performed using Statistical Package for Social Sciences (SPSS) version 12.0.

Results

The overall response rate was 98.2% (426/434). The response rate among modern method users and traditional method users were 97.6% (212/217) and 98.6% (214/217), respectively.

Comparison of socio-demographic characteristics of traditional and modern contraceptive users are shown in Table 1. A significantly higher proportion of those aged 35 years and above ($p < 0.001$), Muslim nationality ($p = 0.045$), living in an extended family ($p = 0.001$) were using traditional methods.

Comparison of traditional and modern contraceptive users by reproductive health related factors are shown in Table 2. Women with no children at the time of survey ($p = 0.001$) and whose youngest child's age was > 6 years ($p = 0.012$) had chosen traditional family planning methods over modern methods.

A significantly higher proportion of women who had not received detailed information regarding modern methods ($p = 0.011$), who have never been visited at homes by the PHM ($p < 0.001$), who had negative opinion about services of PHM ($p < 0.001$), whose residences were > 1 km from the field clinic ($p = 0.002$), who had never utilized field clinic services ($p < 0.001$), those with negative opinion about services at field clinic ($p < 0.001$) were in favour of traditional methods than modern methods (Table 3).

We assessed knowledge of modern methods based on a score (range of marks maximum - 23 minimum - 0) obtained for a set of questions. We categorized women into three levels of knowledge (Good - > 18 marks, Average - 13 to 17 marks, Poor - < 13 marks) based on their average scores (Table 4). A higher percentage of traditional method users (30.4%) had poor knowledge on modern methods compared to modern method users (18.9%) ($p = 0.015$).

Table 1. Comparison of frequency distributions of traditional and modern contraceptive users by the socio-demographic characteristics

Characteristic	Modern methods		Traditional methods		Significance
	No.	%	No.	%	
Woman's age					
<35 years	153	72.2	119	55.6	X ² = 15.582 df = 1, p <0.001
>35 years	59	27.8	95	44.4	
Occupation					
House wife	145	68.4	132	61.7	X ² = 2.111 df = 1, p = 0.146
Others occupations	67	31.6	82	38.3	
Nationality					
Muslims	20	9.4	34	15.9	X ² = 4.007 df = 1, p = 0.045
Others	192	90.6	180	84.1	
Education level					
Up to G.C.E. O/L	141	66.5	124	57.9	X ² = 3.323 df = 1, p = 0.068
G.C.E. O/L and above	71	33.5	90	42.1	
Family type					
Nuclear family	126	59.4	92	43.0	X ² = 11.524 df = 1, p = 0.001
Extended family	86	40.6	122	57.0	
Monthly income					
< Rs.10000 (USD 100)	93	43.9	102	47.7	X ² = 0.618 df = 1, p = 0.432
> Rs. 10000 (USD 100)	119	56.1	112	52.3	

Table 2. Comparison of frequency distributions of traditional and modern contraceptive users by reproductive health related factors

Reproductive health related factors	Modern methods		Traditional methods		Significance
	No.	%	No.	%	
Woman's age at marriage					
<27yrs	12	5.7	20	9.3	X ² = 2.082 df = 1, p = 0.149
>27 years	200	94.3	194	90.7	
Having children at the time of survey					
yes	209	98.6	182	85.0	X ² = 25.884 df = 1, p = 0.001
No	3	1.4	32	15.0	
Number of children at the time of survey among those who were having children					
1 to 2 children	138	66.0	122	67.0	X ² = 4.420 df = 2, p = 0.110
3 to 4 children	64	30.7	46	25.3	
>4 children	7	3.3	14	7.7	
Age at 1st child birth among those who were having children					
<25 years	140	67.0	110	60.4	X ² = 1.997 df = 1, p = 0.154
25yrs and above	69	33.0	72	39.6	
Youngest child's age survey among those who were having children					
0 to 6 years	172	82.3	131	72.0	X ² = 6.380 df = 1, p = 0.012
> 6 years	37	17.7	51	28.0	

Table 3. Comparison of frequency distributions of traditional and modern contraceptive users by service related factors associated with contraceptive use

<i>Service related factor</i>	<i>Modern methods</i>		<i>Traditional methods</i>		<i>Significance</i>
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Ever received detailed information regarding modern family planning					
Yes	158	74.5	135	63.1	$X^2 = 6.495$ df = 1, p = 0.011
No	54	25.5	79	36.9	
Ever met area PHM					
Yes	201	94.8	200	94.4	$X^2 = 0.353$ df = 1, p = 0.552
No	11	5.2	14	5.6	
PHM ever visited home					
Yes	192	95.5	160	80.0	$X^2 = 22.519$ df = 1, p < 0.001
No	9	4.5	40	20.0	
Opinion about services of PHM					
Positive	160	81.6	112	62.6	$X^2 = 17.065$ df = 1, p < 0.001
Negative	36	18.4	67	37.4	
Distance to the field family planning clinic					
<1 km	96	45.3	66	30.8	$X^2 = 9.425$ df = 1, p = 0.002
1km or >	116	54.7	148	69.2	
Ever utilized the field family planning clinic					
Yes	206	97.2	186	86.9	$X^2 = 15.247$ df = 1, p < 0.001
No	6	2.8	28	13.1	
Opinion regarding field family planning clinic					
Positive	166	80.6	112	64.4	$X^2 = 12.629$ df = 1, p < 0.001
Negative	40	19.4	62	35.6	

Table 4. Comparison of frequency distributions of traditional and modern contraceptive users by overall knowledge on modern family planning

<i>Overall knowledge on modern family planning</i>	<i>Modern methods</i>		<i>Traditional methods</i>		<i>Significance</i>
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Good	67	31.6	51	23.8	$X^2 = 8.354$ df = 2, p = 0.015
Average	105	49.5	98	45.8	
Poor	40	18.9	65	30.4	

Discussion

In the present study we found that significantly higher proportion of women over 35 years preferred traditional methods ($p < 0.001$). The fact that higher proportion of women in late reproductive age and have chosen less effective traditional methods is a concern as failure of the method may lead to elderly pregnancies which are associated with many medical and social problems. A research in Bangladesh in 1986 also confirmed that more women in late reproductive years were using traditional methods¹⁴. However, a review of qualitative research on choice of family planning methods indicated opposite findings. It reported that young women often relied on traditional methods or abortion rather than modern methods¹⁵.

Our study showed that women of Muslim nationality ($p = 0.045$) were relying more on traditional methods. The reason may be related to the religion. This was expressed by Rogow for withdrawal method being the primary contraceptive method (42%) among Muslims in Turkey¹⁶. A survey done in Bangladesh in 1986 also reported similar findings and attributed it to the religion¹⁴. In contrary to these, Ullah and the group in Bangladesh found that non-Muslim women were significantly less likely to use modern contraceptives compared to Muslim women¹⁷.

Though level of education was not significantly associated with the choice of method in the present study, a study conducted in Sri Lanka in 1987 had reported that the use of traditional methods was associated with lower level of education¹⁸. Findings from studies in other countries are inconsistent in this regard. In Bangladesh¹⁹ and in Australia²⁰ educated women had chosen traditional methods while Turkish Demographic Health Surveys found that women with higher education choose modern methods²¹.

We found that living in an extended family was related to the choice of traditional methods ($p = 0.001$) may be due to influence by mothers-in-law and parents who may be having myths on modern methods. Turkish surveys also found that choosing traditional methods was associated with living in overcrowded households²¹.

Family income was not associated with choice of method in our study. This may be due to less variability in family income among study population in rural areas. Bangladesh found that women from higher socioeconomic backgrounds tend to choose traditional methods^{14,17,19}. In contrast, Turkish women with better socioeconomic status chose modern methods²¹.

The reproductive health related factors associated with choice of traditional methods were youngest child's age being over six years ($p = 0.012$).

Women with the age of youngest child being over 6 years or more is considered as a proxy indicator for completion of family, this indicates that majority who had completed family use traditional methods and is at risk of ending up with unwanted pregnancies.

In our study, not having received detailed information regarding modern family planning was associated with use of traditional methods ($p = 0.011$). This highlights the importance of provision of adequate information on modern methods to promote its use among clients. This finding was supported by the review of research on choice of family planning methods which reported that use of hormonal methods were limited by lack of provision of information on them¹⁵. The fact that even among the traditional users a majority (63.1%) indicated that they had received detailed information regarding modern family planning methods though they have not adopted a modern method, highlights the issue that providing information on the method alone is insufficient to promote the use of modern methods. Distance from field clinic being >1 km ($p = 0.002$) and not having ever utilized clinic services ($p < 0.001$) being associated with choice of traditional methods indicate poor accessibility to services. A study in Ethiopia also found that poor accessibility to be associated with increased use of traditional methods²². Furthermore, review of research on choice of family planning found that the use of hormonal methods was limited by obstacles to access¹⁵. Not being visited at homes by PHM was significantly associated with traditional method use in our study ($p < 0.001$). Exploring the service related factors further, we found that negative opinion about PHM was associated with choice of traditional methods ($p < 0.001$). Furthermore, having negative opinion on family planning clinic services was also found to be related to the choice of traditional methods ($p < 0.001$). These findings are supported by the study done in Bangladesh which showed that the family planning services have very strong and positive influence on choice of contraceptives¹⁴. This highlights the importance of opinion of clients on the service provider and also the service centre in promoting services.

Having a poor overall knowledge on family planning methods was associated with the choice of traditional methods ($p = 0.015$) in our study. This finding is supported by the review report of qualitative research on choice of family planning methods which highlighted that the use of hormonal methods was limited by lack of knowledge¹⁵. However, the study in Bangladesh found no association between knowledge about contraceptive methods and choice of a method¹⁴.

Conclusions and recommendations

Choice of traditional methods was associated with personal factors as well as service gaps which

could be easily corrected. The interventions to promote modern family planning need to specifically target women who are Muslims and who are older. PHMM should be requested to maintain a close relationship with traditional family planning users and environment at family planning clinics should be made user friendly for all types of users, in order to promote modern methods. More educational programmes should be conducted targeting traditional family planning method users giving them specific technical knowledge related to practice of modern methods.

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