A survey of contraceptive use and associated factors among street beggar women in South Ethiopia

Abstract

Background: According to Ethiopian demographic and health survey 2011, contraceptive prevalence has increased to 29%. But no evidence that shows how much it is in absolutely poorest people and what factors affect their utilization.

Objectives: To determine the level of contraceptive practice, and associated factors in street beggar women were interest of the study.

Method: A community based cross- sectional study was carried out among street beggar women from February to March 2013. An interview based pre-tested and structured questionnaire was used to collect data. Data collection sites were demarcated into churches, mosques, market areas and begging roads. Beggar woman is a woman who was begging on the street for her daily basic needs at the time of data collection. EPI info and SPSS version 20 were used to enter and analyze the data respectively and descriptive statistic and odds ratio were used to present the data. Binary and multivariate logistic regulations were performed.

Result: A total of 345 subjects included in the analysis. Nearly 37.4% were current users and Injectable contraceptive were used by around 60% of participants. One hundred fifty three (44.3%) women had a child after joining street life, half being unintended. Seventy eight (22.6%)

beggars have history of forced sex. Nonspecific discomfort, divorce, women not approving and lack of knowledge were the reason to discontinue or not use contraceptives. Religion (AOR = 11.6, 95%CI: 2.12, 63.62), women who have male living children (AOR = 9.35, 95%CI: 2.04, 42.81), discussion with husband and husband's approval of contraceptive use significantly can affect contraceptive practice. Couples who have discussion about contraceptive (AOR = 3.18, 95%CI: 2.09, 4.85) husband approved utilization (AOR = 7.68, 95%CI: 1.37, 43.15), women who have children after joining street begging (AOR = 10.18, 95%CI: 3.84, 17.26) were significantly associated with contraceptive utilization; but those who sleep the night on the street use contraceptive less likely (AOR = 0.21, 95%CI: 0.05, 0.92).

Conclusion: Even though contraceptive prevalence among beggar women was good, organizations work on health need to increase family planning accessibility and availability.

Keywords: contraceptive use; street bagger; women; reproductive age

Background

World population is growing faster than ever. According to the United Nation estimate the world population has reached 7 billion. To double itself from 1 billion in 1804 to 2 billion in 1927 it had taken 123 years. But now it takes 40 years to double from 3 billion to 6 billion (1959-1999) [13]. If couples didn’t use any method of contraceptive for one year, they have a 85 % chance of getting pregnant [14]. If unplanned pregnancies are prevented around 25-40% of maternal deaths could be eliminated [15].

The first country in the world which formulates a national family planning program to balance population growth and the national economy was India in 1952 [16]. Starting from this time, even though there is an increasing in contraceptive prevalence, there is high rate of unmet need

for family planning. It reflects low accessibility to family planning information and services, particularly among young people, a poorer segment of populations, or unmarried people, and poor quality of care. Other reasons include lack of necessary knowledge on family planning, limited contraceptive choice, fear of side-effects of contraceptive methods and social and cultural issues, such as women's unequal bargaining power in decision making related to family planning and the high cost of contraception in some countries [6].

According to estimates of the Lancet 2011, even though contraceptive save 272 040 (44%) of the mother's death, 342 203 mothers have died due to pregnancy related causes. If contraceptive was not used, the rate increases by 1.8 times. Addressing the unmet need for contraception could also prevent 104 000 (29%) maternal death every year [17]. Contraceptive prevalence rate rises from 54% in 1990 to 63% in 2012 globally. But it rises from 23% to 24% in Africa [15]. Worldwide, the most common types of contraception are permanent or long-lasting method: 34% female sterilization, 25% IUDs, 15% pill, 14% condom, 6% injectable,4% male sterilization and 1% other modern method [19]. Pills and injectable are common in Africa. Especially Injections have recently become more popular in Africa and lower-income Latin American countries. They are now the second most prevalent contraceptive method in Africa; chosen by almost 30 percent of women using modern contraception because they are easy to use covertly [20]. Pills are commonly used by less than 29 years women and female sterilization by women greater than 30 years [21, 22]. As 2011 study done in India slum of Lucknow city 66.5% of women are current users of contraception. Of those 24.3% of were sterilized, 20.8% of use copper-T and 36.6% of use pills [23].

Researches or projects related to family planning concern only about coverage of contraceptive utilization in women and men who are in marriage and in a stable household. Health intervention

focus on quality of staff skills, protocols of treatment, availability of supplies and environment of health facilities. But those couldn't address the barriers and fill the gap that hinders poorest people to access the service [1-3]. According to DHS 2011, contraceptive prevalence has increased to 29% and total demand raised to 54% [3]. But no evidence that shows its accessibility to absolutely poorest people.

Population growth in Ethiopia will continue in the future due to the increasing number of reproductive age group women, unwanted birth and high family size desire which has an adverse effect on the economic development of the country [4, 5]. The poorest of the poor not only have a low contraceptive prevalence but also highest fertility rate and unmet need for family planning [2].

In resource poor settings family planning is crucial to economic development because family planning is highly cost-effective public health intervention in its wide potential benefit, From 8MDG 6 of need family planning to be achieved [2, 6]. In a country which had high fertility rate family planning a potential to avert maternal death by 32% and child death by 10% [7-10]. So that solves the problem of population growth is the primary question that should be think for future development [4, 5, 11].

Beggars are one segment of the population who are in absolute poverty. Around half of beggars are sexually active and have a history of pregnancy, even more than one pregnancy after they come into street life. One third of the street residents had faced sexual assault in their street life [12]. So that this study will click researchers and project planners to think about researches and projects that benefit this ignored segment of the population by giving input about their contraceptive practice and factors which determine their contraceptive use.

Method

Study design, area and period

A community based cross- sectional study was conducted from February to March 2013. Hawassa is the capital city of SNNPR region and Sidama zone which is found 275 far from Addis Ababa. The city has classified into 7 towns and 1 rural sub town and there are 21 urban and 11rural Kebele. According to the 2011 population projection of 2007 result 328,283 was the total population of the city. Around 159,397 were females of those 76,490 were in reproductive age group and 168,886 were males [3]. The town has 152 functional health institutions and 326 professional human powers excluding hospital staffs. Some of them are one federal referral hospital, one district hospital, 7 health centers, 3 private hospitals, and 30 private clinics. There are 9 Orthodox Churches, 5 mosques, and 2 public market areas in the town.

Sample size determination

The study used a single population proportion formula by assuming contraceptive prevalence of 34.3% [12], 95% confidence interval, marginal error 5%, and 10% non-response rate;

$n= (Z\alpha/2)^2*P\ (1-P)\ /d^2 = (1.96)^2*0.343\ (1-0.343)/\ (0.05)^2$

N= 346 + 10%= 381

Sampling method and sampling procedure

All who were available at the time of data collection and fulfill the inclusion criteria were included in the study. Data collection sites were demarcated into 9 churches, 5 mosques, 7 sub towns and 2 market areas. On the first Sunday counting survey of beggars in reproductive age group were conducted in 2 churches, 1 mosques, 1 sub town begging roads and 1 market areas then tried to estimate total subjects that could be available. At the end the estimated available

subjects were not so much more than the total sample size required. After that decision was made to include all available reproductive age group beggar women. Doing so was must because the available data from labor and social affairs was generally about street peoples. There is no data that show specific number of reproductive age group of beggar women. Hence, predicting their number before actual data collection was not possible.

Data collection tools and techniques

We used pretested and structured questionnaire. It was prepared by the principal investigator based on literature reviews, research questions and prior researches conducted on the issue. The content of the questionnaire was checked by public health professionals who have had profound experiences of the area.

Data was collected by 20 trained female diploma midwives and nurses. Data collection sites were demarcated into 27 churches, 5 mosques, 7subtown begging roads and 2 market areas in Hawassa. All subjects in the site were included in data collection. Data was collected only on Sunday and Friday under supervision of the principal investigator and BSc midwives. Sunday morning was selected because most beggars meet at that time around churches. At the same time all demarcated areas were addressed on Sunday morning except mosques. Additionally, Friday was used to address Muslim beggars around the shops and mosques with the same reason.

Data quality assurance

Pre-tested was done on 30 beggar women outside the study area (Shashemene town) to avoid exclusion of subjects who were in the study area due to pre-test. After evaluating the pretest questionnaire; question order, overlapping of option and skip pattern were amended. Supervisors and data collectors were trained for two days. During data collection, data collectors were closely

supervised by supervisors. To avoid double counting, data was collected on Sunday morning to orthodox beggars at 12 o'clock to 5 o'clock at the same time in all areas. And Friday to Muslim beggars at 5 o'clock to 7 o'clock at the same time in all mosques. To avoid double interview of beggars who interviewed on Friday again on Sunday inedible ink (election parker) which used for election purpose was used to stain right thumb.

Operational definitions

Beggar woman: a woman who was begging on the street and religious areas for her daily basic needs at the time of data collection.

Contraceptive prevalence: is the percentage of women who were currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used and marital status.

Data processing and analysis

Data coded and entered to EPI info Version 3.5.3, and analyzed using SPSS version 20 statistical packages. Any error identified during data entry was corrected by revising the original completed questionnaire. Descriptive statistics were used to explain sample in relation to predictor variables. Both bivariate and multivariate logistic regressions were used to assess the association between outcome and predictor variables. In order to control confounding predictor variables associated with outcome at p-value 0.2 during the bivariate analysis were included in the multivariate analysis. During multivariate analysis variable with p-value < 0.05 was considered as statistically significant.

Ethical considerations

Ethical clearance was obtained from the Research and Publications Office (RPO) of the College of Medicine and Health Sciences, University of Gondar. Permission was also asked to Hawassa town administration labor and social affairs offices. To keep confidentiality the individual name was not written in the data collection tool. The aim of the research and its benefit to the community was clearly explained. Verbal consent was asked after telling that they have a full right to leave the interview at any time they want. After completing data collection, health education was given about the benefits and availability of modern contraceptives.

Results

Socio-demographic characteristics of the respondents

Five mentally ill women who could not give conscious and oriented response excluded from the study. Out of 405 women were data were collected 60 subjects were excluded from further analysis because they were pregnant. Nearly 45.2% of respondents were aged 25-34 years with a mean age of 27.0 ± 6.7 SD years. The majority (42.6%) of the respondents were married, and about seventy percent of the participants were orthodox (Table 1).

Table 1: Socio-demographic characteristics of street beggar women in Hawassa town, Ethiopia, 2013.

Variables	Number	Percent
Age		
15-24	111	32.2
25-34	156	45.2
35-49	78	22.6
Marital Status		
Married	147	42.6
Single	57	16.5
Divorced	66	19.1

Widow	39	11.3
Separated	36	10.4
Religion		
Orthodox	240	69.6
Muslim	21	6.1
Protestant	81	23.4
Others	3	0.9

Reproductive histories of respondents

Of the total study participants 315 (91.3%) had ever delivered one or more children. On average there are 2.46 living children per each woman. One hundred thirty five (39.1%) women desire more children, of whom 57.8% need a child after 3 years. Two hundred four (59.1%) women had under 5 children begging with them at time of data collection. Thirty nine (11.3%) respondents had a history of induced abortion and 150 (47.6%) had history of child death in their life (Table 2).

Table 2: Reproductive history of street beggar women in Hawassa town, Ethiopia, 2013.

Variables	**Number**	**Percent**
History of giving birth		
Yes	315	91.3
No	30	8.7
Number of living children		
0	36	10.4
1-2	162	47.0
3-4	105	30.4
5+	42	12.2
Need more children in the future		
Yes	135	39.1
No	210	60.9

Plan for next pregnancy		
Within 2 years	57	42.2
After 3-4 years	15	11.1
After 5 years	63	46.7
Need of ideal number of children		
1-2	111	32.2
3-4	150	43.5
5+	84	24.3
History of induced abortion		
Yes	39	11.3
No	306	88.7
History of Child death		
Yes	150	47.6
No	165	52.4
Child with mother at the time of data collection		
Yes	204	59.1
No	141	40.9

Sexual exposure of street beggars women

One hundred forty seven (42.6%) of beggars said they have no protection against forced sex because they pass the night on the street. One hundred fifty three (44.3%) women had a child after they started begging. According to the respondents report about the current pregnancy status, sixty (14.8%) women were currently pregnant, of whom 50% was unintended. Seventy percent because of unplanned sex and 30% because of forced sex. In their life, 78 (22.6%) of beggars had history of forced sex (Table 3).

Table 3: Sexual exposure of street beggar women in Hawassa town, Ethiopia, 2013

Variables	**Number**	**Percent**

Place of night sleep		
Street	147	42.6
House	198	57.4
Having children after comes into Street begging		
Yes	153	44.3
No	192	55.7
Planned birth		
Yes	75	49.0
No	78	51.0
Reason of unplanned birth		
Forceful sex	24	30.8
Voluntary but unplanned sex	48	61.6
Method fail	3	3.8
Other	3	3.8
History of forced sex		
Yes	78	22.6
No	314	77.4
Sexual intercourse in the last 12 months		
Yes	150	43.5
No	195	56.5
Currently pregnant		
Yes	60	14.8
No	345	85.2
Current pregnancy		
Intended	30	50.0
Unintended	30	50.0
Reason for Unintended pregnancy		
Forceful sex	9	30.0
Voluntary but unplanned sex	21	70.0

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Contraceptive practices of street beggar women

Current contraceptive prevalence in overall reproductive age group beggar women was 37.4% (CI 95%: 32.3-42.5).This prevalence was 50% (CI 95%:42-58) when it calculated for those who report that they were sexually active in the last 6 month. Of all respondents, 85.2% of approved using contraceptive to limit or space number of children. One hundred eighty nine (54.8%) of respondents had ever used contraceptive. Injectable contraceptives were used by around 60.0% of participants followed by 28.6% Norplant. And nearly 80(62%) women use for limiting number of children. Nonspecific discomfort, health concern, need of more children and divorce were the reasons for most of women to discontinue. Health concern needs more child and husband's opposition were also reasons for others to discontinue (Table 4).

Table 4: Contraceptive practice of street beggar women in Hawassa, Ethiopia, 2013

Variables	Number	Percent
Women approved family planning		
Yes	294	85.2
No	51	14.8
Ever used contraceptive		
Yes	189	54.8
No	156	45.2
Currently using contraceptive		
Yes	129	37.4
No	216	62.6
Plan to use in the future		
Yes	105	48.6
No	99	45.8
Not decide yet	12	5.6
History of using emergency		

contraceptive		
Yes	36	10.4
No	309	89.6
Reasons of using contraceptive		
Spacing	49	38.0
Limiting	180	62.0
Source of contraceptive		
Governmental health institution	123	95.4
Private health institution	3	2.3
Shop	3	2.3

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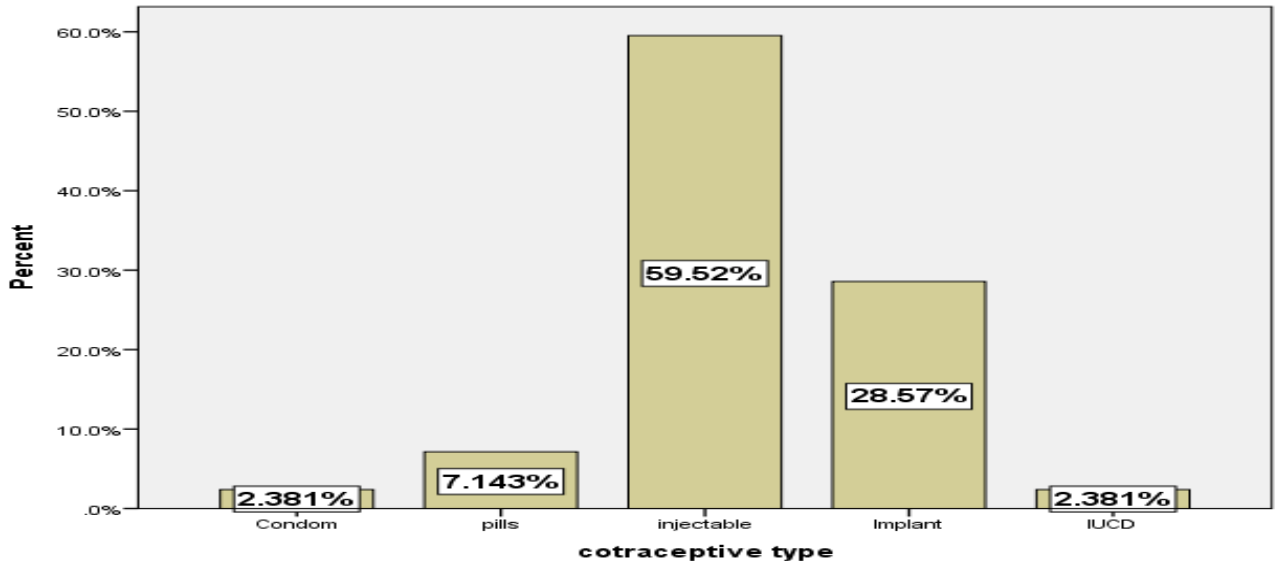
203 **Contraceptive type**

204 Regarding contraceptive choice of beggar women the majority (59.5%) of the respondents
205 prefers injectable (Fig 1).



206
207 **Figure 1:** Contraceptive choice of beggar women in Hawassa town, Ethiopia, 2013

208 **Approval and communication between partners about contraceptive**

209 Of one hundred eighty married women, 57 (38.8%) of respondents had discussed about family
210 planning methods with their husband. About 48 (84.2%) of respondents reported that their

husband approved the use of contraceptive, but only 12(25%) of use contraceptive and all husbands chose condom.

Factors affecting contraceptive practice

Variables such as experience of child loss, history of induced abortion and woman's approval of contraceptive were not significant in bivariate analysis at a 0.2 level of significance. In multivariate analysis, it was found that six variables; religion, having male soon, discussion with husband, husband's approval, having children after street begging and place of night sleep have significant associations with utilization of contraceptive.

Table 5: Logistic regression analysis of the relative effect of variables which are significant in bivariate analysis at p-value ≤ 0.2 on contraceptive practice among street beggar women in Hawassa town Ethiopia, 2013

Variables	Contraceptive use		COR (95% CI)	AOR (95% CI)	P- value
	Yes	No			
Age					
15-24	45	66	2.86(1.45,5.65)**	6.54(1.66,11.65)	0.069
25-34	66	90	3.08(1.61,5.88)***	1.09(0.01,5.876)	0.415
35-49	15	63	1	1	
Marital Status					
Single	30	27	0.57(0.31,1.06)	0.99(0.09,4.04)	0.076
Married	57	90	0.34(0.16,0.72)**	0.76(0.01,3.98)	0.140
Divorced	18	48	0.41(0.17,0.94)*	0.83(0.08,8.94)	0.871
Widow	12	27	0.30(0.12,0.75)**	0.35(0.02,1.75)	0.097
Separated	9	27	1	1	
Religion					
Orthodox	93	147	2.32(1.30,4.15)**	11.60(2.12,63.62)	0.005

Muslim	15	6	9.17(3.11,27.01)***	15.41(4.15,56.051)	1.871
Protestant	18	66	1	1	
Have male living child					
Yes	84	21	3.11(1.81,5.35)***	9.35(2.04,42.81)	0.004
No	135	105	1	1	
Discussion with husband					
Yes	48	30	3.86(2.20,6.76)***	3.18(2.09,4.85)	0.001
No	51	123	1	1	
Husband approved					
Yes	45	21	6.43(1.58,26.22)**	7.68(1.37,43.15)	0.021
No	3	9	1	1	
CACSB[a]					
Yes	81	72	3.68(2.32,5.83)***	10.18(3.84,136.26)	0.001
No	45	147	1	1	
PNS					
Yes	48	99	0.75(0.48,1.17)	0.21(0.05,0.92)	0.039
No	78	120	1	**1**	

*** Significant at p-value <0.001, ** at p-value <0.01, * at p-value<0.05, 1= Reference category [a] = Children after come into street begging PNS= place of night sleep

Discussion

This study has aimed at assessing contraceptive practice and related factors among street beggar women in Hawassa city. According to this study the current contraceptive prevalence was 37.4% .This finding was similar to studies done on street beggar women in Northwest Ethiopia [12]. Even though this result was relatively greater than the national and regional contraceptive prevalence report of 2011 (29% and 25% respectively), it is less than the national urban prevalence of modern contraceptive of 50% [3]. That means street beggar women have a high contraceptive prevalence than national figure which includes the rural population and less than

the national urban figure which includes educated and economically better population. This might be because beggars live in urban areas which have better access to contraceptive but they are non-educated and resource poor group and hence use contraceptives [12].

Based on this research 85.2% of women approved using of contraceptive to limit or space number of children and 54.8% of women ever used a contraceptive. This showed that there is better acceptance and test of contraceptive. Injectable contraceptive was the most preferable one by nearly 60% of this group followed by Norplant 28.6%. Preferably use of Injectable contraceptive was in line with studies done in Mojo and other studies except Norplant being the 2nd preferable method [12, 24-26, 31]. This might be due to high interest of beggar women to long acting family planning method to be safe for a long period of time, because in this study 60.9% of beggar women didn't need any more children. Even of who need more child 57.8% of need after 3 years. In addition to recently regional government with collaboration other NGOs have trained midlevel professionals about IUCD and Norplant removal and insertion. So that trained professionals are available in every institution. Also currently long acting contraceptive were highly adverted through media, this might increase acceptance of Norplant. Nearly 62% of users were using contraceptive to limit number of children. This indicates that beggars have more of an intention to limit their fertility and hence the appropriate methods long acting family planning methods.

About one hundred eighty nine (43.5%) of beggar women has sexual intercourse in the last 6 months. This is similar with report from the studies conducted in Gondar and Bahir Dair cities [12].

Nonspecific discomfort and divorce were the reasons for women to discontinue and half of women not used contraceptive because not approved by women or lack of knowledge. Pregnancy, health concern, needs more children and husband's opposition were also reasons to discontinue or not use. Similar findings were obtained in the study conducted in Butajira, Mojo and North West Ethiopia [12, 26 27]]. This might be health provider are not competent enough in counseling for family planning and managing side effects [32].

One hundred ninety two (44.3%) of women had a child after joining street life. Nearly half of children got after street begging were unintended. This is because those women were not protected against forced or unplanned sex and they had no experience of using emergency contraceptive. Out of total beggars 42.6% of them sleep the night on the street. Unplanned sex was the reason for 61.6% of unintended child and for 30.8% of an unintended child forced sex were the reasons. In addition 22.6% of beggars have history of forced sex in their life. This is similar to studies done in Gondar and Bahir Dar [12].

In order to meet the second objective of the study, we have examined the associations between selected explanatory variables and the main study variable (contraceptive use). The study identified six variables predicting the likelihood of contraceptive use which includes: religion, having male soon, discussion with husband, husband's approval, having children after street begging and place of night sleep were having an effect on utilization of contraceptive.

Accordingly, women who are Orthodox religion follower utilize contraceptive 11.6 times more likely than protestant and followers. This is similar with study done in sub-Saharan African [30].

Sex preference was the other independent variable which had a significant association with the outcome variable. Women who have male living children use contraceptive 9 times more likely

than who haven't male child. This is consistent with other studies conducted in Sub-Saharan Africa [30] and India [29]. This implies that there is a more preference for male children in the community. In this regard it affects the couple's decision of fertility regulation and leads the household to high family size.

Discussion with husband and husband's approval of contraceptive use significantly can affect contraceptive practice. Couples who have discussion about contraceptive women use contraceptive 3 times more likely than women who haven't discussed. Women, whose husband approved her utilization, use 7.7 times more likely than counterparts. This finding was in the same direction with the study conducted in Angolela Tera District, Amhara Region, and Jimma town [31, 32]. In this study of the respondents who have discussion with their husband, amazingly 84.2% of husbands approved contraceptive use. We learn from this how much is a discussion between partners effective in husband's approval. In current study only 25% of males used contraceptive and all use condoms. This reflects even though discussion between partners was effective in promoting women's utilization of contraceptive and husband's involvement in contraceptive use, male involvement was low in using contraceptive. This may be explained by lack of available male contraceptive choice.

This study also showed that women who have children after come into street begging more than 10 times more likely utilize contraceptive. This is in line with the study done in Gondar and Bahir Dar cities: women who have history of pregnancy utilize more likely. This might be beggars who have pregnancy after come in to street begging have face the burden of unintended pregnancy and have become conscious and decide to use contraceptive [12].

Women who sleep the night on the street utilize contraceptive less likely than who sleep in house. This might be those who sleep on the street were unmarried and believe that they have less sexual exposure.

This study had several limitations. A cross-sectional study design could result in recall bias under or over report of contraceptive use prevalence, especially if they weren't use long term methods. Therefore, studies with stronger designs essential to be done to generate more supportive evidence about contraceptive use of street beggar women.

Conclusion

Contraceptive prevalence in those groups was good. But since the prevalence of unplanned birth is high and its economic burden is severe specifically for beggars and they are at risk of forced and unplanned sex, most of beggars couldn't be safe from unintended pregnancy. Implant was better practiced in this group result from their need of to be safe for a long period of time. However, most of the beggars have no experience of using contraceptive. Beggars use contraceptive for limiting number of children than spacing.

Involvement of male in using contraceptive was low. Discussion between partners was effective for husband's approval. Being Orthodox in religion, having male children, discussion between partner, husband's approval and having a child after joining street begging were factors which increase contraceptive utilization. But night sleep on the street was inversely associated with the outcome variable.

Conflict of Interest

Authors declared as there was no conflict of interest.

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