Prevalence and Factors Influences Utilization of Modern Contraceptive Methods among Married Women of Reproductive Age Group (15-49 Years) in Holeta Town, Oromia, Ethiopia 2016

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Abstract

Background: Family planning refers to the use of various methods of fertility control that will help individual men and women or couples to have the number of children they want and when they want them in order to assure the wellbeing of the children and the parents. Rapid population growth is of the prominent challenge of our planet. This major challenge is not equally shouldered by each nation. Developing countries are still suffering from the wave of unchecked population growth. The aim of this study was to assess the prevalence and factors influencing utilization of modern contraceptive method among married women of reproductive age group in Holeta town, 2016. A Cross-sectional community based study design was conducted to assess the prevalence and factors influencing utilization of modern contraceptive methods among married women of reproductive age group (15-49 year) in Holeta town from May 10 to 28, 2016. The participants were selected by systematic random sampling technique and data was collected from 295 married women of reproductive age group by interviewer administered questionnaires were employed. Binary logistic regression models were used to assess associations between factors and Modern Contraceptive method use.

Results: Modern contraceptive prevalence rate among married women was 218 (73.9%). Injectable contraceptives were the most frequently used methods143 (65.6%), followed by implant 45 (20.6%), pills 16 (7.3%), IUD (5.0%) and condom 2 (0.9%). Multinomial logistic regression model revealed that age (AOR 2.389, 95%CI 1.113-1.733 p=0.004), occupation (AOR1.555, 95% CI 1.234-1.96 p=0.000), culture (AOR 2.441, 95% CI 1.064-5.602 p=0.035), religious father (AOR 0.113, 95% CI 0.08-0.365 p=0.036), and stillbirth (AOR 0.363, 95% CI 0.133-0.993 p=0.049) were significantly associated with the use of modern contraceptives methods.

Conclusion: The overall utilization of modern contraceptives in this study was 218 (73.9%). The most common modern contraceptive method used was injectable 143 (48.5%). The finding of this study highlighted that women’s occupation, age, culture, religious fathers and number of desired male children were important factors that influenced the use of modern contraceptive methods. Among these the most significant factors influencing utilization of modern contraceptive was women’s occupation.

Recommendation: Policy makers and implementers should work on those factors to increase the utilization of modern contraceptive methods. Since static family planning services are not accessible to change the community’s culture, other strategies like outreach methods should be considered. Further study is required to explain perceptions and barriers towards modern contraceptive use among the religious father.

Introduction

Family planning refers to the use of various methods of fertility control that will help individual men and women or couples to have the number of children they want when they want them in order to assure the wellbeing of the children and the parents. Family planning means simply preventing unwanted pregnancies by safe methods of prevention, which is considered to be part of the basic human rights of all individuals or couples. All individuals and couples have a basic human right to decide freely and responsibly the number, spacing, and timing of their children. Fulfilling this right is an important intervention for improving maternal and child health, preventing HIV infections, and improving the overall well-being of entire families [1].

Worldwide contraceptive prevalence is estimated to be 58% in 1993. In the more developed countries, regional prevalence variations fall within a relatively narrow range, from 69% in Eastern and Southern Europe to 78% in Northern Europe. Among the less developed countries, contraceptive prevalence is lowest in Africa. Use of contraception among married women in less developed countries varies from a low of 8% in Western Africa to a high of 83% in Eastern Asia. Modern methods account for the majority of currently global contraceptive practice; almost it covers 9 out of every 10 contraceptive users. Female sterilization, intra-uterine devices and oral pills account
for more than two-thirds of all contraceptive practice worlds wide. In the less developed countries, modern methods account for a much larger share of total contraceptive use (90%) than in the more developed countries (70%). This is largely because certain traditional methods including withdrawal and various forms of the calendar rhythm method are commonly used in the more developed regions [2,3].

Despite surprising technological advancements the world is still challenged by numerous unresolved problems. Rapid population growth is among the top ranking global problems. But all regions of the world do not equally share this fact. Because developed nations could stabilize their population growth at the replacement level and now enjoying the benefits of the outcome.

Recently, there is a debate that global fertility rates are falling and population growth rates are diminishing, therefore family planning programs are no longer needed. Some recent commentators on public policy have sounded an alarm about a coming population implosion, the so called “birth dearth” implying that population growth is no longer an important policy concern and public priority. As far as developing countries are concerned, this alarm is far from reality.

The birth death discussion may focus selectively on Western and few other highly developed nations such as Japan. While fertility rates have declined in many nations in the past few decades, global population growth is projected to continue well in to 22nd century. For most of the nations, especially in the Middle East, Africa and South Asia the major demographic challenge over the next several decades will continue to reducing mortality and fertility through a combination of economic growth and social sector programs, including those in education, health and family planning [4].

There is no study done on the prevalence and factors associated with utilizations of modern contraceptive in the study area. This study therefore, aimed to find out the prevalence and factors associated with utilizations of modern contraceptive. The results of this study will contribute towards the understanding of the extent of contraceptive utilization and how it varies from individual to individual depending on the various factors. Beside this the result will have significant input and used as base line for interested one, so that it will help to maximize health professionals’ effort in improving family planning services and policy makers to redesign the existed program towards family planning services to different factors on preference and practice of modern contraceptive use among married women of reproductive age groups at Holeta town.

**Methods and Materials**

### Study area

The study was conducted at Holeta town. Holeta town is found in Wolmera woreda in Oromia special zone surrounding Finfinne, Oromia regional state in Ethiopia, which is located 29 km from Addis Ababa to the west on the way to Wellega. It is one of the eight towns re-engineered under the special zone of Oromia surrounding Finfine. It is located at 9° 30’N, latitude and 38° 30’E longitude with an altitude 2498m above sea level.

According to data found from Holeta town health Office, the total population of the town is 57,828 (male=28336 and female=29492), which is taken from third National Population and Housing Census in May, 2007 E.C. It has 8 kebeles which were established on 3654 hectares of a plain land and has “woinadaga” type of climatic condition. There are 2 health centers, 9 private clinics of different levels and 7 private pharmacies in Holeta town. The health center serves 56,770 populations and its catchment area is in Wolmera woreda.

### Study period

The study was conducted in Holeta town, from May 10 to 28, 2016.

### Study design

A cross-sectional community based study design was conducted.

### Source population and study populations

Source population all married women of reproductive age group (15-49) who reside in Holeta town.

### Study population

All selected or sampled married women of reproductive age group in the two sampling technique.

### Sample Size Determination

The sample size was determined by using single population proportion formula by considering the assumption of 95% level of confidence, 5% margin of error and taking 71.9% prevalence of modern contraceptive utilization among married women of reproductive group in Nekemte town 2014 (33).

\[ W = d = \text{marginal error} = 5\% \quad Z = 95\% = Z_{d/2} = 1.96, \quad p = 0.719 \]

Since the source population is less than 10,000, population correction formula was used to adjust minimum sample size as follows:

\[ \text{Where, } n = a \text{ minimum sample size} (310) \]

\[ N = a \text{ total number of reproductive age group} (6240) \]

\[ NF = \text{minimum final sample size} \]

\[ nf = n/1+n/N, \quad nf = 310/1+310/6240, \quad nf = 295 \]

By 100% response rate the final sample size was 295

### Sampling Technique

Our sampling technique was systematic sampling technique in which every “Kih” intervals K=N/n K=6240/295=21, the first house had been selected by lottery method and then every twenty one house had been selected.

### Data Collection Method

A pretested structured questionnaire was used and the questionnaire contained open ended and close ended question which comprise of six parts which were socio demographic factors; economic status assessment, reproductive history, socio-psychological factors, knowledge assessment and other descriptions on MC use related-questions respectively.

Operational Definitions

Utilization
Use of any modern contraceptive method to space the child and to protect unwanted pregnancy.

Contraceptive utilization
The utilization of family planning method to limit the number and spacing of children in a family through the practice of contraception.

Modern contraceptive methods
Female sterilization, male sterilization, the pill, IUD, injectables, implants, condoms and diaphragm/foamy/jelly.

Long acting family planning methods
Family planning methods which are used for longer time like implant, IUD, tube ligation.

Short acting family planning methods
Family planning methods which are used for shorter time like Pills, condoms.

Family planning
Having the number of children they want when they want them.

Availability
Refers to the physical access or reachability of services that meet a minimum standard.

Data Quality Control
PI gave training for the data collectors on how to collect and make familiarize with the instruments and pre-test was undertaken on 5% which is not included on this study area.

Data Processing and Analysis
After data collection was completed, data entry, coding, cleaning and analysis was done by using SPSS version 20 program. The analysed data were presented using tables, Pi-charts and bar graphs. Binary logistic regression models were used to assess associations between factors and MC method use. Multilogistic regression models were used to assess associations between factors and dependent variable. Associations were measured by the crude odds ratio, adjusted odds ratio and its 95% confidence interval. In this statistical analysis, in order to determine the association, if p value will be less than 0.05, it will be considered as statically significant.

Ethical consideration
In order to start data collection process ethical clearance of the research proposal was taken from the Department of Public Health of Ambo University, college of Medicine and health sciences. The permission was also obtained from Holeta town administration bureau.

Then to precede the data collection, informed consent was obtained from the participant after explaining the purpose of the study and as their information will be kept confidentially. The participants also aware on as they have a full right do not to participate in the study or terminate the study when they want.

Results

Socio demographic characteristics
In this study a total of 295 married women of Reproductive age group were participated and this made the response rate of 100%.

Majority of the respondents (28.8%) were in the age group of 25–29 years with median age of 29.3 and mean age of 30.0 years. About ¾ of the respondents (75.9%) were from Oromo ethnic group. More than half of the respondents (53.2%) were Orthodox in religion. From the 295 respondents 259 (87.8%), 27 (9.2%) and 9 (3.1%) were married, divorced and widowed respectively. Out of the total respondents, majority of them (39.7%) owned both radio and TV (Table 1).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of respondent</td>
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<td></td>
</tr>
<tr>
<td>15-19</td>
<td>11</td>
<td>3.7</td>
</tr>
<tr>
<td>20-24</td>
<td>63</td>
<td>21.4</td>
</tr>
<tr>
<td>25-29</td>
<td>85</td>
<td>28.8</td>
</tr>
<tr>
<td>30-34</td>
<td>56</td>
<td>19</td>
</tr>
<tr>
<td>35-39</td>
<td>39</td>
<td>13.2</td>
</tr>
<tr>
<td>40-44</td>
<td>32</td>
<td>10.8</td>
</tr>
<tr>
<td>45-49</td>
<td>9</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>295</td>
<td>100</td>
</tr>
<tr>
<td>Family size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01 Mar</td>
<td>103</td>
<td>34.9</td>
</tr>
<tr>
<td>04 Jun</td>
<td>148</td>
<td>50.2</td>
</tr>
<tr>
<td>&gt;=7</td>
<td>44</td>
<td>14.9</td>
</tr>
<tr>
<td>Total</td>
<td>295</td>
<td>100</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>71</td>
<td>24.1</td>
</tr>
<tr>
<td>Can read and write</td>
<td>36</td>
<td>12.2</td>
</tr>
<tr>
<td>Primary school</td>
<td>69</td>
<td>23.4</td>
</tr>
<tr>
<td>Secondary school</td>
<td>79</td>
<td>26.7</td>
</tr>
<tr>
<td>Above</td>
<td>40</td>
<td>13.6</td>
</tr>
<tr>
<td>Total</td>
<td>295</td>
<td>100</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>259</td>
<td>87.8</td>
</tr>
<tr>
<td>Divorced</td>
<td>27</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Citation:
Reproductive and Fertility Related History

Reproductive and fertility related history of married women of reproductive age group was assessed and majority of the respondents (86.4%) had been pregnant at least once during their life and mean number of live birth was 3.12. Among 258 (87.5%) respondents who had history of pregnancy, 168 (65.1%) had 1-3 gravidity and 225 (87.2%) respondents reported that all of their pregnancies were wanted whereas the rest had at least one pregnancy which was unwanted.

Among whoever had pregnancy, 18 (7.0%) respondents were experienced abortion and 21 (8.1%) experienced incident of stillbirth in their life.

Among who ever had pregnancy, 107 (41.5%) and 103 (39.9%) age at first pregnancy were found within 19-22 and 15-18 age intervals respectively.
Socio–Psychological Factors Associated with MC Methods Utilization in the Study Area

Regarding socio–psychological factors majority of the study participants, 135 (45.7%) expressed their future desire for 3-4 children from them, 206 (69.8%), ideally had a desire to have 2-3 male whereas 178 (60.3%) of them had a desire of female children in their life. Most of the respondents 188 (63.7%) have negative attitude towards too many children can improve family income. About 182 (61.7%) of them expressed their positive attitude towards having many children for the sake of generational continuity. Likewise, 142 (48.2%) of them have positive attitude towards having many children for the sake of compensation of high infant and child death. 169 (57.3%) opposed that using MC is considered as a sin by religion. 137 (46.4%) of them consider using MC as a cause maternal health problem due to drug side effects (Table 3).

Table 2: Distribution of study subjects reproductive related history among married women of reproductive age group in Holeta town (n=295), Oromia special zone surrounding Finfinne, Oromia Ethiopia, June 2016.

Table 3: Knowledge, practice and attitude towards modern contraceptives.

From 295 study subjects, majority, 293 (99.3%) of women heard about modern contraceptive methods. Among these, 80 (27.24%) heard only injectable, 72 (24.45%) heard only pills, 63 (21.16%) heard only implant, 47 (16.31%) heard only condom and 33 (10.84%) heard only IUD. More than half of women 170 (57.6%) cited health institution as their commonest source of information followed by mass media, 71 (24.1%) and friend 29 (9.8%). 218 (73.9) women are currently using MC. Of users, majority of them, 143 (48.5%) women are using injectable contraceptives followed by implant 45 (15.3%) and pills 16 (5.4%). Among long acting contraceptive method, IUDs are used by 11 (3.7%) women. Regarding the advantages, above the half 63 (55.3%) of women reported that contraceptive methods have advantage of spacing children. Majority of women, 163 (55.3%) mentioned that contraceptive is used for child spacing.

Among 285 (96.6%) of women who had history of using modern contraceptives, 96 (33.7%) had history of default at least once. The most reason to this default is due to side effect 46 (47.9%) followed by desire of getting child 41 (42.7%). Regarding culture, most of women 250 (84.7%) said that using MC method is allowable, but above half 151 (51.2%) of them reported that religious father did not approve using MC methods. majority 97 (32.9%) of respondent said that the reason why the women did not use MC methods was due to sex preference and followed by 70 (23.7%) due to its side effect. Almost all 262 (88.8%) of respondent reported that the decision to use MC methods was made jointly. Regarding inter spousal communication about MC methods 112 (38%) usually discuss, 104 (35.5%) had ever discussed, 45 (15.3%) had discussed in the past 12 months, 24 (8.1%) have intention to discuss and 10 (3.45) had never discussed (Table 4 and Figure 1).
Knowledge, Practice and Attitude towards Modern Contraceptives

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Table 4: Knowledge on MC utilization among married women of reproductive age group in Holeta town, Oromia special zone surrounding Finfinne, Oromia Ethiopia June, 2016.

| Medication | 15 | 5.1 |
| Total | 2 | 0.7 |
| FP enables couples to become responsible parents | | |
| Yes | 279 | 94.6 |
| No | 16 | 5.4 |
| Total | 295 | 100 |

Figure 1: Types of MC methods using among married of reproductive age group in Holeta town, Oromia special zone surrounding Finfinne, Oromia Ethiopia June 2016.

Figure 2: Decision about MC method use among married of reproductive age group in in Holeta town, Oromia special zone surrounding Finfinne, Oromia Ethiopia June 2016.

Figure 3: Communication about MC methods with husband among married of reproductive age group in Holeta town, Oromia special zone surrounding Finfinne, Oromia Ethiopia June, 2016.
about MC methods 112 (38%) usually discuss, 104 (35.5%) had ever discussed, 45 (15.3%) had discussed in the past 12 months, 24 (8.1%) have intention to discuss and 10 (3.45) had never discussed (Table 5).

Table 5: History of default of MC methods among married of reproductive age group in in Holeta town, Oromia special zone surrounding Finfinne, Oromia Ethiopia June 2016.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of default</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>96</td>
<td>33.7</td>
</tr>
<tr>
<td>No</td>
<td>186</td>
<td>66.3</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>100</td>
</tr>
</tbody>
</table>

Factors Influencing Utilization of Modern Contraceptive Methods

Logistic regression analysis was conducted to analysis the possible relationship between modern contraceptive utilization and other explanatory variables. A bivariate analysis was performed to identify factors influencing MC utilization among married women of reproductive group then Age, women's occupational status, stillbirth, number of desired male children, culture and religious were had significantly associated to the dependent factor at p value 0.2, confidence interval 95%.

Those variable that had significant association to the dependent variable on multiple logistic regression were age, occupation, stillbirth, culture, religious significant at P value 0.05 and 95 confidence interval (Table 6).

Table 6: Bivariate logistic regression analysis for factors influencing modern contraceptive utilization among married women in Holeta town Oromia special zone surrounding Finfinne, Oromia Ethiopia June2016.

<table>
<thead>
<tr>
<th>Modern Contraceptive utilisation</th>
<th>COR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.291</td>
<td>1.291, 1.082</td>
<td>0.004</td>
</tr>
<tr>
<td>occupation</td>
<td>1.406</td>
<td>1.162, 1.702</td>
<td>0</td>
</tr>
<tr>
<td>No desired male children</td>
<td>2.107</td>
<td>1.224, 3.628</td>
<td>0.007</td>
</tr>
<tr>
<td>Still birth</td>
<td>0.354</td>
<td>0.143, 0.877</td>
<td>0.025</td>
</tr>
<tr>
<td>Enable mother</td>
<td>0.726</td>
<td>0.549, 0.961</td>
<td>0.025</td>
</tr>
<tr>
<td>Culture</td>
<td>2.963</td>
<td>1.537, 5.709</td>
<td>0.001</td>
</tr>
<tr>
<td>Religious Father</td>
<td>2.384</td>
<td>1.384, 4.096</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Discussion

This study assessed the prevalence and factors influencing utilization of modern contraceptive methods among married of reproductive group in Holeta Town. The overall utilization of modern contraceptives in this study was found to be 73%. The finding was much higher than previous studies in Ethiopia [5-9].The contraceptive prevalence rate (CPR) of this study was also much higher than Holetatown health office report which was 67% [10-23]. The difference could be due to promotion of modern contraceptive methods by health extension workers availability of range of method choice and facilities providing the service. The most common form of modern contraceptives used was injectable 143 (48.5%) followed by implant 45 (15.3%) and pills 16 (5.4%). The finding was similar to previous studies done in Ethiopia. The most common modern contraceptive method used by married women in Ethiopia according to EDH S 2011 was injectable [9].This show they were aware of family planning and they had knowledge about the different methods

In this study, participants whose age category was 30-34 years were more likely to use modern contraceptive methods than other age groups. It is inconsistent with the studies conducted in Mali, Pakistan and Bangladesh [8,9,17].Current contraceptive use is lower among young women and among older women than among those at the intermediate age groups [7]. The finding not magnifies that discussion between partners about fertility issues was an important factor in family planning. This not line with population-based study which was carried out in three waves to assess the impact of radio drama serial project in Nepal [24]. Traditional and cultural believes were mentioned to influence the use of contraceptive methods. This is consistent with other studies [4, 23]. The religious fathers were identified as influencing MC use which is similar with the 200 EDHS report [8]. The study indicated that the respondent's occupation was also influencing modern contraceptive utilization which is similar to the study conducted in Nigeria [24-32].

Conclusion

The overall utilization of modern contraceptives in this study was 73%. The common modern contraceptive method used was injectable 143 (48.5%). The finding of this study highlighted that women's occupation, age, culture, religious fathers and number of desired male children were important factors that influenced the use of modern contraceptive methods. Among these the most significant factors influencing utilization of modern contraceptive was women's occupation.

Recommendation

Policy makers and implementers should also work on those factors to increase the utilization of modern contraceptive methods. Since static family planning services are not accessible to change the community's culture, other strategies like outreach methods should be considered. Further project will require that closely work with community and regions organization to teach community to remove these barrier towards modern contraceptive.

Acknowledgement

Our gratitude thank also goes to Ambo University, college of medicine and health sciences, department of Public Health Officer for providing us this opportunity to carry out this research.

At last but not the least we would like to thank Holeta health office who helped us by giving some data that was crucial for our work.

References


