

Influence of Education, Income and Attitude on Family Planning Behaviors among Rural Adult Women in Ethiopia

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Abstract

The purpose of this study was to examine the influence of education, income and attitude on family planning behaviours among adult women living in rural villages of Illu Abba Bora Zone, Oromia Regional State, Ethiopia. A descriptive survey design was employed to collect data from a sample of 40 fertile age (18-35 years) women. The participants were randomly selected from a total of 193 family planning users living in two rural villages. A questionnaire with 45 scale type items was developed by the researcher based on insight gained from literature review. Frequency counts, percentages, mean scores, F-test and correlation coefficients were the statistical tools used to analyze the quantitative data which were then organized into graphs and tables. Findings indicated that the surveyed adult women have good knowledge about family planning technologies, demonstrate positive attitude towards family planning technologies and have better practices of using family planning technologies. Increase in level of education resulted in rise of mean scores across knowledge, attitude and practice. Attainment of secondary education has significant relationship with knowledge, attitude and practices of the adult women. Family income did not show any significant association with family planning behaviors of the surveyed women. Knowledge about family planning technologies is strongly and significantly related to attitude. The study concludes that attainment of secondary education boosts women's family planning knowledge, attitude and practice. The study has implications for promoting women's access to secondary education and beyond for improved understanding, adoption and practice of family planning technologies.

Keywords: women education level, women income level, family planning, women knowledge, attitude, practice

1. Introduction

The desire to have children is the life goal of many people of much cultural traditions across the world (Holton et al 2011). Having no child for some cultures, would symbolize being cursed. Still people in some other cultures want to have more number of children born to their families for they perceive children as sources of family income when they grow and start working. Religious teachings also motivate families to have many children.

The planet "earth" is now days facing an alarmingly enormous threat in losing its natural resources. One of the major causes of such threat is assumed to be the high growth rate of human population. The change in climatic conditions, coupled with high population growth rate has created shortage of food in many developing countries (Jones, 2004). To change this situation

and realize improvement of life style for citizens, it is necessary that countries adopt policies governing family planning practices. In countries where family planning policies have been issued and services made available, there is low use of such technologies mainly due to lack of behavioral change. According to Frini and Nabag (2013), contraceptive behavior in developing countries showed a steady rise around the year 2000 compared to the reality that prevailed in the 1960s.

Ethiopia, as one of developing countries is aiming to become a middle income country by 2025. Currently, it is considered one of the fastest growing economies in Africa. Despite this effort, however, high population is still the problem felt by many countries including Ethiopia. Failure to use family planning technologies have much been attributed to lack of knowledge while others claim the prevalence of negative attitude among fertile age women to be the cause for non use of family planning technologies. Still some others are of the view that, though women have adequate knowledge and hold positive attitude, they do not implement family planning mainly due to poor practice of family planning technologies. Huge number of studies have been conducted throughout the world concerning knowledge, attitude and practices of family planning among reproductive age women in different parts of the world. For example, Oluwatosin and Abimbola (2015) studied Knowledge, Attitude, Practice and choice of Family Planning Methods among Non-Literate married women in Ile- Ife, Osun State. Their study concluded that majority of the non-literate married women are not well informed about family planning methods, which affected their attitude, practice and choice of birth control methods. Frini and Nabag (2013) studied the knowledge and determinant factors of contraceptive use among married Sudanese Women. The research concluded that main factors affecting contraceptive use in city slums were deficiency of accurate knowledge and information about family planning, poor counseling, more number of living children and low socio-economic status.

Olugbenga-Bello and Adeomi (2011) studied Contraceptive Practices among Women in Rural Communities in South-Western Nigeria, the findings of which showed that religion, family setting, fear of side effect and husbands' disapproval were among the most pressing factors for non use of contraceptive methods. Ayub, Kibria and Kahn (2015) Assessment of Knowledge, Attitude and Contraceptive use in Married Women of Peshawar, showed that women who were literate and in late young age used contraception. Mahadeen, et. al, (2012) study on knowledge, attitudes and practices towards family planning among women in the rural southern region of Jordan highlighted some educational needs among these women.

Richey (2008) study of Global knowledge/local bodies: Family planning service providers' Interpretations of Contraceptive Knowledge found that differentiation between the service providers and their clients shapes the implementation of the family planning program. Dhingra, et. al, (2010) attitude of couples towards family planning found that education was significantly associated with the respective attitude of respondents towards family planning. Jaravaza (2013) study on Traditional Contraceptives and Indigenous Knowledge Systems in Mutasa District of Manicaland Province, Zimbabwe, concludes that marketing of modern contraceptives in primitive rural areas should be premised on their comparability to indigenous knowledge.

Masood and Alsonini (2017) research on Knowledge and Attitude about Reproductive Health and Family Planning among Young Adults in Yemen found the level of knowledge about family planning and its methods was low to moderate. Furthermore, the introduction of contraceptives remained a challenge because educational reproductive health is weak in Yemeni schools or health institutes. Nustas (1999) study focused on identifying knowledge and attitudes of men towards the use of child spacing and contraceptive use. Findings showed that attitudes toward birth spacing were more prevalent among the more educated and economically strong men.

Yahya (2007) studied knowledge, attitude and practice of husbands towards modern family planning in Mukalla, Yemen. Findings revealed a significant association with years of education completed by couples, the number of living children and monthly income of the family.

The above listed literatures are all foreign in origin and have little relevance to Ethiopian context. According to the Ministry of Health (2016) Ethiopia has committed to increasing the modern contraceptive prevalence rate to 55 percent amongst married women by 2020 and reducing the total fertility rate from 4.1 to 3.0.

Many of the Ethiopian studies are not accessible to readers and researchers. Among the available researches, Mesfin (2002) studied the role of men in fertility and family planning programs in Tigray, region, Ethiopia. Senbeto (2001) study focused on knowledge, attitude, practice and quality of care in family planning at Dessie Zuria District, north-eastern part of Ethiopia. Bekele (2006) study focused on awareness and determinants of family planning practice in Jimma, Ethiopia. Gebremedhin (2014) studied Modern contraceptive method mix and factors affecting utilization of modern contraceptives among married women in Adigrat town, Tigray, northern Ethiopia. Yared and associates (2004) conducted country analysis of Family Planning and HIV/AIDS: Ethiopia. Their findings showed that there is a great need for expansion and improvement of the FP program,

Tilahun (2013) conducted a study on family planning knowledge, attitude and practice among married couples in Jimma Zone, Ethiopia. Cominist (2016) studied practices of family planning in Oromia region, Illubabor zone, Hurumu Woreda. Her findings concluded that reproductive age women using family planning methods often face several challenges of economic, social and religious nature.

The local studies mentioned above, except for Bekele (2006), Tilahun (2013) and Cominist (2016) which focused on Oromia region, Ethiopia. Others have focused on other regions and do not indicate the reality in the current study area. Cominist's (2016) study, though conducted in 5 villages of Hurrumu Woreda in Illuababor zone, it failed to provide list of villages (Kebeles) covered by her study. Therefore, we have no knowledge about the influence of education, income level and attitude on family planning practices among adult women living in Wnagegne and Gaba rural villages of Hurumu Woreda, Illu Aba Bor Zone, Western Ethiopia. Therefore, this study intends to examine the influence of education, income level and attitude on family planning practices among adult women living in Wnagegne and Gaba rural villages of Hurumu Woreda, Illu Aba Bor Zone, Western Ethiopia.

2. Methodology

A cross-sectional descriptive survey design was used to collect data about family planning knowledge, attitude and practices of adult women drawn from two rural villages (namely, Wanggne and Gaba) in Illu Aba Bor Zone of Oromia Region, Western Ethiopia. There were 193 women family planning users who attended local health center over four weeks during data collection. 40 of these women aged 18- 35 years were selected by using simple-random-sampling technique and made to supply data by responding to close-ended scale type questionnaire . A 45 item Family Planning Questionnaire with three sub-scales of knowledge, attitude and practices was prepared based on insight gained from the literature. Each sub-scale consisted of 15 items that rated over three point scale. The questionnaires were administered to 40 randomly selected adult women in local health clinic. Demographic data relating to age, family size, income level and education of the participating women were also collected to see if significant influences were exerted on family planning knowledge, attitude and practices of the participating women. Frequency counts, percentages, mean scores, One-Way Analysis of Variance, and partial correlation coefficients were calculated to quantitatively the analyze data. The analyzed data were organized in the form of tables, graph and figures. The data were then interpreted using narrative descriptions.

In all cases mean scores were interpreted based on the basis of the following categories

- i. Mean Score of 0.00 – 1.00 = Poor knowledge, or negative attitude or never practiced;
- ii. Mean Score of 1.01 – 2.00 = sufficient knowledge, or neutral attitude or sometimes practiced; and
- iii. Mean Score of 2.01 – 3.00 = good knowledge, or positive attitude, or always practiced

The analyzed data were displayed in the form of figures and tables that were followed with narrative interpretations. Decision to reject the null hypothesis was set at $P \leq .05$.

3. Results

3.1 Married adult women living in Wangegne and Gaba have knowledge about family planning techniques

The influence of education and family income on family planning knowledge, attitude and practices of rural women was studied using a 45 item Family Planning Questionnaire (FPQ). The questionnaire was divided into three subscales of 15 items each. Analysis of the knowledge subscale shows that nearly 95% of the rural adult women included in this study have good knowledge about the benefit of having little number of children born to a family and that this act makes families economically strong.

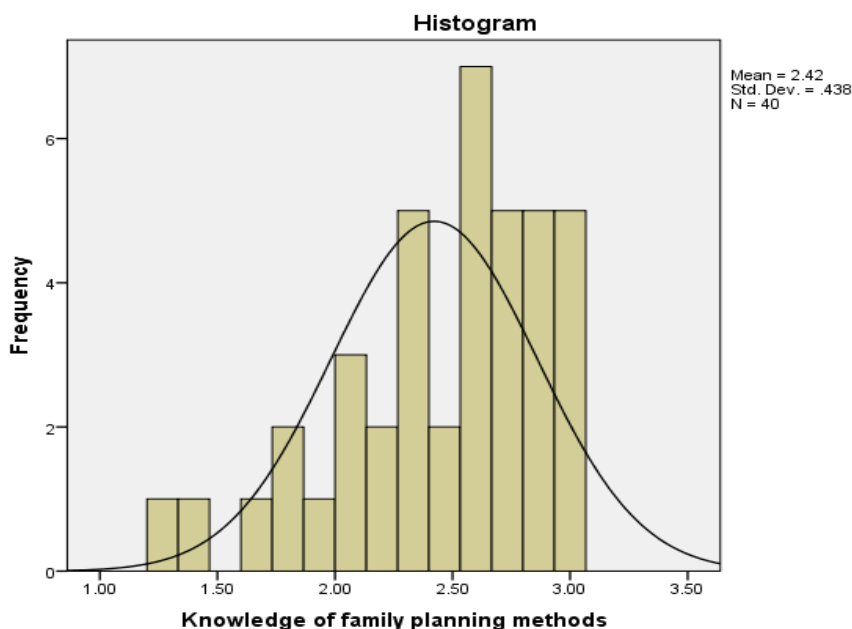


Figure 1 Knowledge of Family Planning

Figure 1, presents level of knowledge of family planning prevalent among the surveyed rural adult women in terms of mean scores calculated over 15 items. The mean score 2.42 indicates that the women have good knowledge about the family planning technologies.

3.2 Influence of Education Level on family planning technologies

The influence of education on family planning knowledge, attitude and practices of the study participants was analyzed using one-way-analysis of variance (ANOVA). The analysis showed that increase in level of education results in increased knowledge, attitude and practice of family planning.

A similar proportion also witness that child spacing is one method of family planning. Well over eighty percent of the women possess very good knowledge concerning the benefit of oral pills. They also do not know that nor can plant implant help prevent pregnancy. However, it is only about 67.5% that understand the fact that IUD and Norplant services are available in local health clinics or /hospitals. 75% have the knowledge that oral pills are sold in nearby drug shops. Nearly two in three women (65%) understand that making use of male/female condom helps prevent pregnancy and also witness that condoms are sold in local shops.

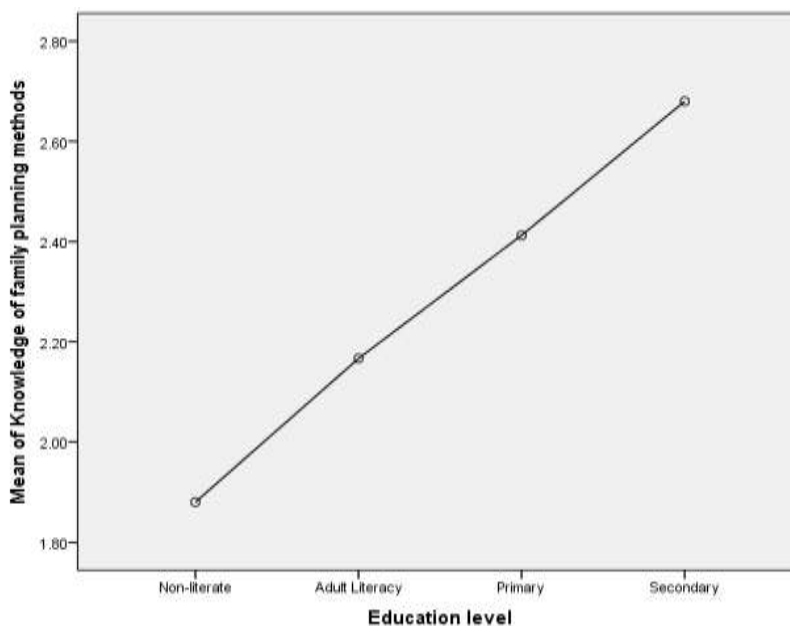


Figure 2 Level of Education and Knowledge of FP121

Figure 2 indicates that there is direct linear relationship between level of education and knowledge. As level of education continues to rise, knowledge about family planning tends to increase. The mean difference for the different education level was significant favoring those with secondary education ($M=2.68$) comparable to non-literate women. ($M=1.88$) This indicates that acquisition of secondary education is a requirement to boost knowledge of women about the benefits of family planning.

Table 1

Level of Education vs women's attitudes and practices of family planning

FP Variables	Level of Education	N	Mean	SD	P
Attitude of women towards family planning methods	Non-literate	5	1.9733	.43102	.003*
	Adult Literacy	4	2.2500	.19149	
	Primary	16	2.3125	.34830	
	Secondary	15	2.6133	.29942	
	Total	40	2.3767	.38269	
practices of women on Family planning	Non-literate	5	1.6133	.28829	.028*
	Adult Literacy	4	2.0667	.28284	
	Primary	16	2.0792	.40090	
	Secondary	15	2.2222	.37261	
	Total	40	2.0733	.40250	

*significant at the .05 level

Data in Table 1 shows a growing trend across increase in the level of education attained by the adult women included in this study, and their attitudes and practices of family planning. Increase in level of education is accompanied by improved attitude towards family planning methods as well as demonstration of better practices of such methods. The mean difference between women with secondary education ($M=2.61$) and non-literate ($M=1.97$) is significant at the .05 level for family planning attitude. Mean scores for practice (secondary education, $M=2.22$; Non-literate, $M=1.61$; $p=.028$) is also statistically significant. A general conclusion is that education of secondary level is important for adult women to fully understand, and willingly adopt or practice family planning technologies.

3.3 Influence of Family Income Level on family planning technologies

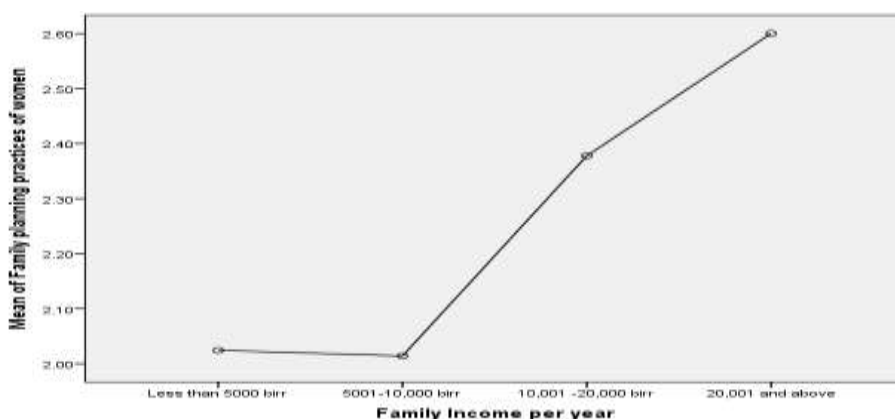


Figure 3 Mean plot of women's family income vs family planning practice

Family income was another independent variable examined as to whether or not it has influence on women's family planning knowledge, attitude and/or practice. With the exception of the highest income level that indicated high practice scores, analysis of data relating to the first two

independent variables (knowledge and attitude) did not show any predictable trend. Thus it is difficult to generally conclude the influence of family income level over knowledge and attitudes of the surveyed women. Family planning practice, however, seems to be partly influenced by level of income (Figure 3). Income level of 1001 birr or more resulted in increased practice among the adult women. Test of mean differences, however, failed to indicate the presence of statistically significant difference at the .05 level. The association between high income and better practice may be due to chance error, and thus, does not show the true effect of income on family planning practice.

3.4 Attitude of Ethiopian Women towards Family Planning Technologies

Concerning attitude to family planning technologies, the women had divided hearts relating to the use of IUD (65% neutral or negative attitude), lactation method (55% neutral or negative), sterilization (72.5% neutral or negative), abstinence (70% neutral or negative), calendar method (52.5% neutral or negative), as well as withdrawal method (80% neutral or negative) attitude.

Despite their negative or neutral positions towards the above mentioned methods of family planning, the surveyed adult women demonstrate positive attitudes to some of the contraceptive technologies. Among the women, 95% agree that child spacing is one of the techniques of family planning. 75% of them also like to have little number of children as mothers. While 90% support the use of injectable to prevent pregnancy. About 70% like to make use of condoms. This shows that the rural women have positive attitude towards employing variety of family planning techniques to limit the number of children born to their families. They opt for both natural and manmade methods like child spacing and injection coupled with use of condoms. The fact that condoms are sold in local shops are also appreciated by these women. A good number of them (62.5%) believe in the importance of Norplant Implant as a means to prevent pregnancy. The mean score on the attitude subscale that contained 15 statements was found to be 2.38, which shows their positive inclination towards family planning techniques. So, it can be concluded that the Women of Wangegne and Gaba villages have positive attitude towards adopting variety of family planning technologies available in their locality.

3.5 Association of Family Income, Education, Attitude and Family Planning Practices

Partial correlation was calculated to see if significant relationship exists between level of family income as well as level of education relating to family planning knowledge, attitude and practices of the adult women. Table 2 shows summarizes association of family income with adult women's knowledge, attitude and practices

Table 2

Association of Family Income, Education, Attitude and Family Planning Practices

Control Variables		Correlation and significance	Knowledge of FP	Attitude towards FPs	Practice of FP	Family Income	Education level
None	Knowledge of FP methods	r	1.000	.870	.412	.133	.603
		p	.	.000*	.008*	.415	.000*
	Attitude towards FP	r	.870	1.000	.497	.130	.542
		p	.000*	.	.001*	.425	.000*
	practices of FP	r	.412	.497	1.000	.305	.437
		p	.008*	.001*	.	.056	.005*
	Family Income	r	.133	.130	.305	1.000	.038*
		P	.415	.425	.056	.	.816
	Education level;	r	.603	.542	.437	.038	1.000
		P	.000*	.000*	.005*	.816	

Family income has very low relationship with family planning knowledge, attitude and practices. Knowledge of family planning has strong and significant relationship with family planning attitude ($r=.870$; $p=.000$). Education has substantial to moderate relationships with knowledge ($r=.603$; $p=.000$) attitude ($r=.542$; $p=.000$) and practices ($r=.437$; $p=.005$) of family planning. In all its relationships, education has statistically significant associations with knowledge, attitude and practice of family planning.

4. Discussion

The findings of this study are consistent with previous researches by Prachi, et. al, 2008; Alemayehu, et.al, 2016; Tesfayi and Govindasamy, 2013; Tsegaye, et. al, 2020; Ayub, Kibria and Khan, 2015; Mahadeen, Khalil Hamdan-Mansour and Imoto, 2012; Manhas, Kohli, Mushtaq, 2010; and Alsonini, 2017.

Prachi, et. al, (2008) study found that 98% of the women had knowledge about family planning. The study underlines the need for educating couples to improve family planning. Alemayehu, et.al (2016) study of family planning use and associated factors among pastoralist community of Afar region, eastern Ethiopia, concludes that educational status influences family planning practice. Tesfayi and Govindasamy's (2013) study of Levels and Trends in Unmet Need for Family Planning among Adolescents and Young Women in Ethiopia found that secondary or higher level of education and a husband with more education than his wife were significant predictors of unmet need for child spacing. Tsegaye, et. al, (2020) study of Postpartum Contraceptive Use and Its Determinants in Ethiopia, found that secondary and above level of educational attainment by mothers was one of the determinants of postpartum family planning use. Ayub, Kibria and Khan (2015) claim that women who were literate and in late young age used contraception. A study of Knowledge, attitudes and practices towards family planning among women in the rural southern region of Jordan conducted by Mahadeen, Khalil Hamdan-Mansour and Imoto, (2012) highlights some educational needs among these women for effective use of family planning. Dhingra, Manhas, Kohli, Mushtaq (2010) report that education was significantly associated with the respective attitude of respondents towards family planning. Patel (2015) study reports that use of contraception has significant association with female participants' level of education. Masood and Alsonini (2017) claim that adults with higher education tend to have more awareness about health services. All the studies mentioned above underline that education strongly impacts on women's family planning behaviors. Advancing women's education according to these studies is the key to changing family planning behaviors of women in general and that of rural women in particular.

Findings of the current study partly concur and partly contradict with Almuallm (2007) study that revealed significant association with years of education completed by husbands and wives. They also found that attitude score had a significant association with years of education completed by husbands, and monthly income of the wives. Masood and Alsonini (2017) claim that adults with higher education tend to have more awareness about health services. The present study proved the importance of education as having positive influence on family planning knowledge, attitude and practice, but refutes the impact of income on the measured FP behaviors.

There is common knowledge held by the adult women about the fact that Intra Uterine Device (IUD) can help prevent pregnancy for long time, and that some injections are given at local hospitals to prevent pregnancy, There is also awareness among women that breast feeding, abstinence, sterilization, calendar method, etc, are some of the very cheap natural methods of family planning.

On the other hand, findings of the present study contradict with Frini and Naba, 2013; Oluwatosin & Abimbola, 2015; and Petro-Nustas, 1999. Frini and Naba (2013) reported that low socio-economic status is one of the main factors affecting contraceptive use in city slums. Oluwatosin & Abimbola (2015) conclude that age and economic status were found to significantly influence the use of IUD. Petro-Nustas (1999), study claims that attitude toward birth spacing and contraceptive use was most common among men with secondary education and among those with high income. The finding of this study, however, failed to trace prevalence of association between family income and women's knowledge, attitude and practice of using family planning technologies.

5. Conclusion

The surveyed adult women of rural Ethiopia have sufficient knowledge about, and hold positive attitude towards family planning technologies. They demonstrate better practice concerning the use of family planning technologies available in their localities. Increase in level of education was found to influence the family planning behaviors. Education is also significantly associated with knowledge, attitude and practices of family planning. Family income is neither significantly related to, nor does it exercise influence on family planning behaviors.

The findings of this study have implications for expanding access to education of good quality up to secondary level and beyond for rural adult women so as to empower them make knowledge based decisions to adopt family planning technologies on their own will. It would also be good if awareness raising activities are planned and offered to all rural husbands so as to help them support their wives in adopting family planning technologies.

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