

Status of Men Involvement in Family Planning: an Application of Trans-Theoretical Model, Northwestern Ethiopia

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Abstract- Background: Reproductive health in its broader sense and family planning in particular should be a concern for all, not for just that of women, and it needs the attention of men, entire family and the society. However, women carry a disproportionate amount of responsibility for reproductive health matters including family planning, especially in developing countries. The objective of this study was to assess the status of men involvement in family planning using Trans-theoretical model.

Methods: Community-based cross-sectional study was conducted from March 26 to April 15, 2012 in Dangila town administration. A total of 406 currently married men in the age range of 15-59 years were included in the study by using systematic random sampling technique. Data were collected through interviews using structured and pre-tested questionnaire, and the collected data were entered and analyzed using SPSS software version 16.0.

Results: The majority 288 (70.9%) of the men were found at pre-contemplation stage while 22(5.4%) were in contemplation, 25(6.2%) were in preparation, 53(13.1%) were in action and 18(4.4%) were in maintenance stages to practice family planning methods. Younger age, better educational status, and having television and/or radio in the household had statistically significant impact on men's involvement in family planning.

Conclusion: In majority of the participants, the behavioral change of married men was found in pre-contemplation stage. Therefore, designing stage matched as well as men inclusive and friendly family planning programs and interventions is essential to raise the status of men involvement in family planning.

Key words- Male Involvement; Family Planning; Trans-Theoretical Model; Ethiopia

I. BACKGROUND

Family planning service technology has the potential to benefit people at lower cost than any other technology now available for development [1, 2]. Access to effective contraception contributes to improved maternal health by averting unwanted and frequent births [3]. Recently, most countries, including Ethiopia, are trying to adapt the new initiative of involving men in family planning programs. Despite this initiative, the fact that men characteristics combined to women factors would be influential in modifying family planning use is not well known. It is crucial to make an investment especially on men involvement in family planning either to use the contraceptives by themselves or to encourage and support their partners to increase the contraceptive uptake and thereby regulate fertility in the sphere of marital life [4].

Although women receive the bulk of reproductive health services, gender dynamics can render women powerless. Men often have higher decision making power in matters such as sexual relations, family size, and seeking health care than women [5]. Historical decisions to exclude men from contraceptive decision-making may place the burden of contraception on women and may preclude the reproductive involvement of men [6]. Many researchers agree that an ideal approach to family planning involves joint decision making in the sphere of marital life [7-10].

Fertility and family planning researches and programs have ignored men's roles in the past, focusing on women [11] despite recent studies have showed that men want to know more about reproductive health and want to support their partner more actively [12]. An important step in improving women's reproductive health is the involvement of men [13]. Worldwide, none of "male methods (condom or Vasectomy)" accounts for more than 7% of contraceptive use, although uptake varies considerably between countries [14].

One of the approaches of understanding the extent of male involvement in family planning programs is the use of Trans-Theoretical Model (TTM). TTM is the processes of change that drive movement through the stages of change. It is an individual

oriented model focusing more on changes in behavior. Individuals do not change their behavior all at once; they change their behavior incrementally or step wise in stages of change. The most commonly considered stages across research areas include pre-contemplation, contemplation, preparation, action, and maintenance [15].

There were some studies that analyzed men involvement in family planning using TTM. A study in rural Vietnam found that men involvement in family planning with a staging algorithm (IUD) identified 25.8%, 7.5%, 3%, 3%, and 60.7% of the men were in pre-contemplation, contemplation, preparation, action, and maintenance stages, respectively [16, 17]. In Southern Ethiopia, 26.7%, 7.8%, 4.5%, 16.1%, and 49.4% of men were in pre-contemplation, contemplation, preparation, action, and maintenance stages, respectively [18].

The studies conducted in different sections of the world reported various factors that influence men involvement in family planning. Factors like having male child, presence of dyadic relationship between couples [19], spousal communication on contraceptive use [18, 20, 21], better educational status [18, 22, 23], and exposure to media are important determinants for male involvement in family planning [18].

Understanding the involvement of male in family planning based on their stage distributions of behavioral change as criteria for audience segmentation helps to implement stage-matched interventions that bring positive behavioral change for effective fertility regulation. The purpose of this study was to assess the status of men involvement in family planning using Trans-theoretical model.

II. METHODS

Community based cross sectional study was conducted from March 26 to April 15, 2012 in Dangila town administration, North West Ethiopia. The town administration consists of 10 kebeles (5 urban and 5 rural). According to the 2007 census [24], the projected population in 2012 was 34,014 inhabitants (24, 252 urban and 9,762 rural), of which 17, 486 (51.4%) were males and the estimated number of households were about 7,910.

The required sample size was determined by using a single population proportion formula. For the calculation, 95% confidence level, 5% marginal error and 60% married men involved in family planning [18] were assumed. All kebeles of Dangila town administration were considered for sampling. The number of households included from each kebele was determined based on the proportion of households found in each kebele. Systematic random sampling technique was employed to select 406 men from the households. When more than one eligible respondents were found in the selected household, only one respondent was chosen by lottery method. In cases where there was no eligible interviewee/respondent in the selected household, the next household was visited.

Structured and pretested questionnaire, consisting of both closed and open-ended questions, was utilized. Five final-year male health science students and two health professionals were recruited and trained to work as data collectors and supervisors, respectively. The data were collected by interviewing the study subjects/men using the Amharic version of the questionnaire.

The data were entered, cleaned and analyzed using Statistical Package of Social Sciences (SPSS) software version 16.0. Descriptive statistics like frequency distribution and percentage calculation was made for most of the variables. Bivariate and multivariate logistic regression analyses were performed to identify factors affecting men involvement in family planning. Finally, the results were presented with adjusted odds ratio (AOR) and 95% confidence interval (CI).

In this study, the five constructs (pre-contemplation, contemplation, preparation, action, & maintenance) of Trans-theoretical Model (stage of behavioral change) were used according to the following definitions. Pre-contemplation stage was considered when there was no intention to take action within the next 6 months. Contemplation stage was assumed when the person intended to take action within the next 6 months. A person was leveled at preparation stage when he intended to take action within the next 30 days and had taken some behavioral steps in this direction. Stage of action was considered when there was changed overt behavior for less than 6 months while maintenance stage was recorded when there was changed overt behavior for more than 6 months.

Ethical clearance was obtained from the Institute of Public Health, College of Medicine and Health Sciences, University of Gondar. Supportive letters were also obtained from Amhara Regional Health Bureau and Dangila Town Administration Health Office. After clear explanation of the purpose of the study to the study subjects, their verbal consents were obtained.

III. RESULTS

A. Socio Demographic Characteristics of Study Participants

All the selected 406 married men responded to the questionnaire, forming a response rate of 100%. The mean age of the study participants was 37.56 (SD. + 9.06) years. More than half 228 (56.2%) of them were Agew by ethnicity. The great majority 359

(88.4%) of the respondents were Orthodox Christian religion followers. Concerning educational status of the men, two-third of them had received formal education (Table 1).

TABLE 1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF CURRENTLY MARRIED MEN, DANGILA TOWN, ETHIOPIA, 2012

Variables	Category	Frequency	Percent (%)
Residence (kebele)	Urban	291	71.7
	Rural	115	28.3
Age in year	15-29	82	20.2
	30-44	228	56.2
	45-59	96	23.6
Ethnicity	Agew Awi	228	56.2
	Amhara	178	43.8
Religion	Orthodox	359	88.4
	Muslim	34	8.4
	Protestant	13	3.2
Educational status	Uneducated	138	34.0
	Primary	73	18.0
	Secondary	81	20.0
	Above secondary education	114	28.1
Occupation	Farmer	121	29.8
	Government employee	111	27.3
	Merchant	91	22.4
	Daily Laborer	88	20.5
Presence of radio and/or television in the household	Radio only	160	39.4
	TV only	74	18.2
	Both Radio and TV	82	20.2
	None	90	22.2
Main decision maker on household wealth and asset	Both husband and his wife	327	80.5
	Husband only	71	17.5
	Wife only	8	1.9

B. Awareness about Modern Family Planning Methods

More than 98% of the respondents have heard about modern family planning methods. The most commonly mentioned 87.2% of modern family planning methods was injectable. Health extension workers and radio were the main sources of modern family planning method information (Table 2).

C. Husband-Wife Communication about Family Planning and Modern Contraceptive Utilization

About 88% of the men discussed family planning with their wives within the preceding one year at least once, while 56.4% of them discussed the issue within the last month. Birth spacing was the main topic of discussion (Fig. 1). Almost a quarter (26.4%) of the participants had been requested to use male contraceptive methods by their wives, and nearly nine per ten (88.8%) of them approved it. The rest 11.2% acknowledged fear of side effects, culture and religion as a reason for their disapproval. Out of 327 (80.5%) of the respondents who had been requested by their wives to give approval for their wives to use female contraceptives, only 7 (2.1%) of them disapproved while the rest 320 (97.9%) gave agreement to their wives to use the methods. Lack of interest, fear of religion and culture were points raised by those who disapproved family planning methods for their wives.

TABLE 2 AWARENESS OF STUDY PARTICIPANTS ABOUT MODERN CONTRACEPTIVE METHODS, DANGILA TOWN, ETHIOPIA, 2012

Variables	Category	Frequency	Percent (%)
Ever heard about modern FP methods	Yes	399	98.3
	No	7	1.7
Specific modern family planning method mentioned (N=399)*	Injectables	348	87.2
	Condom	334	83.7
	Pills	321	80.5
	Implants	202	50.6
	IUCD	80	20.1
	Male sterilization	30	7.4
	Female sterilization	22	5.5
Sources of information (N = 399)*	Health extension workers	275	68.9
	Radio	259	64.9
	Other health professionals	152	38.1
	Television	140	35.1
	Community health workers	32	8.0
	Others**	15	3.8

*Multiple responses were given about awareness of each method and source of information

**Includes: Friends, wife, school, books, and Magazines

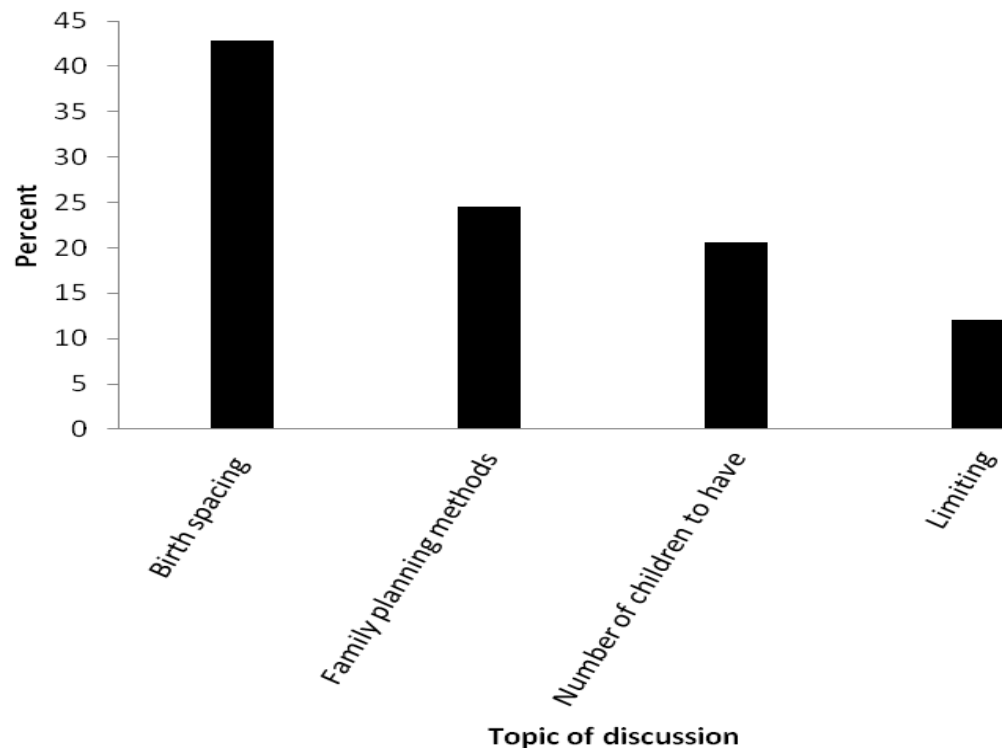


Fig. 1 Topic of husband-wife communication among currently married men Dangila town, Ethiopia, 2012

D. Utilization of Modern Family Planning Methods

One hundred (24.6%) of the married men had used male modern family planning methods. However, only 71(17.5%) of them were current users. Male condom was the only method used by the study participants. About 329 (81.0%) of their wives had used modern family planning methods and 281 (69.2%) of them were current users (Table 3).

TABLE 3 UTILIZATION OF MODERN FAMILY PLANNING METHODS AMONG MARRIED MEN AND THEIR WIVES, DANGILA TOWN, ETHIOPIA, 2012

Variables	Category	Frequency	Percent (%)
Ever used male modern family planning methods	Yes	100	24.6
	No	306	75.4
Currently use male modern family planning methods	Yes	71	17.5
	No	335	82.5
Ever used modern family planning methods by wives	Yes	329	81.0
	No	70	17.2
	Don't know	7	1.7
Ever used methods by wives (N=329)*	Injectables	230	69.9
	Pills	181	55.0
	Implants	70	21.3
	IUCD	17	5.2
Currently use modern family planning methods by wives	Yes	281	69.2
	No	118	29.1
	Don't know	7	1.7
Husband approval for current use by wife (N=281)	Approved	267	95%
	Disapproved	14	5%
Currently used method by wives (N=281)	Injectables	149	53.0
	Pills	75	26.7
	Implants	48	17.1
	IUCD	9	2.2
Reasons for currently using (husband or his wife, N=282)*	Spacing	228	80.9
	Limiting	54	19.1

*Multiple responses were possible

E. Men Involvement in Family Planning according to Trans-Theoretical Model Stage Distributions of Behavioral Change

Involvement in family planning was considered if men participated in at least one of the following actions: discussed about family planning in the last month at least once with wives, and/or used modern contraceptive by themselves, and/or approved their wives to use. Accordingly, 318 (78.3%) of men were involved in family planning. However, about seven out of ten of the currently married men were found at pre-contemplation stage of the Trans-theoretical model of behavior change (Fig. 2).

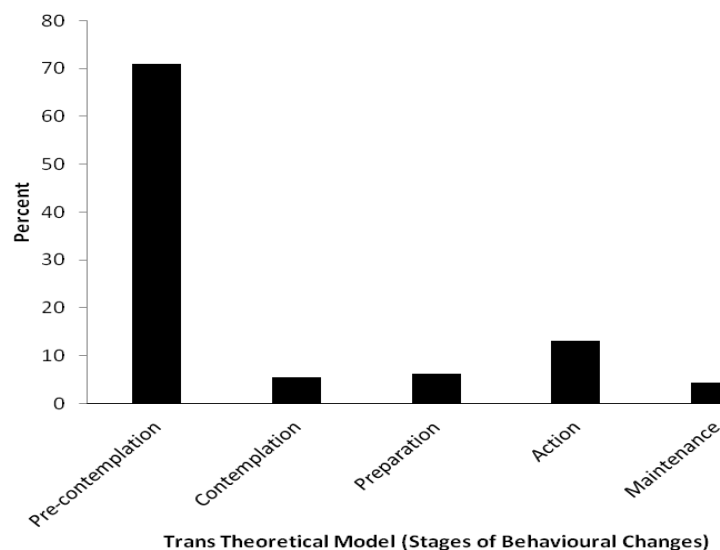


Fig. 2 Trans-theoretical stages distribution of behavioral change among married men in modern family planning method use, Dangila town, Ethiopia, 2012

F. Factors Influencing Men Involvement in Family Planning

Multivariate logistic regression analysis of numerous socio-demographic and reproductive variables in relation to men involvement in family planning was carried out. Variables including age, educational status, and presence of television and/or radio in the household had statistically significant association with men involvement in family planning.

Educated men were almost five times more likely to be involved in family planning than those who were uneducated (AOR: 4.95, 95%CI: 2.76, 8.87). Similarly, younger men were more likely to be involved in family planning compared to those who were in the age category of 45-59 years. In addition, the presence of television and/or radio in the household significantly increased men's involvement in family planning (Table 4).

TABLE 4 MULTIVARIATE LOGISTIC REGRESSION ANALYSIS FOR POTENTIAL FACTORS ASSOCIATED WITH MEN INVOLVEMENT IN FAMILY PLANNING IN DANGILA TOWN ADMINISTRATION, ETHIOPIA, APRIL 2012

Variable	Category	Men involvement in family planning		COR(95%CI)	AOR(95%CI)
		Yes	No		
Residence	Urban	240	51	2.23(1.36, 3.66)	1.10(0.57, 2.11)
	Rural	78	37	1	1
Age of respondent	15-29	70	12	3.06(1.45, 6.42)	3.04(1.34, 6.90)*
	30-44	185	43	2.25(1.32, 3.85)	2.51(1.38, 4.55)*
	45-59	63	33	1	1
Educational status of men	Uneducated	80	58	1	1
	Educated	238	30	5.75(3.46, 9.56)	4.95 (2.76, 8.87)*
Occupational status of respondent	Farmer	98	13	1	1
	Government employed	82	39	0.28(0.14,0.56)	1.06(0.28, 4.04)
	Merchant	78	13	0.80(0.35,1.81)	1.01(0.41, 2.47)
	Daily Laborer	60	23	0.35(0.16, 0.73)	0.77(0.31, 1.94)
Age of respondent's wife	15-24	85	18	2.26(1.17, 4.35)	0.77(0.28, 2.10)
	25-34	164	37	2.12(1.23, 3.66)	1.44(0.67, 3.12)
	≥35	69	33	1	1
Educational status of men's wife	Uneducated	136	62	1	1
	Educated	182	26	3.19(1.92, 5.31)	1.21(0.61, 2.39)
Presence of television and/or radio in the household	Television ± radio	136	20	3.94 (2.08,7.43)	2.42(1.15, 5.08)*
	Radio only	125	35	2.07 (1.17, 3.65)	2.27(1.22,4.23)*
	None	57	33	1	1
Number of currently alive children	≤ 3	220	50	4.40(3.24, 5.98)	0.69(0.35, 1.35)
	> 3	98	38	1	1

*Significant at $P \leq 0.05$

IV. DISCUSSION

The highest awareness of modern family planning methods observed in this study is consistent with the national figure [25]. Family planning interventions by the health sector including the implementation of the innovative urban and rural health extension programs, national and international organizations, and increased exposure to education could be the main explanations.

Compared with the previous studies done in different parts of Ethiopia [17, 18], the ratio of men discussing family planning with their wives is higher. This discrepancy could be due to time variation, increased awareness of the community about modern contraception, and increased access to family planning services especially through urban and rural health extension programs.

Male condom was found more practiced by the study participants in the study area than the national average [25]. This might be due to the fact that this study involved urban dwellers whereas in the national study, 85% of the subjects were from the rural areas.

Consistent with the study done in Wolaita Soddo [18], this study revealed that there was no man in the study area that had undergone vasectomy. This can be explained by the presence of strong cultural and gender imbalance that favor men.

The prevalence of men involvements in family planning among the study participants was found higher than that found in a previous study done in Ethiopia [17]. This difference may be due to measurement variation between the two studies. This study assessed the status of men involvement in FP, which includes married men who discussed about family planning within the previous month, and/or those who used modern male contraceptives, and/or those who approved current use by their wives. However, the previous study was dealing only with family planning method use.

Most (71%) of the married men were found in pre-contemplation stage. However, very few men reached action and maintenance stages of behavior change in using condom. This may be due to limited method mix (contraceptive menu) for males or less programmatic attention given to men in the family planning programs. This was supported by a previous study that shows most family planning method options are female oriented and most family planning programs give less attention to male involvement particularly in men dominated societies like Ethiopia [5]. Male oriented/ men friendly family planning services are absent in many areas. The role of cultural and religious influences should also not be ignored [15]. It is crucial to support equitable partnerships between men and women while offering men services including family planning services that enable them to share the responsibility in fertility regulation and their family life in the sphere of marital life [6].

Multivariate logistic regression analysis in the current study depicted that educated men were more likely to be involved in family planning than those who were uneducated. Other studies support this finding [23]. Education ensures greater awareness of the benefits of family planning, available methods, and their sources and effectiveness.

This study revealed that younger men were more likely to be involved in family planning compared with the older age groups. There are multiple explanations for this finding. On the one hand, older men are more conservative and want to stick to the pronatalist tradition. On the other hand, men in the younger age groups want to be involved in family planning as have higher tendency of engagement in other priorities such as learning.

The presence of television and/or radio in the household had positive impact on men involvement in family planning. This finding was in agreement with the study done in other part of Ethiopia [18]. Access to information through mass media like television and radio influences the awareness, knowledge, attitude and practice of individuals. Hence, men involvement in family planning could be improved.

Limitation: By virtue, this study is expected to be prone to the limitation of cross sectional study (temporal relationship). In addition, social desirability bias could not be ruled out while collecting the data from the study participants.

V. CONCLUSION

Most of the married men participated in this study were found in pre-contemplation Trans-theoretical stage of behavioral change. Being in younger age group, being educated and having radio and/or television in the household were positively associated with men involvement in family planning. Thus, designing stage matched as well as men inclusive and friendly family planning programs and interventions are crucial to elevate the status of men in involvement of family planning.

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