Original article

Social-psychological factors associated with' contraceptive attitudes of married women in the Kechene Community of Addis Ababa, Ethiopia

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Abstract: The study was undertaken to explore the social-psychological factors associated with contraceptive attitudes of women in the Kechene Community of Addis Ababa. A survey questionnaire was prepared and distributed to a total of 500 female respondents selected from Kebeles 15 and 18 in the Kechene Community of Addis Ababa out of which complete data were obtained on 418 respondents. The obtained data in the study were analyzed using both bivariate and multi-variate analyses procedures. Results of the final data analyses suggested that of all the social-psychological factors considered in the study, three of them, viz. , physical crowding, knowledge about the varieties of modem contraceptives, and perceived consequences of contraception were found to have strong associations with the contraceptive attitudes of women in the Community indicated above. The implications of the above findings to the development of health promotion strategy in the community are also discussed in this paper. [Ethiop. J. Health Dev. 1996;10(3):153-160]

Introduction

Like other developing countries, Ethiopia is facing a population crisis. This is more evident when we look at the estimation on the annual population growth rate of 3.3 % in 1993 (1). Similarly, the total fertility rate for each woman in Ethiopia, disregarding female mortality, was estimated to be on the average 6.6 between the years 1990 and 1995 (2). Moreover, it was also estimated that 46.5% of the total population of Ethiopia are children aged 0- 14 years (I).

The above stated demographic situations imply a high fecundity potential and a big burden of child dependency for the present and the future generations of the country .Hence, such unhealthy trends in human fertility need to be regulated to bring it in harmony with the real resources of the country .

Needless to say, one such attempt to control the population growth is in the area of family planning. In spite of the government's negligence and least involvement in family planning activities in the past few decades, much efforts have been made in Ethiopia, for instance, to introduce and disseminate modem contraceptives to the people. Such efforts were mainly undertaken by the Family Guidance Association of Ethiopia (FGAE). In spite of the efforts that have been made to introduce and promote modem contraceptives to the people in Ethiopia, the contraceptive prevalence rate (CPR) appears to be very low. For instance, compared to some statistical figures from some African countries, (23.2% in Kenya in 1989 and 32.2% in Zimbabwe in 1988) the contraceptive prevalence rate (CPR) in Ethiopia is very low, i.e., 7.5% in 1990 (1).

A number of factors can be attributed to the low level of acceptance of modem contraception. First of all, the success in the introduction and distribution of modem contraceptives and the related

educational programs is based on a clear understanding of the attitudes, beliefs, and values of the community as related to family planning. The widespread failure of family planning campaigns in many developing countries can be attributed, in large part, to insufficient awareness by program administrators of the way of life and traditional attitudes of the community involved (3). Hence, there should be a clear understanding of the traditional attitudes of the community as regards family planning.

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It would also be argued that the depressing socioeconomic conditions in most communities of Ethiopia would explain the low level of acceptance of modem contraceptives and their consequent negative attitudes. This may not always be the case in most societies of the developing world. Caldwell and Caldwell , for instance, stated that, even in societies in which high fertility is the norm, there are couples who deliberately choose to limit their fertility (4). This argument has been corroborated by the results of population studies in Latin America, where socioeconomic factors were found to relate poorly with the dynamics of human fertility (5).

Issues related to family planning problems have remained to be the subjects of a number of scientific studies in Ethiopia. Most of such studies more or less emphasized on the socio-demographic, cultural and medical aspects of family planning problems. In sum, although the socio-demographic and cultural factors (such as religion, age, occupation, education, ethnicity and the like) play dominant role in influencing the contraceptive attitudes of potential users, a number of empirical studies in developing countries indicated that social- psychological factors (such as knowledge on varieties of modem contraceptives, inter-spouse communication and understanding; perceived economic value of children; generational factors; informal communication on family planning matters; perceived stance of significant others on family planning and the like) are also important factors affecting the valence and intensity of contraceptive attitude. This point has been corroborated by results from a number of research reports (6,5,7,8,).

Though not in a comprehensive manner , some of the studies conducted in Ethiopia have also dealt with some aspects of the social- psychological factors. Specific results from these studies suggest that knowledge on varieties of modem contraceptives (10, 12); inter-spouse level of communication and sharing of responsibility among the spouse (8, 9); fear of adverse effects of modem contraceptives (7); lack of husband's supportive attitude and spouse disagreement (7); and desire for large number of children (7) were among the prominent social- psychological factors related to the level of acceptance of contraception.

Similar kinds of results were reported from some other countries. In her study of the attitudes of Sudanese men toward family planning, Khalifa, for instance, found out such factors like, husband's supportive attitude, knowledge on varieties of modem contraceptives and the strength of the misconceptions about modern contraceptives to be significantly associated with the level of acceptance of modern contraceptives (4).

By way of establishing an indirect relationship between educational level of women on the one hand and fertility level on the other, Holsinger and Kasarda mentioned that such socialpsychological factors like perceived economic utility of children and husband-wife communications are intervening variables bearing influence on the level of contraceptive adoption (15).

In his study on the possible reasons for the limited acceptance of modem family planning measures in rural Guatemala, Bertrand has underscored the significance of the above social-psychological factors in influencing the attitudes of people toward modern contraception (4).

Thus, it is with the above general understanding that this study attempts first to explore contraceptive attitudes of women (operationalized by the level of acceptance of modern contraception) and to Identify those social-psychological factors which are closely related to the above evaluations of modem.

Methods

The questionnaire. In order to explore the contraceptive attitudes of women and the related socialpsychological factors, a semi- structured questionnaire was designed and administered in January , 1994 to systematically selected female respondents in the Kechene Community of Addis Ababa.

The final version of the instrument was prepared in Amharic after it has been tested out in a pilot phase of the study. The items in the questionnaire were designed to measure the following variables used in the study: background variables such as age and sex; knowledge on the varieties of modem contraceptives; attitudes toward modem contraception; family structure variables; personal preferences of women on the number of children; informal communications on family planning issues; degree of inter-spouse communication and understanding; the degree of religiosity and moral beliefs as related to contraception; perceived consequences of contraception; and perceived severity of infant mortality. Some of the items in the questionnaire were incorporated from previously used research instrument (4).

The one-item rating scale was used in this study as a scale of attitude measurement anticipating the practicality of the scale in the research context. It was stated that the one- item rating scale is sufficient for many researches and survey purposes as a procedure of attitude measurement (16). Moreover, it was suggested that what is more important, in the third world context, is the attempt to discover the current universe of subjective concepts surrounding a particular development issue. rather than to attempt precise measurement of particular dimensions with sophisticated instruments (13).

Sampling procedure. In order to select a representative sample from the Kebeles 15 and 18, the population logs from the two Kebele offices were used as the sampling frames. Hence, using the two population files in the Kebele 15 and 18 offices a total of 500 females of the reproductive ages (15-49 years) were selected using a systematic sampling procedure. Then, a further screening of the respondents was made using some selection criteria. Accordingly, those women who were married; had children; were Orthodox Christians and had more or less similar socio- economic backgrounds at the time of the survey were included in the sample. These criteria were used to make the respondents more or less homogeneous in their socio- cultural backgrounds.

Although 500 respondents were selected originally for the study, only 418 women were found to be eligible for the survey.

Data in the study were analyzed in three different stages. In the first stage, attempts were made to reduce the total set of data by running factor analysis which helped to cluster the different single items into some meaningful categories. A total of 12 factors emerged from the factor analysis, representing the different social-psychological variables of the study. Items loading high on each factor (high loading being deformed as 0.4000 and above was used as the statistical criterion in this study) were taken as specific variables measuring that particular factor. In our case all the 14 social- psychological variables considered in this study, as listed out in Tables 5 and 6, are the results of such factors groupings.

Since the major social-psychological variables were the results of the summings of the responses on different single items in the questionnaire, a test for their reliability was made by combining each variable index with
the items used to construct it. The reliability coefficients were then computed using SPSS/PC in order to determine the scalability and homogeneity of the items. The computed Cronbach alpha values on each index were found to range between 0.6687 and 0.8135, indicating that the items were indeed measuring the same attributes, and hence, making the indices reliable measures of the social-psychological variables.

In the second stage, the descriptive values were determined for each variable included in s the study. Then, inter-correlation matrix was e determined and bi-variate analyses were g performed to layout the ground for the regression analysis.

In the third stage, to determine the overall contribution of the fourteen social- psychological variables in predicting the attitude variable, multiple correlation coefficient was determined. This was followed by a regression analysis using the backward elimination technique, since backward elimination technique is known to work better than the inclusion technique (17) .All tests of significance were set at alpha value of 05.

Results

Description of the sample and their Attitude Table-1 shows that nearly half of the respondents in the study (i.e. 46.9%) are below the age of 34 years while the median age is 35. Moreover, close to 80% of the respondents are below age 40. While the mean number of living children is 5.6, the majority of the respondents, i.e., close to 60% are having five or more living children, suggesting a high fertility trend and a heavy fecundity potential among the respondents. The percentage distribution of respondents by the' desired number of children achieved' is also given in Table 3. This result was obtained by taking the difference between the actual number of living children the respondents have and the preferred number they wish to have. As it was indicated in Table 3, 57.2 % of the respondents already gave births to more than the number of children they would prefer to have; 13% have exactly the number of children they wish to have while the remaining 29.8% still need to have some more children. Although the validity is questionable, this variable was intended to measure the respondents' personal attitudes (preferences) on the number of children. Nevertheless, the data could suggest that even in such a poveny-striken society as the Kechene

Community, people would prefer to limit the number of children. Most of the respondents showed their preferences to less
than the number of children they actually had, implicitly suggesting to the unmet needs of these women for family planning services. The relative distribution of the respondents on the attitude continuum as indicated in table 7 showed that very few cases fell at both extremes, only 1% with extreme negative attitude and 3.4 % with extreme positive attitude. The remaining 95.6% of the respondents lie on middling position with either a conservative, ambivalent, or liberal attitudes implying less commitment or non-commitment position along the attitude continuum.

Table 1: Distribution of respondents by Age, Addis Ababa, 1993.

Age Distribution	Number & %
15-19	3 (.7)
20-24	33 (7.9)
25.29	60 (14.4)
30-34	99(23.8)
35-39	127(30.5)
40-44	72(17.3)
45-49	22(.3)

Table 2: Distribution of respondents by the number of children,
Addis Ababa, 1993

Number of Living Children	Number & %
Did not achieve as desired	119929.8)
Achieved as desired	25(13 .0)
Achieved over the desired	228(57.2)

. This variable was determined bytaking the difference between actual number of living children and the desired number of children the respondents

Table 4.Knowledge about modern contraceptives,
Addis avava, 1993

Contraceptive Methos	Number & %
Pills	418(100.0)
IUD (Loop)	337(80.6)
Tubal Ligation	268(64.1)
injection	62 (14.8)

Table 5: variables having statistically significant
bivariate associations with the attitude score,
Addis Ababa,1993

Variables	Chi-Square value with Attitude score	df	N
Physical			

Crowding	54.26***	12	417
Knowledgeability	103.79***	48	417
Significant			
Others	89.49***	36	406
Infomal			
Communications	76.68**	36	417
Moral Beliefs	15.72*	8	417
Perceived Economic	Value		
Of Children	24.16**	12	417
Perceived			
Severity of			
Infant Mortality	18.02	8	402
Perceived Consequences			
Value	528.16***	184	417

*Significant at P > .050
**Significant at P > .010
***Significant at P> .000 df - degrees of freedom, N - Number of Cases

Table 6: Variables with Non-Significant bi-variate association with the attitude score, Addis Ababa, 1993

Social-	Chi-Square		
Psychological	Values with	df	n
Variables	attitude score		
Generation			
Factor	17.74	8	407
Childless Phase			
In the Wedlock	8.87	8	416
inter-spouse			
communications	20.59	12	415
Number of Children			
Preferred	66.27	64	398
Concern			
the Effects of			
Pregnancy	11.68	12	414
Religiosity	13.97	8	417

Table 7: Percentage distribution of respondents on the attitude continuum, Addis Ababa 1993.

Attitude Value	Number	%
(1) Unfavourable Attitude	4	1.0

(2) Conservative. Attitude	183	43.9
(3) Ambivalent- Attitude	35	8.4
(4) liberal- Attitude	181	43.4
(5) Favourable- Attitude	14	3.4
Total	417	100.0

An understanding of the obtained results in the light of the homogeneity of the respondents in their socio-economic and cultural backgrounds would demonstrate the relative influences of the proximate social- psychological factors. Such a positive evaluation of modern contraception is quite encouraging in the Kechene Community which is said to have had relatively rural tradition in family ties, business and socio-cultural lives (18). The findings from this study are also quite in tune with what was found out in some previous studies (4, 5, 7, 19). A number of reasons can be attributed to such kinds of results: the intermingling of the Kechene people with other parts of the community in Addis Ababa; or the patterns of media exposure and similar other reasons. Further research is needed to identity the whole range of reasons.

Results of the Bi-variate Analyses. Tables 5 and 6 show the final summary results of the bi-variate analyses performed. The empirical estimates of the association of each of the social-psychological variable with the attitude variable was used as the criterion of inclusion of the social-psychologlcal variable in the final regression analysis. As it was indicated in table 5 all the eight variables have statistically significant associations with the attitude variable, and hence, were included in the final regression analysis. The remaining variables listed in table 6 are more or less independent, and hence, were left out of the regression analysis, since they do not have a statistically significant association.

Results of the Multi-variate Analysis. Those eight independent social-psychological variables, having significant bi-variate associations with the attitude variable in table 5, were entered into the regression model in eight consecutive steps. The overall contribution of the eight variables, when taken together, is estimated to be .0619. A significance test on this coefficient of multiple detern1ination was made using an F-ratio. The
results of the F-test showed that the variation in attitude score which is attributable to the eight independent variables taken together was statistically significant ($F(8,409) = 3.3735$, $p < .05$).

A further regression analysis was performed to see the relative contributions of each of the independent variables using backward elimination procedure. Results from this analysis indicated that only three social-psychological variables, viz. , physical crowding, knowledge about the varieties of modern contraceptives and score on perceived consequences of contraception were found to have significant predictive powers, while the remaining five variables were eliminated consecutively from the model. The relative loss in Rsq., when those five variables were eliminated from the model, that is, a difference of.0084 in Rsq. was not statistically significant ($F(8,409) = .433$, $p > .05$).

Discussion

As it is more evident from the above results, only three of the variables were found to have the power of predicting the attitude variable. Therefore, from the above results we can conclude that the valence and intensity of contraceptive attitude was influenced more by the indices of physical crowding, knowledge ability and perceived consequences of contraception.

A more specific examination of the results in the final analysis indicated that the larger the index of physical crowding, the more negative the attitudes of women toward contraception. A lot can be said to explain such a result. The extended family situation in the community as it was observed by the writer of this report, the real business and economic organization which is likely to involve cheap child labor can be cited as the most likely factors affecting the association between the index of physical crowding and contraceptive attitudes.

More over, those women with high index of physical crowding have already given enough births to as many as greater than five living children, (59.1% of the respondents having more than five children) which might then be implying the fact that the respondents were actually trying to justify their reproductive behaviour by showing a negative attitude towards contraception.

Respondents knowledge ability about the varieties of modem contraceptive is given in table 4. These results indicated that oral pill is the most popular method of contraception in the Kechene area with 100% of the
respondents in the study knowing about it. IUD with 80.6%, Tubal Ligation with 64.6% and injectables with 14.8% follow in that order.

More over, the bi-variate analysis results indicated that knowledge of the varieties of modem contraceptives has a negative relationship with women's attitude toward contraception. Nevertheless, the relationship is statistically significant as indicated in the computed value of X^2 = 103.79 (significant at 0.0000). The negative association between knowledge and attitude might be attributed to the type of contraceptive information the respondents might have gathered. This issue evidently calls for further investigation on the quality of contraceptive information the respondents possess and also the sources of such information.

The variable on the perceived consequences of contraception has a positive and statistically significant association with attitude variable. It shows that the women's attitudes toward contraception correspond to the favorableness or unfavorableness of the total set of the expected consequences. The obtained results indicated that the more unfavourable the expected consequences of contraception, the more negative the attitude of the respondents and vise versa. Previous similar studies also underlined fear of adverse effects of modem contraception to be the major inhibiting factor of modem contraception (7). Thus, one major strategy to enhance women's positive attitudes toward modem contraception in the Kechene community is to give information pertaining to the advantages of modem contraception in relation to the promotion of their reproductive health.

Needless to say, health promotion research should focus on the process of promoting health. As such health promotion research does not deal with health itself, but rather, with methods with which to change the personal and environmental factors related to health (20). In the light of this understanding, the social-psychological factors are thought to be personal life-style variables which are closely related to the reproductive health of the women and also to the health of the family in general. They are also proximate to family planning decisions. In general, the findings from this study have certain practical implications to the development of an educational intervention program with the aim of promoting the reproductive health of women " in the given community .Consequently any educational or intervention program in the area of family planning

must also bring modifications in this life-style variables that may determine the overall well-being of the women. This can be achieved through educating and empowering these women.

Results of the data analysis in this particular study indicated that, despite the influences of sociocultural backgrounds, the majority of the respondents evaluated modem contraception in I a more favourable way. This result indicates that there is a conducive atmosphere in the Kechene Community for the promotion of family planning ideas and subsequent distribution of contraceptives.

Results from this study also showed the significance of the behavioural factors in determining the overall evaluations of women regarding family planning through contraception. Needless to say, a health promotion strategy must be designed, but still, further research is needed to determine what sort of behaviour change strategy is needed in the Kechene Community and in similar other communities in Ethiopia.

Finally, it is expected that this particular study can stimulate subsequent health promotion research activities in the area of human fertility problems.

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