A Study on Some Behavioral Problems in Sequential Processes of Adoption in Family Planning*

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SOME BEHAVIORAL PROBLEMS IN THE FAMILY PLANNING ADOPTION PROCESS

The early research on family planning was dominated by traditional demographic approaches, which were extended to focus not only on fertility, but also such intermediate variables as KAP (Knowledge, Attitude and Practice) variables. One of main criticisms of family planning KAP studies is that their content is rather stereotyped (Kirk, 1969). Almost all of the independent variables to explain K, A, and P were the usual demographic and static variables of age, parity, education etc. (Rogers and Bettinghaus, 1966). This is inadequate and unsatisfactory from a practical point of view. Once a relationship is found between these kinds of independent variables and K, A, or P very few useful recommendations can be made for the family planning program. A family planning official cannot change the age or the education of population in order to bring about more widespread diffusion of family planning.

Family planning needs research in which the main independent variables have a sound basis in social science theories and previous research, and which have more utility for application in program strategies for family planning diffusion. Such non-demographic variables deal with the "why" of family planning adoption and diffusion behavior, rather than the more simple "what" as indicated by current levels of K, A, and P (Rogers, 1973, p. 388).

In response to this problem, the present study will provide an assessment of the effects of independent variales of more extensive range (demographic factors, family norms, communications, and program factors) on family planning adoption process indicators or elaborated and refined KAP variables.

In this paper, we will describe our theoretical framework for the family planning adoption process and associated factors. Then we will present findings about the differential effects of various factors on each point in the adoption process. The presentation of these findings will be preceded by a brief discussion of the KAP gap, the large difference between the low family planning practice rate and the much higher knowledge level and prevalence of favorable attitudes. One of the main objectives of this study is to provide some empirical findings needed to develop program strategies for solving the problem of a large KAP gap, and for expediting the progress of the family planning adoption process. From the findings, we will derive implications for program strategies and further study in family planning diffusion.

I. THE FAMILY PLANNILG ADOPTION PROCESS AND RELATED FACTORS

There have been many investigations of the process of family planning adoption up to the present, including a great many standard studies of knowledge, attitudes and practice (KAP). Most of these researches, however, have been limited in their utility to family planning program concerns. Much of this is due to the restricted range and static character of the independent variables considered. This study aims, therefore, to investigate the effects on family planning adoption of a wider range of independent variables, especially those which are amenable to manipulation by family planning program efforts. It is clear that the results of an analysis of this sort can be most useful in the design and implementation of program activities if they are presented in terms of a theoretical framework that provides a useful conceptualization of key areas. The traditional model of the adoption process has been found to be inadequate in this respect when applied to family planning (Lin and Hingson, 1974). Consequently, in addition to considering a series of variables which are more relevant to program activities, this study proposes a modification of the adoption process model in an attempt to overcome some of the major deficiencies noted by observers and to produce results in a form which is more directly applicable to program implementation. In this section, we will review the conventional process model and some of the shortcomings that have been noted in its application to family planning. We will then suggest a somewhat different conceptualization of the process and discuss the reasons for the proposed modification. Following this explanation of the theoretical background of the present research, some refinements in the measurement of KAP variables used in this study will be described. Finally a series of hypotheses will be stated in terms of the model which consider the effects of a broad range of independent variables on the KAP indicators.

It has long been realized that the adoption of an innovation by an individual is best understood not as a simple act, but rather as a process occurring over time involving a series of actions. The traditional view of the adoption process as formulated by a committee of rural sociologists in 1955 postulates a model consisting of five stages (Rogers and Shoemaker, 1971, p. 100-101).

1. Awareness: the individual learns of the existence of the new idea but lacks information about it.

2. Interest: the individual develops an interest in the innovation and seeks additional information about it.

3. Evaluation: the individual makes mental application of the new idea to his present and anticipated future situation and decides whether or not to try it.

4. Trial: the individual actually applies the new idea on a small scale in order to

determine its utility in his own situation.

5. Adoption: the individual makes continuous, fullscale use of the idea.

The limitations of this five-stage model in explaining adoption behavior have become increasingly apparent. It is indicated that the model implies that the process always ends in decisions to adopt, whereas in reality, rejection may also be a likely outcome. Moreover, the five stages do not always occur in the specified order, and some may be skipped, especially the trial stage. Evaluation actually occurs throughout the process, rather than at just one of the five stages. In addition, the process seldom ends with adoption, as further information seeking may occur to confirm or reinforce the decision, or the individual may later switch from adoption to rejection (discontinuation). The model formulated by Rogers, consisting of the four stages of knowledge, persuasion, decision and confirmation attempts to surmount these difficulties (Rogers and Shoemaker, 1971, p. 101-104).

In proposing his "Behavioral Model of the Process of Induced Adoption," Bogue (1969) indicated several other inadequacies of the conventional model. He indicates that the stages describe a temporal sequence of events, but do little to explain the process. Furthermore, the five stages seem to be valid because of deductive rather than inductive reasoning, and they are based on the premise of "rational man." Like Rogers, he also notes the inability of the model to describe or explain failures to adopt. The behavioral model he offers as an alternative consists of six components: information, motivation, credibility, social legitimation, positive attitude and self-referral.

Because of the inadequacies noted by the above scholars, the conventional model of the innovation adoption process has not yielded very satisfying results when applied to family planning. In particular, there are two important problem areas of relevance to family planning programs which the model does little to clarify.

1) It does not explain the size of the so-called KAP gap. It is clear that knowledge does not necessarily lead to attitude change and that knowledge and attitude change does not automatically lead to practice (Laing, 1970). The magnitude of the difference between those who have favorable attitudes toward family planning and those who practice, which has been observed in KAP studies in Korea and elsewhere, is not explained in the theory.

2) The theory also does not provide an adequate way of conceptualizing those cases in which individuals or couples appear to have decided in favor of limiting their family size, either temporarily or permanently, but whe do not use any of the methods of contraception even though they know that they exist. There are many people who report that they want to avoid pregnancy, but who do not practice family planning. The high rate of abortion reported among Korean women (Hong, 1972), the large numbers of unwanted pregnancies that have been recorded, and the large numbers who have discontinued the use of contraception (The Korean 1968 fertility and family planning survey) are left unexplained by the traditional five-stage theory of adoption.

These considerations have led us to suggest some revisions in the adoption process model. The reformulation proposed in this paper differs somewhat from the alterna-

tives offered by Rogers and Bogue in that it attempts a more precise conceptualization of the KAP gap and of that group of people who do not want pregnancy but who do not practice contraception although they know about it. It is felt that resea rchconducted in terms of such a model is capable of yielding much more meaningful results for general theory and for application to the operation of family planning programs.

The model we propose involves two phases: a normative phase (called a decision phase) and a behavioral phase (called an action phase). In adopting innovations, individuals appear to go through two types of processes which, although related, are conceptually distinguishable: a normative process which involves the learning about the innovation and the development of a perceived need for adopting it, and a behavioral process involving the translation of these attitudes into action. In other words, for an individual to complete the adoption process pertaining to family planning he must first make up his mind to avoid pregnancy in his current situation (spacing), or not to have any more children (family size limitation), and then translate this decision into action by adopting a particular contraceptive method. This latter phase involves choosing a contraceptive method out of various available methods suited to the needs of the individual and his family and visiting a service point where it can be obtained.

In this study, the practice of induced abortion was not considered as adoption of family planning. We are concerned with the the behavioral problems in the process of adoption and the use of contraceptive methods rather than in the practice of birth control. The assumption underlying this approach is that induced abortion is not a desirable method of birth cotrol, and induced abortion adopters are different from the adopters of contraceptive methods in their behavioral characteristics.

The distinction of these two phases in the adoption process has become important in the case of family planning because of some features which do not apply to other types of innovations that have been the object of intensive study. Because it is related to sex, which is a central value and a taboo topic, family planning is subject to restrictions in communication and is regarded with a certain degree of shyness and avoidance. This means that going to the clinic to find out about family planning rather than for treatment of some disorder is a matter far different from going to the market to get a new fertilizer. Consequently, in family planning adoption, social and psychological factors intervene between decision making and choice making more prominently than in the adoption of innovations of other types. For agricultural innovations, for example, the normative and behavioral adoption phases are much more coincident. Furthermore, technical devices competing for adoption in family planning are more numerous than in most of other innovations.

In terms of this model, many of the couples who costitute the KAP gap, including those who have unwanted pregnancies, those who resort to induced abortion and other types of *pong-eem* (those who want to avoid pregnancy but do not practice contraception), can be conceived of as having gone through the normative adoption process, but not the behavioral process. In other words, they have adopted the idea of family planning (spacing or family size limitation), but they have not taken action to obtain

the necessary services (contraception). The new model also provides a more satisfactory conceptualization than the traditional scheme for the phenomena of discontinuance and the shifting choices of contraceptive methods. In the case of both discontinuance and shifting from one method to another, the normative process, that is the decision to avoid pregnancy, has been completed. Discontinuers have abandoned only the second, behavioral adoption, and rest at the point of normative adoption, while shifters fluctuate within the behavioral phase. With this model we can begin to explore the reasons why so many couples fall into this KAP gap category and to examine its characteristics in ways that the traditional five-stage theory do not permit.

With this as our general framework, we have tentatively selected several adoption states, which may be conceived of as roughly sequential points in the adoption process. While examining these states, we will inquire into the effects of associated variables, especially those which can be affected by a family planning program and attempt to identify problem areas in the adoption process. The states we have selected for this study and the sequence in which they usually occur are illustrated in the following Chart. [1)]

Chart 1. States in family planning adoption process

Phase	State
Normative phase	1. Awareness
	2. Interest
	3. Decision making (spacing or family size limitation)
Behavioral Phase	4. Choice making (method and place)
	5. Adoption

Indicators have been designated for each of these five states, and the effects of the various factors on each of these indicators have been examined. As mentioned before, this study has considered a wider range of independent variables, which are shown in Chart 2. With regard to the effects of these factors on the adoption process, three general testable hypotheses are suggested:

Hypothesis 1 : There exist some factors that have effects on family planning adoption process over and above the effects of demographic factors. Included in them are family norms, communications, and program contact.

Hypothesis 2 : The effects of each of these factors on family planning adoption process differ at the various points in the process.

Hypothesis 3 : Informal interpersonal communications have greater effects on family planning adoption than formal impersonal communications.

In an attempt to test these hypotheses, the effects of a set of independent variables on each of the adoption process indicators have been assessed. Depending upon the indicator, we used a different combination of the above independent variables that can be related

1) We believe that it is unwise to apply the model of sequential process to reality too strictly. This point was indicated by Lin and Hingson (1974) also.

Chart 2. List of independent variables

A. General demographic characteristics:
   - Age
   - Number of living children
   - Number of living sons
   - Educational level

B. Family norms
   - Son preferene
   - Old age dependency

C. Family communication
   - Decision-maker of family size
   - Husband-wife discussion on family planning
   - Consensus of husband-wife opinion on family planning

D. Neighborhood communication
   - Frequency of talking with neighbors about family planning
   - Number of persons practicing family planning known
   - Meeting persons advising on family planning
   - Rumor exposure

E. Exposure to family planning mesage through mass media

F. Program contact
   - Home visiting
   - Program contact through printed materials
   - Program contact through public meeting
   - Mothers' club membership
   - Credibility of services

to the indicator at the conceptual level. These procedures are explained in detail in later sections of this report.

In addition to the modifications introduced in the conceptualization of the adoption process, it was felt that refinements in the measurement of KAP variables would also be necessary to provide a more precise picture of KAP gap and its dimensions. A large KAP gap is an important problem to be solved in order to expedite the progress of the family planning adoption process for which this study is intended to provide needed information. For this reason, improved KAP measures have been developed for use in this research. These involve refinements particulary in the measurement of knowledge and attitudes.

Knowledge and attitudes as they relate to the adoption of family planning are thought of as comprising at least the following elements:

KNOWLEDGE
- a) idea of family planning
- b) methods
- c) service sites
- d) neighborhood information

ATTITUDES
- a) attitude toward present slogan
- b) methods

c) credibility of service

d) perception of neighborhood attitudes

Most previous KAP studies measured knowledge only by awareness of the idea of family planning. Our research instrument has gone beyond this to measure knowledge of methods, service sites and neighborhood practice of contraception. This is clearly a more useful instrument in that it can help to identify specific problem areas which can be made to focus on the more intensive program efforts.

Knowledge of contraceptive methods was measured in three ways, to bring out differences in the extent and accuracy of knowledge. These three measures recorded 1) awareness knowledge (ever-heard knowledge), 2) professed detailed knowledge, and 3) accurate knowledge. Awareness knowledge was determined by whether or not the respondent knew the name of a method; professed detailed knowledge was determined by asking the respondent if he knew in detail about each method named; and accurate knowledge was measured by answers to multiple choice questions on contraceptive methods.

Knowledge of where to obtain service, which is instrumental in adoption, and knowledge of family planning practice by neighbors, which has received little attention so far, also play an important role in adoption.

Information on contraceptive practice by neighbors, which may be obtained either passively or by actively searching, is essential in bringing most people to the final stage of adoption. If a person knows of no one who is practicing contraception, he may be very reluctant to adopt it himself. Knowledge of family planning practice by neighbors thus constitutes important reinforcement.

However, the relation which these various elements and degrees of knowledge bear to the states of the adoption process is still problematic and constitutes an avenue for further inquiry.

Attitude measures have undergone similar refinements. Unlike previous KAP attitude measures, which dealt only with approval of the concept of family planning, this study takes account of the attitudes toward methods and neighborhood attitudes as perceived by respondents as well. A negative attitude in any of these three areas can prevent a person from practicing family planning. All must consequently be considered in any thorough consideration of family planing adoption.

From the above discussion of operational definition of family planning knowledge and attitude, it is apparent that reconsideration of the KAP gap is needed, particularly with the following points:

1. Discussions of the KAP gap usually assumed that family planning adoption decisions are made by the wife alone independently of other family members and that family planning is advantageous to all eligibles. These assumptions may be erroneous.
2. Levels of family planning knowledge and prevalence of favorable attitudes toward contraceptive methods may not be as high as currently conceived if family planning knowledge and attitude are conceptually elaborated and measured with improved instruments.

Ⅱ. METHOD

The basic methodological problems of this study are to measure the individual values of adoption process indicators and to account for variations in them using a series of independent variables. The subject of concern in outlining the methodology focuses on the source and nature of data, the analytical scheme, and the measurement of the adoption process indicators.

1. Data.

Data for the study were collected from a random sample of 935 women aged up to 49 with a spouse in a Korean rural town, Chunseong Gun in 1973 through interviews using prepared questionnaires. It is not a national sample. However, this study is intended to identify the relationships between the adoption process indicators and a set of factors which are supposed to affect them rather than to obtain their representative values in the Korean population.

2. Analytical Scheme

Attention will be focused on the application of multiple classification analysis (Andrews, et al., 1967; Choi, 1972). This technique can handle weak measurement (nominal scale) on the explanatory variables unlike most of other multivariate analyses. In essence it is a multiple regression analysis using dummy variables. By introducing categorical variables as explanatory variables, each category of each independent variable turns out to be a dichotomous explanatory variable. This is the reason why a nominal scale is acceptable for independent variables. However, it should be noted that the stataistics from a multiple classification analysis are a little different from those that are obtained from ordinary regression analysis because of the use of nominal scale variables. Although it is capable of producing statistics which are comparable to standardized partial regression coefficients and zero-order correlation coefficients, it cannot show the direction of the relationships. Thus we have to examine the contingency tables which are produced in the process of analysis in order to understand the nature of the relationships.

The dependent variable should be either an interval scale wihout extreme skewness, or a dichotomy as in ordinary regression analysis technique. In this study, some of the dependent variables are interval scales and some of them are dichotomized.

Multiple classification analysis permits examination of the relationships between several explanatory variables and a dependent variable within the context of an additive model. In applying this technique, we used the adoption process indicators as dependent variables. The main concern of this study is to determine the effects of some of the family norm variables, communication variables, and family planning program variables (listed in Chart 2) on the values of adoption process indicators over and above the effects of contraceptive status and general demographic characteristics. Therefore, we

have used the contraceptive status and general characteristics as independent variables at the first step of analysis except in the dependent variable, current practice of contraception, where we used only general characteristics. At the second step, we have all the independent variables that are related to the adoption process indicators, including those used at the first step. Thus fourteen to twenty independent variables have been applied at the second step of analysis depending upon the adoption process indicator used as a dependent variable.

3. Measurement of the Adoption Process Indicators

The adoption process indicators, which are the dependent variables in this study, consist of seven variables: one for awareness, three for interest, one for decision-making to avoid pregnancy, one for choice-making of a contraceptive method, and current practice of contraception.

The awareness indicator is the number of contraceptive methods heard of by the respondent, out of a total of nine, including the loop, pill, vasectomy, condom, rhythm, basic body temperature, diaphragm, withdrawal, and foam tablet. The first interest indicator is measured by the number of methods which the respondent professed to know in detail among the same list of nine. The second interest measure is based on responses to multiple choice examination type questions on each of the methods. This variable was scaled by the number of correct answers to a set of three key questions on the most important contraceptive methods used in the national program (the loop, pill and vasectomy). The third interest indicator is based on the active search for information from neighbors which was measured by the number of neighbors to whom the respondent went for the family planning information. The variable for the decision-making state is dichotomized into those who want to avoid pregnancy and those who do not want to avoid pregnancy regardless of their current contraceptive status. The variable for the choice-making state was created by classifying all respondents into those who had favorable attitudes toward at least one method and those who did not have favorable attitudes toward any method. Contraceptive status is classified into current users and non-users. [2)]

Chart 3. The states in family planning adoption process and their indicators

States	Indicators
Awareness	Number of contraceptive methods ever heard
Interest	Number of contraceptive methods professed to know in detail
	Score of correct knowledge
	Number of neighbors sought out for family planning information
Decision-making	Wanting to avoid pregnancy
Choice-making	Positive attitude toward contraceptive methods
Adoption	Current use of contraception

[2)] When contraceptive status is used as an independent variable, it is trichotomized; into current users, ever-users, and never-users.

Thus four of dependent variables used in this study are interval scale variables and three of them are nominal scale variables. The states in the adoption process and their corresponding indicators are summarized in Chart 3.

Ⅵ. THE KAP GAP REVISITED

In many less developed countries where family planning programs have been underway for many years, a majority of the fertile women are aware of the idea of family planning and hold favorable attitudes toward it, but the level of adoption is still low. For example, in Korea, where an extensive family planning program has been conducted since 1962, 95% of eligible women are aware of the word "family planning", 87% have heard of at least one contraceptive method and 95% approve of the idea, but only 28% are currently practicing some kind of contraception (Cho, 1973). Similar findings have been reported for India (Lapham and Mauldin, 1972) and elsewhere. Here we will briefly consider this KAP gap through an examination of the assumptions of previous family planning KAP studies and a reconsideration of the instruments used to measure knowledge and attitudes levels.

KAP studies have for the most part implicitly assumed that family planning adoption decisions are made by the wife independent of the influence of others in her family, as is indicated by the fact that almost all such studies have been based on surveys of women only. However, Table 1 shows that only 16% of the wives themselves dominate in deciding on how mary children to have which is one element of family planning adoption decisions. Husbands appear to have a stronger voice in these decision, and parents-in-law are also involved in an important way. In a study of urban Hong Kong, Mitchell (1972) reported that if husbands and wivesdiffer in their attitudes toward family limitation, the husband's preferences are most likely to affect the decisions that are made. It may therefore be expected that on many occasions knowledge and favorable attitudes on the part of the wife will not lead to actual practice of contraception. In other words, consideration of the KAP gap only in terms of the wife's knowledge and attitudes is misdirected; the decision-making structure relating to family planning adoption, embracing the roles played by other family members in the process, should be taken into account.

Most previous discussions of the KAP gap have also been based on the obviously unwarrented assumption that family planning is advantageous to all potential adoptors. In particular, those who have not yet achieved their ideal number of children can hardly be expected to perceive family planning practice as an indispensible benefit. While some of these may practice contraception in order to space, others will naturally be indifferent or opposed to immediate family planning practice, and we can expect to observe a considerable gap, especially among those in the early years of marriage. Reducing the magnitude of this component of the KAP gap will depend in part on reductions in ideal family size. Whether and to what extent this can be done through family planning program efforts is still subject to debate, but it is clear in any event that other general

factors, such as health, economic and social conditions, have much to do with changes of this sort (Simon, 1974). Even in terms of the ideal of two children per family promoted by the Korean national family planning program, a substantial portion of eligible couples fall into this category of people for whom immediate family planning practice is not necessarily desirable because they have not yet completed their families. Table 2 shows that 16% of our analytical population have less than two children and 28% have less than three children.

In the research instruments used in most previous KAP studies, knowledge was defined as awareness of the idea of family planning and of contraceptive methods. Attitudes were recorded as approval or disapproval of the idea of family planning or as favorableness to contraceptive methods. As indicated in the preceding section, both knowledge and attitudes can be seen in terms of a division into several elements. Knowledge and attitude levels both differ within the same population depending upon which of these elements is being measured. A full appreciation of the state of knowledge and attitudes in a given group requires indices of all of these elements.

Table 3 presents the knowledge levels observed in our study with three different types of instruments. While 98% of our sample had heard of at least one contraceptive method and 90% professed to know at least one method in detail, only 66% gave correct answers to at least one multiple choice type questions out of three: one each on the IUD, oral pill, and vasectomy. The levels of knowledge for each contraceptive method are presented in Table 4. The results of several attitude measurements are recorded in Table 5, where it can be seen that about 78% of the sample have favorable attitudes toward at least one contraceptive method and 75% feel that family planning services are reliable, whereas 95% approve of the idea of family planning.

Some questions logically follow from these findings: 1) What type and what level of kowledge is necessary for the practice of contraception? 2) What attitudinal elements are crucial in bringing a couple to practice contraception? Although there exists some evidence relevant to these questions (Laing, 1970), the present state of knowlddge in this area is insufficient. Without answers to these questions, it is impossible to define and accurately measure the KAP gap, or even to effectively explore it further because of our inability to determine who it includes and how large it is.

It should be pointed out that there is likely to be a sizeable number of women within the KAP gap who wish to avoid pregnancy, either for spacing or for family size limitation, but who do not practice contraception, i.e., the *pong-eem* cases. About 32% of all the fecundable women in our sample belonged to this *pone-eem* group. Another recent study in rural Korea reported that out of a total of 1,025 women, including 10.6% naturally sterile or beyond menopause, about 30% were *pong-eem* (Park, et al., 1974). In a sense, the existence of many *pong-eem* cases is encouraging from the family planning program point of view. Since they at least want to avoid pregnancy, it may be difficult, but not impossible to help them practice contraception through the family planning program efforts. This means that a considerable part of the KAP gap is capable of being addressed by an appropriately improved family planning program; not just by programs

beyond family planning.

Our brief review of the KAP gap revealed several points which we should take into account to appropriately use the findings from family planning KAP studies. The assessment of the KAP gap has to be made considering the family decision-making structure relative to family planning adoption. It is impossible to eliminate the KAP gap entirely because a substantial portion of eligible couples do not have the number of children that they desire, even in terms of ideal number of children conceived by the program authorities. Family planning is neither advantageous nor desirable for all potential adopters. The levels of knowledge and favorable attitudes concerned with family planning vary among the same population depending upon the element measured. There is very little evidence that indicates the type and level of knowledge and attitudes which are necessary to induce a couple to practice contraception. Without this knowledge, it is impossible to define and measure the KAP gap in any meaningful way. Basic research and new methodological studies to improve understanding of the family planning KAP gap are badly needed in order to make our present family planning program more effective.

Ⅴ. THE FACTORS AFFECTING THE ADOPTION PROCESS

1. Distribution of Fecundable Respondents for Adoption Process States and Related Factors

Before examining relationships between the adoption process indicators and factors affecting them, we will briefly describe their distribution. Out of 935 wives interviewed, 107 women (about 11%) were naturally sterile or beyond menopause. In all the following analyses, they will be excluded, and thus analytical population is 828 fecundable wives including those who had tubal ligation.

Table 6 shows the distribution of those fecundable wives for adoption process indicators. As noted in Table 3, the levels of knowledge differ depending upon the operational definition of family planning knowledge. About 80% of the wives had sought family planning information from one or more neighbors. This may suggest that many rural women have much interest in family planning and they frequently discuss family planning with each other. Interpersonal communication, therefore, may plan an important role in the diffusion of family planning information, both correct and false.

Either for spacing or family size limitation, 73% of respondents were practicing contraception or wanted to avoid pregnancy. Because 41% are current users of contraceptive methods, there exists a difference; 32% of fecundable wives say they want to avoid pregnancy but do not use any contraceptive method. They are the *pong-eem* group. At present there is no information available to develop program strategies for motivating them to translate their perceived need into using a contraceptive method. The fact that this group is so large suggests that a thorough investigation would provide valuable information for the improvement of the family planning program.

As noted before, 22% had unfavorable attitudes toward all the contraceptive methods. This reflects the unsatisfactory state of present contraceptive technology and suggests the importance of quality services in the family planning program in terms of both expertise and friendliness.

The current practice rate was 41.3% of fecundable respondents. To make the rate comparable to the practice rates from other studies, the calculation should be based on all the wives interviewed, 935 women. Then it becomes 36.6%, but this figure is still higher than the practice rate estimated from national data.[3] About 22% had discontinued use of a contraceptive method. As in the diffusion of innovaitons everywhere, discontinuance is one of the foremost problems confronting the Korean family planning program (Rogers and Shoemaker, 1971, p. 115).

Tables 7 to 10 present the distribution of 828 fecundable respondents for the explanatory variables. Among them 12% were illiterate and another 14% had not finished primary school but could read. The majority have completed primary school (60%), but only 14% had finished middle school or above. This low educational level should affect the differential effects of various communication channels on family planning adoption process.

As shown in Table 2, more than half of fecundable respondents had four or more children. This implies that many current users may have adopted family planning late in the reproductive cycle, which may be due to large ideal number of children. It may also explain the large proportion of *pong-eem* cases. About 14% had no living son. A little less than half of the respondents had a strong son preference, and more than 70% wished to live with the son's family in their old age. These findings point to the fact that it is very unlikely that couples without at least one son would adopt family planning within the present Korean cultural context of son preference and family structure. This problem can hardly be addressed by the family planning information, education, and communication programs; the change of relevant social institutions is necessary.

Our data revealed that 20% of the wives had never discussed family planning with their husbands. However, 69% said they had reached a consensus with their husbands about the practice of family planning. These findings are similar to those reported in the city of Seoul(Kwon and Kang, 1967). Many studies demonstrated the relationship between husband-wife communication and family planning behavior (Kim and Lee, 1973; Mitchell, 1972; Kwon and Kang, 1967; Stycos, et al., 1956), hence program effort to facilitate husband-wife communication further is strongly recommended.

Respondents who had never talked with neighbors on family planning constituted only 13%. This finding again indicates the possible importance of neighborhood communications in the diffusion of family planning. Respondents who were not aware of anyone practicing family planning reached to more than 30%. The level of social

3) According to 1973 national survey, the practice rate was 33% in rural area.

support or legitimation for family planning could still be perceived as low by some of the potential adopters. About 70% had met persons favoring family planning; 16% had never met anyone who advised family Planning. Most of the wives had heard of rumors on contraceptive methods. While 37% had heard only unfavorable rumors, those who had been exposed only to favorable rumors constituted 2%, indicating a prevalence of rumors with unfavorable contents.

A little less than 90% of wives had been exposed to the family planning message through mass media. However, the limitation of mass media in dealing with a taboo topic like family planning has to be taken into consideration in assessing their effects.

About a quarter of respondents said that they had never been visited by a field worker in their home. If many younger wives are included in this group, then program official should consider special steps to improve their coverage by field workers. Wives who had never been exposed to family planning program through printed materials reached 35%. One possible reason for this could be the low educational level of many respondents. If so, more easily understandable materials should be developed. About 44% of the respondents have never attended a public meeting concerning family planning. Understanding the reasons for low attendance could suggest ways of increasing the dissemination of family planning message through meetings. A little more than half of the wives were members of mothers' clubs. In the light of the effectiveness of mothers' clubs in facilitating interpersonal communication on family planning and hereby, increasing program achievements, more program effort seems to be needed to attain the participation of more wives (Park, et al., 1974). About three fourths of the respondents said that family planning services are reliable. Both quality services and accurate information on contraceptive methods are needed to increase the crediblity of services.

2. Joint Effects of Group of Independent Variables

Table 11 summarizes the findings obtained from the multiple classification analysis. It shows the proportion of variance in each of the seven adoption process indicators explained by a series of explanatory variables applied at two steps. Only contraceptive status and general characteristics were used for the first step. Then all the independent variables were applied together for the second step. Thus, we can observe the variances explained by the additional independent variables over and above the variances explained by contraceptive status and general characteristics. The table also presents the *BETA* coefficients[4] of individual independent variables at each step of the analysis.

For the awareness state, 23% of the variance was explained by the contraceptive status and the four demographic variables. When the other variables were added, 41% of the variance of awareness was explained. Dominance in the decision of family size was used as an indirect measure of the wives' activeness in this case. This finding suggests the importance of communication, either interpersonal or impersonal, in making people aware of contraceptive methods. In this study, informal interpersonal

4) $\text{Beta}=\left(\frac{\text{Sum of squares based on adjusted deviations in each independent variable}}{\text{Total sum of squares}}\right)^{1/2}$

communication was observed more influential than formal impersonal communication. It may be because other communication channels are less available in rural areas.[5] However, there is the possibility that informal interpersonal communication might have been facilitated by family planning program activities like public meetings and mothers' clubs.

Professed knowledge of contraceptive methods was measured by the number of methods which respondents claimed to know in detail. At the first step 25% of the variance was explained, and 42% at the second step. In explaining this state, informal interpersonal communication appears somewhat less important than in explaining the awareness state. One reason for this may lie in the fact that perceived need is required to have more knowledge than just awareness.

About 13% of the variance in correct knowledge was explained by the basic independent variables, and 20% by all the variables used. Only contraceptive status, educational level, home visiting, and meeting persons who have advised them on family planning were statistically significant beyond the required level. This implies that impersonal communication plays an insignificant part in the diffusion of correct information on a complicated matter like family planning. The most effective way to diffuse correct knowledge of contraceptive methods appears to be through contact with reliable sources and through word-of-mouth communication. This may be especially true for rural wives who do not spend much time in reading.

Active search for family planning information was measured by the number of neighbors to whom wives went for information. It was found that about 22% of its variance was explained at the first step and 57% at the second step. In a sense, this dependent variable itself is a communication variable. This may be the reason why such a large increase in the proportion of the variance explained occurred by adding several communication variables to the other independent variables. Together with neighborhood communication, however, two program variables, age, and the number of living children and sons were important variables in explaining this indicator. Neighborhood communication may operate as the mechanism for transferring program messages to these wives having need for avoiding pregnancy.

At the state of decision-making to avoid pregnancy, contraceptive status and general characteristics explained about 47% of the variance and all the independent variables together explained 50%. The variable, wanting to avoid pregnancy, is in fact a practice of and a perceived need for contraception. Therefore, it is quite understandable why so large a portion of its variance was associated with contraceptive status, age, the number of living children, and the number of living sons. It deserves some attention that neighborhood communication variables are significant factors. This indicates that those wives who practice or need to practice contraception may talk more frequently with neighbors and that interpersonal channels may play a powerful role in family planning

5) In connection with agricultural innovation, Meyren (1962) asserted that the hypothesis about the impact of the mass media can be applied only in areas where media circulate widely. Lin and Hingson (1968) also indicated that in rural areas of less developed countries, impersonal sources are less effective in informing people of an innovation than interpersonal sources of communication.

diffusion. Therefore, the family planning program should pay considerable attention to the facilitation of neighborhood communication and provision of messages appropriate for informal communication.

It was observed that 13% of variance in positive attitude toward contraceptive methods was explained by the five basic variables, and 27% was explained by all the independent variables. In explaining the variance of this dependent variable, family communication, neighborhood communication and the credibility of services seem to be the most important. In most cases the decision to adopt family planning and what method to use can not be made by the wife alone. It may require communication with her husband. There is much evidence that husband-wife communication is closely related to family planning behavior.

The fact that neighborhood communication is important in explaining attitudes toward contraceptive methods as well as professed knowledge should be taken into account when developing communication strategies for family planning. Program personnel have to know what kind of messages are channeled through neighborhood communication. They should also provide messages to correct erroneous content and to negate unfavorable content, if they are prevalent. A family planning rumor, which is an unconfirmed family planning message passed from person to person, may reach a very large audience because they are often so salient to the mass population (Rogers, 1973, p. 302). In this light, controlled neighborhood communication can contribute a great deal to family planning diffusion as suggested by Taichung study (Freedman and Takeshita, 1969). The credibility of services, a variable that explains a significant portion of variance inpositive attitudes toward contraceptive methods, is mainly influenced by friendliness and expertise of service personnel, past experiences with the method, and rumors concerning the method.

Four demographic variables explained about 23% of the variance in the current practice of family planning, and all the independent variables explained about 31%. Among demographic variables, only the number of living children was insignificant. On the other hand, the number of living sons was very important. However, we have to take into account the most probable interrelations between these two variables, i.e., non-additivity in explaining contraceptive status. Family communication, rumor exposure, and the credibility of services are found to be important factors. This again suggests the importance of program strategies which will enhance husband-wife communication, and which will negate unfavorable rumors and improve the credibility of services.

In summary, this analysis reveals the important effect that infornmal interpersonal communication hasupon the variables which are critical for the diffusion process: awareness, professed knowledge, active search for informiaton, wanting to avoid pregnancy, positive attitudes toward contraceptive methods, and eventually adoption. Neighborhood communication affects all the indicators throughout the adoption process. Although program contact was less important than family and neighborhood communications, at least one variable in this category was significant throughout the process except in the indicator for decision-making, wanting to avoid pregnancy. It should be noted that son preference does not explain a significant portion of variances in

any of the adoption process indicators. One possible reason for this is that the measurement of son preference used in this study may not be valid or reliable. We will discuss in detail the measurement of son preference later in this report. Another possible reason lies in the fact that son preference is interrelated with the number of living children and sons, educational level, and other factors. Therefore, when they are controlled, it does not show a significant relationship with the adoption process indicators. If this interpretation is correct, then the impact of son preference may not be as large as other studies have concluded (Chung, et al., 1972).

In fact, Repetto (1972) made a similar assertion from the examination of the data from North India, East Pakistan, and Morocco. He suggested that decisions on family size are more likely to be derived from economic consideration, and that son preference and the number of living sons are not factors that influence actual fertility levels. This question needs further investigation in the context of Korean societal conditions, however.

Home visiting and mothers' club membership were unimportant in most of states in the adoption process. One point which should be considered is that they function as intervening variables. They may be the sources of family and neighborhood communications, and thereby increase the frequency of those communications and provide them with correct and favorable contents.

In general these findings confirm our hypotheses regarding the factors affecting family planning adoption process. Factors other than the general demographic characteristics of respondents had significant effects on the family planning adoption process. The effects of each independent variables were different depending upon the state of the process. Among communication variables, informal interpersonal communications had greater effects than formal impersonal communications throughout the adoption process.

3. Individual Effects of Each of Indepentent Variables

In order to discuss individual effects of each of independent variables on adoption process indicators, we will examine the contingency tables from the multiple classification analysis. Table 12 presents mean indices for levels of knowledge and active search for information about family planning by each of the independent variables with and without statistical adjustment. Table 13 shows percentage of wives who want birth control, who have favorable attitude toward at least one contraceptive method, who currently practice contraception by each of the independent variables with and without statistical adjustment. As described in connection with analytical scheme, multiple classification analysis is based on an additive model. The absence of orthogonality among independent variables is a source of non-additivity. Adjustment in multiple classification analysis is addressed to this problem. The statistical adjustment is made such that the distributions of respondents in each class or category of each independent variable, for the variables which the adjustment is made for, are the same as in analytical population. Therefore, if the effect of a variable on a dependent variable is changed in

its direction when the data are adjusted, it means that the variable is interrelated with other independent variables and thus these independent variables do not have complete additivity in the explanation of dependent variable.

Contraceptive status and general choracteristics

Contraceptive status was closely associated with all the indicators of the adoption process as presumed. When statistically adjusted, however, the relationship with the awareness indicator vanished. It may be because awareness is not related to contraceptive status itself, but to other characteristics associated with contraceptive status. The ever-users showed similar values in indices for knowledge levels to current users rather than to never-users but in choice-making state, they were similar to never-users. It can be translated that discontinuance is more closely related to attitudes toward contraceptive methods than to levels of knowledge about family planning. The fact that around 70% of ever-users still wanted to avoid pregnancy indicates their unsatisfation with and unfavorable attitude to any of the available contraceptive methods. The above findings point to the need for further intensive investigation of discontinuance and related factors in family planning.

Four demographic variables, age, educational level, the number of living children and the number of living sons, showed relationships with various states of the adoption process which are not much different from the findings reported in many KAP studies.

Family norms

In relation to family norms, son preference [6] and old age dependency are considered. Son preference was related to professed detailed knowledge, but this relationship seems insignificant when statistically adjusted. The direction of the relationship between son preference and wanting to avoid pregnancy was changed when the data were adjusted. Before the adjustment, the group with strong and medium son preference seemed to be more desirous of avoiding pregnancy. After the adjustment, the strong son preference group was observed as least decisive to practice contraception. This finding suggests interaction between son preference measured as in this study and other factors in their effects on decision-making. Son preference was interrelated with age and number of children and sons among other factors. It was observed that son preference was stronger among respondents who are older and who have more children and sons (See tables in Appendix). Another factor we have to take into consideration is that the measurement of son preference used in this analysis was based on responses to a hypothetical situation. Thus the answer may not necessarily reflect the course of action respondents

6) Respondents were asked what they would do if they kept giving birth to girls. If they answered that they would continue until a boy is born, they were considered as having strong son preference. Those respondents who said that they would stop after one or two girls are classified as having weak son preference, and those who said they would stop after three or more girls as medium.

will take when they are faced with such situation in reality. In both data with and without statistical adjustment, son preference was shown as associated with a positive attitude toward contraceptive methods in the same direction. The stronger son preference that wives had, the less likely were they have a favorable attitude toward contraceptive methods. In this sample, the group with medium levels of son preference showed the lowest rate of current practice and the practice rates in the groups with strong and weak son preference did not show much difference. Several reasons for this are possible: 1) son preference scale based on responses to hypothetical situation may be a poor indicator of actual behavior: 2) son preference may be related to other factors that influence the adoption of family planning: and 3) decisions on family size may be more likely to derive from economic considerations rather than son preference and the number of living sons as Repetto (1972) asserted. This analysis suggests the need for the test of validity and reliability of present son preference scale and for further investigation of the impact of son preference on actual family planning behavior and fertility levels.

Old age dependency was related to all the indicators of the adoption process. Those wives who wished to live together with son's family when they get old showed less favorable values of the indicators than those who wished to depend on their daughter's family or to live separately from their children. The variable, old age dependency, may be related to modernization attitude and economic condition which both affect family planning behavior.

Family communication

The variables for family communication are decision-maker of family size, frequency of husband-wife discussion on family planning, and consensus of husband-wife opinion on family planning.

The fact that the number of cases where in-laws dominate the decision was very limited should be considered in interpretation of the data. When neither husband nor wife was dominant, wives tended to have better awareness and detailed knowledge. The relationship with wanting to avoid pregnancy was changed in its direction after statistical adjustment. This indicates that this variable interacts with other independent variables in affecting decision-making state (See tables in Appendix). The wives were likely to have more favorable attitude toward contraceptive methods when either the husband dominated the decision or neither of the spouses dominated. This may indicate the influence of husbands on wives' attitude to contraceptive methods (Mitchell, 1972). However, the practice rates are higher among respondents who said that the wife dominates the decision or neither husband nor wife is dominant.

Frequency of husband-wife communication appears to be associated with both awareness and professed knowledge of contraceptive methods. Those respondents who had never discussed on family planning with their husband have lower levels of knowledge than other groups which shows more or less similar levels to each other.

When husband-wife communication was more frequent, wives were likely to be more active in the search for family planning information from neighbors. When the data were adjusted, respondents who had husband-wife communication rarely were shown to be more active. This of course can be translated that frequency in husband-wife communication is related with wives' other attributes. In general there was the tendency that those wives who frequently talk about family planning with husband were more desirous of contraception, more favorable in their attitudes toward contraceptive methods, and higher in practice rate (Kim and Lee, 1973; Mitchell, 1972; Stycos, et al., 1956).

Consensus of husband-wife opinion on family planning was definitely related to wanting to avoid pregnancy, favorable attitude toward contraceptive methods, and current practice of contraception. When husband and wife reached consensus in their opinions on family planning, wives were more likely to want contraception, to have favorable attitude, and to currently practice contraception. The above findings again indicate the importance of program strategies stimulating husband-wife communication on family planning. One approach to this may be to arouse and increase husbands' interest in family planning and contraceptive methods.

Neighborhood Communication

Variables included in neighborhood communication are frequency of talking with neighbors about family planning, number of practicing persons known, meeting persons advising on family planning, exposure to family planning rumor.

Frequency of talking with neighbors was associated with all the indicators throughout the adoption process. The higher the frequency of talking with neighbors, wives were more likely to show favorable values in all of those indicators. This finding is consistent with many studies which reported the powerful role played by informal diffusion processes in family planning.

Number of practicing persons known was also related to virtually all the states in the family planning adoption process. The values of the indicators were more favorable toward adoption among respondents who knew more persons practicing contraception. This is understandable in the light of the fact that individuals often share their opinions with other people who surround them (Katz and Lazarsfeld, 1955, p. 48). Freedman and Takeshita (1969) also reported similar findings indicating both the importance of perceived social support and the potential barrier of pluralistic ignorance.

Respondents who had never met persons advising on family planning showed values of the indicators less favorable toward adoption. However, it seems unimportant in this data whether they had met the persons who were favoring family planning or unfavoring family planning. This may be due to the skewness of the distribution of respondents for the variable as shown. Less than 4% of total respondents had met only the persons who were against family planning.

Regarding exposure to rumor, the distribution was also skewed, and must be taken

into account interpretation of the data. It also should be pointed out that the measure of rumor exposure used in this analysis included two different dimensions, centent of rumor and frequency of exposure, and these may be independent of each other in affecting the adoption process. Thus the findings of this analysis in relation to rumor exposure may reflect combined effects of those two independent elements implied in the variable. This may help explain why the effects of exposure to family planning rumor on various indicators of the adoption process appear to be very inconsistent. Moreover, frequency of rumor exposure is presumably related with frequency of talking with neighbors about family planning. Further inquiry into family planning rumors should be made, giving careful considerations to these points.

Exposure to family planning message through mass media

Exposure to family planning message through mass media was related to some extent with other adoption process indicators than wanting to avoid pregnancy and favorable attitude toward contraceptive methods. Respondents who had more frequent exposure to family planning message through mass media were found to be likely to have better knowledge, to be more active in information seeking from neighbors, and to currently practice contraception. However, the nature of its effects on wanting to avoid pregnancy and attitude toward conctraceptive methods was changed after the adjustment using multiple classification analysis indicating the interrelationships with other independent variables (See tables in Appendix).

Family planning program factors

Included in family planning program variables are the frequency of the family planning field worker's home visits, program contact through printed materials, program contact through public meeting, mothers' club membership, and the credibility of services.

Home visiting seemed to affect knowledge levels, especially the level of accurate knowledge. With other three indicators, i.e., wanting to avoid pregnancy, attitude toward contraceptive methods, and current practice of contraception, home visiting is shown to be related before the statistical adjustment. The relationships, however, become insignificant after the adjustment. This of course points to non-orthogonality with independent variables (See tables in Appendix).

In general, levels of knowledge about and favorable attitude toward contraceptive methods were higher among respondents who had more frequent contact with printed materials distributed by family planning program agencies. This variable was also related to activeness in information seeking from neighbors. The more printed materials respondents read, the more active they were in seeking for family planning information from neighbors. On the other hand, program printed materials seemed to have little effect on decision to practice family planning and actual practice of contraception.

Frequency of attendance at public meetings for family planning program activities was related to all the indicators. Respondents who had attended meetings more frequently were more likely to show the values of those indicators more favorable toward the adoption of family planning. When statistical adjustment of the data was made, the effect of attendance at public meetings on current practice of contraception seemed insignificant. However, public meetings appeared to have larger effects on family planning adoption process than printed materials. One reason for this may be that the circulation of printed materials is limited among rural women. Another reason can be that messages are more easily tailored for different groups or locales in public meeting than in printed materials (Lin and Burt, 1973).

Mothers' club membership was related with virtually all the states in the adoption process. Members of mothers' clubs were observed to be in the states more close to the adoption of family planning than non-members. The impact of mothers' clubs on family planning behavior of Korean women is the subject of a large empirical study by Park and colleagues (1974).

The credibility of services was closely related with attitudes toward contraceptive methods and current practice of contraception. Among respondents who believed that services were reliable, more of them had favorable attitude toward contraceptive methods and were under current practice of contraception. The credibility of services may be influenced by mainly two factors: quality of services and correct information on service sources and contraceptive methods. These two factors thus must be very important in processing from normative phase to behavioral phase in family planning adoption.

The above discussions may be helpful in understanding how each independent variable operated in affecting the family planning adoption process. These discussions also confirmed our hypotheses that the effects of each independent variable on the family planning adoption process differ at various points in the process, and that informal interpersonal communications affect the family planning adoption process to a greater extent than formal impersonal communications.

Ⅴ. IMPLICATIONS FOR PROGRAM STRATEGIES AND FURTHER STUDY IN FAMILY PLANNING DIFFUSION

In this section, we will derive from previous discussions some implications for family planning information, education, and communication programs and further study.

Family planning adoption decisions are not made by the wife alone independent of the influence of others in her family. Also involved in the decision process are the husband and even in-laws in some families. Therefore, more attention has to be directed toward family planning behavior of husbands both in developing program strategies and researches.

We can conceive of serveral elements of family planning knowledge and attitude. It was shown that the levels of knowledge and prevalence of favorable attitude vary within the same population depending upon which of these elements is being measured. This suggests some research questions: 1) What type and level of knowledge is essential to the practice of contraception? 2) What attitudinal elements are crucial in influencing a couple to practice contraception? 3) How should these elements be measured?

There were fairly many *pong-eem* cases. They seem to be good target population for family planning IEC programs because they want to avoid pregnancy. Thus, what they need to translate their perceived need for contraception into practice is reinforcement of their decision to avoid pregnancy and a cue to action. In order to provide scientific ground for approaching this group, more information on their various characteristics and associated factors should be investigated.

There exist many indications that husband-wife communication and neighborhood communication play powerful role in family planning diffusion. Hence, the family planning program should make efforts to foster this type of communication and to provide both couples and communities with adequate sources of information. Further inquiry into the contents channeled through husband-wife and neighborhood communications and the factors promoting these communications is needed. Regarding family planning rumors, we have to make more detailed analysis of their contents and sources. Then we can develop program strategies to negate their unfavorable effects on family planning diffusion.

Since the factors affecting family planning adoption process have differentials in their effects at different point in the process, the program activities should be fitted to the distribution of the target population for the adoption process.

The effects of mass media on family planning behavior of Korean women appear to be dubious. Thus use of mass media in family planning education may have to be very selective depending upon the objective and target population.

The findings suggest that program media should be tailored for different groups and locales to the extent it is possible. Otherwise, we cannot make most use of their merits that they have attributes of both interpersonal and impersonal sources of communications.

There is no doubt that mothers' clubs can provide excellent opportunities for rural wives to talk to each other about family planning. Therefore it is necessary to direct more efforts toward increasing their activeness and effectiveness. Also needed is to investigate the factors affecting the effectiveness of these small groups.

The credibility of services was found important for getting women to practice family planning. It may be mainly affected by the expertise and the friendliness of service personnel, past experiences with these services, knowledge about contraceptive methods, and the state of contraceptive technology. A possible source of unfavorable attitudes to ward services may be the unfavorable rumors about contraceptive methods. The improvement of contraceptive technology is also badly needed to increase the credibility

of services.

One methodological problem in family planning diffusion researches seems to be identifying optimum combinations of independent variables to be used and their measurement. The analysis suggested the need for testing the validity and the reliability of the son preference scale used in this study. However, the findings call for more examination of the efffects of son preference on actual adoption of family planning, and particularly on actual fertility levels in Korea.

To improve the diffusion of innovations research in family planning, we should more thoroughly identify unique attributes of family planning as an innovation. Then we can be more sure whether findings and theories from other diffusion research can be applied to family planning, to what extent, and with what modifications.

SUMMARY

The early research on family planning was dominated by studies of knowledge, attitudes, and practice (KAP). Much of this research, however, has been limited in its utility for family planning programs. Much of this is due to the restricted range and static character of the independent variables considered. This study aimed therefore to investigate the effects on family planning of a wider range of independent variables, including several that have potential utility for application in program strategies for family planning diffusion. Within the context of this general study objective, we paid particular attention to the large KAP gap. This study used the diffusion of innovations research approach, and tried to provide an assessment of the effects of those independent variables on each point in family planning adoption process to provide some empirical findings needed in developing program strategies to solve the problem of the large KAP gap.

A review of the innovation-adoption process was made. They were found to be inadequate when applied to family planning. In an attempt to overcome some of the major deficiencies noted, a modification of the adoption process model was proposed. This modified model involves two phases: a normative or decision phase, and a behavioral or action phase. The normative phase includes awareness, interest, and making the decision to avoid pregnancy for family size limitation or spacing. The behavioral phase includes choosing a contraceptive method to use and a service site to visit, and adoption of a contraceptive method. These five states are conceived of as roughly sequential points in the adoption process.

From the theoretical discussions, we derived three general testable hypotheses regarding the factors that affect the family planning adoption process: 1) there are some factors that have effects on the family planning adoption process over and above the effects of demographic factors such as family norm, communications, and program contact; 2) the effects of each of these factors differ at the various points in the process; 3) informal interpersonal communications have greater effects on family planning adoption than formal communications. Discussions of operational definitions of

family planning knowledge and attitude suggested the need for reconsideration of the family planning KAP, particulary with the following points: 1) discussions of the KAP gap usually assumed that family planning adoption decisions are made by the wife alone indepenently of other family member and that family planning is advantageous to all eligible couples. But these assumptions may be erroneous; and 2) levels of family planning knowledge and prevalence of favorable attitude toward contraceptive methods may not be as high as currently conceived if family plannig knowledge and attitude are conceptually elaborated and measured with improved instruments.

In order to test these hypotheses, we collected relevant data from 935 women with spouse aged up to 49 sampled in a Korean rural town. Excluding from them 107 women who are naturally sterile or beyond menopause, 828 women were included in the analysis.

Based on the findings obtained from the analysis, we discussed the KAP gap and operational definitions of knowledge and attitude. This examination revealed that most previous discussions of the KAP gap have involved too superficial assumptions and that definitions and measures of family planning knowledge and attitude have to be elaborated through further investigations.

For each of the five states in our modified model of family planning adoption process, indicators have been designated. Then we applied multiple classification analysis to determine the effects of the independent variables on these indicators. Included in the independent variables are demographic factors, family norms, communications, and program factors. This analysis confirmed our general hypotheses related to the effects of these independent variables on family planning adoption process. Over and above the effects of demographic variables, other variables had effects of varying magnitude on the adoption process. Communications, especially husband-wife and neighborhood communications seemed to be the most important factors among them, although messages channeled through these communications may have been provided by program and mass media.

Table 1. Decision-maker of number of children to have

	Number	Percent
Wife	132	15.9
Husband	231	27.9
Husband-wife agreement	437	52.8
In-laws	28	3.4
Total	828	100.0

Table 2. Number of living children

	Number	Percent	Cumulative percent
None	40	4.8	4.8
1. child	96	11.6	16.4
2. children	98	11.8	28.2
3. children	151	18.3	46.5
4. children	189	22.8	69.5
5. children or more	254	30.7	100.0
Total	828	100.0	

Table 3. Levels of knowledge about contraceptive methods

Ever heard of at least one method out of nine	94.4%
Professed detailed knowledge at least about one method out of nine	89.8%
Correct answer to at least one multiple choice type question out of three	65.8%

N=828

Table 4. Levels of knowledge about each of contraceptive method

	Percent of wives who		
	have ever heard of	professed detailed knowledge about	have correct knowledge about
Loop	97.9	79.7	61.6
Oral pill	97.0	73.5	55.3
Vasectomy	86.2	58.0	39.6
Condom	75.4	60.8	
Rhythm	46.3	31.7	
Tubal ligation	28.3	19.7	

N=828

Table 5. Attitude toward family planning and contraceptive methods

Approve the idea of family planning	94.8%
Favorable toward one or more contraceptive methods	77.6%
Feel the service is reliable	74.6%

N=828

Table 6. Percent distribution of 828 fecundable respondents for adoption process indicators

6-1. No. of methods ever heard

0	1—3	4—6	7—9	Total
1.6	14.4	71.0	13.0	100.0

6-2. No. of methods known in detail

0	1—3	4—6	7—9	Total
10.3	38.5	44.1	7.1	100.0

6-3. Score of correct knowledge

0	1	2	3	Total
34.1	43.3	19.6	3.1	100.0

6-4. No. of neighbors sought out for family planning information

0	1	2	3	4	5	Total
17.9	12.6	16.3	12.9	13.0	27.3	100.0

6-5. Practice of and wanting for contraception

Practice and wanting	Not wanting	Total
73.3	26.7	100.0

6-6. Attitude toward contraceptive methods

Favorable to at least one method	Favorable to none	Total
77.6	22.3	100.0

6-7. Contraceptive status

Current user	Ever user	Never user	Total
41.3	21.5	37.2	100.0

Table 7. Percent distribution of 828 fecundable respondents for contraceptive status and general characteristics

7-1. Age

—24	—29	—34	—39	—44	—49	Total
14.6	17.9	26.8	23.2	12.8	4.7	100

7-2. Education

Illiterate	Can read	Primary school	Middle school or above	Total
12.3	13.6	60.4	13.6	100.0

7-3. No. of living sons

0	1	2	3	4 or more	Total
14.3	26.9	29.7	20.3	8.8	100

* Distribution for the number of living children was presented in Table 2.

Table 8. Percent distribution of 828 fecundable respondents for family norms

8-1. Son preference

Strong	Medium	Weak	Total
48.3	15.9	35.7	100.0

8-2. Old age dependency

Wish to live with son	Wish to live with daughter or separately	Total
71.0	29.0	100.0

Table 9. Percent distribution of 828 fecundable respondents for variables in communications on family planning

9-1. Frequency of husband-wife discussion on family planning

None	A few times so far	A few times yearly	Every month	Every week	Total
20.4	13.0	14.9	16.4	35.3	100

9-2. Consensus of husband-wife opinion on family planning

Consistent	Inconsistent & not applicable	Total
69.6	30.4	100

9-3. Frequency of talking with neighbors about family planning

None	A few times so far	A few times yearly	Every month	Every week	Total
12.6	11.9	16.7	23.5	35.3	100

9-4. No. of practicing persons known

Never	None for any method	One to four persons for at least one method	Five or more persons for at least one method	Total
1.4	32.5	38.2	27.9	100

9-5. Meeting persons advising on family planning

None	Persons favoring family planning	Persons unfavoring family planning	Met both	Total
16.2	70.2	3.9	9.8	100

9-6. Exposure to rumor on contraceptive methods

Never heard	Bad rumor only	Bad>good	Bad=good	Bad<good	Good only	Total
7.6	37.1	32.4	13.9	7.0	2.1	100

9-7. Exposure to family planning message through commercial mass media

Never	Rarely	Frequently	Total
11.5	19.2	69.3	100

Table 10. Percent distribution of 828 fecundable respondents for program variables

10-1. Home visiting

None	A few times so far	A few times yearly	Frequently	Total
26.3	15.0	31.3	27.4	100

10-2. Program contact through printed materials

Never	A few times so far	Frequently	Total
34.8	47.7	17.5	100

10-3. Program contact through public meeting

Never	A few times so far	Frequently	Total
43.6	46.1	10.3	100

10-4. Mothers' club Membership

Member	Non-member	Total
52.5	47.5	100

Table 11. Percent of variance explained at each state in the adoption process by the indendent

Independent variables	Seven Adoption Process Indicators					
	Awareness		Interest			
	No. of methods ever heard		No. of methods known in detail		Score of correct knowledge	
A. Contracetive status and general characteristics						
Contraceptive status	.1689**	.0038	.2829**	.1270**	.2731**	.2193**
Age	.1157**	.0624	.0723	.0296	.0883	.0836
No. of living children	.1314**	.0897	.1019	.0494	.1219	.0807
No. of living sons	.0686	.0627	.0683	.0750	.0766	.0659
Education	.3652**	.2532**	.3346**	.1880**	.1657**	.1218**
B. Family norms						
Son preference		NA		.0601		.0283
Old age dependency		NA		.1072**		.0307
C. Family communication						
Decision-maker of family size		.1225**		.1173**		.0339
Frequency of husband-wife discusson		.1007*		.1078**		.0496
Consensus of husband-wife opinion		NA		NA		NA
D. Interpersonal communication						
Frequency of talking with neighbors		.1060**		.0572		.0796
No. of practicing persons known		NA		.1651		.0456
Meeting persons advising on family planning		NA		.0771*		.1249**
Rumor exposure		.2154**		.1545**		.0846
E. Mass media exposure		.0571		.0377		.0213
F. Program contact						
Home visiting		.0535		.0612		.1549**
Program contact through printed materials		.1881**		.1736**		.0313
Program contact through public meeting		.0902**		.1141**		.0257
Mothers' club membership				.0169		.0173
Credibility of services				NA		NA
Percent of explained variance	23.3	41.2	25.0	41.8	12.9	20.1
Gain in percent of explained variance from step 1 to step 2,		17.9		16.8		7.2

* Significant at 5% level
** Significant at 1% level

10-5. Credibility of Service

Don't know	Reliable	Neutral or unreliable	Total
3.5	74.6	21.9	100

variables in two steps, and their respective Beta coefficints

		Decision making		Choice-making		Adoption	
No. of neighbors sought for information		Wanting to avoid pregnancy		Positive attitude toward contraceptive methods		Current practice of contraception	
.1606**	.0361	.3554**	.3468**	.2480**	.1051**	.NA	.NA
.1569**	.0945**	.1202**	.1236**	.0844	.0858	.2059**	.1772**
.2926**	.1336**	.2735**	.2877**	.1105*	.0930*	.0835	.0609
.0678	.0949**	.2000**	.2085**	.0772	.0824	.2759**	.2409**
.1378**	.0177	.0630	.0464	.1751**	.1227**	.1405**	.0953*
	.0535		.0574		.0392		.0477
	.0327		.0476		.0199		.0283
	.0480		.0455		.0585		.0349
	.0699		.0739		.0977*		.1728**
	NA		.0035		.0892		.0767
	.4445**		.1045**		.0970*		.0339
	.1581**		.0829*		.1275**		.0507
	.0951**		.0371		.0260		.0117
	.0368		.0704		.1586**		.0932*
	.0356		.0480		.0671		.0402
	.0310		.0627		.0562		.0239
	.1007**		.0176		.0617		.0464
	.0267		.0176		.0541		.0689
	.1488**		.0343		.0477		.0174
	NA		.0796		.1409**		.0776*
21.8	56.7	46.7	50.3	13.4	26.8	23.2	30.5
	34.9		3.6		13.3		7.3

Table 12. Mean indices for levels of knowledge and active search for information about family planning by each of the independent variables, without statistical adjustment and with adjustment for all independent variables using multiple classification analysis

Variables	Number of respon-dents	Mean No. of methods ever heard		Mean No. of methods kown in detail		Mean score of correct knowledge		Mean No. of neighborssought for information	
		Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
A. Contraceptive Status									
Current user	342	5.1	4.7	4.1	3.7	1.1	1.1	3.4	2.8
Ever user	178	4.8	4.8	3.6	3.6	1.1	1.1	2.8	2.6
Never user	308	4.3	4.8	2.6	3.1	0.6	0.7	2.0	2.7
B. General Characteristics									
1. Age									
−24	121	4.4	4.5	3.0	3.5	0.8	1.0	1.6	2.7
−29	148	5.0	4.7	3.5	3.3	0.9	0.9	2.5	2.6
−34	222	5.1	4.8	3.8	3.5	0.9	0.8	3.1	2.9
−39	192	4.9	4.8	3.6	3.5	1.1	1.0	3.4	2.8
−44	106	4.3	4.7	3.1	3.5	0.9	0.9	2.9	2.8
45+	39	3.7	4.8	2.0	3.5	0.5	0.9	1.5	2.1
2. Education									
Illiterate	102	3.8	4.2	2.3	2.9	0.7	0.8	2.3	2.7
Can read	113	4.4	4.6	3.0	3.3	0.8	0.8	2.8	2.7
Primary school	500	4.7	4.7	3.4	3.3	0.9	0.9	2.8	2.8
Middle school+	113	6.1	5.7	5.0	4.3	1.1	1.1	2.6	2.7
3. No of children									
0	40	4.4	5.2	2.7	3.5	0.4	0.7	0.5	2.0
1	96	4.5	4.6	2.9	3.3	0.8	0.9	1.7	2.4
2	98	5.4	4.8	4.1	3.6	0.9	0.9	2.6	2.7
3	151	5.1	4.8	3.8	3.5	0.9	1.0	3.0	2.7
4	189	4.8	4.8	3.6	3.5	1.0	0.9	3.1	2.8
5	134	4.7	4.8	3.4	3.4	1.0	1.0	3.2	3.0
6+	120	4.1	4.5	2.8	3.4	0.9	1.0	2.8	3.0
4. No. of Sons									
0	118	4.5	4.6	3.0	3.3	0.7	1.0	1.7	2.6
1	223	5.0	4.9	3.5	3.4	0.9	1.0	2.5	2.6
2	246	4.9	4.7	3.8	3.6	1.0	0.9	3.1	2.8
3	168	4.6	4.7	3.3	3.4	0.9	0.9	3.2	3.0
4+	73	4.3	4.6	3.0	3.1	0.9	0.8	2.8	2.6
C. Family Norms									
1. Son preference									
Strong	400	NA	NA	3.1	3.4	0.9	0.9	2.8	2.8
Medium	132	NA	NA	3.4	3.3	1.0	1.0	2.9	2.6
Weak	296	NA	NA	3.9	3.6	0.9	0.9	2.5	2.7
2. Old age dependency									
Son	588	NA	NA	3.1	3.2	0.9	0.9	2.7	2.7
Others	240	NA	NA	4.2	3.8	1.0	1.0	2.8	2.8
D. Family Communication									

(Continued from **Table 12**)

Variables	Number of respon-dents	Mean No. of methods ever heard		Mean No. of methodsknown in detail		Mean score of correct knowledge		Mean No. of neighbors sought for information	
		Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
1. Decision-maker of family size									
Husband	231	4.5	4.6	3.2	3.2	0.9	0.9	2.7	2.8
Wife	132	4.4	4.5	3.0	3.1	0.9	0.9	2.9	2.6
H-W Agreement	437	5.0	4.9	3.7	3.7	0.9	0.9	2.7	2.7
In-laws	28	4.2	4.7	3.0	3.7	0.8	0.9	2.3	3.1
2. Frequency of H-W discussion									
None	169	3.7	4.4	2.0	3.1	0.6	0.9	1.7	2.7
A few times so far	108	4.7	4.9	3.4	3.6	0.8	0.9	2.2	3.0
A few times yearly	123	5.0	4.9	3.8	3.7	0.9	0.8	2.9	2.6
Every month	136	5.0	4.9	3.8	3.7	1.0	0.9	2.7	2.5
Every week	292	5.1	4.8	3.9	3.4	1.1	0.9	3.5	2.8
3. Consensus of H-W opinion									
Consistent	576	NA	NA	NA	NA	NA	NA	NA	NA
NA & Inconsistent	252	NA	NA	NA	NA	NA	NA	NA	NA
E. Interpersonal Communication									
1. Frequency of talking with neighbors									
None	104	3.6	4.5	2.1	3.3	0.6	0.9	0.4	1.1
A few times so far	99	4.5	4.6	3.1	3.3	0.7	0.8	1.3	1.7
A few times yearly	138	4.8	4.7	3.5	3.4	0.9	0.9	2.8	2.9
Every month	195	4.8	4.7	3.5	3.4	0.9	0.9	2.9	2.9
Every week	292	5.2	5.0	4.0	3.6	1.1	1.0	3.9	3.5
2. No. of practicing persons known									
NA	12	NA	NA	0.0	3.0	0.0	0.7	0.0	3.0
None	269	NA	NA	2.8	3.3	0.7	0.9	1.8	2.4
A few persons	316	NA	NA	3.5	3.4	0.9	0.9	2.8	2.7
Several or more	231	NA	NA	4.2	3.6	1.1	1.0	3.9	3.2
3. Meeting persons advising on F P									
None	134	NA	NA	2.5	3.3	0.5	0.7	1.1	2.3
Persons favoring	581	NA	NA	3.5	3.4	1.0	0.9	3.0	2.8
Persons unfavoring	32	NA	NA	4.3	3.8	1.2	1.2	2.8	2.7
Both	81	NA	NA	4.1	3.8	1.0	1.0	3.3	2.9
4. Rumor exposure									
Never head	63	2.8	3.7	1.1	2.5	0.3	0.7	0.9	2.6
Bad only	307	4.7	4.7	3.4	3.4	0.9	0.9	2.7	2.8
Bad Good	268	5.2	5.0	4.0	3.6	1.0	1.0	3.2	2.7
Bad=Good	115	4.7	4.7	3.3	3.3	1.0	1.0	2.8	2.7
Bad Good	58	5.1	5.0	4.1	4.0	0.9	0.9	3.0	2.7
Good only	17	4.0	4.1	2.9	3.5	0.7	0.9	2.2	2.5
F. Mass Media Exposure									
Never	95	3.7	4.5	2.4	3.4	0.8	0.9	2.2	2.6
A few times	159	4.3	4.7	3.1	3.6	0.8	1.0	2.4	2.6
Frequently	574	5.0	4.8	3.7	3.4	1.0	0.9	2.9	2.8

(Continued from **Table 12**)

Variables	Number of respon-dents	Mean No. of methods ever heard		Mean No. of methods known in detail		Mean score of correct knowledge		Mean No. of neighbors sought for information	
		Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
G. Program Variables									
1. Home visiting									
None	218	4.1	4.6	2.6	3.3	0.7	0.8	2.0	2.8
A few times so far	124	4.7	4.8	3.2	3.3	0.8	0.8	2.4	2.6
A few times yearly	259	5.0	4.8	3.8	3.5	0.9	0.9	3.0	2.7
Frequently	227	5.1	4.8	4.0	3.1	1.2	1.1	3.3	2.7
2. Program contact through printed materials									
Never	288	3.9	4.4	2.5	3.1	0.8	0.9	2.2	2.5
A few times	395	4.9	4.9	3.6	3.4	0.9	0.9	2.8	2.8
Frequently	145	5.8	4.2	4.9	4.2	1.1	0.9	3.5	3.0
3. Program contact through public meeting									
Never	361	4.2	4.6	2.8	3.2	0.8	0.9	2.1	2.7
A few times	382	5.1	4.9	3.9	3.6	1.0	0.9	3.1	2.8
Frequently	85	5.5	5.0	4.4	3.7	1.1	0.9	2.7	2.8
4. Mothers' club membership									
Member	435	4.9	4.7	3.7	3.5	1.0	0.9	3.4	3.0
Non-member	393	4.6	4.8	3.1	3.4	0.8	0.9	2.0	2.4
5. Credibility of service									
Don't know	29	NA	NA	NA	NA	NA	NA	NA	NA
Reliable	618	NA	NA	NA	NA	NA	NA	NA	NA
Neutral or unreliable	181	NA	NA	NA	NA	NA	AN	NA	NA

Table 13. Percentage of wives who want birth control, who have favorable attitude toward at least one contraceptive method, who currently practice contracption by each of the independent variables, without statistical adjustment and with adjustment for all independent variables using multiple classification analysis.

Variables	Number of respon-dents	Percentage of wives who					
		Want birth control		Have favorbale attitude to at least one method		Currently practice contraception	
		Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
A. Contraceptive Status							
Current user	342	100.0	91.2	89.8	82.6	NA	NA
Ever user	178	70.2	66.2	77.0	73.3	NA	NA
Never user	308	45.4	57.6	64.6	74.4	NA	NA
B. General Characteristics							
1. Age							
—24	121	33.0	73.2	70.2	78.2	14.0	36.1

(Continued from **Table 13-1**)

Variables	Number of respondents	Percentage of wives who					
		Want birth control		Have favorable attitude to at least one method		Currently practice contraception	
		Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
—29	148	58.1	65.6	85.4	81.2	29.0	30.5
—34	222	78.8	70.0	84.2	76.6	50.4	45.8
—39	192	92.2	76.3	80.7	75.8	59.9	50.6
—44	106	94.3	82.9	67.9	71.4	48.1	47.9
—49	39	74.4	80.2	56.4	79.6	10.3	20.7
2. Education							
Illiterate	102	83.3	73.8	60.8	68.2	37.2	37.6
Can read	113	79.6	69.6	73.4	75.1	44.2	39.1
Primary school	500	71.2	73.1	76.9	77.9	40.0	39.9
Middle school or above	113	67.2	77.4	93.8	87.1	47.8	52.9
3. No. of children							
0	40	7.5	36.8	65.0	75.2	0.0	43.4
1	96	30.2	47.8	68.7	69.8	13.5	34.8
2	98	62.2	37.0	83.7	76.2	33.7	40.2
3	151	82.1	77.4	85.4	80.8	51.6	44.9
4	189	85.2	79.1	81.5	80.9	50.3	39.8
5	134	87.3	79.1	79.1	80.2	50.7	41.9
6 or more	120	93.3	86.1	66.7	73.9	45.8	43.7
4. No. of sons							
0	118	24.6	55.8	68.5	75.4	5.9	17.0
1	223	61.0	68.4	81.2	81.1	33.2	36.0
2	246	91.4	82.5	78.4	73.4	54.1	49.4
3	168	91.6	79.9	78.6	78.9	57.1	53.3
4 or more	73	86.3	70.2	76.7	82.5	43.8	41.7
C. Family Norms							
1. Boy preference							
Strong	400	74.5	70.8	72.7	76.2	41.5	4.15
Medium	132	78.0	77.1	80.3	77.2	37.1	36.6
Weak	296	69.6	75.0	83.1	79.8	42.9	43.2
2. Old age dependency							
Son's family	588	73.8	72.0	75.0	77.1	40.1	40.4
Others	240	72.1	76.6	84.2	78.9	44.2	43.5
D. Family Communication							
1. Decision-maker of family size							
Husband	231	68.4	74.6	77.5	78.7	34.6	39.0
Wife	132	78.8	68.8	71.2	72.1	47.0	41.9
H-W agreement	437	75.0	73.4	80.5	78.8	44.6	42.6
In-laws	28	60.7	76.4	64.3	77.6	17.9	37.6

(Continued from **Table 13-2**)

Variables	Number of respon-dents	Percentage of wives who					
		Want birth control		Have favorable attitude to at least one method		Currently practice contraception	
		Unad-justed	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-jusetd
2. Frequency of H-W discussion							
None	169	51.5	68.3	53.2	71.3	7.7	26.1
A few times so far	108	79.6	78.6	83.3	81.7	38.0	37.3
A few times yearly	123	84.5	76.5	82.9	80.8	52.0	46.6
Every month	136	78.7	72.0	85.5	82.5	55.9	50.6
Every week	292	76.4	73.5	82.9	76.2	50.7	45.0
3. Consensus of H-W opinion							
Consistent	576	80.2	73.2	85.6	80.1	52.2	43.8
NA & Inconsistent	252	57.5	73.5	59.5	72.0	16.3	35.6
E. Interpersonal Communication							
1. Frequency of talking with neighbors							
None	104	43.3	63.0	59.6	85.9	13.5	45.0
A few times so far	99	71.7	69.6	76.8	80.0	34.3	40.0
A few times yearly	138	74.6	72.3	81.9	79.6	40.6	39.7
Every month	195	77.4	76.8	77.4	72.7	45.1	40.4
Every week	292	81.2	76.4	82.5	76.3	51.4	63.6
2. No. of practicing persons known							
NA	13	33.3	46.7	0.0	52.4	0.0	49.2
None	269	60.2	71.2	67.3	72.1	27.5	37.9
1-4 for at least one method	316	78.8	74.9	82.0	78.6	45.9	42.9
5 or more for at least one method	231	83.1	74.9	87.9	82.8	53.2	42.7
3. Meeting persons advising on family planning							
None	134	61.2	73.0	64.2	76.7	26.1	41.7
Met persons for FP	581	75.7	72.7	80.0	78.0	44.4	41.0
Met persons against FP	32	75.0	80.6	87.5	80.8	40.5	40.9
Met both	81	75.3	75.2	79.0	75.3	44.4	42.8
4. Rumor exposure							
Never heard	63	47.6	73.1	39.3	64.0	7.9	33.6
Bad only	307	73.3	74.8	72.6	72.8	37.1	38.7
Bad>Good	268	78.0	69.2	86.9	82.4	54.5	47.1
Bad=Good	115	74.8	74.6	80.9	79.6	41.7	41.5
Bad<Good	58	79.3	74.3	94.8	96.6	44.8	39.8
Good only	17	64.7	83.2	76.5	84.4	17.6	29.2
F. Mass Media Exposure							
Never	95	69.5	73.4	62.1	78.8	28.4	35.9

(Continued from **Table 13-3**)

Variables	Number of respon-dents	Percentage of wives who					
		Want birth control		Have favorable attitude to at least one method		Currently practice contraception	
		Unad-jsuted	Ad-justed	Unad-justed	Ad-justed	Unad-justed	Ad-justed
A few	159	81.8	77.6	78.0	83.1	39.6	41.2
Frequently	574	71.6	72.1	80.1	76.0	43.9	42.2
G. F. P Program Variables							
1. Home visiting							
None	218	62.8	77.8	66.5	77.8	26.3	42.5
A few times so far	124	71.0	72.2	84.7	81.5	40.3	43.2
A few times yearly	259	80.3	72.4	79.1	74.7	47.1	39.4
Frequently	227	76.6	70.6	82.8	77.5	49.3	41.3
2. Program contact through printed materials							
Never	288	72.9	73.8	65.6	74.1	34.4	40.8
A few times	395	75.2	73.6	82.8	79.5	45.6	43.2
Frequently	145	69.0	71.6	87.6	79.6	43.4	36.9
3. Program contact through public meeting							
Never	361	67.6	73.8	68.7	75.3	50.5	40.3
A few times	382	70.7	72.5	83.2	78.9	45.3	40.0
Frequently	85	85.9	74.8	90.6	82.1	62.3	41.3
4. Mothers' club membership							
Member	435	81.4	71.9	83.0	79.4	49.6	42.1
Non-member	393	64.4	74.9	71.8	75.7	32.1	40.4
5. Credibility of service							
Don't know	29	51.7	87.4	17.2	49.4	6.9	41.4
Reliable	618	74.6	71.5	82.7	80.0	46.4	43.4
Neutral or unreliable	181	72.4	77.1	70.2	74.2	29.3	34.1

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APPENDIX

Selected Contingency Tables for Independent Variables

Table A-1 Age by mothers' club membership

Age	Member	Non-member	Total
—24	4.8	25.4	14.6
—29	14.5	21.6	17.9
—34	30.8	22.4	26.8
—39	30.6	15.0	23.2
—44	14.5	10.9	12.8
—49	4.8	4.6	4.7
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table A-2 Number of living children by mothers' club membership

Living children	Member	Non-member	Total
0	1.4	8.7	4.8
1	3.9	20.1	11.6
2	9.4	14.5	11.8
3	21.1	15.0	18.2
4	26.2	19.1	22.8
5	21.4	10.4	16.2
6 or more	16.6	12.2	14.5
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table A-3 Number of living sons by mothers' club membership

Living sons	Member	Non-member	Total
0	6.4	22.9	14.3
1	23.9	30.3	26.9
2	34.9	23.9	29.7
3	23.9	16.3	20.3
4 or more	10.8	6.6	8.8
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table A-4 Education by mothers' club membership

Education	Member	Non-member	Total
Illiterate	12.2	12.5	12.3
Can read	16.6	10.4	13.6
Primary school	61.1	59.5	60.4
Middle school or above	10.1	17.6	13.6
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table B-1 Son preference by Age

Son preference	—24	—29	—34	—39	—44	—49	Total
Strong	30.6	43.9	47.3	55.7	60.4	56.4	48.3
Medium	13.2	16.2	15.3	17.7	16.0	17.9	15.9
Weak	56.2	39.9	37.4	26.6	23.6	25.6	35.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(121)	(148)	(222)	(192)	(106)	(39)	(828)

Table B-2 Son preference by number of living sons

Son preference	0	1	2	3	4 or more	Total
Strong	39.8	37.7	54.1	57.1	54.8	48.3
Medium	11.0	19.3	14.6	14.3	21.9	15.9
Weak	49.2	43.0	31.3	28.6	23.3	35.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(118)	(223)	(246)	(168)	(73)	(828)

Table B-3 Son preference by education

Son preference	Illiterate	Can read	Primary school	Middle school or above	Total
Strong	69.6	59.3	46.0	28.3	48.3
Medium	9.8	16.8	18.2	10.6	15.9
Weak	20.6	23.9	35.8	61.1	35.7
Total	100.0	100.0	100.0	100.0	100.0
N	(102)	(113)	(500)	(113)	(829)

Table B-4 Son reference by exposure to famiy planning message through mass media

Son preference	Never	A few times	Frequent	Total
Strong	55.8	50.3	46.5	48.3
Medium	18.9	19.5	14.5	15.9
Weak	25.3	30.2	39.0	35.7
Total	100.0	100.0	100.0	100.0
N	(400)	(132)	(296)	(828)

Table B-5 Son preference by old age dependency

Son preference	Wish to live with sons'	Wish to live with daughter's or separately	Total
Strong	55.1	31.7	48.3
Medium	16.5	14.6	15.9
Weak	28.4	53.8	35.7
Total	100.0	100.0	100.0
N	(588)	(240)	(828)

Table C-1 Old age dependency by age

Dependency	—24	—29	—34	—39	—44	—49	Total
Wish to live with son's	63.6	61.5	67.6	79.2	80.2	84.6	71.0
Wish to live with daughter's or seperately	36.4	38.5	32.4	20.8	19.8	15.4	29.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(121)	(148)	(222)	(192)	(106)	(39)	(828)

Table C-2 Old age dependency by number of livingsons

Dependency	0	1	2	3	4 or more	Total
Wish to live with Son's	56.8	67.3	74.4	80.4	72.6	71.0
Wish to live with daughter's or seperately	43.2	32.7	25.6	19.6	27.4	29.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(118)	(223)	(246)	(168)	(73)	(828)

Table C-3 Old age dependency by education

Dependency	Illiterate	Can read	Primary school	Middle school or above	Total
Wish to live with son's	89.2	79.6	73.0	37.2	71.0
Wish to live with daughter's or seperately	10.8	20.4	27.0	62.8	29.0
Total	100.0	100.0	100.0	100.0	100.0
N	(102)	(113)	(500)	(113)	(828)

Table C-4 Old age dependency by exposure to family planning message through mass media

Dependency	Never	A few times	Frequent	Total
Wish to live with son's	87.4	83.6	64.8	71.0
Wish to live with daughter's or seperately	12.6	16.4	35.2	29.0
Total	100.0	100.0	100.0	100.0
N	(95)	(159)	(574)	(828)

Table D-1 Decision-maker of family size by age

Decision-maker	—24	—29	—34	—39	—44	—49	Total
Husband	38.0	31.1	29.3	21.9	17.0	35.9	27.9
Wife	5.8	12.8	14.4	21.9	21.7	23.1	15.9
Husband-wife agreement	49.6	50.0	54.1	54.7	58.5	41.0	52.8
In-laws	6.6	6.1	2.3	1.6	2.8	0.0	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(121)	(148)	(222)	(192)	(106)	(39)	(828)

Table D-2 Decision-maker of family size by number of living sons

Decision-maker	0	1	2	3	4 or more	Total
Husband	33.9	27.4	29.3	23.2	26.0	27.9
Wife	8.5	14.8	11.4	28.6	17.8	15.9
Husband-wife agreement	50.8	54.7	56.1	46.4	53.4	52.8
In-laws	6.8	3.1	3.3	1.8	2.7	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(118)	(223)	(246)	(168)	(73)	(828)

Table D-3 Decision-maker of family size by education

Decision-maker	Illiterate	Can read	Primary School	Middle school or above	Total
Husband	24.5	27.4	28.8	27.4	27.9
Wife	27.5	15.9	14.8	10.6	15.9
Husband-wife agreement	45.1	54.9	52.6	58.4	52.8
In-laws	2.9	1.8	3.8	3.5	3.4
Total	100.0	100.0	100.0	100.0	100.0
N	(102)	(113)	(500)	(113)	(828)

Table E-1. Frequency of husband-wife discussions on family planning by number of living children

Husband-wife discussion	0	1	2	3	4	5	6 or more	Total
Never	52.5	24.0	16.3	13.9	18.0	16.4	26.7	20.4
A few times so far	15.0	10.4	15.3	10.6	11.1	16.4	15.0	13.0
A few times yearly	0.0	8.3	20.4	13.2	14.3	15.7	22.5	14.9
Every month	10.0	12.5	14.3	16.6	21.2	20.9	10.8	16.4
Every week	22.5	44.8	33.7	45.7	35.4	30.6	25.0	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table E-2 Frequency of husband-wife discussions on family planning by frequency of talking with neighbors about family planning

Husband-wife discussion	None	A few times so far	A few times yearly	Every month	Every week	Total
Never	55.8	27.3	18.1	15.9	9.6	20.4
A few times so far	18.3	38.4	19.6	9.2	2.1	13.0
A few times yearly	4.8	15.2	33.3	16.9	8.2	14.9
Every month	7.7	10.1	18.1	31.8	10.6	16.4
Every week	13.5	9.1	10.9	26.2	69.5	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table E-3 Frequency of husband-wife discussions on family planning by number of practicing persons known

Husband-wife discussion	NA	None	One to four persons for at best one method	Five or more persons for at best one method	Total
Never	91.7	30.1	17.4	9.5	20.4
A few times so far	0.0	14.9	17.1	6.1	13.0
A few times yearly	0.0	17.8	13.6	13.9	14.9
Every month	0.0	13.8	19.3	16.5	16.4
Every week	8.3	23.4	32.6	54.1	35.3
Total	100.0	100.0	100.0	100.0	100.0
N	(12)	(269)	(316)	(231)	(828)

Table E-4 Frequency of husband-wife discussions on family planning by mothers' club membership

Husband-wife discussion	member	non-member	Total
Never	16.3	24.9	20.4
A few times so far	13.1	13.0	13.0
A few timesayearly	16.8	12.7	14.9
Every month	16.1	16.8	16.4
Every week	37.7	32.6	35.3
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table E-5 Frequency of husband-wife discussions on family planning by home visiting.

Husband-wife discussion	Never	A few times so far	A few times yearly	Frequent	Total
Never	27.1	11.3	6.6	6.2	12.6
A few times so far	11.9	25.8	12.0	4.4	12.0
A few times yearly	11.0	18.5	20.1	17.2	16.7
Every menth	18.3	22.6	25.9	26.4	23.6
Every week	31.7	21.8	35.5	45.8	35.3
Total	100.0	100.0	100.0	100.0	100.0
N	(218)	(124)	(259)	(227)	(828)

Table E-6 Frequency of husband-wife discussions on family planning by program contact through printed materials.

Husband-wife discussion	Never	A few times	Frequent	Total
Never	29.9	16.5	12.4	20.4
A few times so far	11.8	16.7	5.5	13.0
A few times yearly	11.8	17.2	14.5	14.9
Every month	16.7	17.2	13.8	16.4
Every week	29.9	32.4	53.8	35.3
Total	100.0	100.0	100.0	100.0
N	(288)	(395)	(145)	(828)

Table E-7 Frequency of husband-wife discussions on family planning by program contact through public meeting

Husband-wife discussion	Never	A few times	Frequent	Total
Never	30.7	12.8	10.6	20.4
A few times so far	12.5	14.7	8.2	13.0
A few times yearly	15.2	14.9	12.9	14.9
Every month	16.1	16.2	18.8	16.4
Every week	25.5	41.4	49.4	35.3
Total	100.0	100.0	100.0	100.0
N	(361)	(382)	(85)	(828)

Table F-1 Consensus of husband-wife opinion on family planning by number of living children

Consensus	0	1	2	3	4	5	6 or more	Total
Consistent	37.5	59.4	75.5	76.2	76.7	73.1	60.0	69.6
Inconsistent or NA	62.5	40.6	24.5	23.8	23.3	26.9	40.0	30.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table F-3 Consensus of husband-wife opinion on family planning by frequency of husband-wife discussions on family planning

Consensus	None	A few times so far	A few times yearly	Every month	Every week	Total
Consistent	4.7	80.6	86.2	90.4	86.3	69.6
Inconsistent or NA	95.3	19.4	13.8	9.6	13.7	30.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(169)	(108)	(123)	(136)	(292)	(828)

Table F-4 Consensus of husband-wife opinion on family planning by exposure to family planning rumor

Consensus	Never heard	Bad< rumor only	Bad Good	Bad= Good	Bad< Good	Good rumor only	Total
Consistent	33.3	66.8	79.9	73.9	75.9	41.2	69.6
Inconsistent or NA	66.7	33.2	20.1	26.1	24.1	58.8	30.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(63)	(307)	(268)	(115)	(58)	(17)	(828)

Table F-5 Consensus of husband-wife opinion on family planning by frequency of talking with neighbors about family planning

Conensus	None	A few times so far	A few times yearly	Every month	Every week	Total
Consistent	36.5	63.6	72.5	73.3	79.5	69.6
Inconsistent or NA	63.5	36.4	27.5	26.7	20.5	30.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table G-1 Frequency of talking with neighobors about family planning by number of living children

Talking with neighbors	0	1	2	3	4	5	6 or more	Total
Never	52.5	22.9	6.1	6.6	6.9	11.9	13.3	12.6
A few times so far	15.0	12.5	12.2	10.6	12.2	11.2	12.5	12.0
A few times yearly	7.5	11.5	25.5	19.9	15.9	13.4	17.5	16.7
Every month	15.0	24.0	25.5	19.2	26.5	29.9	18.3	23.6
Every week	10.0	29.2	30.6	43.7	38.6	38.6	38.3	35.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10.00
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table G-2 Frequency of talking with neighbors about family planning by dominant family member in the dicision of family size.

Talking with neighbors	Husband	wife	Husband-wife agreement	In-laws	Total
Never	16.0	10.6	10.3	28.6	12.6
A few times so far	5.2	10.6	16.0	10.7	12.0
A few times yearly	13.9	12.9	19.9	7.1	16.7
Every month	26.4	23.5	22.0	25.0	23.6
Every week	38.5	42.4	31.8	28.6	35.3
Total	100.0	100.0	100.0	100.0	100.0
N	(231)	(132)	(437)	(28)	(828)

Table G-3 Frequency of talking with neighbors about family planning by mothers' club membership

Talking with neighbors	member	non-member	Total
Never	6.0	19.8	12.6
A few times so far	10.1	14.0	12.0
A few times yearly	17.9	15.3	16.7
Every month	27.6	19.1	23.6
Every week	38.4	31.8	25.3
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table G-4 Frequency of talking with neighbors about family planning by home visiting

Talking with neighbors	Never	A few times so far	A few times yearly	Frequent	Total
Never	35.3	22.6	12.0	14.5	20.4
A few times so far	10.6	23.4	14.7	7.9	13.0
A few times yearly	8.3	12.1	22.4	14.1	14.9
Every month	15.6	15.3	13.9	20.7	16.4
Every week	30.3	26.6	37.1	42.7	35.3
Total	100.0	100.0	100.0	100.0	100.0
N	(218)	(124)	(259)	(227)	(828)

Tabl G-5 Frequency of talking with neighbors about family planning by program contact through printed materials

Talking with neighbors	Never	A few times	Frequent	Total
Never	19.4	8.6	9.7	12.6
A fewtimes so far	13.2	13.9	4.1	12.0
A few times yearly	13.5	22.5	6.9	16.7
Every month	24.0	23.3	23.4	23.6
Every week	29.9	31.6	55.9	35.3
Total	100.0	100.0	100.0	100.0
N	(288)	(395)	(145)	(828)

Table G-6 Frequency of talking with neighbors about family planning by progamt contrac through public meeting

Talking with neighbors	Never	A few times	Frequent	Total
Never	20.2	7.6	2.4	12.6
A few times so far	10.0	10.7	4.7	12.0
A few times yearly	17.5	16.5	14.1	16.7
Every month	19.9	24.1	36.5	23.6
Every week	27.4	41.1	42.4	35.3
Total	100.0	100.0	100.0	100.0
N	(361)	(382)	(85)	(828)

Table H-1 Nubmer of practicing persons known by number of living children

No. of persons	0	1	2	3	4	5	6 or more	Total
NA	5.0	3.1	0.0	1.3	0.0	0.7	3.3	1.4
None	80.0	44.8	33.7	23.2	27.0	26.9	32.5	32.5
One to four persons for at best one method	15.0	28.1	44.9	44.4	42.9	37.3	34.2	38.2
Five or more persons for at best one method	0.0	24.0	21.4	31.1	30.2	25.1	30.0	27.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table H-2 Number of practicing persons known by frequency of talking with neighbors about family planning

No. of persons	None	A few times so far	A few times yearly	Every month	Every week	Total
NA	11.5	0.0	0.0	0.0	0.0	1.4
None	60.6	44.4	34.1	32.8	17.5	32.5
One to four persons for at best one method	20.2	52.5	46.4	42.1	33.2	38.2
Five or more persons for at best one method	7.7	3.0	19.6	25.1	49.3	27.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table H-3 Number of practicing persons known by mothers' club membership

No. of persons	member	non-member	Total
NA	1.2	2.8	1.4
None	27.6	37.9	32.5
One to four persons for at best one method	41.1	34.9	38.2
Five or more persons for at best one method	31.0	24.4	27.9
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table H-4 Number of practicing persons known by home visiting

No. of persons	Never	A few times so far	A few times yearly	Frequent	Total
NA	5.5	0.0	0.0	0.0	1.4
None	46.8	31.5	29.3	22.9	32.5
One to four persons for at best one method	28.4	48.4	42.1	37.4	38.2
Five or more persons for at best one method	19.3	20.2	28.6	39.6	27.9
Total	100.0	100.0	100.0	100.0	100.0
N	(218)	(124)	(259)	(227)	(828)

Table H-5 Number of practicing persons known by program contact through printed materials

No. of persons	Never	A few times	Frequent	Total
NA	3.3	0.0	0.0	1.4
None	40.4	29.3	12.9	32.5
One to four persons for at best one method	36.6	39.3	40.0	38.2
Five or more persons for at best one method	19.7	31.4	47.1	27.9
Total	100.0	100.0	100.0	100.0
N	(361)	(382)	(85)	(828)

Table I-1 Exposure to family planning rumor by number of living children

Rumor exposure	0	1	2	3	4	5	6 or more	Total
Never heard	30.0	14.6	0.0	3.3	4.2	6.0	13.3	7.6
Bad rumor only	30.0	40.6	41.8	30.5	40.2	41.0	31.7	37.1
Bad>Good	17.5	27.1	34.7	37.1	33.3	36.6	27.5	32.4
Bad=Good	12.5	11.5	16.3	16.6	14.3	9.0	15.8	13.9
Bad<Good	5.0	3.1	7.1	8.6	7.4	6.7	8.3	7.0
Good rumor only	5.0	3.1	0.0	4.0	0.5	0.7	3.3	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table I-2 Exposure to family planning rumor by frequency of talking with neighbors about family planning

Rumor exposure	None	A few times so far	A few times yearly	Every month	Every year	Total
Never heard	35.6	8.1	2.2	3.6	2.7	7.6
Bad rumor only	39.4	39.4	48.6	35.4	31.2	37.1
Bad>Good	10.6	27.3	26.1	33.3	44.2	32.4
Bad=Good	9.6	15.2	15.2	15.9	13.0	13.9
Bad<Good	2.9	9.1	5.1	8.7	7.5	7.0
Good rumor only	1.9	1.0	2.9	3.1	1.4	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table I-3 Exposure to family planning rumor by number of practicing persons known

Rumor exposure	NA	None	One to four persons for at best one method	Five or more persons for at best one method	Total
Never heard	100.0	15.2	1.9	1.7	7.6
Bad rumor only	0.0	40.5	36.7	35.5	37.1
Bad>Good	0.0	23.0	35.8	40.3	32.4
Bad=Good	0.0	12.6	14.9	14.7	13.9
Bad<Good	0.0	6.0	7.9	7.4	7.0
Good rumor only	0.0	2.6	2.8	0.4	2.1
Total	100.0	100.0	100.0	100.0	100.0
N	(12)	(269)	(316)	(231)	(828)

Table I-4 Exposure to family planning rumor by mothers' club membership

Rumor exposure	Member	Non-member	Total
Never heard	4.6	10.9	7.6
Bad rumor only	34.5	39.9	37.1
Bad>Good	34.7	29.8	32.4
Bad=Good	14.9	12.7	13.9
Bad<Good	8.7	5.1	7.0
Good rumor only	2.5	1.5	2.0
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table J-1 Exposure to family planning message through mass media by frequency of husband-wife discussion on family planning

Mass media	None	A few times so far	A few times yearly	Every month	Every week	Total
Never	20.1	10.2	9.8	10.3	8.2	11.5
A few times	25.4	37.0	17.9	10.3	13.7	19.2
Frequent	54.4	52.8	72.4	79.4	78.1	69.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(169)	(108)	(123)	(136)	(292)	(828)

Table J-2 Exposure to family planning message through mass media by frequency of talking with neighbors about family planning

Mass media	None	A few times so far	A few times yearly	Every month	Every week	Total
Never	20.2	13.1	10.1	9.2	9.9	11.5
A few times	17.3	37.4	23.9	17.4	12.7	19.2
Frequent	62.5	49.5	65.9	73.3	77.4	69.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table J-3 Exposure to family planning message through mass media by mothers' club membership

Mass media	Member	Non-member	Total
Never	8.7	14.5	11.5
A few times	20.7	17.6	19.2
Frequent	70.6	67.9	69.3
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table K-1 Home visiting by age

Home visiting	−24	−29	−34	−39	−44	−49	Total
Never	47.1	29.7	16.2	14.6	31.1	51.3	26.3
A few times so far	14.9	11.5	17.6	15.1	12.3	20.5	15.0
A few times yearly	20.7	31.5	27.9	39.6	38.7	20.5	31.3
Frequent	17.4	27.0	38.3	30.7	17.9	7.7	27.4
Total	105.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(121)	(148)	(222)	(192)	(106)	(39)	(828)

Table K-2 Home visiting by number of living children

Home visiting	0	1	2	3	4	5	6 or more	Total
Never	77.5	41.7	24.5	20.5	18.5	17.2	28.3	26.3
A few times so far	7.5	19.8	13.5	13.2	15.9	11.9	19.2	15.0
A few times yearly	10.0	20.8	34.7	33.8	30.2	40.3	32.5	31.3
Frequent	5.0	17.7	27.6	32.5	35.5	30.6	20.0	27.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table K-3 Home visiting by mothers' club membership

Home visiting	Member	Non-member	Total
Never	16.1	37.7	26.3
A few times so far	15.6	14.2	15.0
A few times yearly	36.8	25.2	31.3
Frequent	31.5	22.9	27.4
Total	100.0	100.0	100.0

Table L-1 Program contact through printed materials by education

Printed materials	Illiterate	Can read	Primary school	Middle school or above	Total
Never	54.9	49.6	32.2	13.3	34.8
A few times	42.2	46.0	49.8	45.1	47.7
Frequent	2.9	4.4	18.0	41.6	17.5
Total	100.0	100.0	100.0	100.0	100.0
N	(102)	(113)	(500)	(113)	(828)

Table L-2 Program contact through printed materials by mothers' club membership

Printed materials	Member	Non-member	Total
Never	27.3	41.5	34.8
A few times	52.5	43.5	47.7
Frequent	19.8	15.0	17.5
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table L-3 Program contact through printed materials by home visiting

Printed materials	Never	A few times so far	A few times yearly	Frequent	Total
Never	54.1	30.6	30.5	23.3	34.8
A few times	34.9	61.3	52.9	46.7	47.7
Frequent	11.0	8.1	16.6	30.0	17.5
Total	100.0	100.0	100.0	100.0	100.0
N	(218)	(124)	(259)	(227)	(828)

Table M-1 Program contact through public meeting by number of living children

Meeting	0	1	2	3	4	5	6 or more	Total
Never	67.5	60.4	43.9	37.1	40.2	32.8	47.5	43.6
A few times	27.5	37.5	48.0	49.0	47.1	53.7	44.2	46.1
Frequent	5.0	2.1	8.2	13.9	12.7	13.4	8.3	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(40)	(96)	(98)	(151)	(189)	(134)	(120)	(828)

Table M-2 Program contact through public meeting by exposure to family planning message through mass media

Meeting	Never	A few times	Frequent	Total
Never	65.3	48.4	38.7	43.6
A few times	30.5	45.3	49.0	46.1
Frequent	4.2	6.3	12.4	10.3
Total	100.0	100.0	100.0	100.0
N	(95)	(159)	(574)	(828)

Table M-3 Program contact through public meeting by mothers' club membership

Meeting	Member	Non-member	Total
Never	24.4	64.9	43.6
A few times	57.5	33.6	46.1
Frequent	18.2	1.5	10.3
Total	100.0	100.0	100.0

Table N-1 Credibility of services by frequency of husband-wife discussions on family planning

Credibility	None	A few times so far	A few times yearly	Every month	Every week	Total
Don't know	12.4	1.9	1.6	0.0	1.4	3.5
Reliable	54.4	65.7	83.7	83.8	81.5	74.6
Unreliable or neutral	33.1	32.4	14.6	16.2	17.1	21.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(169)	(108)	(123)	(136)	(292)	(828)

Table N-2 Credibility of services by exposure to family planning message through mass media

Credibility	Never	A few times	Frequent	Total
Don't know	3.5	13.7	5.0	1.4
Reliable	74.6	69.5	74.8	75.4
Unreliable or neutral	21.9	16.8	20.1	23.2
Total	100.0	100.0	100.0	100.0

Table N-3 Credibility of services by exposure to family planning rumor

Credibility	Never heard	Bad rumor only	Bad> Good	Bad =Good	Bad< Good	Good rumor only	Total
Don't know	25.4	2.6	0.7	1.7	0.0	5.9	3.5
Reliable	54.0	69.1	81.7	80.0	84.5	70.6	74.6
Unreliable or neutral	20.6	28.3	17.5	18.3	15.5	23.5	21.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	(63)	(307)	(268)	(115)	(58)	(17)	(828)

Table N-4 Credibility of serivces by frequency of talking with neighbors about family planning

Credibility	None	A few times so far	A few times yearly	Every month	Every week	Total
Don't know	17.3	4.0	2.2	1.0	0.7	3.5
Reliable	55.8	58.6	79.0	80.5	80.8	74.6
Unreliable or neutral	26.9	37.4	18.8	18.5	18.5	21.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	(104)	(99)	(138)	(195)	(292)	(828)

Table N-5 Credibility of services by number of practicing persons known

Credibility	NA	Noe	One to four persons for at best one method	Five or more persons for at best one method	Total
Don't know	91.7	4.5	1.9	0.0	3.5
Reliable	0.0	71.7	73.1	84.0	74.6
Unreliable or neutral	8.3	23.8	25.0	16.0	21.9
Total	100.0	100.0	100.0	100.0	100.0
N	(12)	(269)	(316)	(231)	(828)

Table N-6 Credibility of services by mothers' club membership

Credibility	member	non-member	Total
Don't know	1.6	5.6	3.5
Reliable	80.2	68.4	74.6
Unreliable or neutral	18.2	26.0	21.9
Total	100.0	100.0	100.0
N	(435)	(393)	(828)

Table N-7 Credibility of services by home visiting

Credibility	Never	A few times so far	A few times yearly	Frequent	Total
Don't know	11.5	0.0	1.5	0.0	3.5
Reliable	62.8	80.6	75.3	81.9	74.6
Unreliable or neutral	25.7	19.4	23.2	18.1	21.9
Total	100.0	100.0	100.0	100.0	100.0
N	(218)	(124)	(159)	(227)	(828)

Table N-8 Credibility of services by program contact through printed materials

Credibility	Never	A few times so far	Frequent	Total
Don't know	8.7	0.8	0.7	3.5
Reliable	70.1	77.2	76.6	74.6
Unreliable or neutral	21.2	22.0	22.8	21.9
Total	100.0	100.0	100.0	100.0
N	(288)	(395)	(145)	(828)

Table N-9 Credibility of services by program contact through public meeting

Credibility	Never	A few times	Frequent	Total
Don't know	6.6	1.3	0.0	3.5
Reliable	62.0	79.3	77.6	74.6
Unrelible or neutral	24.4	19.4	22.4	21.9
Total	100.0	100.0	100.0	100.0
N	(361)	(382)	(85)	(828)

<抄 錄>

家族計劃 採擇過程과 相關要因에 관한 硏究

朴 亨 鍾·鄭 慶 均·韓 達 鮮

初期의 家族計劃硏究는 知識, 態度, 實踐에 관한 調査가 支配的이었다. 이들에 대한 批判中 重要한 것의 하나는 家族計劃에 관한 知識, 態度, 實踐을 說明하기 위하여 使用된 獨立變數의 거의 모두가 年齡, 敎育程度 등의 家族計劃事業을 통하여 變化시킬 수 없는 것들이라는 點이다. 이 때문에 KAP 調査는 家族計劃의 普及을 위한 效果的 事業을 計劃하는 데 그렇게 많은 도움을 주지 못하였던 것이 事實이다. 本硏究는 이러한 短點을 克服하려고 코뮤니케이숀을 爲主로 한 보다 廣範한 變數를 考慮하여 家族計劃의 採擇過程에 미치는 이 變數들의 效果를 分析하고자 하였다.

分析에 앞서 革新採擇過程에 대한 模型으로서 美國 農村社會學者들이 提示한 五段階 模型, Rogers의 四段階 模型, Bogue의 六要素 模型을 檢討하였다.

그러나 모두 家族計劃의 採擇過程에는 適合치 않은 것으로 判斷되어 家族計劃의 特性을 配慮한 修正된 模型을 使用하였다. 이 模型에서는 家族計劃의 採擇過程을 規範過程과 行動過程으로 二大別하고 前者는 知悉, 關心, 意思決定의 세가지 狀態, 後者는 避姙方法의 選擇과 採擇의 두가지 狀態를 包含하며 이들이 대체로는 上記한 順序대로 進行되나 進行順序에 대하여는 엄격한 規定을 피하였다. 採擇過程의 各 狀態를 나타내는 指標와 獨立變數들 사이의 關係에 대하여 다음과 같은 一般的 假說을 設定하였다.

1. 人口學的 變數外에도 家族計劃의 採擇過程에 影響을 미치는 要因들이 있을 것이다.
2. 採擇過程의 어느 狀態에 있느냐에 따라서 各 獨立變數의 效果는 다를 것이다.
3. 非公式的 對人間의 코뮤니케이숀이 公式的 非人間 媒體를 통한 코뮤니케이숀 보다 家族計劃 採擇에 미치는 效果가 더 클 것이다.

本硏究의 主目的의 하나는 家族計劃에 관한 知識水準 및 贊成率은 높은데 反하여 實踐率은 낮은 소위 KAP gap이라고 불리우는 문제의 解決에 도움이 되는 資料를 얻는 데 있었다. 그러므로 家族計劃에 대한 知識 및 態度의 定義와 測定方法을 再考한 結果 다음과 같은 KAP 調査에 관한 問題點이 나타났다.

1. KAP gap은 보통 家族計劃採擇決定을 婦人單獨으로 行한다고 假定하고 있으나 이것은 誤謬일 것이다.
2. 家族計劃에 관한 知識과 態度의 測定方法에 따라서는 KAP gap이 現在 생각하고 있는 것처럼 심하지 않을 것이다.

上述한 假說들을 檢證하기 위하여 江原道 春城地域에서 標本抽出한 49歲까지의 有配偶婦人 935名으로 부터 수집한 자료 중에서 自然不妊症 및 閉經인 婦人 107名을 除外한 828名을 對象으로 分析하였으며 主된 分析方法으로서는 多分類解析을 使用하였다.

分析結果는 本硏究의 假設들을 대체로 妥當한 것으로 立證해 주고 있다. 지금까지의 KAP gap에 관한 論議는 皮相的인 假定을 包含하고 있었던 것으로 보인다. 家族計劃採擇決定은 婦人

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單獨으로 行하여지는 것이 아니라 男便의 影響力이 큰 것으로 보이며 媤父母가 介入되는 경우도 있었다. 또 子女數가 2名以下인 夫婦가 적잖게 있으므로 어느 程度의 KAP gap은 不可避한 것이다.

家族計劃에 관한 知識이나 態度는 여러가지 要素의 複合槪念으로 볼 수 있기 때문에 實踐에 必須的인 要素를 밝히지 않고는 眞正한 意味의 KAP gap을 測定하기가 곤란하며 따라서 關係되는 基礎的, 方法論的 硏究가 必要한 것으로 思料된다.

家族計劃採擇過程에 대하여 人口學的 變數外의 他 變數들이 統計的으로 有意한 影響을 미치고 있으며 그 중에서도 夫婦間의 코뮤니케이숀, 이웃 間의 코뮤니케이숀이 특히 重要한 것으로 나타났다. 이들 獨立變數들의 效果는 家族計劃採擇過程上 어느 狀態에 있느냐에 따라서 相異하였다. 이 分析結果에 비추어 볼 때 夫婦間 및 이웃과의 家族計劃에 관한 코뮤니케이숀을 활발히 할 수 있는 事業戰略이 必要하겠다. 男性을 對象으로 한 啓蒙敎育, 地域社會組織을 利用한 事業活動 등이 그 例라 할 수 있겠다. 또 家族計劃採擇過程을 보다 正確히 나타낼 수 있는 指標의 開發과 코뮤니케이숀, 事業活動의 보다 正確한 測定方法에 대한 硏究가 必要한 것으로 느껴진다.