

# Family-Planning Knowledge and Attitude Surveys in Pakistan

by

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Very little of the intense interest and activity in the field of family planning in Pakistan has come up in the form of publications. Since the formation of the Family Planning Association of Pakistan in 1953 and the initiative of the government in promoting a national family-planning programme in its Second Five-Year Plan, relatively few reports have been printed. Most of what has been written in Pakistan about family planning has either been reported at conferences abroad or published in foreign journals, or submitted as graduate dissertations at universities within the country and abroad<sup>1</sup>. While numerous papers presented at conferences in Pakistan have been given limited circulation in mimeographed form<sup>2</sup>, much of the preliminary data, emanating from most of the action-research projects in progress, are held up till substantive demographic changes are measured and approaches evaluated accordingly.

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<sup>1</sup> Many of these are papers presented at international conferences, e.g.,

K. Sadiq Hussain, "Medical Aspects of Family Education", *The Sixth International Conference on Planned Parenthood*. Report of the proceedings, 14-21 February, 1959, New Delhi. (London: International Planned Parenthood Federation, 1959), pp. 186-191.

Saida Waheed, "The Role of Government in Family Planning Programmes in Pakistan", in *The Sixth International Conference on Planned Parenthood*, *op. cit.*, pp. 291-293.

M. Sharif, "Outlook for Government Action in Family Planning in Pakistan", in Clyde V. Kiser (ed.), *Research in Family Planning*. Papers presented at a conference, October 1960, New York City. (Princeton, New Jersey: Princeton University Press, 1962), pp. 141-146.

Zarina A. Fazalbhoy, "Fertility and Attitudes to Family Planning in Karachi," in M.L. Qureshi (ed.) *Population Growth and Economic Development*. Summary report of a seminar. (Karachi: Pakistan Institute of Development Economics, 1960), pp. 332-336.

<sup>2</sup> E.g., papers prepared for the First Indian Ocean Regional Conference held at Dacca in January 1962, include:

Khawaja S. Husain, "A Study of Sex Knowledge of Medical Students".

Hasnara Kamal, "Family Life Education as a Factor in Promoting Family Welfare including Family Planning".

Habibuddin Ahmed, "Control of Fertility".

M.A. Hai, "Family Life Education of Adolescents and Adults".

to any chance of success in family-planning education in Pakistan. An uncritical acceptance of the conclusions drawn by the authors of these surveys would tend to lead their readers to unnecessary pessimism on some aspects of the problem and to unwarranted optimism on others. This review attempts to explain the lack of justification for some of these conclusions and, at the same time, to suggest ways in which the present and future studies in this field could be improved upon.

#### THE MEASUREMENT OF FAMILY-PLANNING ATTITUDE

The particular limitations to enquiries in the field of attitude surveys are severe and many: in any community people are reluctant to provide information on intimate aspects; more so in Pakistan where the literacy level is low (15.9 per cent)<sup>4</sup>. The socio-cultural traits, the orthodox outlook on life, the relative inaccessibility of women, and lack of skilled interviewers are some of the factors creating difficulties in attitude research. Realizing these limitations, the pioneering efforts of the authors of the three studies under review must be appreciated. They provide benchmarks for present and future studies in this field.

Attitudes, however, should not be inferred from simple responses to single questions. An attitude is “. . . an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual’s world”<sup>5</sup>. Therefore, an attitude is not a real characteristic of an individual to be inferred from his elicited verbal responses to a question of opinion. It is rather a hypothetical variable of personality, an abstraction from various related acts or responses, “. . . used to describe the consistency or covariation of a number of different responses to stimuli of the same

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<sup>4</sup> Office of the Census Commissioner, *1961 Census Bulletin No. 4: Literacy and Education*. (Karachi: Manager of Publications, September 1962), p. vii.

Related problems of social research in Pakistan are cited only in A. Farouk, “A Danger of Social Research in Pakistan”, in John E. Owen (ed.), *Sociology in East Pakistan*. (Dacca: Asiatic Society of Pakistan, 1962), pp. 9-13.

S.M. Hafiz Zaidi, “Psychological Methodology and Community Research”, in *Sociology in East Pakistan*, *op. cit.*, pp. 14-25.

Also various articles by Charles P. Loomis, Douglas E. Ashford, Oscar Lewis, Leonard W. Doob, Irwin T. Sanders and S.M. Hafeez Zaidi, in a special issue of *Journal of the Pakistan Academy for Village Development, Comilla*, on Rural Social Research, July 1962. The problems are sometimes overstated, however, *e.g.*

S. M. Hafiz Zaidi, *op. cit.*, “It is categorical that no one can approach a village women. . . Even women interviewers would be frowned upon” (p. 92) and “Whatever the research agency, one cannot without fear of being snubbed or even manhandled, collect information about sex relations, women in general and even certain aspects of family planning and contraception”. (p. 94).

<sup>5</sup> David Krech, and Richard S. Crutchfield, *Theory and Problems of Social Psychology*. (New York: McGraw-Hill, 1948), p. 152.

general class"<sup>6</sup>. This distinction does not negate what the authors of the studies under review have found regarding the "attitudes" of their respective samples. The reliability of their findings is probably high, *i.e.*, if the surveys were repeated in the same way, the same responses would probably obtain. The purpose of this distinction is, rather, simply to qualify what the authors say about "attitudes" in their reports by calling them instead: "stated *opinions* on specific issues or questions posed by the interviewers".

Consistencies can be found in the responses to certain sets of questions of the same class in these studies. But the issues and questions posed by the interviewers in these cases are sometimes those which probably the respondents never considered before, as revealed in some of their responses to related-knowledge questions. Therefore, it is unlikely that even an apparent consistency of responses to questions of a general class in these cases can actually represent *an* attitude towards that aspect of family planning.

Another aspect of attitude measurement that needs exploration in planning future surveys of this kind is a measure of the intensity or strength with which attitudes are expressed by individuals. This can be accomplished "... by a series of questions the 'answers' to which are combined into a single score for each person. Then the number or percentage of people holding attitudes of varying intensity may be ascertained"<sup>7</sup>. This would involve the use of a scale along which an attitude response can be measured—from extremely favourable responses to extremely unfavourable ones.

As an example of how the foregoing approaches to attitude measurement could be applied in future family-planning studies, let us consider the investigation of attitudes towards family planning in Islam, or more specifically, religious objections to family planning, which was common to all the three surveys reviewed below. *First*, the investigators should resolve from the beginning that the attitude of an individual on this highly complex aspect of human behaviour could not be inferred from his elicited response to a single question. Accordingly, the investigators should attempt to devise a number of different items and kinds of items which would approach the question from different angles, eliciting responses from different mental contexts. In addition to *opinion* responses, some of the items might elicit other types of *self-description* responses that would have a bearing on the respondents' religious frame of reference, the place of religion in other related aspects of his life, his feelings towards *moulvis*,

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<sup>6</sup> Bert F. Green "Attitude Measurement", in Gardener Lindzey (ed.), *Handbook of Social Psychology*, Vol. I. (Cambridge, Massachusetts: Addison-Wesley, 1954), p. 335.

<sup>7</sup> Mildred Parten, *Survey, Polls, and Samples: Practical Procedures*. (New York: Harper, 1950), p. 194.

and so forth. Such additional items would need to be weighted in the final analysis to the extent to which they represent favourableness towards the issue.

*Second*, the investigators attempt to frame their questionnaire items so as to elicit, rather than simple yes or no responses, responses which would indicate degree of favour or disfavour, agreement or disagreement. The field interviewers could be trained, and given an instrument, to obtain one of five responses on certain items: "strongly agree", "agree", "neutral", "disagree" and "strongly disagree". Thus, a score could be ascribed to each of the five categories of response giving a scale on each item and a more precise breakdown of each response so that more meaningful correlations could be obtained.

Finally, in addition to obtaining elicited verbal responses, some attempt might be made to get *spontaneous* verbal attitudes, those expressed to friends and spouses, by cross-checking, for example, what wives say their husbands believe on the subject. *Action* or nonverbal attitudes might also be explored in a similar manner (what wives say their husbands *do*) or by posing hypothetical action-situations and asking the respondent what he would do.

Such procedures as these might have been included in the studies reviewed below if the scope of the investigations had been narrowed to focus on fewer questions of significant import. As they stand, however, the studies produce sufficient evidence to draw tentative hypotheses in a broad range of questions for further testing along the lines suggested above.

#### COMILLA ACADEMY VILLAGE SURVEY

The village survey was conducted in 1960 by staff of the Pakistan Academy for Village Development, Comilla, with W. H. Zaidi as the principal investigator. The broader project, of which this survey constituted a preliminary stage, had as one of its major objectives to explore "... the effectiveness of the local agents as a source of dissemination of knowledge and as an agent of change in respect of family planning" (Page 10). The monograph under review confines itself to reporting findings on "... the attitude and opinion of people in respect of family planning". One hypothesis is informally forwarded in the introductory chapter to the effect that Muslims will show greater religious opposition to the practice of family planning than have Hindus and Christians in similar studies conducted in India.

In its narrowest sense, "family planning consists in the restriction of births or limitation of births, either temporarily to achieve the desired interval between successive births or permanently to prevent more births than desired"<sup>8</sup>. This

<sup>8</sup> International Union for the Scientific Study of Population, *Multilingual Demographic Dictionary*. English Section. (New York: United Nations, 1952), p. 38.

implies a conscious effort on the part of the individuals to plan their families, preventing or spacing births. The Comilla study elicits information on the desire of the people to have more children or no more children at the time of the enquiry. The one item that determined whether respondents were willing to space births was crosstabulated with only two variables (Table 24). Thus, the study has divided the sample into two classes of respondents and treated those desiring more children throughout the analysis as the class of persons opposed to family planning or at least not yet ready for it.

The rather thorough treatment of this single variable, however, provides highly useful data for programme-planning purposes. Although people who wish to *space* births should eventually become the primary target group for the national programme, the essentially emergency efforts of the next few years will necessarily focus on the large rural segment most highly motivated to prevent further births. The author, by contrasting this class with the class of respondents not desiring to prevent further births on approximately 25 variables—knowledge, demographic, socio-economic and opinion—presents an impressive catalogue of information in some depth. As a comparative study of persons who do and persons who do not wish to prevent further births, this monograph is a distinct contribution.

Chapter III (Page 17) describes the sample. One village has been selected for the study on the assumption that the heterogeneous characteristics of its inhabitants make it representative of the villages of East Pakistan. The assumption could be granted, had not a bias entered the selection, *i.e.*, proximity of the universe to the campus of the Academy (one-half mile) and to the town (two miles) and its accessibility by motor transport. Furthermore, the construction during World War II of an airstrip with metalled feeder-roads near the village may have had, and still have, a significant influence on the village.

The population of the sample village was composed of 308 males and 254 females distributed in 113 families. (Family is not defined by the author.) All married couples were to be interviewed, husband and wife separately but on the same questionnaire. Males were interviewed by a male investigator and females by a trained midwife. In this sample of married couples, there were 113 females and 112 males. As one male was not available, one male had two wives, and four males and females did not respond to the critical opinion-question on family planning, description in the analysis related to 109 married females and 107 married males (Page 25). It is a tribute to the investigators to note that no married couple in the village was excluded from the interviewed population.

The main analyses of the study are devoted to a description of the socio-economic and demographic characteristics of the villagers in the sample and to correlations of a few of these characteristics with "attitudes" towards family planning (desire to have or not to have more children only). A few pages (pp. 59-66) deal with the ideal number of children desired, interval between children, and the reasons given for the desire to have or not to have more children. Test of significance, however, has been applied only in relation to two groups: respondents desiring more children and those desiring no more children.

The striking finding of the enquiry is that all respondents were entirely unaware of contraceptive methods (Page 67). In the case of males, 62.5 per cent of those desiring more children and 63.0 per cent of those desiring no more children were unwilling to learn contraceptive methods (Page 68). Thus, men desiring more children are just as eager to learn family-planning methods as those desiring no more children. This finding bears significantly on one of the most important questions for programme planning: whom should the educational efforts be primarily aimed at? As suggested earlier, those desiring no more children are likely to be assumed to be much more highly motivated to adopt family planning than those who want more children and, therefore, will probably receive the bulk of attention in the next few years. But Zaidi has uncovered a fact which deserves closer analysis. The fact that those wanting more children turn up equally desirous of learning contraceptive measures indicates that perhaps the desire to space births is a *more* important criterion in the selection of the primary target group than the desire to prevent further births.

An illogical development of questions is indicated in the analysis of opinions about sterilization. Whereas 90 per cent of those desiring more children and 75 per cent of those desiring no more children did not want to have permanent control on birth for themselves (Page 71), 66 per cent of the men not willing to learn contraceptive methods and nondesirous of permanent birth-control, are, nevertheless, willing to undergo sterilizations (Page 72). Even if males tend to assume wives would have the operation, they should not register themselves opposed to permanent birth-control on the one hand and in favour of sterilization on the other. It was unnecessary to put a question on sterilization to respondents who had already shown a negative opinion towards permanent birth-control. Moreover, this suggests that questions were misunderstood. By pretesting the questions to determine whether the respondents will visualize the implications of sterilization, such inconsistencies can sometimes be avoided.

Of greater importance to programme planners are the conflicting responses similarly obtained in another question sequence: Question 25 (Page 90), "Do

you apprehend any opposition to family planning and/or to receive training and/or to the use of contraception?" and Question 26, "Does in your opinion religion permit this practice?" In response to the former question, 87.5 per cent of the males desiring more children and 81 per cent of those desiring no more children did not apprehend any opposition to their practising family planning (Table 30, Page 73). In fact, not a single male said "yes" to Question 25, all of those not answering "no" being "no answer" respondents. None of the females who anticipated opposition to their practising or learning family-planning methods mentioned religious quarters as the source of the opposition they anticipated. All of the women desiring no more children listed either husband (48.4 per cent) or mother-in-law (8.3 per cent) or gave no answer to the question on anticipated source of opposition (Table 31, Page 74). Thus, when the investigation of the villagers' attitudes towards religious or other opposition to family planning is carried out with open-ended questions, as attitudinal questions ideally would be structured, it appears that religion does not occur at all to the villager as a conflicting factor in family planning. It is only when the interviewer, an ostensibly more educated Muslim than the villager considers himself, *suggests* the possibility of a religious conflict that the religious conservatism of the villager emerges. Question 26 comes at such a point, and is worded in just such a way, as to say in effect: "In giving your anticipated sources of opposition to family planning in response to the previous question, didn't you overlook the religious unpermissibility of this practice?"

Evidence that the villagers had never previously considered the connection between religion and family size is also provided by the fact that religion had not been mentioned in any of the earlier responses. For example, of nine categories of reasons given by respondents for wanting or not wanting more children (Pages 65 and 66), none touched upon religion. If it is true that none of the respondents had previously even considered the possibility of a religious conflict, then the responses to Question 26 become a measure of the *suggestibility* of the respondent rather than a measure of opinion or attitude.

Question 26 forces a decision by the villager on the connection between his religion and a strange variation on sex which he had neither practised nor even heard about previously. And it forces the decision in the temporal context of a previous suggestion that opposition to family planning exists. Therefore, it is not surprising to find that the females were the more suggestible in their decision. Most of the women (over 80 per cent) answered "No, Islam does not permit this practice", since it was the females who had already acknowledged the existence of opposition in their response to Question 25. The males, none

of whom had acknowledged the existence of opposition in their response to the previous question, were only 52.5 to 60.0 per cent susceptible to the suggestion that birth control is un-Islamic (Table 32, Page 77).

Further evidence that the responses to Question 26 were based on the suggestion by the interviewer rather than on previously evolved opinion is provided by the responses to the subsequent question on source of opinion about religious permissibility of contraceptive practices ("Who told you?"), as reported in Table 33, Page 78. Almost all of the women and a clear majority of the men said that their answer was based on "self-opinion" or else gave no answer on source of opinion. It is significant to note also that of the 7 women who desired no more children and who had at least primary education (Table 7, Page 30), 5 said they got their opinion on religious sanctions from Islamic books (Table 33, Page 78) despite the fact that none of them had previously acknowledged any awareness of the existence of birth-control methods. None of the women said they got their opinions from *moulvis*. Unfortunately, Table 33 does not give its breakdown on source of opinion by the stated opinion of the respondents, so that one cannot derive whether those 51 males who said they got their opinion from *moulvis* and Islamic books were mainly persons deciding religion does permit contraception or persons deciding it does not.

It appears that the investigator failed to see these relationships between the responses to Questions 25 and 26 (in fact, the analyses on these two items are reported in separate chapters of the monograph). Treating the data on these two items independently led him to conclude that:

"... the greatest obstacle in the way of not practising the family-planning programme in the rural areas will be religious conviction of the people. If a massive propaganda campaign is successfully launched to overcome this obstacle by convincing the people that the theologian did not disapprove of this programme it can be much more popular". (Page 80).

He also concluded: "It seems quite incumbent to dispel some apprehension and to take measures to convince the people that these practices are not in contravention of the religious injunctions" (Page 83). His data, in fact, support a contrary conclusion that the religious question does not ordinarily occur to the villager until it is suggested by an educated outsider, as in the form of an interview question. The author's recommendation of mass propaganda without face-to-face education to answer specific questions that may arise is also subject to question. The studies on the use of mass media in public health, agriculture extension and other fields where the adoption of new practices is sought have revealed that mass media alone do not serve to "instil



new attitudes or to create significantly new behaviour patterns” and that to rely on “. . . propaganda aimed at deep-rooted attitudes and ego-involved behavior is as unwarranted as it is dangerous”<sup>9</sup>.

Mass media in the earliest stages of the national family-planning programme would seem particularly unwarranted because they cannot be expected to change the religious attitudes of villagers. The data provided by Zaidi do not support his conclusion that a mass-propaganda campaign is needed. Rather, his data suggest that formal media would create no change in the attitudes of villagers towards family planning since this is a subject which has not previously entered into their experience. In the absence of adequate personal defence of the idea, mass-media appeals are as likely to result in the creation of negative attitudes as they are to create favourable attitudes. They will only serve to force a decision, without expert consultations on the religious permissibility of contraception, and once their decision are made they will be that much more difficult to reverse. Research on cognitive dissonance has demonstrated this pattern of decision-making<sup>10</sup>.

The conclusion to be drawn, therefore, from the data presented by Zaidi in the Comilla study is that family-planning education in rural East Pakistan ought to proceed with instructions on methods and with as little mention of religious objection as possible. This revised conclusion has since been confirmed by a colleague of Dr. Zaidi at the Academy, Dr. A. Majeed Khan, who has been in charge of the action programme following Dr. Zaidi's survey. Dr. Khan reports in 1963:

“The programme never suffered a setback on account of any religious

<sup>9</sup> Paul F. Lazarsfeld, and Richard K. Merton, “Mass Communication, Popular Taste and Organized Social Action”, in L. Bryson (ed.), *The Communication of Ideas*. (New York: Harper and Bros., 1948), p. 114, as quoted in William Griffiths and Andie L. Knutson, “The Role of Mass Media in Public Health”, *American Journal of Public Health*, Vol. 50, April 1960, pp. 515-523. See also:

Wilbur Schramm (ed.), *The Process and Effects of Mass Communication*. (Urbana, Illinois: University of Illinois Press, 1961).

Elihu Ktaz, and Paul E. Lazarsfeld, *Personal Influence: The Part Played by People in the Flow of Mass Communication*. (Glencoe, Illinois: The Free Press, 1955).

Carl I. Hovland “Effects of Mass Media of Communication,” in Gardner Linzey, *Handbook of Social Psychology*, Vol. II. (Cambridge, Massachusetts: Addison Wesley), pp.1062-1103.

For opinion in support of the mass-media approach to family planning, see:

Donald J. Bogue, “Some Tentative Recommendations for a ‘Sociologically Correct’ Family Planning Communication and Motivation Programme in India”, in Clyde V. Kiser, *op. cit.*, pp. 503-538, but note that the argument is not for mass media unsupported by “private personal communication” (p. 510).

For a case study on the use of media combined with personal approach (listening-discussion groups) see, Paul Neurah, “Social Research in Newly Independent Countries: An Indian Example”, *Public Opinion Quarterly*, Vol. 24, No. 4, Winter 1960, pp. 670-674.

<sup>10</sup> Leon Festinger, *A Theory of Cognitive Dissonance*. (New York: Rowe Peterson and Co., 1957);

Kurt Lewin, “Studies in Group Decision, in Dorin Cartwright, and Alvin Zander”, *Group Dynamics Research and Theory*. (Evanston, Illinois: Rowe Peterson, 1953), pp. 287-301.

controversy. Through identifying the programme with a specific interest group, a direct clash with organized religious opposition was avoided. Also, it was observed that no one dropped the programme on the ground of religious opposition"<sup>11</sup>.

#### SSRC URBAN SURVEY

The second study is "Knowledge of and Attitudes Towards Family Planning", conducted by the Social Sciences Research Centre (SSRC), University of the Panjab. This study was carried out on behalf of the Lahore Branch of the Family Planning Association of Pakistan with the objective of eliciting information on attitudes towards family planning of the ever-married urban residents of Pakistan for use by the Association in planning its "mass-education" programme.

Selection of a part of the City of Lahore as the sample is valid and proper in itself. In the selected area, the population belonged to different socio-economic strata: low and medium population-density strata comparable to corresponding strata of the whole city. The two strata were then broken into blocks consisting of similar numbers of houses. One out of every ten blocks in each of the two strata was selected at random. A male and a female interviewer were sent into each selected block with instructions to visit alternate houses. It was the reasonable intention of the authors that their data on attitudes from this sample would largely represent the attitudes of persons belonging to similar strata, but residing elsewhere in the city or in other urban areas of West Pakistan. However, the analyses presented do not distinguish between the responses of people in the two strata: by lumping all of the data on the 989 men and 1098 women together, much of the sophisticated sampling effort has been wasted.

The Social Sciences Research Centre demonstrates a thoroughness of sampling procedures, in this and in its second survey reviewed below, that deserves emulation in Pakistan. It may be pointed out, however, that the technique adopted for selection of the sample in this case did not use married couples as respondents. The males and females interviewed belonged to different houses. This precluded a matched cross-check of responses given by men and women, but should not have prevented male-female cross correlations of, for example, what wives say about husbands' knowledge of family planning and what husbands themselves reveal in knowledge probes. Another sampling problem is presented to the reader by the large number of individuals never contacted. Page 6 does not distinguish clearly enough the different categories of cases dropped from the sample: "In 27 houses the men interviewers *could not*

<sup>11</sup> A. Majeed Khan, "Family Planning in a Rural Area: A Search for An Approach", *op. cit.*, p. 5.

find any ever-married male . . . in 49 houses which were to be visited by women interviewers no ever-married females were available . . . In the case of men interviewers in 34 houses the interviewees were *absent* . . . (italics ours). There was also an unfortunate lack of uniformity in the data-gathering procedures. While the rule was an oral interview, "in certain cases the questionnaire was left with the respondents to be filled in by them . . . were either later picked up personally by the interviewers or mailed to the Centre . . ." (Page 6).

The analysis is divided into three parts. The first deals with the demographic characteristics of the sample; the second with knowledge of family planning and its practice; and the third with items intended to represent attitudes towards family planning. A systematic presentation of demographic characteristics of respondents takes up eleven pages. Level of education, age, duration of marriage, number of children alive, and dependency load have been cross-tabulated in the second part with knowledge of family planning, its practice and the desire for more children. But correlations have been omitted in the third part where attitudinal factors, such as "reasons advanced for not spacing children", are analysed.

Some minor questions are unanswered in the tables and discussions on demographic characteristics of the respondents. Table I (Page 7) reveals that a sizeable proportion (9.2 per cent) of the total sample was either widowed or divorced at the time of the survey. This might have warranted a probe to determine how many of the nowmarried were ever-widowed and how many ever-divorced. The discussion on age-at-marriage makes a point of the mean age when the median would have been more appropriate (Page 11) since the range was broad and the lower extremes were greater for women than for men (Table IV). Similarly, median, rather than mean, duration of marriage should have been reported. After seeing frequency distributions on income of families (again, family is not defined) in Table VII and the number of dependents of respondents in Table VIII, the reader is eager to see a frequency distribution on income per family-member before going on to read the correlations of these demographic characteristics with family-planning knowledge and attitudes. The frequencies of per-capita incomes among families of the respondents could have been simply calculated in the margin of each respondent's interview schedule from the data already there and included in the coding and tabulating procedures. This is an example of important data being lost to policy-makers simply because of the rich data gathered not being fully exploited.

Some differences in the questions asked and the interpretations made reflect a lack of conceptualization prior to the structuring of certain questions. For example, the question on which the analysis of family-planning knowledge

opens is not worded in the way in which the response is tabulated (Table X). The word "No" in the question elicits information on their knowledge as to whether or not spacing of children is possible, not on their *opinion* of the possibility. Therefore, creation of the "Do not know" category of responses to this question is not in line with its meaning (Question 22, Page 55).

A logical development of questions seems to have been sacrificed for the sake of a neat grouping of questions into the order in which they would be analyzed. For instance, it was inappropriate to put the question "Have you ever tried to space children"? (Question 24, Page 55) to people who were not even aware of this possibility (Page 28). It is more usual in such cases to skip the question if it cannot be asked logically, unless the one question has been intended as a check on the reliability of the other. But since no correlation of one knowledge item with another is given, the latter possibility apparently was not exploited.

The analysis of the third part of the questionnaire, attitudes towards family planning and its acceptability, shows that by far the largest proportion (64 per cent) of respondents expressed complete ignorance of any contraceptive methods, and, therefore, did not practice any. Only 18.9 per cent attributed their non-practice to religious prohibition. (Note the small proportion who cite religious objection when the question is open-ended in contradictions to the figures obtained in the previous study where the interviewer suggests religious opposition.) The desire to have children in the early part of married life, as a reason for not practising family planning, was expressed by 13.1 per cent of the respondents.

Respondents who practised family planning gave their reasons for doing so. Proper bringing-up of children was advanced by 91.2 per cent of the respondents practising family planning. The next most frequently noted was economic strain (77.2 per cent). On the average, a male respondent advanced 1.9 reasons and a female 2.4 reasons for practising family planning. In reading Table XXII on "reasons for practising family planning" as reported by respondents, it should be borne in mind before one draws any conclusions concerning the best theme or slogan for family-planning education that the categories of responses are not mutually exclusive. Respondents who gave as their reason for practising family planning "interval essential for proper bringing-up of children" may have meant the same thing as those who gave as their reason "to avoid financial difficulties", and vice versa. This problem arises also in Tables XXIII through XXVII (Pages 44-48), none of their categories being mutually exclusive. It should also be noted that the investigation of reasons for and against family planning fail to measure the depth of the feelings. The most

vital question—to which of these reasons do respondents give preference or most weight—remains unexplored. Use of preference scales in such inquiries would make the results much more useful.

Given these limitations of the data, particularly the absence of preference scales, it was not tenable for the authors to conclude that the major obstacle is the religious misconception on this subject (Pages 51-52). It is true that more than half of the people who had knowledge of birth-control practices (total number of respondents 1735 minus 1111 to whom methods were not known = 624) did not use them for religious reasons (though for many this may simply have been a convenient excuse for lack of initiative or for their shyness to procure supplies). But the actual number, 328 or 18.9 per cent, of such people was considerably smaller than 1111 (64 per cent), the number who had no concept whatsoever of family planning, as reported on Page 44. It is further evidenced in the analysis (Page 44) that the majority of respondents, 75 per cent, expressed their willingness to practice family planning if they knew the appropriate methods. The important conclusion, therefore, should have been the need for education in methods of family planning, not that there is a need for greater emphasis on the religious question (Pages 51-52).

The commentary on interspouse knowledge of family-planning methods and the conclusion on individual knowledge that "It is evident that more men than women have knowledge about family-planning methods" (Page 19) is premature. A closer inspection of Tables X and XI reveals evidence to the contrary: if the male and female samples are both random, the inference from Tables X and XI is that husbands think women know more about contraception than the women admitted to the interviewers. Only 159 women admitted knowing, but 318 knowing husbands said they were certain their wives knew. Add to this 318 the 8 women who admitted knowledgeability and were sure their husbands did not know about family planning, and the difference is hardly significant. A possible reason for the low acknowledgement of knowledge on the part of women is given on Page 28, but its relevance as a possible explanation of the foregoing is ignored: "When questioned as to whether they had tried to space children, 191 men and 94 women replied in the affirmative, 798 men and 971 women answered in the negative and 33 women refrained from answering the question". Again, if the male and female samples were random they should have produced approximately equal proportions of affirmative and negative responses to this question since contraceptive measures usually require cooperation on the part of both spouses. The fact that the number of women was again much lower in admitting having tried to space children is evidence of a feeling of shame on the issue on the part of women, more than on the part of men.

Further evidence for the need to question the validity of the responses on knowledge is given in Tables XIII and XIV (number of children desired by men and women respondents, respectively). It is the men (152) and not the women (77) who are likely to have taboos against practising family limitation, and again it is the women (205), not the men (74), who are unwilling to give specific answers (Page 20). The authors finally state: "There seems to be a much higher number of women than men who have the desired number of children. This most probably conveys lack of a definite attitude on their part . . ." (Page 22). They account for the differences by citing separated, divorced, widowed (Page 27), aged beyond reproductive period, and sterile (Pages 28-29) women. But the proportion of women in these categories to the total sample of women is so small that an explanation in these terms is unconvincing. Finally, as mentioned earlier, women gave an average of 2.4 reasons for practising family planning. Males advanced an average of only 1.9 reasons.

If this issue seems to have been laboured, it is largely because the reviewers feel the importance of clarifying prevalent misconceptions about the innate ignorance and uneducability of women. This opinion of women, as of villagers, is probably as much responsible for the pessimism in long-range planning for a national family-planning programme as the overestimation of religious opposition. Unless the data on the knowledge responses of women as compared with men and the attitude responses on religion in our surveys are presented more critically, such misconceptions will persist.

#### SSRC UNION COUNCILLORS' SURVEY

The third study reviewed is also conducted by Social Sciences Research Centre as second of its series of reports on surveys of attitudes towards family planning. This report deals specifically with the attitudes of councillors of Basic Democracies of West Pakistan concerning the introduction of family-planning programmes in their respective areas. The study attempts to determine awareness among councillors of the population problem, their attitudes towards family planning and measures they would suggest or support in their areas, as well as their perception of the attitudes of people whom they represent.

The chapter on methodology explains in some detail the reasons for not being able to carry out the proper survey as planned, and Table I is very helpful in showing the extent of the sampling distortion. But the explanation does not suggest a compensatory interpretation of the data in light of the bias which had been introduced by the village workers having discretion in choosing those union councillors who, according to their estimation, would not feel offence on being served with a questionnaire on

family-planning programmes. This might be expected to have brought in respondents with favourable ideas already formed and excluded to a large extent those councillors with hostile views or no views. The actual sample drawn consisted of 5,000 union councillors, 10 per cent of the universe. But the filled-in questionnaires were received from only 993 councillors, 2 per cent of the universe. This happened mainly because: *i*) the National Development Organization did not agree to the sampling procedure proposed by SSRC, offering instead to distribute the questionnaires in their training courses, and *ii*) many union councils were dropped out by the rural workers and their members were not asked to reply to the questionnaire. For example, the councils in Multan Division were not at all served with the questionnaire (Page 4) and Peshawar Division returned only 14.4 per cent of the "expected" number of questionnaires, whereas 74.5 per cent of the intended sample for Quetta Division responded (Table I, Page 6). Had it been a case of voluntary no-response on the part of the councillors themselves, the situation could have been accommodated in the analysis. A nonresponse is normally attributed either to disapproval of, or lack of interest in, the subject. But the extreme differences in degree of representation of the various divisions precludes the generalizability of the findings either to "the typical union councillor" or to "the union councillors of West Pakistan". The authors are to be congratulated for accordingly presenting much of the data by division from which the responses were forthcoming, but they have erroneously generalized on the findings in their conclusions. Although the reader must recognize that the Research Centre was limited in its control over the proper distribution of the questionnaire, he should expect to see some discussion by the authors as to how the decrease in the size of the sample and its peculiar selectivity has affected the validity of their findings and generalized conclusions.

Age, level of educational attainment, income and consciousness of the population problem have been correlated in the analysis of responses. The authors have classified those people as not being conscious of the population problem who think that the rapid increase in population is not such a hurdle. Those respondents who said "No" to Question 12 (Page 76), "Do you think that rapid increase in the population of our country is a hurdle in our progress?" meant negation of the statement. They are likely to be among those who said they believe that "Every child brings his sustenance with him" (Pages 57 and 77) and would, therefore, say any increase in population ultimately would not affect the development of the country. Those who are really not conscious of the population problem are the ones who said "Do not know" in response to the above question. This letter explains why such a large proportion of those classed by the authors as not conscious of the population problem turn up

opposed to the introduction of a family-planning programme in their area (cf. Tables XXVI and XXVII, pp. 56-57). Although this would suggest on the one hand the need for a specific education programme for union councillors to increase their understanding of the population problem and their appreciation of the family-planning effort, it also suggests the need for a more thorough exploration of their ability and willingness to function as agents in the family-planning programme. This can best be achieved through pilot action-programmes on a limited scale with close supervision and evaluation. One such pilot project has been undertaken by Drs. Mahmood and Mirza for the Government of West Pakistan; their results are eagerly awaited.

A tabulation of the personal opinion of the councillors regarding the introduction of a family-planning programme in their areas against their perception of the opinion of the majority of people they represent (Table XXX, Page 61) brings out very significantly that their perception of the opinion of the people is almost identical to their personal opinion. It appears to the authors to be a case of psychological projection (Page 62). An alternative explanation could be that there might have been deliberate misrepresentation by the councillors who preferred not to take up expressed positions.

From a correlation of the opinion of the councillors regarding population control with their consciousness of the problem, it is further established that a clear majority, 83.3 per cent, of the respondents who think it to be an obstacle in national development think it could be controlled (Table XX, Page 42). There seems to be some confusion in the analysis of the subsequent question, measures suggested by the councillors for population control, when cross-tabulated with their belief in population control. It is interesting to note that many of the councillors expressed contradictory opinions. Thinking on the part of a number of respondents, 326, that it is not possible to control the rate of population increase also suggests such measures as family planning, late marriage and abstinence to check the increasing population (Table XXII, Page 49). The cause of this inconsistency might be the questionnaire. It does not seem relevant to ask, "What practical methods do you propose to check unlimited increase in the population?" (Question 15, Page 76) of the people who have already said that the population could not be controlled in response to the preceding question. The conflicting responses suggest that one or both of the items of the questionnaire were unreliable.

The analysis of opinion responses offered by the councillors (by checking preconceived objections offered by the investigators) on the acceptability of the introduction of family planning in their respective areas reveals that when given possible objections to family planning, most respondents will agree with them.



But when given an extra line to write "any other reason" (Questions 17 and 18, Page 77), none are offered by the respondents. Over 60 per cent of 589 respondents checked the box beside each of 5 objections to family planning suggested by the authors of the questionnaire, but not one person suggested an objection of his own (Table XXVII, Page 57). Yet, when asked to suggest practical measures for controlling population growth, many respondents named one or more of seven measures not suggested by the questionnaire, although most of them also checked the two measures suggested by the investigators (Table XXI, Page 45). Findings in all three studies reviewed here are parallel on this point: religious objections or anticipated opposition to the adoption of family planning are likely to be agreed with when the interviewer or questionnaire suggests them, whereas few, if any, objections are voluntarily contributed by respondents when the question is open-ended. Respondents appear far more articulate in suggesting reasons for practising family planning and measures for family-planning programmes, even when they say they are opposed to such practices or programmes.

This study has demonstrated that the union councillors can hold simultaneously opinions for and against the adoption of family planning, allowing for intra-test unreliability. It has not answered one of the main questions implied by its title, "Attitudes of the Union Councillors Towards Adoption of Family Planning Programme as a National Policy". Specifically, where would the councillors place family planning on a priority scale of competing programmes?

#### IMPLICATIONS OF THE STUDIES FOR FAMILY-PLANNING IN THE THIRD FIVE-YEAR PLAN

Population increase is one of the challenging problems of Pakistan. Recognition of the need for family planning as a means to check uncontrolled child-birth has recently gained considerable ground<sup>12</sup>. While the overall budget for the Third Five-Year Plan is expected to be double that of the Second Plan, the allocation for health is expected to be tripled and the family-planning budget

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<sup>12</sup> Cf., for example, the following policy statements and histories, Brigadier M. Sharif, "Pakistan Prepares to Meet the Challenge of Uncontrolled Population Growth with Family Planning", in M.L. Qureshi (ed.), *Population Growth and Economic Development*, op. cit., pp. 337-346.

Brigadier M.S. Haque, "Family Planning Programme in Pakistan," address at a meeting of Ford Foundation Project heads in Pakistan held at Murree on August 2, 1962, quoted in W. Parker Mauldin, "Population and Population Policy in Pakistan", *Marriage and Family Living*, Vol. 25, No. 1, February 1963, p. 68.

Family Planning Association of Pakistan, "A Short History of the Family Planning Movement in Pakistan", paper incorporating the annual report of the Association for the years 1958-59, *Proceedings of the Second Conference of the Region for Europe, Near East and Africa*. (The Hague: International Planned Parenthood Federation, 1960), pp. 139-149.

Population Council, "Family Planning in Pakistan: An Analysis of the First Three Years," (Mimeographed in Karachi in April 1963 for use of the Government of Pakistan).

increased five-fold, from Rs. 30 million in the current plan to Rs. 150 million in the next. It has been suggested informally that the Planning Commission would be willing to multiply the family-planning allocation by ten if they thought family-planning educators and doctors had a tested solution to the birth-rate problem<sup>13</sup>.

The formulation of such a solution in programme form requires, first of all, an understanding in some depth of the social and psychological characteristics of the target population which impinge on their adoption of new practices such as family planning. Sound educational planning is based on a knowledge of such factors as the communication, motivation and decision-making patterns in individuals, small groups and communities of the target population; the roles of change agents, influential persons and institutions within these patterns; and the dynamics of other forces affecting the change process. The knowledge and attitudes of individuals on innovations such as family planning are only the effects of these forces and processes, and, as such, are necessary but not sufficient data for programme planning. Their main value is in providing a baseline against which progress of a programme can be gauged by comparing knowledge and attitudes before the programme with those at various stages and at the end of the educational programme.

All the three studies reviewed here attempted to determine the relationship of variables such as age, sex, income, family size and education to the attitudinal, cognitive and behavioural aspects of family planning as verbally expressed by the respondents, although the questions sometimes restricted or guided their responses. The two studies by the SSRC establish a positive relationship of age, family size, income, education and occupation to acceptance of family planning in principle or in practice. The Comilla study found an identical relationship in respect of family size and age of respondents to their desire to have or not to have more children. Since the desire to prevent more children is not the only kind of birth control, the Comilla-study finding, that younger people and those with small families desire to have more children, gives an unrepresentative picture of the opinion of people towards family planning. As regards income, education and occupation, the Comilla study found no significant relationship of these to family planning in its village of heterogeneous occupational classes.

Both the Comilla study and the SSRC urban study claim to establish evidence for the conclusion that females will be considerably more difficult to educate because of their lack of knowledge (SSRC urban survey) and their

<sup>13</sup> Karol Krotki, at a meeting of the Pakistan-Sweden-American Population Study Group held in Dacca on November 22, 1963; and Al-haj Abdullah Zaheer-ud-Din, Central Health Minister, in his inaugural address at the Population Quake Seminar held in Lahore on March 10, 1964 (see, *Pakistan Times*, March 11, 1964, pp. 1 and 10).

greater religious conservatism (Comilla study). But the unjustifiability of this conclusion has been argued in the foregoing review of the data presented in the separate monographs. All the three studies considered religion the major obstacle. Yet, on an overall basis, it has been shown here that it is mainly the ignorance of the possibility of planning one's family and a lack of understanding of family-planning methods (perhaps their confusion with abortion), and not religion, which is of relevance. In fact, it has been argued here that religious objections might hardly arise if they were not suggested by interviewers and mass media. Therefore, a greater knowledge of family-planning practices perhaps will create greater acceptability and adoption if the religious question is avoided entirely.

It is not safe to assume, however, that a favourable attitude alone will be followed by actual practice. Change in attitude is necessary, but not sufficient, factor in adoption. Adoption largely depends on other factors affecting ability to practise, such as availability of contraceptives and knowledge of how to use them. When people are unable to practise something they would like to practise, they are often receptive to reasons, particularly moral reasons, for the undesirability of the practice. Such reasons help them to reduce the conflict arising out of the concurrent forces making them want to practise and preventing them from practising. For this reason, it has been suggested here that a mass-media campaign designed to stimulate awareness of family planning and its benefits, without immediate provision for supplying contraceptives and of personal education on how to use them, would only invite opposition and misunderstanding before fieldworkers could get to the villages.

In summary, the foregoing review underlines the vital need for an intensified effort, both in quantity and quality of action-research studies, to probe further for answers to the following questions: *i*) What are valid and reliable indices of knowledge, attitudes and motivation for family planning? *ii*) To what extent can actual practice of contraception be assumed to follow from "adequate" knowledge, attitudes and motivation, and to what extent (and how) must it be measured independently?<sup>14</sup> *iii*) What differences between male and female, between urban and rural, and between East Pakistan and West Pakistan must be accounted for in data relating to *i*) and *ii*) above? *iv*) Are objections

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<sup>14</sup> S.N. Agarwala, "Evaluating the Effectiveness of a Family Planning Programme", in Clyde V. Kiser, *op. cit.*, pp. 409-421.

David Yaukey, "Some Designs for Rural Action Studies on Family Planning", *Journal of Pakistan Academy for Village Development, Comilla*, Special issue on "Rural Social Research", July 1962, pp. 48-55.

Lyle Saunders, "Indicators of Impact in Family Planning Communications Research Projects", *Family Planning News*, August 1962, pp. 177-185.

on religious grounds and female ignorance really as significant barriers to family planning as the surveys reviewed here have concluded? Is this kind of survey data sufficient to warrant such conclusions? v) What are the most acceptable and efficacious sources of contraceptive supplies? Clinics, private doctors and their village counterparts, commercial channels, or other influential persons or institutions in the community?<sup>15</sup> vi) What is the best channel of approach to family-planning education and motivation? Males only, females only, or males and females?<sup>16</sup> vii) If the most acceptable and easily learned contraceptive methods are not the most effective, how can more effective methods, such as the intrauterine coil, be introduced?<sup>17</sup> viii) After family-planning interest and motivation is obtained, and after family-planning education and supplies are introduced, what are the most effective and efficient logistics and educational approaches to maintaining interest, motivation and supply in such remote and inaccessible places as the villages of East Pakistan? What advantages and what dangers do mass media hold as means for sustaining interest and motivation? ix) What kind of and how much training is needed for the thousands of nonmedical fieldworkers who will be required to supplement the relatively small family-planning corps now existing? (The draft Third Five-Year Plan for Family Planning proposes to recruit approximately 5,000 matriculate-level workers by 1969, training 1,500 workers each year for 4 years)<sup>18</sup>. x) Finally, what decision-making processes have characterized those individuals and communities that have adopted family planning?

These are some of the major issues, each of which encompasses numerous subissues. Partial answers to some of these questions are found in the experiences of other countries, but their applicability to Pakistan is limited. The University of California's Public Health Education Research Project in Dacca and John Hopkins University's Medical Social Research Project in Lahore,

<sup>15</sup> J. Mayone Stycos, "A Critique of the Traditional Planned Parenthood Approach in Underdeveloped Areas", in Kiser, *op. cit.*, pp. 477-501.

Stycos criticizes particularly the medical and clinical approach bias in past programmes.

A. Majeed Khan, "Family Planning in Rural Area", *op. cit.* He outlines plans of the Comilla Academy for an approach using village "allopathic" practitioners and midwives as counselling and distributing agents in the villages. *See also:*

Harry Raulet and John Cobb, "Population Problem and Family Planning in Pakistan", *Journal of Pakistan Academy for Village Development, Comilla*, Vol. 3. No. 1, July 1962, pp. 17-27.

<sup>16</sup> Public Health Education Research Project, "Dacca Family Growth Study, Educational Program Guide", Second Draft, September 1962; and "Dacca Action Study Design," Second Draft dittoed, December 1961, Dacca 1962.

<sup>17</sup> John Cobb, and Harry Raulet, "Suggestions on Family Planning for the Third Five Year Plan of West Pakistan". (Mimeographed draft for discussion only) (Lahore: Medical Social Research Project, November 1963).

<sup>18</sup> Lawrence W. Green, "Screening Procedures and Profile of 1,976 Applicants for Matriculate Level Family Planning Field Worker Positions in East Pakistan", with recommendations for recruitment and training for family planning in the Third Five-Year Plan. (Dacca: Public Health Education Research Project, February 1964. Mimeographed).

both under the auspices of the Government of Pakistan, the Ford Foundation and the Population Council, are conducting action-research on a number of these issues. The former is exploring the alternatives of male only, female only and male-and-female approaches to education and motivation of urban Class III and Class IV government employees, as well as logistics and educational approaches on a *thana*-wise basis in rural areas. The academy at Comilla is pursuing a number of the questions raised in its initial survey. The Sewden-Pakistan Family Welfare Projects are supervising model clinics in Karachi, Hyderabad and Chittagong and participating in the development of the Training-cum-Research Institutes for Family Planning. These and other efforts are contributing to the search for answers in Pakistan. Inevitably, however, they must turn at times to the pilot studies that preceded their own, such as the three surveys reviewed here. It is imperative, then, that such surveys be looked at as critically as possible without being captious and without discouraging such pilot efforts, in order to minimize the inevitable repetition of errors and duplication of effort.

The data contained in the studies reviewed above contribute significantly, sometimes in accordance with and sometimes contrary to the statements made in their texts to the following tentative conclusions:

i) *Objections on religious grounds* are neither so intense nor so important, as barriers to family-planning education and motivation, as studies tend to hypothesize they will be (all three studies) or as government officials and other gatekeepers (*e.g.*, the Basic Democrats in the second SSRC survey) imagine them to be. It would seem that fear of religious opposition will continue to be a major cause of reluctance on the part of influential persons to support family planning until our methods of attitude measurement in the delicate areas of religion and family planning are sufficiently refined to produce convincing data to the contrary.

ii) *Knowledgeability of females* regarding matters of family planning cannot be finally determined on the basis of simple interview questions. As Poti and others have concluded in their study on the reliability of family-planning data:

“The results of this study have revealed that the reports of husbands are more dependable than those of the wives. The female investigators frequently reported that the wives felt too shy to report the use of contraceptives, particularly in large households where it was difficult to hold the interview in privacy”<sup>19</sup>.

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<sup>19</sup> S. J. Poti, B. Chandraborti and C.R. Malaker, “Reliability of Data Relating to Contraceptive Practices,” in Kiser, *op. cit.*, p. 65.

Yaukey, Roberts and Griffiths have reached the same conclusion on the basis of a cross analysis of factual responses from 547 Dacca males and their wives<sup>20</sup>. Spurious interpretations of data on female knowledge about family planning only serve to perpetuate widespread notions about the inherent backwardness and uneducability of women. This points to the need for better interview schedules and techniques with women as well as for a more critical appraisal of data on female knowledgeability obtained in the past.

*iii) Spacing of pregnancies* is as important to family planning in view of the national effort and the individual parents, as prevention of any further pregnancies. Attitude studies must probe both dimensions, in order to give a comprehensive picture of the attitudes of a group towards family planning.

*iv) Perceived family opposition* to the practice of family planning on the part of potential contraceptors is an important factor which ought to be recorded specifically as to which family member (spouse, mother-in-law, brother, etc.) the individual thinks will be opposed to his or her practice of family planning, and the degree to which these perceptions are based on fact or imagination. From an action-programme standpoint, no measures can be taken to reduce or circumvent barriers unless the nature and source of conflict is known<sup>21</sup>. In the Comilla-Academy study 56.7 per cent of the women were apprehensive of opposition either from their husbands or from their mothers-in-law, while none listed religion as a source of perceived opposition (Table XXX, Page 73). Thus, according to this data, perceived family opposition constitutes a more important factor in the decision-making process for village women than does perceived religious opposition.

*v) Intensity of attitudes* and motivation need measurement against direction of attitudes as much as *level* of knowledge needs measurement against presence of family-planning knowledge. It is recognized that attitude scales are much more difficult to apply in interview schedules for illiterates. But this is nevertheless an area of salient neglect by social scientists participating in the family-planning effort. Stephen notes at once both the need and the complexity:

“Clearly people are highly motivated to enhance their own experience and also to have children and enhance their experience. They are moti-

<sup>20</sup> David Yaukey, Beryl J. Roberts and William Griffiths, “Husband’s vs. Wives’ Responses to a Fertility Survey”, forthcoming.

<sup>21</sup> Beryl J. Roberts, William Griffiths, Gilbert M. Shimmel and Elizabeth W. Clark, “A Post Operative Study of Ligatees in Dacca, East Pakistan”, *Journal of the Pakistan Academy for Village Development, Comilla*. Vol. 4, No. 3, January 1964, pp. 93-113. They obtained not only the source of opposition and support anticipated by ligated women in making their decision for sterilization, but also the nature of perceived opposition and support actually having influenced their decision. Only part of the 11 per cent who said they felt any apprehension about the operation cited religious or family disapproval as the source of their apprehension.

vated to spend part of their income on themselves and motivated to spend part of their income on their children. These are inconsistent or competing motives and with other specific and general motives they make up the complexes of motivation involved in family behavior. The phasing-out of these motives and the measurement of relative influence, if this can be accomplished, would go a long way toward explaining the final outcome of family behavior"<sup>22</sup>.

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<sup>22</sup> Frederick F. Stephen, "Possibilities and Pitfalls in the Measurement of Attitudes and Opinions on Family Planning", in Kiser, *op. cit.*, p. 430.