CHAPTER II

RELATED RESEARCH STUDIES A CRITIQUE
IMPORTANCE AND URGENCY OF RESEARCH IN POPULATION EDUCATION

In the present twentieth century, population explosion at world level and particularly in developing as well as under-developed countries, has become a social and national problem. In this way, every country has to face a danger of over population and its effect on the quality of human life alongwith country's development in all walks of life. It leads towards the importance of population education for every human being in practice either in formal or informal way. Educational institutions of any level are only the sources through which future generation can be trained or educated in respect of population control and family welfare. The responsible parenthood can be taught to the future generation only through population education.

Thus, the various changing concepts have become an area of research in population education. Looking to the problems arose due to the increasing population, the research in population education is urgently required at every educational level in our country. Although some researches have been done in population education, but even then some broad areas of research in this field are suggested by UNESCO (1978, p. 69-70) in the following manner:

- Research concerning the population characteristics of a society at national, community and family levels;
- Research concerning characteristics of the potential learning groups in population education programmes;
- Research concerning the potential of different educational settings, structures, approaches and methodologies for population education.
- Research and evaluation concerning the efficiency of strategies in planning and implementing population education programmes.

So now it is the time to see towards the researches done in population education, hence such researches in this respect are reviewed by the
researcher in the following manner:

Population Education as an area of research is now in comparison to other branches of education. It is hence imperative to probe and look into this field. The concept of population education came to light in India only after 1969 when the first National Population Education Seminar was organised. The National Council of Educational Research and Training (NCERT), New Delhi has made tremendous efforts to popularise the concept of population education through its curriculum development programmes, seminars, and workshops. Teacher educators of teachers' training colleges have been inspired towards population education activities. The Education Faculties of universities in India are promoting researches at the Ph.D. and the M.Ed. levels. Presently three universities e.g. Bombay, Delhi and Gujarat have awarded Ph.D. degrees in this field, while at M.Ed. level 13 studies have been done, whereas two at M.Sc. (Home Sc.) and one at M.S. degree in a foreign University have been completed. In this way only 19 studies could be identified in different universities in the area of population education. Thirty (30) studies are conducted by Population Study Centres. In all only 49 studies are made in India upto 1979.

An International organization like UNESCO has come into the picture in 1970 and made special provisions for training of teacher educators at the Asian Institute for Teacher educators at Quezon city in the Phillipines. In the third World countries like China, Japan, Phillipines, Bangla-desh, Pakistan, some research studies in the area of population education have been conducted.

SOME FOREIGN STUDIES:

A good many studies have been done by the researchers in various organisations of family welfare and population education as well as in different universities in India under their project or M.Ed., M.Phil and Ph.D. degree programme. Any research is incomplete, if some researches made in other countries would not be discussed. Looking to this fact, the researcher has also observed some research studies made or completed in other countries in the area of population education. Also in this field the researcher has limited himself only towards the researches done in respect of Knowledge, Attitudes and Beliefs towards population education. Following
are the researches occurred in the area of population education with special reference to knowledge, attitude and belief.

Tae Ryong Kim and Kyoung Sik Cho (1970) made his research study on "Knowledge, attitude and behaviour of middle and high school teachers with regard to population and family planning education." This study was done at National Family Planning Centre, Seoul Republic of Korea.

Following are the findings of the study:

Teachers were not well prepared to teach population, family planning, or related topics. More than half of the teachers apparently had no opportunity to learn about these subjects in their own schooling and more than four-fifths had no chance to learn about the subject of population in special meetings or seminars outside of their own formal education. Furthermore, more than 7 in every 10 teachers believed that they would profit from special seminars on population education.

Three-fourths of the teachers believed that there should be more materials on population in the curriculum. More than four out of five teachers stated that family planning should be included in the curriculum.

The majority view (65 per cent) was that family planning should be handled at an advanced or high school level, while another 18 per cent think it could be begun in middle school or taught at all levels. One quarter of teachers felt that family planning content should include specific family planning methods, but the majority (59 per cent) favoured instruction as to general concepts of family planning only. Also, they felt that family planning should be handled primarily in health, biology, and social studies classes.

More than 8 out of 10 teachers felt that population growth in Korea is too rapid.

A study on "the knowledge and attitudes of Indian College students towards population related problems" was made by Thomas Poffenberger (1970) at Ann Arbor Centre for Population Planning, University of Michigan. The object of this study is to find the opinion of male and female college students towards population related issues. This study has formed the
following conclusions:

-Ninety-six per cent of boys and 100 per cent of girls agreed that the population of India was growing too rapidly.

-Eighty three per cent of boys and 92 per cent of girls agreed that the population problem was serious.

-While the respondents indicated that they favoured a small family norm propagated by the Government of India in the interest of the nation, a few favoured a small family motivated by the welfare of the individual families.

-The average number of children desired by the boys was 2.6 while the average number desired by the girls was 2.2

-The majority of the boys and girls wanted at least one son among the children.

-While most of the girls approved of family planning methods, 19 per cent of the boys disapproved because they believed that the methods were unnatural and dangerous.

A Ph.D. dissertation on "knowledge, attitudes and beliefs about population education of teachers in Thailand; a comparison of secondary school teachers, teachers in training and instructors in teacher training institutions" was written by Chaiwat Punjaphongse (1974) at University of North Carolina at Chapel Hill, Thailand.

Following conclusions are drawn:

Findings:

-Most knew about the ovulation period for women in the reproductive age and the condom for men as contraceptive methods. Among Secondary school teachers and teachers in training, sterilization was the most well-known method of family planning while the condom was the best known by instructors. Jelly or foam was the least known method for these teachers.

-Magazines, newspaper, and friends were the most common sources of family planning, information and the hospital was the most known family planning service centre.
Male teachers had significantly more knowledge about the basic facts of population matters in Thailand than female teachers.

**Attitudes:**

- These three groups of teachers tended to have positive attitudes toward: (a) limiting population growth in Thailand; (b) adopting population education in the schools; (c) participating in population education activities; (d) family planning in Thailand; (e) participating in family planning programme; and (f) teaching related matters of family planning in the schools.

- Female teachers had significantly more positive attitudes towards limiting population growth in Thailand than male teachers.

**Beliefs:**

- These teachers believed that the age at first marriage of a Thai girl should be between 21 and 25 years, and for a Thai boy between 26 and 30 years.

- There was a positive relation between the belief about the ideal number of children and the income level of a Thai family. In general these three groups of teachers believed that a Thai family with an income less than 1,000 Baht should have 1 to 2 children. If the family had an income between 1,000 - 3,000 Baht they should have 1 to 3 children, and if the family had an income higher than 3,000 Baht they should have 3 children or more.

- The majority of teachers in each group felt that the present size of the population in Thailand was optimum but the rate of population growth of the nation was too fast. Most of these teachers believed that increasing the Thai population would lead to serious problems for the nation related to social and economic development.

- Most of these three groups of teachers believed that population education should be introduced into both the school curriculum and adult education with equal weight. The largest proportion of secondary school teachers and instructors believed that it should be provided through educational school curriculum for the various levels of education while the largest proportion of teachers in training believed that it should be provided through mass communication channels such
as newspaper, radio, and television. The level of education at which they believed population education should be started varied from one group of teachers to another ranging from lower elementary level to lower secondary level. If it were taught at primary level and secondary level they believed that population education should be arranged by integrating it into some existing subjects. For the college or university level it should be established as a new subject.

-Chaiwat Panjaphongse (1974) has made a research study on, "Knowledge, attitudes and Beliefs of Secondary School Students about population education and family planning" under Population Education Project in Department of Education, Mahidol University, Bangkok.

Following findings are brought out.

-Most students believe that Thailand faces a serious population problem, but they also favour smaller families for themselves and others, and would encourage both use of family planning and education about family planning in school programmes.

A Population Education project on, "Knowledge, attitudes and beliefs of elementary school teachers about population education" by Chaiwat Panjaphongse (1975) was completed at Department of Education, University of Mahidol, Bangkok.

-A substantial proportion of elementary school teachers had a rather low level of knowledge concerning the rate of natural population increase, the approximate size of Thailand's population and the government policies.

-More than half of the respondents were in favour of family planning and the use of contraceptive methods.

-A large majority (87.8 per cent) felt that the Government should make use of population education to help lower population growth, in addition, 80 per cent said that the Ministry of Education should be involved in the national population programme.

-Population education should be expected to gain wider support in the secondary school.

-Integrating population education into existing curricula rather than
-setting up a new course was seen as the best approach to its introduction.

-The teachers were found to be co-operative with regard to population education activities.

Young Horn Park and others (1975) have worked on a project, "a survey on the secondary school teachers' knowledge and attitudes toward population problems at Education Research Institute, Seoul National University, Seoul.

Findings in this context are as under:

-High School teachers as a whole were highly aware of the importance and seriousness of the population problems. Catholic teachers, especially those teaching natural sciences and arts; rural teachers; and older teachers showed a relatively low level of awareness.

-Secondary school teachers' attitudes toward population problems were positive, particularly with respect to family planning and population control. They were cognizant of the need for population education. There were fewer positive attitudes with Confucian or Catholic teachers; the teachers in natural sciences or arts; and older teachers.

-Sampled teachers generally indicated their dissatisfaction with the inservice training they received and their teaching experiences at school. They knew that their knowledge of population problems, mostly obtained from unreliable sources and in an unsystematic way, was generally inadequate to meet educational needs at school. They also pointed out that the text books used in the present high school are insufficient and inadequate as far as the content of population education is concerned.

A study on "Relationships between specialization and attitudes toward population related issues among professional students in Korea" is made by Lee, Kyung Sik (1975) at Korean Institute for family planning, Seoul.

Following findings are drawn:

-The majority of the students in professional schools of education, nursing and medicine definitely favoured family planning and future
contraceptive use. Students in the health professions were more likely (at a statistically significant level) to be in favour of family planning and use of contraceptives than the students in the teaching profession. The sex of the respondents was found to be a significant source of professional difference in attitudes toward family planning.

- The majority of respondents, regardless of professional background, believed population education was a better approach to 'help solve population problems'. They were also in favour of the school system as the educational channel for sex and family life education.

- The higher proportion of the education group desired three children.

- More female students desired a smaller family (the two child family) while more male students desired three children. The male medical group desired a two child family more than did the male education group. The female groups of health professions appeared in actual proportions although the difference was not statistically significant.

- Students from the large metropolitan cities of more than one million population were found to desire a small family (the two-child family) more often than those from the communities of less than one million population in their high school days.

- Students who approved married women's careers were found to desire smaller families than those who disapproved.

- Health professionals in general had more favourable attitudes toward family planning and population related issues than the teaching professionals. Consequently, the health professionals desired fewer children than the teaching professionals. Since the findings of this study indicated rather consistent differences in attitudes across the three professional groups studied, it would appear very important that a further study be designed which would allow an examination of the casual mechanisms which are affecting these observed differences.

A research project on, "a survey on population consciousness of students and teachers in the elementary and Secondary schools" was completed at Korean Educational Development Institute, Seoul in 1977.
Following findings are drawn in this study:

-The knowledge of social problems caused by population increase was higher among teachers at the higher school level and much higher than that of the students.

-The students were in general, well aware of the population problems but they lacked understanding of their policy dimensions and how they effect economic development.

-Both the students and teachers opted for the nuclear or small sized family, viewing a large sized family as having negative effects on the family members. The idea of 'living apart from offspring as far as the economic situation permits was dominant both in the students and teachers groups.

-The knowledge on the effects of population growth to health problems was higher among students than teachers.

-Students became more decisive about whether to marry or not as they advanced to higher school levels.

-Ninety-four per cent expressed desire to have children and 84.7 per cent of these respondents opted for a smaller number of children irrespective of their sex.

Orrawin Trocki (1977) has worked on a research project on "attitudes toward family planning and population education among teachers and students" under South-East Asia Population Research Awards Programme, Singapore.

The findings drawn from this study are given as under:

The Ideal Family:

- The Teachers College (TC) teachers thought that Thai women should get married at 25-29 years old, the TC students at 20-24 years and adult students agreed with the TC students.

- The TC teachers and students preferred 25-29 years old as the ideal age of marriage for men. Equal proportions of adult students preferred the 20-24 and the 25-29 age-groups.
-The majority of the respondents in each group preferred the nuclear family to the extended family.

-The majority of all respondents preferred a small family of 4-6 members. Most of the TC teachers and TC students (8 out of 10) chose 2-3 as their ideal number of children while a smaller majority of the FLA adults (6 out of 10) also chose.

-Attitudes toward Population and Family Planning. Most respondents agreed that Thailand needs family planning. They did not agree that the government should limit the number of children per family and were not ready for the legalization of unconditional abortion. A few were opposed to family planning on religious grounds.

-Attitudes toward Population Education - The respondents preferred the inclusion of population education at the secondary college and out-of-school levels, but not at the elementary level. Population education should be taught in the Teachers Colleges by integrating with various subjects rather than as a separate, required course. The majority agreed that both family planning and birth control methods for adults should be advertised through the mass media. The adult students preferred the inclusion of birth control methods in the curriculum of the Functional Literacy Programme and the secondary school level, but not at the elementary.

-KAP Survey of Adult Students. - After a lesson on family planning, it was evident that the adult students had increased their knowledge of birth control methods. One-fifth of the adult students still thought family planning was against their religion. Nine out of 10 adult students showed an intention of using birth control methods. Four-fifths of the adult students preferred that the wives use the birth control methods rather than the husbands.

-About one-third of the married adult students have used some kind of birth control method. In the post-test interview this proportion had increased to some extent.

A population research project on, "Assessment of Secondary School teachers' and students' knowledge of and attitudes toward population education" was organised by Population Centre for Training and research, West
Visayas State College, Iloilo (Philippines) in 1978.

Following conclusions are drawn from the data analysis:

- Secondary school teachers and students in all types of schools had adequate knowledge of population concepts, facts on topics.

- Both groups had adequate knowledge in the four areas of population education. The teachers had a higher level of knowledge than students in all the four areas and were very adequate in the area of 'Planning for the Future'. Both groups obtained their lowest mean scores in demography.

- Secondary school teachers and students had generally agreeable indifferent (ambivalent) attitude toward population education.

- Although there was no strong reaction noted in the respondents' attitude against population education, discrepancies or inconsistencies were noted in the attitude expressed by the two major groups of respondents in the same schools and among the different types of schools to some of the items in the checklist.

- There was strong agreement among all respondents to the inclusion of population education in the curriculum to provide them with opportunities to help solve population problems.

- The findings indicate that the development and internalization of the following basic population concepts, facts or topics is inadequate:
  (a) importance of population education especially in the secondary schools; (b) The relationship of population education and religion; (c) Population growth rate and how it is determined; (d) Consequences of rapid growth; (e) Value of children; (f) Decision making regarding family size; (g) Family planning methods; (h) Myths and fallacies in controlling family size; (i) Agencies that provide information on family planning; (j) Rationale behind teaching human sexuality and reproduction early in life; (k) Government policies and programmes on population education; (l) "Push and pull" factors on migration; (m) Demographic processes that affect RPG; (n) Socio-cultural barriers to population control; (o) Demographic transition; and (p) Communications approaches in family planning.
Under Population Education programme a study was made on "Knowledge and attitudes towards population education and practice of family planning of teachers" at Dhaka in 1979 by the Education division of Ministry of Education and Religious Affairs of Bangladesh.

Following findings are drawn from the study:

-The mean scores of the three groups indicate that the knowledge base of primary school, secondary school and college teachers in the area of population problems and population education is generally low, specifically in demography, health and nutrition, environment, education, food and agriculture, socio-economy and population education.

-All three groups of teachers have favourable attitudes towards population issues and population education, with the college teachers having a slightly more favourable attitude than the other two.

-The attitude of each level of teachers has some conformity with their family size. The college teachers who have the smallest family size have a more favourable attitude towards population issues.

-Teachers at all levels are conscious about the severe consequences of rapid population growth in Bangladesh.

-While the three groups of teachers generally agreed with family planning the secondary teachers were the last enthusiastic.

-An overwhelming majority of the teachers agreed that population education should be included in the formal education system with college teachers taking the highest position followed by the primary and secondary school teachers respectively.

At University of the Assumptions, Phillippines, a study on "Knowledge and attitude towards population education possessed by seniors and teachers in selected Secondary schools in Pampanga" in 1979.

The findings of the study are:

-The total student respondents seemed to have an adequate knowledge of population education. However controlling for the variable of sex, a significant difference was obtained in favour of the female senior respondents.
- The total teacher respondents had adequate knowledge of population education.

- Both student and teacher respondents generally possessed positive attitudes towards population education.

- The results of the study confirmed adequacy of knowledge towards population education possessed by the seniors and teachers of selected secondary schools in Pampanga. The variables of sex seemed to affect the knowledge possessed by the senior respondents. The respondents had a generally positive attitude towards population education.

Another study on "Knowledge and attitude towards population problems, issues and population education of different level of students" was done at Dhaka in 1980 under Population Education Programme of Ministry of Education and Religious Affairs (Education Division), Bangladesh.

Following findings are drawn from the study:

- Students of higher classes had a higher knowledge base than those of the lower classes.

- Within each class or group, there is still a substantial number of students whose levels of awareness should be raised substantially through an introduction of population education courses in the school.

- There is a fairly favourable attitude of the students towards population education. However, the nature of the distribution of the test scores for each class or group indicated intra-class or intergroup variations, demonstrating the fact that in each group there were large numbers of students with less favourable attitude than that is represented by the mean score for the class.

- The class or the group with a higher knowledge base tends to be more favourable towards the subject than that with a lower knowledge base.

  However, in class six, although the male students had higher knowledge base than the female students, their attitude was very slightly less favourable than that of the female students.

- In the higher level of education (classes XI to XIV) the male students have higher knowledge base than the female students. But in each
- The courses about family life and family planning including sex education in the colleges of education of universities should be specially enriched and broadly extended. At least two credits of these courses should be required in the general education or other areas of study in the curriculum of all education students.

**SOME INDIAN STUDIES**

In India from 1970 to 1979, 21 studies are made in the area of population education relating to the topic "Knowledge and attitude". Out of these 21 studies 11 are made by Indian Universities on "Knowledge and attitude". Most of these studies have covered the urban samples and very few have included rural samples. There are also some studies which have covered both rural and urban sample. In knowledge and attitude studies, 10 studies have used questionnaire as a tool for research, two studies have applied interview schedule and six studies have used both questionnaire and interview as research tools under normative survey method. In three attitudinal studies, where (Likert scale) attitude scale using five points rating viz. strongly agree, agree, not sure, disagree and strongly disagree have been used. Most of the exploratory studies have been analysed by finding-out the percentages. In very few studies sophisticated statistical analysis techniques have been used to obtain scientific and objective conclusions. Some research trends have been observed in the researches in population education, conducted during the past ten years. The research trends were as under:

- Population Education research is still in its infancy.

- Researches on population education started in India in 1970's.

- More and more universities are encouraging students to take up population education topics for the Masters' degree dissertations

- Maximum number of studies were conducted around 1974.

- A number of studies conducted in the first five years of the decade have been more than the later five years of the decade.

- Research and publications in population education have progressively decreased after 1974.
- Most of the studies were conducted on urban samples.

- Most of the studies have used small "purposive" samples

- Most of the studies do not describe the sampling procedure followed.

- Most of the studies have used survey methodology and very few experimental studies have been undertaken.

- Most of the studies have taken into consideration the variables such as age, religion and sex and a few studies have considered variables such as socio-economic status, education and occupation status.

- In most of the studies, the data has been presented in simple percentage and no effort has been made to subject the data to any rigorous statistical analysis.

- There are only two studies at the national level both conducted by the NCERT.

- There are no studies related to the teaching-learning process involved in population education nor on the training needs of personnel in the field of population education.

Madhubeal (1966) studied the attitude of female teachers towards the Family Planning.

Findings of the study were as follows:

- Fourteen percent lady teachers had informations regarding the means of Family planning, while 70% were of no information in this respect. Husbands of 24% lady teachers had information of Family Planning means.

- Family Planning was considered against the religion by 15% lady teachers while 20% consider it as an immoral action.

S.K. Sandhu and K.S. Bharadwaj (1968) made a study on the "Attitudes of unmarried Employees Towards Family Planning". This study was made at Central Family Planning Institute, New Delhi.

Some major findings of the study are:

- Seventy eight per cent respondents were aware of such services,
contraceptive distribution and educational programmes like lectures on family planning, movies and family planning meetings in their office, while 43.5% had not participated in any of the activities.

-49% of the respondents wished to have two sons and one daughter and 34.2% expressed their desire for one son and one daughter while 58% respondents favoured only a son.

A study on "reactions of high school teachers to population education as an integral part of the curriculum" was made by Balasubramaniam (1970).

Some findings of the study are:

- A very high awareness of the population problem in India was found amongst teachers. The teachers replied that unemployment, low standard of living and food shortage were due to over population.

- Most of the teachers were not aware of the efforts being made to introduce population education in the school curricula. They did not know about the national seminar on population education held at Bombay in August 1969.

- Most of the teachers were of the opinion that population education should be introduced in the school curricula. The suggested contents are:

(a) relationship between economic growth and population;

(b) ways and means of finding solutions to the population problem; and

(c) demographic trends of population growth.

However 30 per cent of the teachers who did not approve of the inclusion of population education in the school curricula were of the opinion that immaturity of students at school level would act as a barrier to teaching the subjects.

- Whereas only 23 per cent of the teachers were of the opinion that population education should be taught as a separate subject, 49 per cent felt that it should be integrated with other subjects.

P.V. Varghese (1970) worked on "a study of the attitude of teachers towards different aspects of population problems" for his M.Ed. degree.
He has formulated an objective to find out the attitude of teachers on different aspects of population problems.

Some findings of the study are:

- The male and female teachers differed in their attitude towards population education.

- The marital status of teachers had no bearing on the attitude towards population education.

- Teachers belonging to different religious groups had the same attitude towards population education.

- Whereas the religion of teachers was significantly related to their attitude to family planning and sex education, it was not related to their attitude towards population education.

Poelman and Rao (1970) studied the opinion of children, teachers and guardians regarding birth planning. This study was made in Delhi and area 70 miles around Delhi.

The study has drawn the following findings.

- It is found that as the children's age increase, they favour small family norm. Similarly with the increase of age, marriageable age also use to increase.

- The rural girl pupils wish to marry at the mean age of 20.8 years while the mean age of urban girl students was 23.1 years.

- The mean age 25.6 years is preferred for marriage by rural male students while urban male pupils prefer mean age 26.2 years for marriage.

- The mothers of rural girl pupils are in favour of 18.4 years a mean age for the marriage of their daughters while mothers of urban girl students prefer mean age 21.0 years for the marriage of their daughters.

- Both rural as well as urban female teachers consider the mean age 25.5 years and 26 years as a suitable age of marriage for boys and mean age 20.5 years and 21.4 years for girls.
The suitable marriage age was considered by both the urban and rural male teachers for boys is mean age 24.4 and 26.6 years. While the mean age 18.6 and 19.4 years are considered a suitable marriage age for girls.

98 per cent teachers accept over population as a problem in India. 95 per cent male and 75 per cent females consider it as a serious problem.

To provide education relating to population and family planning in schools, 84 per cent teachers have strongly recommended while 10 per cent have merely accepted the fact.

Thomas Poffenberger (1971) studied on "Population learning among Secondary School students in an Indian village".

Following findings are drawn in the study:

- The village secondary school students were aware of the population problem.

- They gained this knowledge through the mass media, particularly newspapers and extension education efforts of the family planning programme such as film shows, exhibitions and the visits of family planning workers to homes.

- The students voted in favour of a small family and this was mainly prompted by the difficulty experienced by their parents in rearing a large family.

A study on "the receptiveness of school teachers to population education" was made by J.R. Maheshwari (1972) for his M.Ed. degree.

Findings are as under:

- The teachers had very high awareness of the population problem faced by the country and the world.

- About 92 per cent said that unemployment and poor standards of living were mainly due to over-population.

- Eighty per cent agreed that a small family is advantageous; 40 per cent
of them said that it enables the people to have higher standard of living; 24 per cent said that it leads to a happy, comfortable life.

- The majority preferred two sons and only one daughter.

- The majority of teachers did not believe in the effectiveness of population education at school level. They felt that adults should be educated in the philosophy and practice of family planning.

- About 70 per cent did not know of the efforts being made to introduce population education in schools.

- A majority of teachers favoured the idea of integrating population education concepts with existing school subjects. They felt that most of the concepts could be integrated through social studies, sciences, languages and mathematics.

H.S. Akhtar, M.Q. Sueha, Anjalik Kumar and Islam Faizul (1972) worked on "attitude and practice of graduate school teachers towards family planning".

The study has following findings:

- 10 per cent of male and 9.5 per cent female teachers reported reading family planning literature regularly, 78 per cent male and 71 per cent female respondents read them either occasionally or rarely.

- 30 per cent of the unmarried males and 35 per cent of the unmarried females could mention some methods of contraception in contrast with 8.12 per cent of the married males and 90 per cent of the married females.

- Both regarding knowledge and use, condom ranked first among the male respondents.

- 71 per cent male respondents had 1 to 3 children, 59 per cent of the total sample favoured having three children.

"A study of the knowledge and attitude of teachers towards the introduction of population education in school curricula" was conducted by N.N. Srivastava (1973) for his M.Ed. degree.
Following findings were drawn from the study:

- The majority of the teachers were aware of the population problem.
- The consequences of over-population in their opinion were unemployment, under employment and low standard of living;
- The majority felt that if the growth of population is not checked, the economic development of the country will be hampered.
- Most suggested that the best way of checking over-population is by educating the younger generation.
- Most were of the opinion that population education should form a part of school education, only at the university stage and that it should be integrated with existing school subjects especially through the social studies course.

A.P. Katti and R.K. Koteswar (1973) made a study jointly on "Family Planning among high school teachers". This study was made at Demographic Research Centre, Dharwar, Karnataka.

The findings of the study are:

- Condom was the popularly known methods (92 per cent), followed by Vasectomy (70 per cent) and Tubectomy (68 per cent).
- About 36 per cent teachers were practicing birth control of whom 32 per cent had accepted sterilization, condom and safe period were other methods used.

A study on "the opinion of teachers towards population education" at Population Study Centre, Sri Venkateswara University, was made by S.L. Nagda & others (1974).

Research findings are as under:

- More than 65 per cent consider population education and family planning as identical.

- Ninety per cent realised that our country cannot meet the growing needs of its people if the population continues to grow at the present rate.
- Ninety per cent felt that a small size family would lead to happy and comfortable life and most agreed that population education is necessary to assist youth initiate responsible parenthood.

- Most agreed that the size of the family can be planned by a human being;

- Fifty per cent considered late marriage as one of the methods of controlling the size of the family.

- Eighty per cent thought that over-population leads to socio-economic instability in the country.

- Forty per cent favoured seminars for imparting population education at the collegiate level. 26 per cent favoured lectures and 80 per cent favoured the integration of population education with collegiate curriculum.

Ganesh Lal Mehta (1974) in his M.Ed. dissertation of Utkal University titled, "A study of the opinion of parents and teachers towards the introduction of population education in high schools of Bhubneshwar".

The findings of this study are:

- The teachers and parents were of the opinion that population education will help create the right attitude towards small family size. Parents from the high income group were more favourably inclined towards this view than middle income parents. Parents of the low income group were strongly opposed to this opinion.

- While parents were optimistic that the concept of a small family is not only desirable but also achievable through population education, the teachers in general did not agree with this opinion.

A study on "Population awareness among School students in Goa (Standard VII to XI) as well as teachers and parents and their reactions to the inclusion of population education in the School curriculum" was made by Kalyan A. Salkar (1974) for his Ph.D. degree of Bombay University. The objectives of this study are:
-to assess the degree of population awareness among Goan school children, their teachers and parents.

Following findings are drawn in the study:

- A great majority of students were aware of the population problem of the country.

- They were willing to learn more about population.

- Nearly 50 per cent of them desired to learn it as incorporated with other subjects of the school curriculum.

- Teachers were sufficiently aware of the population problem of the country as a whole.

- They were in favour of introducing population education in the school curriculum.

- They desired the integration of population education with major subjects of the school curricula.

- They wanted population education to be taught by teachers themselves but with some training.

- Parents felt that population education should be introduced in schools.

- They thought it should be taught by teachers themselves rather than by outside experts. Some teachers of the school should be given specialized training so that they may teach the contents of population education effectively.

Vithalbhai Patel (1974) for his M.Ed. degree of Gujarat University worked on "A study of population awareness of pupils of standard X at Varnama high school.

The findings of the study are:

- Students in general were aware of the population problem faced by the country.

- Most were not aware of the importance of the family planning programme.
- A good number considered late marriage as an advantage.
- The students had no independent decision regarding the age at marriage and selection of mate.
- They had favourable attitude towards education in general.
- Girl students were more knowledgeable about family planning than boys.

A study on "knowledge and attitude of teachers of Kurnool towards population education" at population study centre, S.V. University, Tirupati, was made by Ramchandran (1974).

These are the findings of the said study:
- At the beginning of the course 40 per cent of the participants were not aware of the meaning of population education. At the end of the course most of them had better concept of population education.
- In the pre-test, 40 per cent considered the population awareness programme as part of family planning propaganda. In the final test about 80 per cent considered that population awareness is also a part of population education.
- Before the course, about 60 per cent considered that family planning and population education were one and the same. But after the course, most considered that family planning and population education were not one and the same.
- In the pre-test, 20 per cent of the participants disagreed that the size of the family cannot be controlled for human beings. In the post-test most of them thought that the size of the family can be controlled.
- In the pre-test, 50 per cent considered that there was no proper environment in schools and colleges for creating population awareness among students. In the post-test, more than 70 per cent considered that it was possible to create awareness of population problem in the students by a programme of lecture by experts and by organizing film shows and exhibition.
- About 65 per cent of the participants considered late marriage as one of the methods for controlling the family size.

- The majority, both in the pre-test and post-test, agreed that over-population leads to economic and social instability in the country.

- The majority of the participants, both in the pre-test and post-test, agreed that it was necessary for the country to check its population growth and to impart knowledge on human reproduction and nutrition to the masses.

- The majority considered that a small family was conducive to higher standard of living and that population education was necessary for developing responsible parenthood among the youth.

A M.Ed. thesis of Bangalore University by G. Prabhakar (1975) was written on "a study of the opinion of students of a few Secondary Schools of Bangalore city towards introduction of population education at the secondary school level.

The study has following findings:

- The students, both boys and girls were of the opinion that the introduction of population education at the secondary school level was absolutely necessary.

- The students of each age-group, expressed favourable opinions towards the introduction of population education in schools.

- Students from all religious backgrounds favoured the introduction of population education at the secondary school level.

S.L. Nagda and others (1975) made their study on "A survey of the perception of the students of the women's college towards population education. This study was conducted at population study centre, S.V. University. The study contains the following objectives: To find out the perception of the students of Women Colleges towards the introduction of population education. 200 girl students of Women's College, Nellore in Andhra Pradesh were selected as a sample out of which 80 per cent from Urban families and 20 per cent from rural areas."
Following findings were drawn from the study:

- More than 65 per cent considered population education and family planning as identical.

- Ninety per cent realized that our country cannot meet the growing needs of its people if the population continues to grow at the present rate.

- Ninety per cent felt that a small size family would lead to happy and comfortable life and most agreed that population education is necessary to assist youth initiate responsible parenthood.

- Fifty per cent considered late marriage as one of the methods of controlling the size of the family.

- Eighty per cent thought that over-population leads to socio-economic instability in the country.

- Forty per cent favoured seminars for imparting population education at the collegiate level, 26 per cent favoured lectures and 80 per cent favoured the integration of population education with collegiate curriculum.

A study was made on "the awareness of teachers on population problems and their reaction to the introduction of population education in schools" by Gopal D. Rao (1976) in NCERT, New Delhi. The objectives of the study are:

- To find out the perception of awareness of teachers towards population problem.

- To find out their reaction to the introduction of population education in schools.

- To find out their opinion about the content and methodology of introducing population education.

The findings drawn from the study were:

- They favoured the introduction of population education in schools.

- Most of the teachers felt that it should be taught as an integral part of the school curriculum.
They recommended that it should be made compulsory in schools and an examination subject.

Keshav Singh (1976) worked for his M.Ed. degree of Banaras Hindu University, on "a comparative study of Attitudes of prospectives and practicing Teachers towards Family Planning".

Following findings are drawn from the study:

-Prospective female teachers have a more favourable attitude than practising female teachers towards family planning.

-Both the sexes of prospective and practising teachers on the whole have almost the same attitude towards family planning.

-Practising married female have more favourable attitude than practising unmarried female teachers.

-Prospective married male and female teachers are more favourably inclined towards family planning than the unmarried male and female prospective teachers.

A study on "School Teachers' attitude towards population education" by N.V. Vaswani and Indira Kapoor (1977) was done at Family Welfare Training and Research Centre, Bombay.

Following findings were drawn from the study:

-While 54.2 per cent teachers had heard about population education, only about 34 per cent could define it correctly.

-When the meaning and scope of population education was made clear about 75 per cent felt that it should be introduced as a subject in the school curriculum.

-Those not in favour of its introduction felt that the subject was difficult for the teachers to teach and for pupils to understand.

-While 47.2 per cent felt that population education should be integrated with other school subjects, 8.7 per cent thought that it should be taught as a separate subject and 13.9 per cent did not express their opinion.
Nearly 49 per cent were of the opinion that it should be taught earlier than standard VIII and only 26.6 per cent felt that it should be introduced at the college level.

Nearly 44 per cent preferred not to teach this subject as they were not qualified to do so.

Manohar D. Deshmukh (1979) for his M.Ed. degree had worked on "A study of pre-university students' awareness of population problem from selected colleges of Bangalore".

Findings of the study are as under:

- The general awareness of students towards population problem was found to be moderate i.e. 55 per cent were aware of population problem.

- Boys were found to be much more aware of the population problem than girls.

- Family background and religion were not related to students' awareness of population problem.

- The students' involvement in the social service activities, in the reading of newspaper or going to movies had no effect on their population awareness. On the other hand reading general books and listening to radio talks had a significant bearing on the level of population awareness.

A study on "Awareness of population situation and attitudes towards population education of Kendriya Vidyalaya Teachers in Andhra Pradesh" was made by R. Kalavathi (1983) for her M.Ed. degree.

The findings of the study are:

- Religion has not influenced the awareness of teachers. The awareness of Muslim teachers is more than Hindus, but the difference is not statistically significant.

- All the teachers have positive attitude towards small family norm. Religion has not influenced the attitude of teachers.
Female teachers have outnumbered male teachers in adopting terminal methods of family planning techniques.

Female teachers have revealed slightly higher positive attitude against male teachers but the difference is not statistically significant.

Post-graduate teachers have shown slightly higher awareness than trained graduate teachers but the difference is not statistically significant.

Educational qualifications has not influenced the attitude of teachers.

Age-level has not influenced the awareness of teachers, but influenced their attitudes. The attitudes scores in the age-group of 30-40 are significantly high.

Majority of the teachers have two children each, only 6 teachers have four children.

Bhopal Singh (1983) studied "the attitude of teachers towards population education" for his Ph.D. degree of Garhwal University, Srinagar.

The following findings were drawn:

1. 14% teachers consider population education harmful while 78 per cent do not believe in such negative aspect.

2. 85 per cent teachers consider family planning as the work of public welfare.

The following conclusions are drawn in respect of population education:

(a) Teachers included in sample are of positive attitude.

(b) Only 3.35 per cent teachers have negative attitude towards population education.

So logically it is proved that maximum teachers have positive attitude towards population education.

Male teachers have more positive attitude towards population education than female teachers. On the basis of Standard deviation, it is proved
that female teachers' attitude scores are more than male teachers.

So it is proved that the difference between the median of male and female teachers is natural. This difference is not due to lesser or maximum positive or negative attitude among any particular class.

The following conclusions regarding teachers' opinion on different aspects of population education are drawn:

- The median marriage age among female and male teachers is 20.17 and 20.56 years respectively.

- The rural teachers' marriages are held more early than urban teachers.

- On the basis of percentage it can be said that 10 per cent teachers are married at the age of 15.6 years, 25% teachers in 17.47 years, 50 per cent at the age of 20.58 years, 75% teachers in 23.62 years and 90% teachers at the age of 25.44 years.

- Regarding the students' marriage age, teachers have given their opinion of which median age is 23.88 years. 50 per cent teachers believe that students' marriage should be held at the age of 23.61 years which is a proper age for marriage. While female teachers wish that students' marriage should be held some what late. For this they have proposed an ideal marriage age 24.87 years while 23.68 years is the ideage age for marriage suggested by male teachers. Rural teachers believe in early marriages of students while urban teachers do not. They have proposed the median age for marriage 23.45 and 24.57 years. There is no significant difference regarding the ideal marriageable age for girls on the basis of religion, educational experience, qualification, age and teaching experience. Science teachers favour early marriage. Teachers who believe in two issues as an ideal are in favour of late marriage.

- The median of Ideal marriage age 18.79 years is considered by all teachers. 75 per cent teachers consider 21.02 years as a proper marriageable age while 50 per cent teachers believe in 23.85 years. Females, rural teachers, social science teachers and Ideal family believe in three issues favour early marriage of girls. While Male


The following findings are drawn in the study:

- The ideal age for marriage in case of boys and girls is 22 and 18. Both boys and girls had agreed with the statement.

- There is a significant difference between Hindus and Muslims on the attitude of the family size and composition. The Muslim respondents have agreed to the statement, whereas the Hindu respondents disagreed. There is no significant difference between Hindus and Christians. Similarly there is no significant difference between Muslim respondents and Christian respondents.

A study at M.Ed. level on "a comparative study of teachers' and students' knowledge, belief and attitude towards Population education" was made by Bharti Pamnani (1984).

The findings of the study are:

- There is no significant difference in the opinion of teachers and students regarding population education.

- Maximum teachers & students believe that from 21 to 25 years should be proper marriageable age for girls and for boys it should be from 26 to 30 years.

- Maximum male & female teacher as students prefer one or two children in a family.

- Both teachers & students are agreed with this fact that presently India has much population, so the growth rate of population ought to have been reduced.

- Maximum teachers and students have expressed their opinion in favour of small family and happy family.
- Both students and teachers agree that presently the living standard of people in India is not satisfactory.

- Teachers and students both have sufficient knowledge of family planning.

- 39 male teachers and 20 female teachers have opinion that population education ought to have been started at Adult education stage as well as at School stage, while the remaining male and female teachers have expressed their opinion that population education should be started at different levels of school curriculum.

- 40 male and 20 female teachers are in favour that population should be taught right from primary level to university level, while the remaining teachers and students expressed that it should be taught only at Collegiate level.

- 57 male and 33 female teachers are well acquainted with the population education subject.

- Male and female teachers have agreed with this fact that if they will be given responsibility to teach population education, they will readily bear the task.


  Following conclusions are drawn:

  - All students are in opinion that there should be two or three children in a family.

  - Population problem is a severe problem of the world.

  - The means of family planning and their uses are not the interruption in the natural process, almost all the students agree with the fact.

  A study of attitude towards population policy and related issues of different professional groups was done by Rani Misra (1987) a M.Phil. Scholar of Sagar University. The study contains the objectives at three
levels - (i) Policy level; (ii) Implementation level; and (iii) Instructional level.

Following findings are drawn:

- Teachers, students and the different professional groups in general are aware of the population problem.

- Teachers have a positive and favourable attitude towards population problem and are in favour of modernity.

- These three groups of teachers (Primary, middle and University) tended to have positive attitudes towards (a) limiting population growth; (b) adopting family planning techniques. The University teachers have highest mean score on family planning out of all seven professional groups. There was a positive relation between the belief about the size of family and the income level of family.

- The majority of advocates felt that the rate of population growth of the nation was too fast. It is the serious problems for the nation related to social and economic development.

- A large majority of engineers are in favour of family planning and the use of contraceptive methods.

R. Subba Rao (1988) worked for her Ph.D. on "the attitude of Parents and Teachers from Rural and Urban Areas towards Population Education".

Following conclusions are drawn:

- The teachers and parents differ in their attitudes towards population education.

- Male and female teachers do not differ in their attitude towards population education. But male and female parents differ in their attitude towards the issue.

- Age difference of teachers of both the sexes have no influence on attitude towards population education.

- Difference in education of teachers and parents have no impact on the
attitude towards population education.

-Difference between income of teachers and parents has no effect on the attitude towards population education.

-Family size has no impact on the attitude towards population education of teachers as well as parents.

Thus, the researcher has gone through the above cited Foreign and Indian studies in the area of population education in respect of knowledge, attitudes and beliefs.