

# KNOWLEDGE AND ATTITUDES OF PRE-UNIVERSITY STUDENTS TO FAMILY PLANNING

By Nalla Tan

## SYNOPSIS

This study covering 1191 Pre-University II students of both sexes from 5 urban schools in Singapore, was carried out to assess knowledge and attitudes that these students who form a sizeable fraction of the next cohort of parents, have towards Family Planning. In terms of knowledge, out of 10 common methods of Family Planning, the two most commonly known methods were the contraceptive pill (77.3%), and sterilisation (55.1%). Surprisingly enough, females on the whole had less knowledge than males had on contraceptive methods, and this included methods like the pill, abortion and the I.U.C.D., areas in which one would expect more females than males to have knowledge. 71% of the sample did not know enough about Family Planning to practise it, twice as many males as females having enough knowledge to practise Family Planning. The Family Planning and Population Board was, with reason, the place where most students, 59%, would go for further information, and 46% would go to their doctors and clinics. What must be noted is that only 11.6% would approach their teachers and friends and yet a smaller proportion, 10.2%, would go to their parents. With respect to attitudes, 96.6% felt Family Planning was necessary for Singapore, but only 78.5% said they would practise it, this bringing out a fairly big differential between stated attitudes and actual involvement. What probably reflects a major change in male attitudes, is that 94% of the sample felt that both males and females should be involved in Family Planning. So also must the average family size of 2.3 in this sample be noted, as this is a big improvement on the figure of 3.6 obtained in a recent F.P.P.B. study. However, more than 40% of the sample wanted 3 or more children. Only 94 students in the sample (7.9%) had objections to Family Planning. The Catholics with 19% had the highest response to objections, the Muslims next with 9.3%, while the Protestants gave the lowest rate of 5.1%. A general discussion on these findings is made and this is followed by 4 recommendations.

## INTRODUCTION

The island Republic of Singapore is 584 sq. kilometres with a population density of 3,675 persons per sq. km., making it one of the most densely populated countries in the world. It is a rapidly urbanizing state, and its size makes it imperative that rapid population growth is arrested, as rapid increase in population has and will produce socio-economic and psychosocial problems that the Republic cannot afford to have. As such, population control is a national priority; and to this end, a Family Planning and Population Board was created by the Government in 1966. The Board is now in the fourth year of its second five-year plan, and while it has produced research related to the success of the campaign, types of contraceptives used,

etc., these studies in the main have been devoted to married adults. One aspect of Family Planning which has not been touched upon hitherto, is the attitudes of young men and women in their late teens and who will constitute new cohorts of parents within the next few years, namely Pre-University students. Much of the success of a programme of this sort depends on knowledge and attitudes that people have, for knowledge and attitudes affect behaviour. To plan ahead, it is necessary to understand what potential parents know, feel and think so that planning can be geared in terms of this knowledge, thus allowing deficiencies to be remedied, and other positive findings to be strengthened. In terms of Family Planning, Pre-University II students form an important segment of population and this study has been directed to them.

## OBJECTIVE

The objective of this study is to determine the knowledge and attitudes of Pre-University II students from selected schools in Singapore

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to family planning. Within the ambit of this objective, the following were included:

- (a) To ascertain the influence that the present Family Planning Campaign has had on this group of children who have been exposed to it for several years.
- (b) To ascertain what the main sources of Family Planning information are in respect of these students.
- (c) To find out if there were differences in knowledge and attitudes related to sex, religion and ethnic group.
- (d) To find out if there were factors that prevented these students in the acceptance of the principle of Family Planning.

## METHODOLOGY

The study covered 1191 Pre-University students of both sexes from five urban English stream schools in the Republic of Singapore.

The Questionnaire method was used. Only 12 questions were asked. This Survey was carried out in February 1974.

A team of eight supervisors were briefed and given a set of guidelines to follow. Possible problems and how to meet them were spelt out, and clear instructions in chronological order were given. All invigilators entered the classes at the same time, distributed and explained the questionnaire and its purpose to them. Definitions were also laid down, and students were

instructed to answer the questionnaire as candidly as they could. Anonymity was assured, and the students were allowed 20 minutes to answer the questionnaire. No major difficulties were encountered. Staff and students of the five schools cooperated, and all the schools were covered in one morning, starting at 7.30 a.m. and ending at 1.10 p.m.

A total of 34 Pre-University II classes answered the questionnaire. Students were of both sexes. The classes included both Science and Arts and the maximum number of classes in any single school was eight. Most of the schools were mixed, there was only one school that was entirely female, this accounting for the preponderance of females in the study. Age was not specified in the questionnaire as most students in Pre-University II would be between 17+ to 18+ years of age. The returned questionnaires were hand sorted.

## CHARACTERISTICS OF THE SAMPLE

There were 449 males, 724 females, and 18 were of unknown sex, giving a total of 1191 students.

The distribution of students by ethnic group and sex is given in Table I below.

Table I shows that the majority of students is Chinese (86.1%) while 2.6% were Malay, 6.7% Indian, 4.4% Others and 0.1 unknown, and that there was a preponderance of females (724 of 1191 = 60.8%).

TABLE I

### DISTRIBUTION OF STUDENTS BY ETHNIC GROUP AND SEX

Sex	ETHNIC GROUP					TOTAL
	Chinese	Malay	Indian	Others	Unknown	
Male	387	13	29	18	2	449
Female	622	18	49	34	1	724
Unknown	16	—	2	—	—	18
TOTAL	1025	31	80	52	3	1191
%	86.2	2.6	6.7	4.4	0.1	100

The distribution of the students by religion is given in Table II below.

TABLE II  
DISTRIBUTION OF STUDENTS BY  
RELIGION

Religion	Number of Students	% of TOTAL (1191)
Protestant	351	29.5
Catholic	121	10.2
Muslim	43	3.6
Buddhist	209	17.5
Hindu	43	3.6
Others	424	35.6
<b>TOTAL</b>	<b>1191</b>	<b>100.0</b>

"Others" refers to any religion outside the five mentioned religions, and includes ancestral worship, atheism, Taoism, etc.

*N.B.* While there were 31 Malays in the sample, there were 43 Muslims, this number including 12 Indian Muslims.

TABLE III  
DISTRIBUTION OF STUDENTS BY  
"FAMILY" SIZE

Family + Size	Number of Students	%
1	35	2.9
2	132	11.1
3	182	15.3
4	225	18.9
5	612	51.4
or more		
Unknown	5	0.4
<b>TOTAL</b>	<b>1191</b>	<b>100.0</b>

+ Family was defined as the total number of children in the family. Fathers, mothers and relations were excluded as it was felt this could pose problems for the students. Thus size related only to the student and his siblings.

It can be seen that slightly more than half the students belonged to families where there were five or more siblings.

Only 11% of the students had one sibling, this indicating that the two child norm is still far from being a reality, with 86% of the sample coming from homes with three or more children.

## ANALYSIS OF FINDINGS

### Knowledge of Family Planning

Knowledge was assessed in the following areas:

- Awareness of Family Planning
- Methods of Family Planning
- Sufficiency of Knowledge about Family Planning to Practise It
- Sources of Further Information on Family Planning.

#### *Awareness of Family Planning*

1188 students or 99.8% of the sample had heard of Family Planning at some time or other before the day on which they answered the questionnaire. This result must be recognised as a superficial indicator of knowledge on Family Planning.

#### *Methods of Family Planning*

Knowing methods of Family Planning is a much better index of knowledge than only having heard of it. Table IV below shows the numbers and percentages of students who have knowledge of different contraceptive methods.

TABLE IV  
KNOWLEDGE OF METHODS OF  
CONTRACEPTION

Method	Numbers	% of Total
Contraceptive Pills	921	77.3
Sterilisation	656	55.1
Condoms	292	24.5
Rhythm	164	13.8
Abortion	163	13.7
I.U.C.D.	82	6.9
Spermicides	45	3.8
Diaphragm	35	2.9
Coitus Interruptus	31	2.6
Injection	27	2.2
Ring	1	0.1
Don't Know	126	10.6
No Answer	66	5.5

10.6% of the students did not know of any kind of contraceptive method, and yet another 5.5% gave no answer. It could be that this 5.5% did not understand the question. It could also be that they did not know, and if so, this would raise the percentage of "Don't Know" to 16.1%—which is a sizeable proportion of

TABLE V  
KNOWLEDGE OF CONTRACEPTIVE METHODS BY SEXES\*

Method	MALE (Total 449)		FEMALE (Total 724)	
	No.	%	No.	%
Contraceptive Pills	356	79.29	561	77.49
Sterilisation	286	63.70	369	50.97
Condom	151	33.63	134	18.51
Rhythm	48	10.69	111	15.33
Abortion	94	20.94	67	9.25
I.U.C.D.	43	9.58	37	5.11
Coitus Interruptus	18	4.01	11	1.52
Spermicide	23	5.12	20	2.76
Diaphragm	7	1.56	27	3.73
Injection	7	1.56	19	2.62
Don't Know + Blank	60	13.36	128	17.68

\*There were 18 students of unknown sex in the sample.

“Don't Knows”. It means this fairly sizeable group of students have almost reached the end of their schooling without knowing any method of Family Planning.

The Pill is the most commonly known method of contraception, and this can be related to the wide publicity given to it. Sterilisation is the second most commonly known method.

When broken down by sex, it can be seen that, on the whole, males had more knowledge than females on contraceptive methods. This is seen in Table V above.

Only in three of the ten main categories did female students have a higher percentage of knowledge on contraceptive methods. While it may be said that males would naturally be more familiar with male oriented methods, this would in fact be related to the condom, coitus interruptus and sterilisation. It is therefore surprising that fewer girls know about the Pill, abortion, and the I.U.C.D. methods, and that almost 13% less females than males had knowledge on sterilisation (where both sexes are involved). The possible reasons for these results are many, but one cannot help but wonder whether or not sufficient stress is placed on methods available when education in Family Planning is given to young women in the higher secondary and pre-university classes. This may reflect a lack of teacher preparation, a lack of time to give instruction within the tight school curriculum, and perhaps inaptitude of the teacher to deal with the subject.

#### *Sufficiency of Knowledge about Family Planning to practise It*

The response to the question ‘Do you know enough about Family Planning to practise it?’ is given in Table VI below.

TABLE VI  
THE GENERAL RESULT TO WHETHER PRE-UNIVERSITY STUDENTS KNOW ENOUGH ABOUT FAMILY PLANNING TO PRACTISE IT

Response	No.	%
Yes	343	28.8
No	848	71.2

These results are extremely important. Over 70% did not know enough about family planning to practise it. Yet these students from that sector of the population that will be entering marriage and parenthood. It will probably be beneficial to give them more definite information on the subject, with no aim other than that they do not pick up vague ideas, inconsistencies and perhaps inaccuracies from friends and hearsay, and fail to be acceptors.

More (over two times as many) males than females said they had sufficient knowledge to practise family planning, and this may be related to knowledge of condoms as a method of contraception. 33.6% males and 18.7% females in the sample (about half the result obtained from

males) stated they were aware of condoms as a method. Again, methods of contraception for the male are restricted, and the condom is the most common one known to men, and this may have contributed to the better response in males. Table VII below gives the breakdown to this issue by sex.

TABLE VII  
SUFFICIENCY OF KNOWLEDGE TO  
PRACTISE FAMILY PLANNING, BY SEX

Know enough to practise family planning	Males %	Females %	Unknown %
Yes	42.3	20.3	33.3
No	57.7	79.7	66.7

This high percentage of not having sufficient knowledge to practise family planning was sustained when analysed by ethnic group.

*Sources of Further Information on Family Planning*

Table VIII gives the overall response and the response by sex of the students as to where they would go for further information on Family Planning.

The Family Planning and Population Board is the most well known source for further information on Family Planning. Almost 60% of students say that the Board is where they would go for further information. This is as it should be, as the F.P.P.B. is the National Organisation for Family Planning and has been given very wide publicity.

TABLE VIII  
KNOWLEDGE ON SOURCES OF FURTHER INFORMATION ON FAMILY PLANNING

Sources	Total (1191)	
	No.	%
F.P.P.B.	707	59.36
Doctors and Clinics	542	45.51
Friends and Teachers	140	11.75
Family	121	10.16
Books	134	11.25
Hospital	69	5.79
Exhibitions and Talks	20	1.68
Church Elders	15	1.26
Community Centre	16	1.34
Don't Know	90	7.56

From the table it can also be seen that the medical profession is the next most popular group, and the profession needs to understand that as knowledgeable and respected members of society, they are in a position to advise competently on this necessary health need, and they should strengthen their role in this respect. 11.8% of the sample go to their friends and teachers, and 10.2% go to their parents. It does seem that parents and teachers play a very small role in Family Planning education. While the situation varies considerably with parental ability, competence and willingness, the classroom atmosphere is much more impersonal and less emotionally charged than the home, and perhaps the strengthening in

TABLE IX  
SOURCES OF FURTHER INFORMATION ON FAMILY PLANNING BY SEX\*

Sources	MALES		FEMALES	
	No.	%	No.	%
F.P.P.B.	296	65.92	400	55.25
Doctors and Clinics	233	51.89	300	41.44
Friends and Teachers	58	12.92	81	11.19
Family	48	10.69	70	9.67
Books	73	16.26	58	8.01
Hospital	17	3.79	51	7.04
Exhibitions and Talks	6	1.34	14	1.93
Church Elders	8	1.78	7	0.97
Community Centre	5	1.11	11	1.52
Don't Know	50	11.14	37	5.11

\*18 students did not state their sex.

schools of Family Life Education which covers Family Planning and sex education among other topics, should be given more serious coverage. This of course can only be done by teacher preparation, either in their basic course, or in post basic and/or through in-service courses.

In Table IX (page 23) it can be seen that except for the Hospital, Exhibition and Talks and the Community Centre (3 sources), the males gave a higher percentage of knowledge of sources of further information than did the females, and this does seem to be the reverse of what might have been expected. A similar result was obtained on knowledge of contraceptive methods: See Page 22, Table V. It is not easy to understand why young girls have considerably less knowledge on where to go if they need further information on Family Planning, but if the results are to be accepted as they stand, then there must be further strengthening of Family Planning education of young females in secondary school and pre-university level.

### The Sources of Information on Family Planning

Table X below gives the sources of information on Family Planning. These sources do not necessarily connote knowledge on Family Planning. They merely indicate from where students got their information on Family Planning. Sources, however, are related to knowledge and can indicate the relative value of media or persons that can be used as a means of disseminating knowledge.

TABLE X  
SOURCES OF INFORMATION ON  
FAMILY PLANNING

Source of Information	Numbers	% of Total (1191)
Radio	619	52.0
Television	1012	85.0
Newspapers	1046	87.8
Magazines	701	58.9
Posters/Pamphlets	928	77.9
Family	502	42.2
School	511	42.9

Newspapers head the list as a source of information (87.8%) with Television (85%) coming a close second. It is interesting to note that pamphlets and posters are the next most important source, and that radio as a mass medium is not very effective. Yet radios and transistors are a common personal possession, and

this medium could be more fully utilized for information on Family Planning.

Only 42.9% and 42.2% of the students said that they got their information from schools and their families respectively. It does seem clear that schools could play key roles in the dissemination of knowledge in Family Planning, and that this venue has not been fully explored yet. One of the best ways of doing this is through formal instruction on Family Planning as part of a systematic syllabus in Health Education in secondary schools. The matter, however, is not as simple as it sounds, for competent instruction depends, besides other things, on adequate teacher preparation.

When it comes to the family, several factors may come into play to account for the low percentage of students who get information from their parents. Parents may feel they cannot talk to children about such matters; they may feel embarrassed; or they may feel they cannot present facts relating to Family Planning in an objective fashion, as they belong to a generation who were not encouraged to discuss such topics.

### Attitudes to Family Planning

Attitudes were assessed in the following 5 areas:

- Whether Family Planning is necessary for Singapore;
- Whether students would practise Family Planning if they got married;
- Who should be involved in Family Planning;
- Their desired family size;
- If they had any objection to Family Planning.

#### *Is Family Planning Necessary for Singapore?*

96.6% of the sample felt that Family Planning is necessary for Singapore. This is a very significant finding in that such an overwhelming majority see the need for Family Planning in the Republic. Whether or not they will practise Family Planning themselves is another issue, but feeling "the need to" is a pre-requisite to action. Only five or 0.4% of the sample felt it was not necessary.

These results are given in Table XI (page 25).

Due to the small number of students of Indian and Malay ethnic origin in this study, it is not possible to draw conclusions regarding differences in response seen.

Table XII below shows the response to "Is Family Planning Necessary for Singapore?" by ethnic group.

TABLE XII  
"IS FAMILY PLANNING NECESSARY FOR SINGAPORE" BY ETHNIC GROUP

Response	Chinese		Malays		Indians		Others	
	No.	%	No.	%	No.	%	No.	%
Yes*	994	97.0	28	90.3	77	96.2	48	92.3
No	2	0.2	1	3.2	1	1.3	1	1.9
Uncertain	20	1.9	1	3.3	2	2.5	2	3.9
Don't Know	5	0.5	1	3.2	—	—	—	—
No Answer	4	0.4	—	—	—	—	1	1.9
TOTAL	1025	100.0	31	100.0	80	100.0	52	100.0

\*Three students who answered "Yes" were of unknown ethnic origin.

TABLE XI  
IS FAMILY PLANNING NECESSARY FOR SINGAPORE

Response	Number	No. as % of 1191
Yes	1150	96.6
No	5	0.4
Uncertain	25	2.1
Don't Know	6	0.5
No Answer	5	0.4
TOTAL	1191	100.0

*Whether Students Would Practise Family Planning If They Got Married*

When the students were asked if they would practise Family Planning if they got married, the response as given in Table XIII below was obtained.

TABLE XIII  
RESPONSE TO THE QUESTION "WOULD YOU PRACTISE FAMILY PLANNING IF YOU GOT MARRIED?"

Response	Number	%
Yes	935	78.5
No	10	0.8
Uncertain	190	16.0
Don't Know	56	4.7
TOTAL	1191	100.0

Note that while 96.6% of the sample felt that Family Planning is necessary for Singapore, only 78.5% (nearly 20% less) say they would practise it if married. This lowered response to personal involvement is probably what the students really feel. The fact that over 20% of the sample were uncertain or did not know what they would do, has contributed to this low result and must be considered when interpreting these results. Furthermore, the students in this survey are fairly young people, and they may have not ever thought of practising Family Planning themselves, so that when faced with such a question, were at a quandary as to how to answer it.

When analysed by ethnic group, "Uncertains" and "Don't Knows" were found to be highest among the Malays (32.3%), lower in the Indians (23.7%) and lowest in the Chinese (19.3%). While the actual numbers of Malays in the study is small, and as such one cannot arrive at conclusions in terms of the difference in response, it is still worth noting the big differential between Malays and Chinese response to whether they would practise Family Planning.

Again, the large numbers of "Don't Knows" and "Uncertains" to this question in the Malay stream has accentuated the differential in their response to Family Planning being necessary in Singapore, (90.3%) and their considerably lower response (64.5%) being willing to practise Family Planning if married. These differences are seen in Table XIV and Table XV on page 26.

TABLE XIV

Yes Response to	Ethnic Group		
	Chinese %	Malays %	Total Sample %
(a) Family Planning is necessary in Singapore	96.9	90.3	96.6
(b) Will practise Family Planning if married	80.0	64.5	78.5

TABLE XV

"Don't Know" and "Uncertain" Response to	Ethnic Group		
	Chinese %	Malays %	Total Sample %
(a) Family Planning is necessary in Singapore	2.83	6.5	3.0
(b) Will practise Family Planning if married	19.3	32.3	16.0

When this issue was broken down by religious faith, the response as given in Table XVI below was obtained.

TABLE XVI

RESPONSE TO "WILL YOU PRACTISE FAMILY PLANNING IF MARRIED?" BY RELIGION

Will practise Family Planning if married	Protestant %	Catholic %	Muslim %	Buddhist %	Hindu %	Others %
Yes	79.2	72.7	67.4	79.9	81.4	79.2
No	0.6	0.8	2.3	1.4	—	—
Uncertain	14.5	23.1	27.9	14.3	13.9	14.9
Don't Know	5.7	3.0	2.3	4.3	4.7	4.7



While the sample is made up mainly by Chinese and one may be tempted to say that these attitudes are probably representative of Chinese in Singapore, it must be borne in mind that Chinese students in Chinese stream schools may have views that are quite different from the Chinese students in this study, which is confined to English stream schools. The same comment would apply to students in Malay and Tamil stream schools.

The Muslims have the lowest "Yes" response, but they also have the highest "Uncertain" and "Don't Know" responses (30.2%). When compared with the Hindus of whom there were equal numbers to the Muslims (43), there is a fairly big difference, but this difference is not statistically significant.

What is encouraging about the response from the Muslims is that the "Uncertains" and "Don't Knows" are available for further persuasion and may at a later date be more amenable to Family Planning, than perhaps those who gave a definite "No" answer.

Although a good result of 72.7% was obtained from Catholics to this question, their response was lower than the Protestants and this is more than likely to be related to tenets held by the Roman Catholic Church to Family Planning.

There was little difference between males' and females' responses to this question, and

when analysed by subject stream, practically no difference was observed.

*Involvement in Family Planning*

From Table XVII below, it can be seen that 94% of the sample feels that both males and females should be involved in Family Planning. That young men now recognise they should be involved in Family Planning is a step in the right direction. For too long has it been felt that women are the only people who should be involved in Family Planning.

When broken down by sex, there was a small percentage of men (11%) who felt that Family Planning should involve only females. This fact needs to be kept in mind when future programmes of Family Planning education are being planned.

TABLE XVII  
PERCENTAGE DISTRIBUTION OF WHO SHOULD BE INVOLVED IN FAMILY PLANNING

Whom Family Planning should involve	Total	
	No.	%
Males Only	11	0.92
Females Only	59	4.95
Both	1119	93.95
Unknown	2	0.17

When analysed by ethnic group, it was found that an appreciably lower response was obtained from Malays to both male and female being involved. This is given in Table XVIII below.

A tendency to hang on to traditional male and females roles among Malays may be forwarded as one of the possible reasons for the difference seen in the response obtained from this ethnic group.

TABLE XVIII  
PERCENTAGE DISTRIBUTION BY ETHNIC GROUP TO WHO SHOULD BE INVOLVED IN FAMILY PLANNING

Involvement	Ethnic Group			
	Chinese <sup>1</sup> %	Malays %	Indians %	Others %
Males Only	0.68	3.23	—	5.77
Females Only	4.49	16.13	7.50	3.85
Both <sup>2</sup>	94.63	80.70	92.50	90.38

<sup>1</sup>There were 2 Chinese students who did not answer the question.

<sup>2</sup>There were 3 students of unknown ethnic origin who felt both males and females should be involved.

*Desired Family Size*

The question "What number of children would you like to have?" was asked to find out how knowledge, current propaganda, affected their views on family size. The results of this question are given in Table XIX.

TABLE XIX  
NUMBER OF CHILDREN WANTED BY  
THE STUDENTS

No. of Children Wanted	No. of Respondents	% of Total
0	40	3.4
1	38	3.2
2	651	54.6
3	313	28.3
4	111	9.3
5+	13	1.1
Unknown	25	2.1
TOTAL	1191	100

The average desired size of the students was 2.3. It can be seen that more than half desire the two child norm advocated by the Government in its National Family Programme and this is a commendable improvement on the desired family size of 3.6 children determined from recent studies in Singapore.

The actual average completed family size in Singapore is 4.3 children. The findings in this study augur well, since these students are those who are near-future parents. The finding cannot, however, be taken as representative of Singapore, since the sample has been derived from urban schools, and reactions and responses from rural areas, other language stream

schools, may vary considerably from that of the sample in this study.

One must also remember that people may say one thing and do something else. Opinions and attitudes undergo change with years and these same students may have quite different opinions about desired family size when they are actually involved in parenthood. In the USA it has been found that the desired family size of older people is generally larger than that of younger people.

Nearly 29% of the students desired 3 children, and another 9.3% wanted 4 and above, together accounting for nearly 40% of the sample. This is an indication that family planning educational programmes through schools need further emphasis.

When analysed by sex, it was found that females generally wanted smaller families than males. 64.5% of females in the sample wanted 2 or less children, while the corresponding proportion for males was 55.5%. It could be that females have thought about it more carefully than males, as they are more heavily involved in child bearing and child care than the males.

The average desired size of family was also slightly higher for males (2.4%) than for females (2.3%).

No importance can be attached to ethnic group analysis, for reasons already mentioned.

One aspect of desired family size that has hitherto not been given much thought is whether desired family size is affected by actual family size. In this survey, family size was confined to siblings only, and desired family size was scrutinised in terms of actual family size. This is seen in Table XX.

TABLE XX  
DESIRED FAMILY SIZE OF STUDENTS ANALYSED BY ACTUAL  
FAMILY SIZE

Desired family size \ Actual family size (siblings)	1 %	2 %	3 %	4 %	5+ %
	1	5.9	4.6	7.1	2.2
2	52.9	65.2	51.9	60.18	51.64
3	29.41	16.7	29.0	20.4	30.0
4	8.2	4.6	6.6	9.7	10.8
5	0	0.8	1.6	1.3	1.0

It can be seen that irrespective of actual family size, the most popular desired family size is 2 children, i.e. actual family size of students in this study does not affect responses to desired family size. The next most common desired number of children is 3.

Attention must be drawn to the fact that though 612 children (over 50% of the sample) come from families where there were five or more children (see Table III), only 6 students (1%) of these 612 wanted 5 or more children. 81.6% of them wanted 2 (51.6%) or 3 (30%) children.

#### *Objections to Family Planning*

94 students (7.9%) had objections to family planning, this forming a small minority. Nevertheless it is important to find out what the reasons for objection are.

The largest single reason for objections to Family Planning was Governmental disincentives (21.1%). The second most important reason was infringement of human rights, 15 out of 94, (15.7%) stating this as the reason for their objections. Males did not consider fear of loss of existing children as a reason for objecting at all. 4 females were worried about the loss of existing children.

Eight had religious objections.

Religion is known to affect attitudes to Family Planning and when objections were broken down by religious beliefs, the following results, seen in Table XXI, were obtained.

TABLE XXI  
OBJECTIONS TO FAMILY PLANNING  
BY RELIGION

Religion	Total	Objections	%
Protestant	351	18	5.1
Catholics	121	23	19.0
Muslims	43	4	9.3
Buddhists	209	11	5.3
Hindus	43	3	7.0
Others	424	35	8.3

Catholics have the highest rate of objection. When this high percentage among Catholics is tested against the Protestants who had the lowest percentage of objection response, it is found to be statistically highly significant ( $p < 0.001$ ).

## GENERAL DISCUSSION

### Knowledge

From the main findings, it is apparent that while students do possess some knowledge on Family Planning, there are areas where knowledge can and should be improved, if Family Planning is to be successful in Singapore. It does seem that Family Planning as an area of instruction to school leavers and pre-university students needs to be planned on a more comprehensive and systematic basis than is now being done. It may be necessary to pay more attention to sex and Family Planning education in girls' schools, since young women are less informed than young men about methods of contraception. Tied up with this, is the need to get trained people with an aptitude for teaching subjects such as Family Planning and sex education in Health Education courses on Family Life. The fact that 71.2% of students who are on an average 18 years old and are in their second pre-university year do not know enough about Family Planning to practise it is an indication that they have not received sufficient information on it, and again re-inforces the need to strengthen systematic instruction on the manner in which each method works to prevent conception. Knowledge is not simply stating methods available. Instruction, if it is to be of any use, should cover, among other things, the relative efficacy and safety of each method as well as its mode of action.

### Source of Knowledge

It is extremely important that schools are in a position to give information and resource material to students when they require it. Individual homes may not have the wherewithal to do this, so that it becomes a matter of some urgency that schools make such information available.

### Attitudes

Findings indicated that attitudes to Family Planning were generally wholesome. 96.6% of the sample feel Family Planning is necessary for Singapore, but that only 78.5% (i.e. almost 20% less) feel they would practise it when married is disturbing. It is apparent that more positive attitudes to Family Planning need to be inculcated. That religion does play a part has been a finding in other parts of the world, and here indeed is a sensitive issue, and one that is relatively more difficult to solve.

Findings on Desired Family Size were by far the most encouraging with 2.3% being the average family size. This comes very close to Singapore's desired norm of 2 children per couple, but lest complacency set in, it must be pointed out that 40% of the students wanted 3 or more children, so that a reinforcement of the 2 child norm needs to be included in school family planning programmes, stressing rational and cogent reasons for this need, rather than making it an order from the authorities. This aspect is reflected in the views of the objectors to Family Planning (7.9%), where the second largest reason for objecting was infringement of human rights (15.7%).

#### RECOMMENDATIONS

1. A comprehensive and graded programme of Family Life Education that includes Sex and Family Planning Education be introduced in secondary schools.
  2. The need for teacher preparation in Health Education (and this includes Family Life Education) be seriously considered as a prerequisite to competent and effective instruction being given in the class rooms on Sex and Family Planning Education.
  3. That teacher preparation in Health Education include basic demography, population trends, the need for Family Planning in Singapore, and the rationale behind the 2 child norm.
  4. A resource centre on further information on Family Planning be established in the community, and this centre supply schools with necessary information, reading material, etc. for young people who desire to be more well informed.
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