THE INFLUENCE OF ETHNIC BACKGROUND, RELIGION, EDUCATION
AND INCOME UPON FAMILY PLANNING BEHAVIOR AND
ATTITUDES OF CERTAIN MARRIED COUPLES AT
UTAH STATE UNIVERSITY

by

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ABSTRACT

The Influence of Ethnic Background, Religion, Education, and Income upon Family Planning Behavior and Attitudes of Certain Married Couples at Utah State University

by

Gustavo Loza-Montenegro, Master of Science

Utah State University, 1972

Major Professor: Professor Nile D. Meservy
Department: Sociology

The objective of this study was to determine whether certain socio-cultural factors tend to influence family planning behavior and attitudes of certain married couples at Utah State University. Socio-cultural factors considered in this study were: ethnic background, religious preference, level of education, and income. These socio-cultural factors (independent variables) were examined from the standpoint of their influence upon one or more of the following dependent variables: the use or non-use of family planning, the extent to which family planning is used, attitude toward the most important source of information for family planning, and attitude regarding the single method which is considered to be best by respondents.

The findings show that the socio-cultural variable Religious Preference was the main independent variable which proved to be significantly associated with the following dependent variables: sources of information for birth control (formal or informal); extent to which
birth control is used (continually or periodically), and attitudes re-
garding the best method of birth control among women (artificial or non-
artificial). Specifically, these findings show that the Catholics favored
formal sources, while the Protestants favored informal sources of ob-
taining information about birth control. Catholics tended to use peri-
odic methods of birth control, including rhythm, abstinence and non-use,
while Protestants mainly used continual methods of birth control (pri-
marily artificial). The last significant statistical difference showed
the preference of Protestant women for artificial methods of birth con-
trol more than Catholic women.

It was concluded that religion is still an important agent of
socialization relating to birth control behavior and attitudes.
CHAPTER I
INTRODUCTION

Early historical writings have mentioned practices of family planning or birth control.\(^1\) Ehrlich and Ehrlich have pointed out some of these practices. For instance:

The Old Testament contains obvious references to the practice of withdrawal, or coitus interruptus. The ancient Egyptians used crude barriers to the cervix made from leaves or cloth, and even blocked the cervical canal with cotton fibers. The ancient Greeks practiced population control through their social system as well as through contraception. The condom dates back at least to the Middle Ages, when it was made of linen, fish skins, or sheep's intestines. Douching, the practice of flushing out the vagina with water or a solution immediately after intercourse, has had a similarly long history in Europe. The simplest, the most effective, and perhaps the oldest method of birth control is abstention; but this method seems to have been favored mainly by older men, particularly unmarried members of the clergy.\(^2\)

Although the birth control practice was known since the beginning of time, this practice has not been of such great importance as it is now in our contemporary period. Anciently, disease and scarcity of food, among other reasons, caused the death rates to be extremely high. It was necessary to give birth to a large number of children to ensure that some of them would survive.

In the modern era, scientific and technological advances in industrialized countries have controlled many diseases and increased

\(^1\) For the purpose of this study, family planning or birth control will refer to the deliberately planned limiting of births. This includes rhythm and abstinence methods, as well as other methods of birth control.

the food supply. As a result, the death rate in these countries has dropped, and the population has grown noticeably.

The existence of population pressures and the need to limit growth has been recognized since the 18th century.

In 1798, Thomas Malthus published his famous Essay on the Principle of Population. He pointed out that population of the world tends to increase faster than food supplies. To prevent disaster in the future, he recommended that young men and women postpone marriage.3

Recognition of the problem of population pressures is the first step toward correcting the problem. In 1800, a movement toward birth control was initiated in both Europe and the United States.4

Today, the most important approach to birth control is represented by the family planning movement. According to a 1970 report of the Population Council, 23 countries in the developing world have family planning policies and programs, and another 15 provide some support for family planning without an explicitly stated policy. In addition, a large number of international agencies are formally involved in such programs in one way or another.5

Statement of the Problem

Recognizing the need for limiting the population alone is not sufficient to successfully implement family planning programs in various countries. It is necessary to understand how socio-cultural factors

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4Ibid.

influence family planning. Some research has been done which shows the importance for family planning of such factors as nationality or ethnic background, religious preference, level of education, and income differences. Further research is needed, however, to examine the influence of these factors, especially nationality and religious preference. Very little or no research has been done regarding the influence of nationality or ethnic background, religious preference, education, and income upon attitudes and behavior related to birth control use among married college students. This will be the major contribution of this study.

**Objectives of the Study**

The general objective is to determine whether certain socio-cultural factors tend to influence family planning behavior and attitudes of certain married couples at Utah State University. Socio-cultural factors considered in this study are:

1. Ethnic background (U.S. Americans and Latin Americans)
2. Religious preference (Catholicism and Protestantism)
3. Level of education
4. Income

These socio-cultural variables are independent variables to be examined from the standpoint of their influence upon one or more of the following dependent variables:

1. The use or non-use of family planning
2. The extent to which family planning is used, i.e., continually or periodically
3. Attitude as to the most important source of information for family planning
4. Attitude regarding the single method which is considered to be best by respondents.

The Null Hypotheses

In order to give evidence of positive relationship, the null hypotheses will be tested for the purpose of ruling out differences due to chance.

While several relationships will be examined between sociocultural variables and various aspects of family planning, the major null hypotheses of this study are as follows:

A. Ethnic Background

Hypothesis 1: The use of birth control will not be significantly greater among Catholics from the U.S.A. than among Catholics from Latin America.

Hypothesis 2: The continual use of birth control will not be significantly greater among Catholics from the U.S.A. than among Catholics from Latin America.

B. Religious Preference

Hypothesis 3: The use of birth control will not be significantly greater among Protestants than among Catholics.

Hypothesis 4: The continual use of birth control will not be significantly greater among Protestants than among Catholics.

Hypothesis 5: A significantly greater number of Catholics than Protestants will not favor formal sources of gaining information about birth control.

Hypothesis 6: There will not be a significantly greater number who accept rhythm and abstinence as being the best methods of birth control among Catholic women than among Protestant women.
C. Level of Education

Hypothesis 7: The great majority of married college students will not use birth control.

Hypothesis 8: The use of birth control will not be significantly greater among those with higher education than among those with lower education.

Hypothesis 9: The continual use of birth control will not be significantly greater among those with higher education than among those with lower education.

D. Income

Hypothesis 10: The number using birth control will not be significantly greater among students with lower income than among those with higher income.

Hypothesis 11: The continual use of birth control will not be significantly greater among those with less income than among those with higher income.
CHAPTER II
REVIEW OF LITERATURE

Theoretical Basis of the Study

A. Social institutions including government, religion, and education, whether consciously or not, attempt to socialize people to accept the norms in the society.

In a detailed analysis of social institutions, Professor J. O. Hertzler concludes that:

The basic element, though, and the fundamental essence of an institution is the fact that it is a system or required concerted cooperative and reciprocal practices or activities whereby the people concerned satisfy their individual and social needs.¹

Robin Williams sees institutions as "a set of institutionalized norms that cohere around a relatively distinct and socially important complex of values (or needs)."² It is possible to conclude that every human society has different kinds of institutions to provide guidance to the people according to their social needs. Among the basic institutions are the familial, religious, governmental, and educational institutions. These institutions play an important role in socialization. Thus, the family which has access to the child during his impressionable early years is perhaps the natural institution for socialization.

¹J. O. Hertzler, American Social Institutions: A Sociological Analysis (Boston, Massachusetts: Allyn and Bacon, 1961), p. 84.
in many basic cultural aspects. Schools have taken over many of the socializing functions of the family. Churches provide religious indoctrination. ³ Government represents an overall source of power and authority for the enforcement of social norms and mores relating to the family and to other social groups as well.⁴

B. The governments of Latin American countries have been somewhat supportive to the dominant Catholic religion, regarding their opposition to birth control.

The predominant attitude of the governments of Latin American countries is against population control.

In conferences of the World Health Organization (WHO) and the United Nations (UN), delegates of Latin American countries were opposed to receiving technical assistance on family planning.⁵

In recent years, important officials of Argentina, Mexico, and Brazil rejected all propositions for family planning on the grounds that their respective countries were in serious need of a larger labor force.⁶

A similar attitude of opposition to birth control programs was expressed by a former Argentina Ambassador to the United Nations. He said that if Latin America created the necessary economic opportunities, the next century will see more than 500 million Latin Americans living

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⁴Ibid., p. 185.


prosperously. In this way Latin America would fulfill "the historic
destiny that God has assigned to us."?

Also, it is common to hear in Latin America that the people are
"wealth and power." Thus, Brazilian Minister of Health declared:

In underdeveloped countries such as Brazil, where
over 50 percent of the energy utilized in production is
muscular in nature population size constitutes a real
element of power which is the most important means of
national progress. Therefore, anything which increases
population growth is beneficial for us.8

In sum, government policies on population control or family plan-
ning are only just emerging in Latin America. However, the general
attitude of governments is opposed to the establishment of family plan-
ning in Latin America. Large proportions are unconvinced that a popu-
lation problem exists in their countries. Indeed, many believe that
rapid population growth is needed.

C. Family planning is generally accepted by governmental
institutions and by many private institutions.

The U.S.A. does not have an official government family planning
policy, except in respect to immigration. The U.S.A. government pro-
vides some family planning services to the poor through public welfare
agencies, and it is engaged in extending these services.9

In spite of the Federal Comstock Law of 1823, prohibiting the
publicizing of any type of birth control, birth control has ever since
been much publicized, to the point that recently even U.S.A. mail stamps

7Stycos, p. 39.
8Ibid.
are used as a medium of its publicizing. Most of family information, however, has come from non-government sources.

During the 1960's most states of the U.S.A. adopted government programs of family planning. Today birth control is prescribed not only by private physicians but also by doctors in hundreds of Planned Parenthood centers, hospitals, and health departments. Public information about it is more plentiful than ever before.

The pioneer efforts to initiate the birth control movement in U.S.A. were made by Robert Dale Owen and Dr. Charles Knowlton. Owen published a book on birth control, "Moral Physiology," in New York in 1830. It was Margaret Sanger, a nurse, who with her personal influence as a leader of the birth control movement, produced a strong impact over the public opinion of U.S.A.

The Planned Parenthood Federation of America, a lineal descendant of the National Birth Control League started by Margaret Sanger, now operates 525 clinics in 135 cities and serves 350,000 patients a year. This is proof that Mrs. Sanger accomplished her dreams of socializing or democratizing birth control. Further proof is offered by the growth of the International Planned Parenthood Federation, founded by eight nations at Bombay in 1952. Today, it operates with a budget of 10.5 million dollars and has 66 countries as member nations.


13 Ibid., p. 102.
Although Latin America has the highest rate of population growth, it is one of the regions most reluctant to accept a birth control program.\(^{14}\) However, for the time being, family planning is not a feasible thing throughout Latin America.

D. Catholicism has attempted to encourage large families and to discourage its people from various birth control practices. It has tried to establish this as a norm.

There is a general tendency to think that religious beliefs and values are the most serious barriers to establish the use of birth control methods. This attitude of the governments of some Latin American countries against family planning probably is due, in some part, to the influence of the Roman Catholic Church.

In recent years, for example, before the publication of the Roman Catholic "Humanae Vitae" encyclic, the Mexican government was prepared to establish a half dozen clinics for family planning. After the Pope's pronouncement, the Mexican government canceled this plan. Other Latin American countries felt similarly inhibited.\(^{15}\)

As a basic reason to explain this reaction, there are certain principles and norms which are accepted by Catholics almost blindly. For instance:

Be Fruitful and Multiply: The Bible (Genesis 1:26-28)

... So God created man in his own image, in the image of God created he him; male and female created he them. And God blessed them, and God said unto them, Be

\(^{14}\)Ehrlich and Ehrlich, p. 249.

\(^{15}\)Rosenhouse, p. 36.
fruitful, and multiply, and replenish the earth, and subdue it.16

To the Catholic doctrine, as expressed in the Code of Canon Law, "the primary end of marriage is the procreation and education of offspring; the secondary end, mutual aid and the remediying of concupiscence."17

Also, according to Catholicism:

The family with many children, in which God has the place of honor, is an object of Christian admiration. The large families are in the words of Pope Pius XII: 'Those blessed by God, beloved by the Church, and considered by it as one of its most precious treasures.'18

As a conclusion, two things are more noticeable: (1) for the Catholic doctrine the essential reason for marriage and the sexual union of spouses is the procreation of children, and (2) Catholicism seeks to bring human wills into conformity with the divine will, of which the order of nature is a partial expression.19

Related to Catholic discouragement of birth control devices, there are also some established principles and norms. Thus:

The traditional doctrine regarding conjugal morality teaches that the sexual act is legitimate only within matrimony, and provided that nothing artificial prevents conception. This means that artificial contraception—not periodic abstinence—is immoral. Furthermore, His Holiness Pius XI in this Encyclical Casti Connubii,

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repudiated contraception as 'intrinsically and gravely immoral.'20

The Roman Catholic Church condemns "artificial" birth control more resolutely than any other contemporary Christian or non-Christian religious body; in some Catholic populations the Church's influence is a major factor maintaining high fertility.21

However, according to Young, the Roman Catholic Church is now passing through a period of re-examination of policy and further clarification may be expected in the near future. Even a drastic change in its policy can hardly be expected to solve the population problem, because formal religious doctrine is only one of many factors which influence the fertility of a people.22

In addition, as explained by Lincoln and Alice Day, social changes attending the industrial revolution in both America and Europe created such pressures for the reduction of family size that many couples were induced to break with religious and social tradition in order to limit the number of their children.23

The pressures of the industrial revolution which led to reduction in family size likely helped to establish norms more favorable toward birth control in the U.S.A.


22Young, p. 194.

The emphasis today is placed on responsible parenthood. Guttmacher pointed out the position of Catholicism in these terms:

The Catholic position on birth control rests on the Church's view of the purposes of marriage. Unlike the Protestant denominations, the Catholic Church holds that procreation is the primary purpose of marriage, while companionship and vocation are secondary. Birth control by chemical or mechanical means, the Church says, would frustrate this primary purpose and thus violate the natural law. Birth control by natural means, however, is not regarded as a violation of natural law. For couples who wish to limit family size for proper reasons, therefore, the Church sanctions either complete abstinence or the rhythm method, which is really timed--periodic and temporary--abstinence.  

The rhythm method was approved by Pope Pius XI in 1930, and it was repeated by Pius XII in 1951 in an important Papal address:

We affirm the legitimacy and at the same time, the limits--in truth very wide--of a regulation of offspring which, unlike so-called 'birth control,' is compatible with the law of God. One may even hope that science will succeed in providing this licit (rhythm) method with a sufficiently secure basis.  

E. In the U.S.A. Protestantism dominates the religious scene and its position on birth control has generally appeared to be neutral or favorable.

The Protestant denominations approved family planning in the early 1930's. However, it was only in 1961 that it was adopted definitively by the General Board of the National Council of Churches of Christ. This is the federation of 25 major Protestant denominations with approximately 37 million parishioners in the U.S.A.  

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25 Ibid.
26 Ibid., p. 136-7.
During many years, Catholicism and Protestantism supported the view that the primary purpose of marriage was the procreation of children. However, in recent years, Protestants have been re-examining the nature of this subject. As a result, many Protestant theologians are no longer able to accept the purpose that procreation is the only primary function of the sex act. 27

As Guttmacher pointed out, the Protestant attitude toward birth control stems from the Protestant view of the basic purposes of marriage. These purposes include not only parenthood, but equally important, the nourishment of the mutual love and companionship of husband and wife, and their service to society. Since these purposes are of equal importance, it is permissible to use birth control which may prevent procreation but help to enhance the other marital objectives of companionship and service. 28

The Council pronouncement pointed out that 'Most of the Protestant churches hold contraception and periodic continence to be morally right when the motives are right.' Also, 'They believe that couples are free to use the gifts of science for conscientious family limitation, provided the means are mutually acceptable, noninjurious to health, and appropriate to the degree of effectiveness required in the specific situation. Periodic continence (the rhythm) is suitable for some couples but is not inherently superior from a moral point of view. The general Protestant conviction is that motives, rather than methods, form the primary moral issue. ... 29

The basic differences between Roman Catholic and Protestant denominations, concerning birth control, can be summarized in terms of


28Guttmacher, Planning Your Family, p. 137.

29Ibid., p. 137-8.
three issues: (1) the criteria for determining the morality of birth control; (2) the definition of the primary ends of marriage; (3) the persons to whom religious doctrines apply.\textsuperscript{30}

It is concluded that Catholics are generally unfavorable toward birth control while Protestants are generally favorable toward birth control.

F. The norms tend to be more favorable toward birth control among those with higher education than those with lesser education. The Catholics educated in Catholic colleges are an exception to this general pattern.

The effect of education on population is seen most clearly in the relation of education to fertility. Education affects the levels of living and the life style of individuals by helping to shape fertility behavior norms. It often provides the knowledge needed to regulate fertility behavior. Many studies provide evidences of the inverse relation between education of husbands and wives as factors affecting fertility. Large numbers of children are born to women of relatively low education, and a smaller number of children to women with a relatively high education. Dinkel concluded that the size of the family was more influenced by the wife's than the husband's education.\textsuperscript{31}

A study of 49 countries by Kumudini Dandekar showed that there were clear indications of a close relationship between education and fertility. She found that the higher the level of education of individuals, the smaller the number of children born to them. But it may

\textsuperscript{30} Day and Day, p. 91.

not be possible to find a regular declining trend in the crude fertility rate with a rising level of education.\textsuperscript{32}

In demographic terms, according to Westoff and Potvin, higher education is connected with lower fertility through the mechanisms of deferred marriage and greater use of the means of fertility control. In more social-psychological terms, the assumption is that persons (especially women) receiving higher education develop interests and values which compete with the attraction of home, family, and children. In addition, higher education in non-sectarian institutions is presumed to diminish religious values and, to the extent that religion and fertility are associated, a further significance for lower fertility is implied.\textsuperscript{33}

Among Protestants and Jews there is some tendency for successful fertility planning to be associated with increasing education. Among Catholics the opposite pattern prevails. The more educated Catholic women seem to be least successful in controlling fertility. However, this holds true mainly for Catholic women educated in Catholic colleges. If such a comparison is confined to Catholic women educated in non-sectarian schools, the relationship between education and fertility planning tends to be similar to the Protestant and Jew samples.\textsuperscript{34}

It is interesting to note that data from the U.S. Census Bureau indicate the usual inverse relationship between size of family and


\textsuperscript{34}Ibid., p. 4-5.
education. It was found that this correlation exists for both husband and wife who have completed four years of high school. This evidence may be suggestive of an inverse relationship among low education groups, and a direct correlation among high-education families. This direct relation may be explained by the idea that those which reach a high level of education and income feel that they are in a more desirable position economically to support a larger family.

In summary, two important conclusions can be made: (1) the greater the amount of education received by the spouses (husband and wife), the smaller the family size, and (2) higher educated Catholics educated in Catholic schools as a rule do not plan to control fertility, whereas Catholics with high education and educated in public schools prefer to control fertility.

G. Income relationships in the general population and reasons for different expected relationships in a college student population.

Income and occupation are closely related, and both are related to education.

One assumption is that there is a positive correlation between low income and larger number of children. In this respect, according to Wrong, studies have revealed a broad association between low income and high fertility and visa-versa.


37 Wrong, p. 75.
Data from the U.S. Census Bureau indicate an inverse relationship between the husband's income and family size. This relationship holds true up to the $5,000 level income but changes to a direct relationship above this figure.38

Freedman and Sharp, in their Detroit study, also discovered a similar correlation. A slight increase in family size was apparent for those in the lower income group. However, the data also indicated a slight increase in family size for those with an income of $7,000 or more.39

According to the data presented by Thomlinson, income of husband relates inversely to fertility: the higher the income, the lower the fertility. This correlation is mild among high income groups and strong for low income groups. Thus, married women aged 45 years and over and living with their husbands in 1957 had consistently larger numbers of offspring as the income of husband decreased: income under $1,000, 3.8 children ever born; $1,000-$1,999, 3.4 children; $2,000-$2,999, 3.0 children; $3,000-$3,999, 2.8 children; $4,000-$4,999, 2.4 children; $5,000-$6,999, 2.3 children; and more than $7,000, 2.1 children.40

In Latin America, the majority of the population are farmers and farm laborers. In this group are included factory laborers, the artisan, and other employees with lower income. They are usually the most fertile population groups.


The opposite relationship of income to family planning may be expected among married college students. Both a college education and having children are expensive. Therefore, it can be predicted that married college students with a lower income will be more inclined to use birth control than those with a higher income. The reason is that the latter are more able to afford both of these expensive costs.

Research in Family Planning

A. In U.S.A.

In the U.S.A., according to national surveys, most married couples have used some form of birth control at one time or another. A nationwide study made in 1965 reported that 26 percent of all married women under 45 years of age were taking or had once taken the contraceptive pills.\(^{11}\)

Many studies have been conducted in relation to family planning. Several of them, explained by Corsa, were specifically related to contraceptive usage. He said:

The latest data on the use of contraception in the United States comes from the second (1960) phase of the "Growth of American Families" study. They are based upon home interviews of 2,414 married white women 18-39 years of age, and 270 non-white married women of the same ages. Of the white population, about one-tenth are definitely sterile. Eighty-one percent had used contraception by 1960 and an additional 6 percent expected to begin use later. Only 2 percent did not have or expect some form of limitation of their fertility. The less-educated

are less likely to begin contraception before they have had several pregnancies and are more likely to discover impaired fecundity which makes it unnecessary to begin. Catholics, too, are more likely than Protestants to delay use, and never begin.

According to Corsa:

Rapid change is occurring in the extent to which American families use different methods of contraception since more effective methods have become available. For instance, in 1955, married, white families reported using the following methods: condoms (29 percent), diaphragm (26 percent), rhythm (24 percent), douche (11 percent), withdrawal (6 percent), jelly alone (4 percent), all other (7 percent). On the other hand, in 1965, these methods continue to be important but a sizable population are now using oral pills, and a small but rapidly growing number are using intra-uterine devices (IUD). These new uses demonstrate that rapid change is occurring.42

According to Hawthorn's data, ninety-six percent of the fecund white couples in the 1960 Growth of American Families study had used or expected to use some form of birth control during their marriage. He also emphasizes that all the American studies agree in discerning three main trends in the practice of birth control. First, birth control has always been more prevalent in the higher social classes or status groups, although the differentials have gradually narrowed. Second, birth control intensifies as the desired parity is approached, and is thus more intense later in the marriage. Half of the Growth of

American Families sample in 1960 did not use contraception before the first birth. Third, there has been a change in the relative distribution of the methods used. To begin, interruptus and reservatus are the most common methods. Forty-three percent of the recently married couples in Lewis-Faning's sample in the late 1940's still used this method, and a survey in Grenoble in 1961-62 showed that two-thirds of those who had been using birth control also relied mainly on it. Withdrawal is exceeded by male and female appliances, including douche, the condom, and the diaphragm. Very recently, oral contraceptives have begun to dominate the field, at least in the United States. The contraceptive pill was not used by any couples sampled in 1955 or 1960, but by 1965 it had become the most common method of control among the recently married.43

Some studies and findings on birth control related with religious affiliation, conducted in the U.S.A., are as follows:

According to W. T. Gibbons, Catholics and Protestants try to limit conception by one method or another, but a greater number of Protestants use birth control devices.44 Data from this study as well as one other indicate that completed fertility and desired family size are greater for Catholics than Protestants.45 The two significant differences between the two studies are: (1) the first study deals with married couples, the other with single college women, and (2) in the


45Westoff and Potvin, p. 131.
one study, fertility is an expression of completed family size, the
other study represents fertility by the number of children desired.

Westoff and Potvin pointed out that completed studies indicate
that both fertility and desired family size are greater for Catholics
than Protestants. 46

Much research has been done in the U.S.A. about the size of
families, occupational differences, fertility rates, and birth control
as they relate to religion. Some of the findings, mentioned by Thom­
linson, are: 47

Use of birth control varies according to religious affiliation,
with the religion of the wife being more determinative than of the hus­
band. Interviews of a national sample of married white women aged 18
to 39 in 1955 showed the percentage of couples who had used birth con­
trol to be: both spouses Protestant, 75 percent, both Catholics, 57
percent; both Jews, 86 percent; wife Protestant, husband Catholic, 68
percent; wife Catholic, husband Protestant, 55 percent; all others, 74
percent.

The number of children desired by American wives varied as fol­
lows: Jews, 2.8; Protestant, 3.0; Catholics, 3.6, and mixed Protestant­
Catholic marriages, 3.3.

In the population survey of March, 1957, which obtained fertil­
ity rates by religion, for Catholics, children born per 1,000 married
women 45 years old and over amounted to 3,056; for Protestants, 2,753,
and for Jews, 2,218.

46Ibid.
47Thomlinson, p. 179-81.
There are many studies in the U.S.A. concerning birth control in relation with education; some of which are the following:

DeJong found in his study of fertility attitudes in the Southern Appalachians that 94 percent of those women with twelve or more years of schooling were in favor of some type of birth control, and 84 percent of those with four to seven years of schooling were against any type of birth control.\textsuperscript{48}

The Ryder-Westoff study led to the following conclusions: the percentages of married women now using oral contraception vary positively and strongly with the level of education. The same strong relationship holds for past and prospective use and is independent of age. The majority of younger married women with at least some college education have already used the oral contraceptive.\textsuperscript{49}

According to Freedman, Whelpton, and Campbell, the greater the amount of education received by the spouses, the more likely it is that they have used contraception, that they used it early in their marriage and that they have a smaller sized family than those couples with less education.\textsuperscript{50}


\textsuperscript{50}Freedman, Whelpton, and Campbell, p. 103-169.
The following census tabulation shows the correlation between education and birth control.\textsuperscript{51}

<table>
<thead>
<tr>
<th>Education of women</th>
<th>Children ever born per every married woman</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-39 years of age</td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>4.7</td>
</tr>
<tr>
<td>Elementary:</td>
<td></td>
</tr>
<tr>
<td>1-4 years</td>
<td>4.5</td>
</tr>
<tr>
<td>5-7 years</td>
<td>3.9</td>
</tr>
<tr>
<td>8 years</td>
<td>3.3</td>
</tr>
<tr>
<td>High School:</td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>3.1</td>
</tr>
<tr>
<td>4 years</td>
<td>2.8</td>
</tr>
<tr>
<td>College:</td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>2.8</td>
</tr>
<tr>
<td>4 years</td>
<td>2.7</td>
</tr>
<tr>
<td>5+ years</td>
<td>2.5</td>
</tr>
</tbody>
</table>

B. In Latin America

The situation in Latin America related to the use of birth control methods is different than in the U.S.A. The great majority of the population in this region are Catholics, and a considerable proportion of this population is illiterate and impoverished, especially the population of the rural areas. The Roman Catholic Church exerts great influence over this population in making decisions concerning the use of birth control methods. In relation thereto, C. Miro says:

It is well known that in Latin America there is a limited degree of marital stability and continued

uncertainty, where consensual unions are concerned. We are also deficient in measuring the intensity of religious beliefs, religious attitudes and practices and their relation to fertility. We have different patterns of family structure and religious participation that affect people differently and it is necessary to clarify the interrelationship.52

Some surveys were made by the Latin American Demographic Center (CELADE). Particularly, "The Program of Comparative Fertility Surveys" (part of CELADE) conducted surveys in various Latin American countries, with the help of United Nations and Cornell University. These surveys were oriented to obtain information about attitudes, use, and knowledge of family planning and contraception in seven Latin American cities. These were: Buenos Aires, Rio de Janeiro, Bogota, Caracas, Panama City, San Jose, and Mexico City.

Miro's explanation concerning these results is that in general, women are not prejudiced against measures addressed to reducing their fertility. Furthermore, the behavior of Catholic women toward this subject does not seem to be very different from that of other women. Knowledge of contraceptives, while not universal, is by no means insignificant, and the concern of the women regarding their use appears rather early in their reproductive lives. Other concrete results so far obtained from the surveys can be summarized as follows: 1) Fertility, as measured by the average number of live births, exceeds in several cities the level that would have been expected in view of the high degree of urbanization. 2) Place of birth, educational level, and working condition of the woman as well as the occupational status of the husband have strong bearing on reproductive behavior in terms of

actual number of live children born. 3) Contraceptive practices are very different in the various cities and there seems to be a clear relationship between the prevalence of contraception and the level of education. 4) The more widely used methods of contraception in five of the cities surveyed are the less effective ones. This in some way appears to be related to knowledge of the different methods. 5) In most of the cities fertility values continue to be those associated with traditional societies. These values seem to be exercising some influence in the size of family achieved. 53

The relationship between level of education and fertility in Latin America was explained by Delgado Garcia:

As in other parts of the world, the level of education in Latin America has an important influence on fertility. The strong negative correlation between these two factors is very clear in all seven cities. It may imply that better educated people attach greater value to life, being aware that from the moment of conception all humans must have a chance to strive for health, happiness, and better opportunities. 54

The proportion of Catholic women who declared they had ever tried to control their fertility rises with increasing levels of education. The lowest percentages of users were found in Bogota and Mexico among women with no education. A significant proportion of these women practiced contraception prior to their third pregnancy. It is clear that a substantial and increasing number of Catholics are using contraception in Latin America. The experience is similar in other


Catholic countries. The birth rates of Italy, Spain, and Portugal have fallen below those of the United States through a wider use of contraception.\textsuperscript{55}

The surveys also revealed that many Catholic women know and have used contraceptive methods not sanctioned by their church. Many women resort to the less effective methods (douches, jellies, coitus interruptus). The anti-ovulation pill does not yet appear to be very popular.\textsuperscript{56}

\textsuperscript{55}Ibid., p. 217-18.

\textsuperscript{56}Ibid., p. 219.
CHAPTER III
METHODOLOGY

Selection of the Sample

The sample was selected from married students from the United States and Latin America on the Utah State University campus in 1971. Catholic and Protestant students and their spouses were selected for this purpose. Thus, the sample consisted of three groups of married students: (1) American Catholics, (2) American Protestants, and (3) Latin American Catholics.

Student lists from which the sample was selected were obtained from the USU student registration office, the foreign student advisor's office, and clergymen of Catholic and Protestant churches of Logan.

The Size of the Sample

The overall size of the sample was determined by the total number of Latin American married couples. Twenty married couples were found in the list of the Latin American Catholics: 12 from Bolivia, 6 from Venezuela, and 2 from Peru.

The same size of sample, 20 married couples, was established for the Catholic and Protestant groups from the United States. Therefore, the entire sample consisted of 20 Latin American Catholics, 20 American (U.S.) Catholics, and 20 American (U.S.) Protestants. In total there were 60 married couples, or 120 persons.
Selection of Respondents

The selection of the respondents of each group was made in the following way:

For the Latin American Catholic sample, 20 married couples were available. The names and addresses of these couples were obtained from the list of Latin American Catholics of Utah State University.

For the American Catholic sample, a total of 20 couples was selected from the list of 94 student married couples by using the method of random numbers. Their names and addresses were obtained from the same list.

For the American Protestant sample, a group of Protestants without denomination or classification was chosen from several groups of Protestants (Methodists, Baptists, Episcopal, Lutheran, and Presbyterians). This group was composed of 51 student married couples. By using the same method of random numbers, 20 married couples were selected for the sample.

The Questionnaire

Information from the respondents was obtained by means of a questionnaire which is presented in the appendix. The questionnaire was revised several times. Before its application, some pre-pretests were conducted in order to avoid misinterpretations, and to improve the general context of the questionnaire.

The questionnaire contains three parts:

Part I seeks such general information as age, sex, and nationality.
Part II deals with the independent variables of the study, such as religion, education, and income.

Part III contains the items related with the dependent variable, as the use or non-use of family planning, the extent to which family planning is used, sources of information for birth control, and methods of birth control which are practiced.

Administering the Questionnaire

Appointments were made by telephone and by ringing doorbells of those selected for the study.

After the identification of the author as a student from the Sociology Department of Utah State University, he explained both the purpose of the study and the confidential character of the questions regarding family planning. An effort was made to gain the familiarity and cooperation of the respondents. An important aspect of the administration of the questionnaire which was emphasized was the condition to write the answers without the conjugal pair consulting each other. The author was present while the couples filled out separate copies of the questionnaire. Afterward, the questionnaires were checked in order to assure that all questions were understood by the respondents.

Definition of Terms

Socio-cultural: The term socio-cultural is used in connection with the following social and cultural factors, which are the independent variables of this study: ethnic background, religious preference, level of education, and income.

Ethnic background: Refers to cultural differences between the United States of America and Latin America.
Religious preference was determined by the designated religious affiliation of each respondent, as taken from the lists administered by the Protestant and Catholic churches of Logan.

Education is determined by the total number of years of formal education received by the members of the sample, up to and including the year in which this study was made. To allow sufficient numbers for comparison, those who were senior or graduate students were classified as the higher education group, while those with less were placed in the lower education category.

Income was determined by a direct question regarding total yearly income of those students and their spouses whether from fellowships, assistantships, earned income, commissions, or any other source. To allow for sufficient comparisons, those with $7,000 or more were considered to be in the higher income group, while those with less than $7,000 were the lower income group.

Family planning and birth control: These terms were used interchangeably as meaning the deliberately planned limiting of births as determined by a direct question. Other terms with a similar meaning are family planning, planned parenthood, and fertility control.

Methods of birth control refers to the manner in which birth control is achieved. Among the methods of birth control (for women) included in this study are abstinence, rhythm, the douche, the diaphragm, foams or jellies, the intra-uterine device (IUD), the contraceptive pill, and the operation.
CHAPTER IV
ANALYSIS AND PRESENTATION OF FINDINGS

Description of Characteristics of the People

The sample for this study consisted of 120 married students from the U.S.A. and Latin America. Of the 80 married students from the U.S.A., 40 were Catholic and 40 were Protestant. The Latin American sample included 40 Catholic married students from three countries: Bolivia, Venezuela, and Peru.

More than three-fourths (82.5 percent) of males as well as females from the U.S.A. were between 20 and 34 years of age. A slightly lower percentage of females (70.0 percent) as well as males (80.0 percent) from Latin America were within the same limit. The remaining percentages among males and females from both Latin America and the U.S.A. were over 34 years of age. This shows that Latin American males and females are somewhat older than those from the U.S.A. in this study.

Number of Children

Forty-five percent (45.0 percent) of the married couples from the U.S.A. do not have any children, while only 15.0 percent of the couples from Latin America are childless. While 27.5 percent of the couples from the U.S.A. have two or more children, 60.0 percent of the couples from Latin America have two or more children. This shows a definite tendency for larger family size among Latin Americans in this study.
Statistical Technique

To test the existence of association, the Chi-square statistical technique was used. This method tests the significance of differences between the observed and expected distribution of certain socio-cultural factors chosen, and birth control behavior and attitudes used by the components of the sample.

Formulating the Null Hypothesis

In order to give evidence of positive relationship the null hypothesis is tested for the purpose of ruling out differences due to chance. The null hypothesis states that no relationship exists between the socio-cultural variables and birth control, i.e., that observed differences are due to chance or sampling error. Differences which are between the .05 level and .001 and beyond, however, allow the rejection of the null hypothesis and the assumption that differences are real and not merely due to chance.

Testing of the Hypotheses, Presentation of the Findings, and Analysis

Hypothesis 1: The use of birth control will not be significantly greater among Catholics from the U.S.A. than among Catholics from Latin America.

This hypothesis allows the testing of the notion that differences will exist according to ethnic background.

The test for this hypothesis can be seen in Table 1. Ninety-five percent (95.0 percent) of the Latin American Catholics use birth control as compared to 75.0 percent of the U.S.A. Catholics. The
Table 1. Ethnic background by birth control* use or non-use

<table>
<thead>
<tr>
<th>Birth Control</th>
<th>U.S.A. Catholics</th>
<th></th>
<th>Latin American Catholics</th>
<th></th>
<th>Totals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Use</td>
<td>15</td>
<td>75.0</td>
<td>19</td>
<td>95.0</td>
<td>34</td>
<td>85.0</td>
</tr>
<tr>
<td>Non-use</td>
<td>5</td>
<td>25.0</td>
<td>1</td>
<td>5.0</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100.0</td>
<td>20</td>
<td>100.0</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$\chi^2=3.12$, df=1, $P<.10$ (NS)

*Since birth control is a behavior which relates to couples, only one answer per couple was used. $\chi^2$ requires that only one frequency be considered for each behavior.

If either of the two persons used birth control, the couple was considered as using birth control. It is misleading to count a person who does not use birth control if his (her) spouse uses it. For this reason the present sample size for this table and many other tables to follow includes only one sample person from each couple.

The procedure for selection of persons to represent each couple follows: The author went through the answers of each couple. If only one of the two used birth control, that person was selected to represent the couple. If both used birth control, then only one was selected using a random procedure. If neither used birth control, then one was selected, also using this same random procedure. The same randomly drawn respondents were used for every table which required only one answer per couple, that is, tables related to behavior.

difference produced a $\chi^2$ value of 3.12 which was not significant (.10 level). The evidence presented in this table means that the null hypothesis cannot be rejected.

This finding suggests that ethnic background is not an important factor accounting for differences in the use of birth control.

Hypothesis 2: The continual use of birth control will not be significantly greater among Catholics from the U.S.A. than among Catholics from Latin America.

The results of association can be seen in Table 2, which indicate that fifty percent (50.0 percent) of Latin American Catholics continually
Table 2. Ethnic background by extent* of use of birth control

<table>
<thead>
<tr>
<th>Extent of Use</th>
<th>U.S.A. Catholics</th>
<th>Latin American Catholics</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Continual use</td>
<td>11</td>
<td>55.0</td>
<td>10</td>
</tr>
<tr>
<td>Periodic or non-use</td>
<td>9</td>
<td>45.0</td>
<td>10</td>
</tr>
<tr>
<td>Totals</td>
<td>20</td>
<td>100.0</td>
<td>20</td>
</tr>
</tbody>
</table>

$x^2 = 0.098$, df = 1, $P < 0.80$ (NS)

*See footnote to Table 1.

use birth control compared to only a slightly larger percentage of U.S.A. Catholics (55.0 percent). This small difference produces a $x^2$ value of only 0.098, which is not significant ($0.80$ level). Once again the null hypothesis cannot be rejected and the differences are assumed to have occurred by chance.

This finding also suggests that ethnic background is not an important factor related to birth control behavior.

**Hypothesis 3:** Birth control is not more acceptable among members of Protestant churches than it is among members of the Catholic Church regardless of ethnic background.

Table 3 indicates that all (100.0 percent) of the Protestants use birth control and nearly all (85.0 percent) of the Catholics use it. This difference produces a $x^2$ value of only 1.33 which is also not significant ($0.30$ level). The evidence presented in this table means that the null hypothesis cannot be rejected.

Religion appears to be unrelated to birth control behavior as shown by this finding.
Table 3. Religious preference by birth control* use or non-use

<table>
<thead>
<tr>
<th>Birth Control</th>
<th>U.S.A. &amp; Latin American Catholic</th>
<th>U.S.A. Protestant</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. %</td>
<td>No. %</td>
<td>No. %</td>
</tr>
<tr>
<td>Use</td>
<td>34 85.0</td>
<td>20 100.0</td>
<td>54 90.0</td>
</tr>
<tr>
<td>Non-use</td>
<td>6 15.0</td>
<td>- 0.0</td>
<td>6 10.0</td>
</tr>
<tr>
<td>Totals</td>
<td>40 100.0</td>
<td>20 100.0</td>
<td>60 100.0</td>
</tr>
</tbody>
</table>

$X^2 = 1.33, df=1, P<.30$ (NS)

*See footnote to Table 1.

Hypothesis 4: The continual use of birth control will not be significantly greater among Protestants than among Catholics.

As can be seen in Table 4, there is a substantial difference between Protestants and Catholics regarding the extent to which birth control is used. While 80.0 percent of the Protestants continually use birth control, only 52.5 percent of the Catholics continually use birth control. The remainder either do not use birth control or only use it periodically. This produces a $X^2$ value of 4.27, which is significant (.05 level). Therefore, the null hypothesis can be rejected and differences are assumed to be real.

The greater incidence of periodic rather than continual use of birth control by Catholics suggests that the main difference between Catholics and Protestants does not lie in whether or not birth control is used. It shows that how birth control is used is the main difference. The rhythm method is one example of the periodic use of birth control. This undoubtedly accounts for the difference between Catholics and Protestants.
Table 4. Religious preference by extent* of use of birth control

<table>
<thead>
<tr>
<th>Extent of Use</th>
<th>U.S.A. &amp; Latin American Catholic</th>
<th>U.S.A. Protestant</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Continual use</td>
<td>21</td>
<td>52.5</td>
<td>16</td>
</tr>
<tr>
<td>Periodic or non-use</td>
<td>19</td>
<td>47.5</td>
<td>4</td>
</tr>
<tr>
<td>Totals</td>
<td>40</td>
<td>100.0</td>
<td>20</td>
</tr>
</tbody>
</table>

$X^2 = 4.27$, df=1, P<.05 (S)

*See footnote to Table 1.

Perhaps what is most important in this finding is that it suggests that the Catholic Church does have an influence on its members since it openly approves of the rhythm and abstinence methods of birth control. Religion, therefore, does appear to be an important factor.

Hypothesis 5: There will not be a significantly greater number of Catholics than Protestants who will favor formal sources of gaining information about birth control.

The test for this hypothesis can be seen in Table 5, which indicates that there is a notable difference in the sources of information used by the members of Catholic and Protestant churches. The Catholics use more formal sources or formal interaction (83.4 percent) than do the Protestants (60.0 percent). The difference produced a $X^2$ value of 6.88 which is significant at the .01 level. Once again the null hypothesis can be rejected.

The idea of the author that sex is viewed more casually by Protestants than by Catholics is supported in this finding.
Table 5. Religious preference by best source of information for birth control

<table>
<thead>
<tr>
<th>Best Source of Information</th>
<th>U.S.A. &amp; Latin American Catholics</th>
<th>U.S.A. Protestants</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>*Formal interaction or media sources</td>
<td>55</td>
<td>83.4</td>
<td>24</td>
</tr>
<tr>
<td>Informal interaction sources</td>
<td>11</td>
<td>16.6</td>
<td>16</td>
</tr>
<tr>
<td>Totals</td>
<td>66</td>
<td>100.0</td>
<td>40</td>
</tr>
</tbody>
</table>

\[ x^2 = 6.88, df=1, P<.01 \] (S)

*Formal interaction sources: Medical center, School, PAA, News media
Informal interaction sources: Spouse (husband or wife), Family (relatives), Friends, neighbors

Hypothesis 6: There will not be a significantly greater number who accept rhythm and abstinence as being the best methods of birth control among Catholic women than among Protestant women.

Table 6 indicates that there is an appreciable difference in the preference and attitude regarding the best method of birth control among Catholic and Protestant women. All of the Protestant women (100.0 percent) felt that artificial methods were best compared to 75.5 percent of the Catholics. This shows that 25.0 percent of the Catholic women felt that rhythm and abstinence methods, including non-use of birth control, were best. The observed differences were significant at the .05 level. Therefore, the evidence presented in this table means that the null hypothesis can be rejected.
Table 6. Religious preference by attitude regarding best method of birth control among women

<table>
<thead>
<tr>
<th>Best Methods</th>
<th>U.S.A. &amp; Latin American Catholics</th>
<th>U.S.A. Protestants</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>*Artificial methods</td>
<td>30</td>
<td>75.0</td>
<td>20</td>
</tr>
<tr>
<td>Rhythm and abstinence (including non-use)</td>
<td>10</td>
<td>25.0</td>
<td>-</td>
</tr>
<tr>
<td>Totals</td>
<td>40</td>
<td>100.0</td>
<td>20</td>
</tr>
</tbody>
</table>

$X^2=5.98$, df=1, $P<.02$ (S)

*Artificial methods:
- Pill
- IUD
- douche
- Diaphragm
- Foams or jellies

This finding supports the conclusion made from Table 5 that religion is an important factor determining how birth control is used.

Hypothesis 7: The use of birth control will not be significantly greater among those with higher education than among those with lower education, and

Hypothesis 8: The great majority of married college students will use birth control.

Table 7 shows that there is little if any difference between married students with higher education and those with lower education regarding the use of birth control; 90.3 percent of the students with higher education and 89.7 percent of those with lower education use birth control. This small difference produced a $x^2$ value of only .006 which is not significant. The null hypothesis cannot be rejected.
Table 7. Level of education by birth control* use or non-use

<table>
<thead>
<tr>
<th>Birth Control</th>
<th>Higher Education**</th>
<th>Lower Education**</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>28 90.3</td>
<td>26 89.7</td>
<td>54 90.0</td>
</tr>
<tr>
<td>Non-use</td>
<td>3 9.7</td>
<td>3 10.3</td>
<td>6 10.0</td>
</tr>
<tr>
<td>Totals</td>
<td>31 100.0</td>
<td>29 100.0</td>
<td>60 100.0</td>
</tr>
</tbody>
</table>

$x^2 = .006$, df=1, $P < .004$ (NS)

*See footnote to Table 1.

**Higher education
College: senior or graduate

**Lower education
College: freshman, sophomore, junior

The distinction between higher education and lower education at the level of college, is an arbitrary classification used only for this study. Indeed, all the students of college supposedly are in the higher education level.

However, the fact that ninety percent of the respondents in the sample use birth control supports Hypothesis 8.

It is concluded that education is an important factor in determining behavior related to birth control. The verification of this conclusion, however, must await a future study which will compare college students with non-college students.

Hypothesis 9: The continual use of birth control will not be significantly greater among those with higher education than among those with lower education.

Table 8 indicates that there is some difference among those with higher education (67.8 percent) who continually use birth control compared with those with lower education who also continually use birth control (55.2 percent). However, this difference produces a $x^2$ value of only .99 which is not significant (.30 level). The evidence presented in this table means that the null hypothesis cannot be rejected.
Table 8. Level of education by extent* of use of birth control

<table>
<thead>
<tr>
<th>Extent of Use</th>
<th>Higher Education No.</th>
<th>Higher Education %</th>
<th>Lower Education No.</th>
<th>Lower Education %</th>
<th>Totals No.</th>
<th>Totals %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continual use</td>
<td>21</td>
<td>67.8</td>
<td>16</td>
<td>55.2</td>
<td>37</td>
<td>61.7</td>
</tr>
<tr>
<td>Periodic or non-use</td>
<td>10</td>
<td>32.2</td>
<td>13</td>
<td>44.8</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>Totals</td>
<td>31</td>
<td>100.0</td>
<td>29</td>
<td>100.0</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\[ x^2 = .99, \text{df}=1, \ P < .30 \text{ (NS)} \]

*See footnote to Table 1.

The real test of the importance of education, like Table 7, awaits further study.

Hypothesis 10: The number using birth control will not be significantly greater among students with lower income than among those with higher income.

As can be seen in Table 9, only a slight difference exists among those students with lower income (88.9 percent) and those with higher income (93.4 percent) who use birth control. This difference produced a $x^2$ of only .23 which is not significant (.70 level). Therefore, the null hypothesis cannot be rejected.

Income does not appear to influence behavior related to birth control among college students.

Hypothesis 11: The continual use of birth control will not be significantly greater among those with less income than among those with higher income.

Table 10 indicates that there is a difference between those with less income and those with higher income regarding the extent to which birth control is used. Those with less income continually use birth
Table 9. Income level by birth control* use or non-use

<table>
<thead>
<tr>
<th>Birth Control</th>
<th>Income: $7,000 &amp; Over</th>
<th>Income: Under $7,000</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Use</td>
<td>14</td>
<td>93.4</td>
<td>40</td>
</tr>
<tr>
<td>Non-Use</td>
<td>1</td>
<td>6.6</td>
<td>5</td>
</tr>
<tr>
<td>Totals</td>
<td>15</td>
<td>100.0</td>
<td>45</td>
</tr>
</tbody>
</table>

$X^2 = .23, df=1, P<.70$ (NS)

*See footnote to Table 1.

Table 10. Income level by extent of birth control* use

<table>
<thead>
<tr>
<th>Extent of Use</th>
<th>Income: $7,000 &amp; Over</th>
<th>Income: Under $7,000</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Continual use</td>
<td>7</td>
<td>46.7</td>
<td>30</td>
</tr>
<tr>
<td>Periodic or non-use</td>
<td>8</td>
<td>53.3</td>
<td>15</td>
</tr>
<tr>
<td>Totals</td>
<td>15</td>
<td>100.0</td>
<td>45</td>
</tr>
</tbody>
</table>

$X^2 = 1.93, df=1, P<.20$ (NS)

*See footnote to Table 1.

control more than do those with higher income (46.7 percent). However, this difference produces a $X^2$ value of only 1.93 which is not significant ( .20 level). Therefore, the null hypothesis cannot be rejected.

Once again, income does not appear to have an effect upon birth control behavior.
CHAPTER V

SUMMARY AND CONCLUSIONS

Problem

The rapid increase of the world population, especially in under-developed countries, is a serious problem. The governments, the political leaders, the educators, the economists, and the specialists in demography, are worried over implications of this problem, and they are studying the best ways to face it. The establishment of programs such as the planned parenthood or family planning reflect some of the policies taken in this direction. Although this problem is recognized, it is necessary to know the sociological aspects involved in this type of population problem in order to reach fuller success of any program recommended by the governments.

The general objective of this study was to attempt to determine whether certain socio-cultural factors are associated with behavior and attitudes toward birth control among married student couples at Utah State University. The socio-cultural factors tested for association were: ethnic background, religious preference, education, and income.

Procedures

This study was conducted at Utah State University campus, among Catholic and Protestant married students from the U.S.A. and from some Latin American countries in an attempt to determine their attitudes and actions in relation to family planning.
A random sample of 40 Catholic and Protestant married couples from the U.S.A. was selected from a list provided by Utah State University. The sample of Latin Americans was of 20 Catholic married couples from Bolivia, Venezuela, and Peru. For this sample, only 20 married couples were available.

The data was obtained by means of a questionnaire. It was administered personally by the author in order for him to clarify questions and be certain that the respondents answered all of the questions.

The chi-square statistical technique was used to determine the significance of differences between the observed frequency distribution and that expected under conditions of random distribution. The statistical level of five percent was adopted as the level of significance for rejection or non-rejection of the hypothesis.

**Conclusions**

The socio-cultural variable, religious preference, was the main independent variable which proved to be significantly associated with the following dependent variables: (1) sources of information for birth control; (2) extent to which birth control is used, and (3) attitude regarding the best method of birth control among women. The greatest association was found to be between religious preference and source of information, followed by the important finding of this study regarding the religious preference by extent to which birth control is used.

Education was also shown to be related to birth control use, although this finding needs further verification to show that differences really exist between college and non-college people.
The remaining socio-cultural variables (ethnic background, and income) were not causal of birth control attitudes and behavior, as no significant associations were found.

**Conclusions Regarding the Theoretical Basis of This Study**

The findings of this study show that birth control attitudes and behavior are not related with the norms of government or nationality but is closely related to the norms of religious and educational institutions. These latter two institutions appear to act as effective means or agencies for the socialization of the people.

These institutions like churches, for instance, socialize the individuals according to the religious norms with regard to birth control behavior and attitudes. The findings in this study showed some significant differences between Catholics and Protestants related to the use of birth control, such as how birth control is used (continuously or periodically, and with attitudes toward artificial or non-artificial methods), and the sources of information (formal or informal). These are important aspects in which individuals are socialized.

Therefore, these reasons lead the author to conclude that socialization has been successfully implemented by religious and educational institutions in some ways.

**Suggestions for Further Research**

Some suggestions are the following:

1. The socio-cultural variables used in this study were ethnic background, religious preference, education, and income. Other variables could be investigated in relationship to the effect they have upon
family planning or birth control, such as occupation, length of marriage, and other variables not researched in this study.

2. To conduct the same study with a sample of greater number of married students from the U.S.A. and Latin America.

3. To determine if birth control is used in greater proportion among those with higher education than among those with lower education, could compare college students with non-college students.

4. To conduct the same study with married couples who are not students.

5. To include in the sample of future studies members of other religions, such as Mormons and Jews.
LITERATURE CITED

Books


Articles and Periodicals


Public Documents


APPENDIXES
Appendix A

QUESTIONNAIRE

No._____

1. AGE:
   ______ No response
   ______ Less than 20 years
   ______ 20-24 years
   ______ 25-29 years
   ______ 30-34 years
   ______ 35 and over

2. SEX:
   ______ No response
   ______ Male
   ______ Female

3. NUMBER OF CHILDREN:
   ______ No response
   ______ One
   ______ Two
   ______ Three and over
   ______ None

4. NATIONALITY:
   ______ No response
   ______ U.S.A.
   ______ Bolivian
   ______ Venezuelan
   ______ Peruvian
   ______ Other: __________
5. RELIGIOUS PREFERENCE:
   ____ No response
   ____ Catholic
   ____ Protestant
   ____ Other: ________

6. EDUCATION:
   ____ No response
   ____ High school
   ____ College (Fresh., Soph., Junior)
   ____ College (Senior or Graduate)

7. INCOME (Average yearly income in dollars):
   ____ No response
   ____ $999 to $7,000
   ____ $7,001 to $15,000 and over

8. USE OF BIRTH CONTROL:
   ____ No response
   ____ Use
   ____ Non-use

9. EXTENT OF BIRTH CONTROL IS USED:
   ____ No response
   ____ Continually used
   ____ Periodically used
   ____ Not use
10. SINGLE MOST IMPORTANT SOURCE OF INFORMATION FOR BIRTH CONTROL:

- No response
- Spouse (husband or wife)
- Family, friends, neighbors
- Medical Center (Doctors, nurses)
- News Media (newspaper, magazines, leaflets, T.V., radio)
- Other: __________

11. SINGLE METHOD THAT IS THE BEST FOR BIRTH CONTROL, FOR WOMEN:

- No response
- Abstinence
- Rhythm
- Douche
- Diaphragm
- Foams or Jellies
- I.U.D. (intrauterine device)
- Pills
- Operation
- Not use
### Appendix B

**CODING INSTRUCTIONS**

<table>
<thead>
<tr>
<th>Col.</th>
<th>1-3</th>
<th>Identification Number</th>
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<td>Col.</td>
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<td><strong>1. AGE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. No response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. Less than 20 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. 20-24 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. 25-29 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E. 30-34 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F. 35 and over</td>
</tr>
<tr>
<td>Col.</td>
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<td><strong>2. SEX</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
<td>B. Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Female</td>
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<td><strong>3. NUMBER OF CHILDREN</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. No response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. One</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Two</td>
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<td></td>
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<td>D. Three and over</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E. None</td>
</tr>
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<td>Col.</td>
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</tr>
<tr>
<td></td>
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<td></td>
<td>B. U.S.A.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Bolivian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. Venezuelan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E. Peruvian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F. Other</td>
</tr>
<tr>
<td>Col.</td>
<td>8</td>
<td><strong>5. RELIGIOUS PREFERENCE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. No response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. Catholic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. Protestant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. Other</td>
</tr>
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<td>Col.</td>
<td>9</td>
<td><strong>6. EDUCATION</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. No response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. High School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. College (Fresh., Soph., Junior)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. College (Senior or Graduate)</td>
</tr>
</tbody>
</table>
Col. 10 7. INCOME
A. No response
B. $999 to $7,000
C. $7,001 to $15,000 and over

Col. 11 8. USE OF BIRTH CONTROL
A. No response
B. Use
C. Non-use

Col. 12 9. EXTENT OF BIRTH CONTROL IS USED
A. No response
B. Continually used
C. Periodically used
D. Not use

Col. 13 10. SINGLE MOST IMPORTANT SOURCE OF INFORMATION FOR BIRTH CONTROL
A. No response
B. Spouse (husband or wife)
C. Family, friends, neighbors
D. Medical Center (doctors, nurses)
E. News Media (newspapers, T.V., radio)
F. Other

Col. 14 11. SINGLE METHOD THAT IS THE BEST FOR BIRTH CONTROL, FOR WOMEN
A. No response
B. Abstinence
C. Rhythm
D. Douche
E. Diaphragm
F. Foams or Jellies
G. IUD
H. Pills
I. Operation
J. Not use
VITA

Gustavo Loza-Montenegro

Candidate for the Degree of

Master of Science

Thesis: The Influence of Ethnic Background, Religion, Education, and Income Upon Family Planning Behavior and Attitudes of Certain Married Couples at Utah State University

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