

Utah State University

DigitalCommons@USU

All Graduate Theses and Dissertations

Graduate Studies

5-1971

The Pill-Correlates of Attitudes Toward Oral Contraception

Carmen Knudson Ptacek
Utah State University

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>



Part of the [Education Commons](#)

Recommended Citation

Ptacek, Carmen Knudson, "The Pill-Correlates of Attitudes Toward Oral Contraception" (1971). *All Graduate Theses and Dissertations*. 2257.

<https://digitalcommons.usu.edu/etd/2257>

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.



THE PILL--CORRELATES OF ATTITUDES
TOWARD ORAL CONTRACEPTION

by

Carmen Knudson Ptacek

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

ACKNOWLEDGMENTS

I wish to thank Dr. Jay Schvaneveldt for his valuable assistance and guidance throughout the course of my study and the writing of this paper. I also extend my thanks to Mrs. Marie Kruger and Dr. C. Jay Skidmore for their help and encouragement.

To all the teachers who helped administer my scale and to the many others who aided me in various ways, I express my gratitude.

Finally, I thank my husband, Lanny, whose patience and understanding made it possible for me to continue my education, and my parents, Mr. and Mrs. Nels Knudson, for their many years of encouragement and assistance.

Carmen K. Ptacek
Carmen Knudson Ptacek

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
ABSTRACT	vi
INTRODUCTION	1
Statement of Problem	1
Objectives	3
Hypotheses	3
REVIEW OF LITERATURE	5
Background and Development of the Pill	5
Physical Safety and Functioning of the Pill	6
Psychological Effects of the Pill	9
The Pill and Poverty	10
The Pill and Sexual Behavior	11
The Pill, Education, and Age	12
The Pill and Religion	13
The Pill and Geographical Region	19
The Pill, Marital Status, and Sex	20
Summary	21
PROCEDURE	23
The Instrument	23
Validity and reliability	24
The Sample	24
Analyses of Data	29
FINDINGS	30
Hypotheses	30
Hypothesis 1	30
Hypothesis 2	31
Hypothesis 3	32
Hypothesis 4	34
Hypothesis 5	35
Hypothesis 6	36

TABLE OF CONTENTS (Continued)

	Page
Responses to Items on the Questionnaire . . .	37
Psychological and Physical Safety of the Pill	37
Use of the Pill	38
Religious and Moral Aspects of the Pill	39
Distribution of the Pill	40
Effect of the Pill	41
Item Analysis	42
SUMMARY AND CONCLUSIONS	46
Scope of the Study	46
Objectives	46
Procedure	46
Analyses of Hypotheses	47
Findings	47
Hypotheses	48
Responses to Items on the Questionnaire	49
Item Analysis	50
Conclusions	51
Suggestions for Further Research	53
LITERATURE CITED	54
APPENDIXES	58
Appendix A The Instrument	59
Appendix B Letters	61
Letter Enclosed with Questionnaire Mailed to Married Students	61
Thank You Letter to Those Who Assisted in the Research Effort	62
Appendix C Sample Response to Individual Items	63
VITA	67

LIST OF TABLES

Table	Page
1. Composition of the total sample by religion, educational attainment, marital status, region, age, and sex	26
2. Distribution of sample characteristics	27
3. Range, median, and mean by religion for total sample	30
4. Range, median, and mean by education for total sample	32
5. Range, median, and mean by marital status of college students	33
6. Range, median, and mean by region for total sample	34
7. Range, median, and mean by age for total sample	35
8. Range, median, and mean by sex for total sample	36
9. Chi square values for item analysis	43

ABSTRACT

The Pill--Correlates of Attitudes
Toward Oral Contraception

by

Carmen Knudson Ptacek, Master of Science

Utah State University, 1971

Major Professor: Dr. Jay Schvaneveldt
Department: Family and Child Development

The purpose of this study was to determine attitudes toward the oral contraceptive as related to religious, regional, educational, age, sex, and marital status. The instrument utilized was a 30 item summated scale which was completed by 240 high school and college students from the Intermountain and Great Plains regions.

The findings indicated a very large range of opinion regarding the pill. Attitudes were found to be related to religion, region, educational attainment, and marital status. Age and sex were not related to attitudes toward the pill.

(73 pages)

INTRODUCTION

In his provocative satire, "Population Control, 1986," Paredes (1970) sees bombs, not the pill, as the device used for population control. Part of his essay reads, "If you had only listened twenty years ago ... we wouldn't have a problem now." (p. 33) This type of thinking is reflected by many persons today. They feel that the rate of population growth must be controlled. To do so would require widespread use of contraceptive techniques on the part of the child-bearing population.

Since the most effective contraceptive now available is the oral contraceptive (commonly referred to as "the pill"), persons' attitudes toward its use are important in determining the extent to which population growth will be controlled. It was these attitudes that were the concern of this study.

Statement of Problem

Despite its reliability, the pill is the object of much controversy. Articles on it can be found in almost every popular magazine, making information on the pill accessible to most of the population. Many questions have been raised about it which could affect a person's attitude toward use of the pill. These include speculations

on its safety, its psychological effects, and its moral and social implications.

Chilman (1968) reported that about 90 percent of people in the United States approve of the concept of family planning. According to Erskine (1966), 68 percent of the population approved use of the pill. Apparently, then, some persons who approve of birth control do not approve of the pill as the method with which to achieve it.

Some years ago Davis (1939) observed that society was reluctant to use readily available means to decrease the rate of illegitimacy. More recent figures (Erskine, 1966) show that the same sort of attitude is still prevalent, and many individuals fear that making birth control accessible to unmarried women, particularly teens, will promote promiscuous sexual behavior. So, people seem to have reservations about who should be allowed to use the pill.

Many religious denominations have taken a stand on the use of the pill. Pope Paul VI's encyclical ban against artificial and mechanical forms of contraception has been rejected in public or in private by many Roman Catholics. According to Potvin, Westoff, and Ryder (1968) the number of Catholic wives using birth control methods other than rhythm has been continually on the rise.

Hence, attitudes toward the oral contraceptive merited investigation. This study examined attitudes regarding use of the pill as affected by religious, educational, marital, regional, age, and sex factors.

Objectives

The purpose of this study was to compare the relative conservatism or liberalism in overall attitudes toward use of the oral contraceptive as related to religious, regional, educational, age, marital status, and sex factors. It was also the objective of this study to determine which items on the scale discriminate attitudes in regard to substantive areas of opinion.

Hypotheses

1. Protestants have a more liberal score concerning use of the pill than Roman Catholics and Mormons.
2. College students are more liberal than are high school students.
3. There is no significant difference between the attitudes of married and single college students regarding the pill.
4. Region is not related to attitudes toward the pill.
5. Age and attitudes toward the pill are not related.

6. No significant difference in attitudes exists between males and females.

REVIEW OF LITERATURE

There is a wealth of written material regarding the oral contraceptive and birth control. This review is limited to those aspects which were studied; therefore, such related subjects as overpopulation or controlling births to improve the race are not included. However, this investigator recognizes the importance of these topics and their implications to the use of the pill.

Background and Development of the Pill

Man's attempts to control births reach so far back into the past that it is difficult to find its origin. Knowledge of contraception is found in numerous papyruses from Egypt dating back as far as 1900 B.C. (Hardin, 1969). However, the chief forms of population control used by early peoples were infanticide and abortion. Most of their contraceptive measures were extremely crude by present day standards. Along with withdrawal, many magic potions were used. Himes' Medical History of Contraception presents an excellent review of the development of contraceptive techniques from such primitive measures as the magic potions to contraception as it stood in 1935. It has now been reprinted and includes a preface by Guttmacher describing the advances since 1935.

As a result of experiments conducted in the early 1950's, Pincus and his associates reported the discovery that certain steroids inhibited ovulation in rats and rabbits (Pincus, et al., 1956). They began testing these on humans in Puerto Rico in 1956 and soon extended their research to other countries. They found their new contraceptive to be 100 percent effective when taken correctly (Pincus, et al., 1959a)

Physical Safety and Functioning of the Pill

The pill contains two hormones, estrogen and progesterone, which are ordinarily produced by the ovary. These substances prevent the pituitary gland from obeying a message from the brain to secrete two other gonadotrophic hormones which would trigger monthly ovulation. As long as estrogen and progesterone are present in sufficient amounts in the blood, ovulation is suppressed. This is the same way the body prevents ovulation during pregnancy.

The standard procedure with most birth control pills is to take one tablet each day for 20 days or 3 weeks, then wait 5 to 7 days and begin again. During this break the woman experiences menstrual-like bleeding. Some of the newer pills combine several ingredients and are taken every day of the month. They may be pills of varying strengths or contain "dummy" pills to simplify the pill-taking routine.

Since the pill was first introduced to the public in 1961, it has become very popular. Allingham, Balakrishnan,

and Kantner (1969) reported that the number of women using the pill increased every month from January 1963 to October 1967. According to Westoff and Ryder (1967), by 1965 the pill had become the most common method of birth control in the United States.

One reason for the high degree of use of the pill by women is that it meets many of the conditions of the ideal contraceptive. The pill is nearly 100 percent effective and is coitus-independent, thus removing the decisions about birth control from a time when sexual excitement predominates. It does not detract from the sexual act itself.

There has been a great deal of concern about possible side effects of the pill. Popular magazines have been filled with articles discussing the pill from this aspect. Dickey and Dorr (1968) report that oral contraceptives do not produce new or unique side effects. Rather, the side effects are symptoms of an excess or deficiency of their hormonal components and are similar to symptoms that occur naturally during periods of hormone increase or decrease such as pregnancy or menopause. They indicated that many of the problems of side effects could be solved by prescribing a pill with a different dosage to the individual.

The usual side effects include weight gain, nausea, breakthrough bleeding, and changes in skin pigmentation. Pincus, Rock and Garcia (1959b) found that some of these side effects may be psychological. The discovery was that women forewarned of possible side effects developed more

side effects than those who were not forewarned. Those who do experience side effects usually find that they disappear after the first few cycles (Pincus et al., 1959a).

There has also been much speculation about use of the pill and an increase in the rate of thromboembolic disease. Charles (1968) reported to a physicians' conference that there are no decisive studies on this relationship, but that if such a risk is caused, it is not high. It would be much less than the risk involved if the woman became pregnant. He suggested the importance of a thorough medical examination before oral contraceptives are prescribed.

Controversy over such risks in using the pill brought about hearings in the United States Senate in January 1970. These hearings no doubt had an effect on many persons' attitudes toward use of the pill. A special Gallup Poll taken for Newsweek during the first week of February, 1970 revealed that 18 percent of the women using the pill had stopped taking it, and an additional 23 percent were considering giving it up (Newsweek, February 9, 1970). In 1967, 43 percent of the population felt that the pill was safe to use without danger to one's health. This dropped to 23 percent in March 1970 (Gallup Opinion Index, March 1970).

The pill is also suspected to be related to other diseases. These include cancer, strokes, liver disease, and eye trouble.

Psychological Effects of the Pill

Questions have also been raised about the psychological effects of the pill. Pohlman (1969) suggests that the certainty of effective contraception may jeopardize the traditional husband and wife relationship, because the husband may feel threatened by his wife's powers. He also indicates that the freedom the pill promotes may cause changes in the double standard and may allow women to become competitive threats outside the home as well. He further suggests that some persons fear a loss of potency or "de-sexing" as a result of tampering with the mysteries of the menstrual cycle and the miracle of conception. Similarly, Rainwater (1960) believes that many persons fear that any pill powerful enough to stop conception could also endanger the system.

Some women report feelings of depression or loss of libido after using the pill. Kroger (1968) found such adverse reactions to be more common among those patients who were emotionally unstable. This, he said, was

...due not only to the pharmacologic action of the pill, but also to faulty or ambivalent attitudes toward pregnancy, contraception, and other environmental influences. (p. 98)

On the other hand, a study by Landis, Poffenberger, and Poffenberger (1950) seems to indicate that use of the pill would promote a more satisfactory sexual relationship. They found that wives who feared another pregnancy or mistrusted their contraceptive method were not as likely to have as satisfactory a sexual adjustment as those who did not.

Use of the pill can prevent the birth of an unwanted child. Will this make children more loved? Pohlman (1969) discusses parenthood and the problem of the unwanted child. He says that in some cases during pregnancy or around the time of birth, new factors enter the picture and the child becomes wanted. But for many, the wish that something would happen to the fetus becomes a wish that something would happen to get rid of the child. Since this is not easily accomplished in our society, the parent may develop feelings of hostility toward the unwanted child. Some parents follow through with impulses to beat the "howling brat" or choke "the little monster," but more often the child is well cared for physically, but psychologically the parents withdraw from the child. If this assessment is correct, it would appear that use of the pill may help bring about a better relationship between parent and child.

The Pill and Poverty

Birth control is often regarded as a means of combatting poverty. But there is some question as to how well the poor will receive the idea of birth control, and how effectively they could use the pill. Rainwater (1960) feels that it is characteristic of the lower class to be reluctant to plan, control, or interfere with nature. In contrast, Frank and Tietze (1965) argue that the poor are willing and able to plan and interfere with nature if they can see that it is to their advantage. The poor have many children, not because they want them, but because they don't know how to prevent

having them (Rainwater, 1967). Jaffe (1967) reports that the poor in America want family planning now. This is further substantiated by Lees (1966) who reports that two and one half years after initial clinic contacts by low income patients, approximately four out of five were still swallowing the pills regularly. Thus, it appears that many poor persons have had success with the pill.

The pill is part of birth control programs in some underdeveloped countries. Jones (1969) indicates that such programs should have a positive effect on a nation's economy, since no country has ever made great economic advances while sustaining a high rate of population growth. Kuznets (1970) does not see high population as such a serious obstacle, but he also suggests the economic benefits of limiting births.

The Pill and Sexual Behavior

While some persons advocate use of the pill to reduce the rate of illegitimacy, others fear that giving the pill to unmarried persons will promote illicit sexual behavior and are reluctant to have the pill used in this manner. According to Pohlman (1969) there is no experimental evidence to support the thesis that the availability of the pill would encourage promiscuous sexual behavior. Schofield (1965) suggests that there is not a strong relationship between use of contraceptives and promiscuity. He found that both those without sexual experience and those with it typically had knowledge of contraception. There was no

evidence to indicate that knowledge of contraception encouraged sexual activity. In fact, among couples having sexual relations the use of contraceptives was surprisingly infrequent, even though they expressed extensive fears of pregnancy. Pohlman (1969) explains that some unmarried couples hesitate to deliberately plan for sexual intercourse, and feel that contraception spoils the spontaneity of sexual relations.

Furstenberg, Gordis, and Markowitz (1969) in a study of unmarried pregnant adolescents found that only a small proportion had a negative view of birth control. However, most of the girls expressed a lack of confidence in the safety of the pill. Their reservations appeared to be more from lack of knowledge and misinformation than from basic aversion or apathy to the use of birth control.

Erskine (1966) reported that both men and women strongly opposed giving birth control pills to girls in college. On the other hand, the Population Council (1966) found a somewhat different attitude toward the giving of such information to single adults. Over half of those in its sample would favor this, with the more educated being more likely to agree.

The Pill, Education, and Age

Westoff and Potvin (1967) found that higher education had little influence on fertility values. According to them, values about family and children are developed before college.

One would assume that fertility values are closely related to contraceptive values. A recent Gallup Opinion Index (March, 1971) shows that higher education does, indeed, result in lower fertility values. Its figures showed that only 14 percent of those persons with college education desired four or more children. This was compared to 22 percent of those with high school education. Bajema (1966) found a positive relationship between fertility and educational level only for males. From studies dealing more directly with contraception, Hawthorn (1970) indicates a direct relationship between educational level and contraceptive usage and effectiveness. Another Gallup Opinion Index (September, 1970) showed that those persons with college education reflected more accepting attitudes toward the pill on each question asked. Westoff and Ryder (1970) found educational level to be related to use or expectations of use of the pill, but felt that it is becoming a less important differential.

The same Gallup Opinion Index (September, 1970) which showed more accepting attitudes toward the pill by those with college education, indicated that such accepting attitudes were more common among the younger age groups. Westoff and Ryder (1970) also found this relationship; however, there was little difference between the 18-24 and 25-29 age groups.

The Pill and Religion

Many persons find that use of the pill conflicts with

their religion. The Roman Catholic Church has traditionally opposed birth control. In the sixth century Bishop Caesarius of Gaul condemned birth control potions and affirmed that procreation was the only lawful reason for sex (Christianity Today, August 16, 1968). This position has changed somewhat now, and the Church recognizes that sexual intercourse has both a unitive and procreative meaning, but these meanings are regarded as inseparable.

In July 1968 Pope Paul VI (1968) rejected the findings of a special commission appointed by him to study the morality of birth control, and issued an encyclical letter banning all forms of artificial contraception, indicating that each sexual act must be open to the transmission of life. The following are excerpts of this letter:

In the task of transmitting life, therefore, they are not free to proceed completely at will, as if they could determine in a wholly autonomous way the honest path to follow; but they must conform their activity to the creative intention of God, expressed by the very nature of marriage and of its acts, and manifested by the constant teaching of the Church. ... God has wisely disposed natural laws and rhythms of fecundity which of themselves cause a separation in the succession of births. Nonetheless, the Church, calling men back to the observance of the norms of natural law, ... teaches that and every marriage act ... must remain open to the transmission of life.

Equally to be excluded ... is direct sterilization, whether perpetual or temporary, whether of the man or of the woman; similarly excluded is every action which, either in the anticipation of the conjugal act, or in its accomplishment, or in the development of its natural consequences, proposes whether as an end or as a means, to render procreation impossible. (pp. 9, 11)

The implication is that of all the contraceptive methods, only rhythm is acceptable. From a theological viewpoint

the document is not to be considered infallible, but is to serve as a guideline to aid Catholics in determining their conscience about birth control (Stoffel, 1971).

The Pope's ban has been rejected in public or in private by many. The Gallup Opinion Index (February, 1969) reports that when Catholics were asked whether they favored or opposed the Pope's stand, 54 percent opposed it while only 28 percent favored it. Sixty-five percent indicated that they felt a woman could use the pill and still be a good Catholic. Surveys have shown that many Roman Catholic women are ignoring the ban. Potvin, Westoff, and Ryder (1968) found that in 1965, 51 percent of Catholic wives used birth control methods other than rhythm, and the number of such persons was continually on the rise.

An important moral "out" for loyal Roman Catholic women was the encyclical's explicit provision that pills may be used for therapeutic reasons. This makes the moral judgment highly subjective (Christianity Today, August 30, 1968).

There is a growing body of Catholic opinion which sees such factors as mental health and problems of over-population as being legitimate basis for avoiding child-bearing. Rock (1963) reports that Stevens, of the Catholic University of America, is a spokesman for this group. At a research meeting of the Family Life Bureau of the National Catholic Welfare Conference Stevens said,

Indiscriminate procreation is no moral ideal, but mere irresponsibility, for the family must make prudent provision for the future welfare of the

children both spiritually and physically Some Catholic writers have denied that the couple should take into account the condition of society. Contrary to this, we may say the family must take into account the present and reasonable foreseeable future conditions of society. This is demanded for the sake of the children themselves, as well as for the common good which all are strictly bound to promote as a matter of what Saint Thomas calls general justice. (Rock, 1963, pp. 47-48)

The position of the Church of Jesus Christ of the Latter Day Saints (Mormon) on birth control is stated unofficially by McConkie, First Council of the Seventy, Church of Jesus Christ of the Latter Day Saints, in his book, Mormon Doctrine (1958). He says,

Those who practice birth control--the regulation of the number of births in a family by the employment of artificial means or contraceptives--are running counter to the foreordained plan of the Almighty. They are in rebellion against God and are guilty of gross wickedness.

There are multitudes of pure and holy spirits waiting to take tabernacles, now what is our duty? To prepare tabernacles for them; to take a course that will not tend to drive those spirits into families of the wicked where they will be trained in wickedness, debauchery, and every species of crime. It is the duty of every righteous man and woman to prepare tabernacles for all the spirits they can. (p. 81)

A more positive position is stated in a letter issued by the First Presidency of the Church of Jesus Christ of the Latter Day Saints in April 1969. It reads,

We have been commanded to multiply and replenish the earth that we may have joy and rejoicing in our posterity. Where husband and wife enjoy health and vigor and are free from impurities that would be entailed upon their posterity, it is contrary to the teachings of the Church artificially to curtail or prevent the birth of children However, we feel that men must be considerate of their wives who bear the greater responsibility not only of bearing children, but of caring for them through childhood. To this end the mother's health and strength should be conserved (McKay, Brown, and Tanner, 1969)

In a study conducted for the Salt Lake Tribune by Bardsley and Haslacher, Inc., it was found that 51 percent of the Mormons generally approved the idea of planned parenthood. This was compared to 79 percent of the non-Mormon sample (January 3, 1971). This indicates that a slight majority of Mormon adults favor birth planning despite the Church's position, but fewer support it than do members of other religious denominations in the same geographical region.

Except for a few fundamentalist groups, most Protestant religions share an approving or accepting attitude toward birth control. The following statement was issued after a symposium on birth control by evangelical Protestant scholars in 1968. It reads:

Birth control decisions may be based on such factors as psychological debility, family size, and finances This is not a religious issue, but a scientific one to be determined in consultation with a physician. ... coitus was intended to include the dual purpose of companionship and fulfillment, as well as procreation ... therefore procreation need not be the immediate intention of husband and wife in the sex act. (Christianity Today, September 27, 1968, p. 68)

A large Protestant body, the United Methodist Church, takes a very favorable stand on birth control. In its 1968 Church Discipline under the section dealing with responsible parenthood, it states:

The result of a rising birth rate, the decrease of infant mortality, the increase in longevity, and improved general health have created the increasing world population. To meet this situation the Church affirms:

-
 (2) that parents assume the responsibility of planning at long range the family they hope to establish, and plan wisely the spacing of children ...;

- (3) that married persons regard as ethically and morally right the proper use of methods and techniques, medically approved, for the purpose of achieving planned and responsible parenthood. (p. 63-64)

Westoff and Potvin (1967) found that in regard to attitudes toward motherhood, Protestant women hardly differ at all from those with no religious preference. Both Mormons and Catholics tended to hold much more traditional ideals and to equate marriage with motherhood. They discovered the strongest tendency to reject birth control among the Catholics. The Mormon women, however, were apt to integrate the religious and secular role and regard motherhood as a divine mission.

Both Blake (1966) and the Gallup Opinion Index (September 1970) find Protestants to be more liberal regarding the pill than Catholics. The differences in both cases were not great. According to Blake, the Catholic women tended to be more American than Catholic in their fertility values. The Gallup Opinion Index (March 1971) indicates that family size values are decreasing for all the religious groups in the survey, but a greater percentage of Catholics preferred large families than did Protestants. The difference was not statistically significant. Similarly, Westoff and Ryder (1970) suggest that being Catholic is becoming less significant in shaping one's attitudes toward contraception. Allingham, Balakrishnan, and Kantner (1969) found that among women with more than 12 years of schooling there was no difference between the percentage of Catholic women using the pill and the

Protestant women using the pill. This was not true for those women with less than 12 years of education.

The Pill and Geographical Region

The two states used in the sample for this study were Utah for the Intermountain area and North Dakota for the Great Plains region. Therefore, a review was made of each of these states. The 1970 Statistical Abstract of the United States shows that 69.9 percent of the population in the United States is urban. North Dakota is the most rural state in the Union with only 35.2 percent of its population classified as urban. Utah is 74.9 percent urban, making it more urban than average.

Rural-urban differences have been much discussed in the literature. Wrong (1967) reports that family limitation first began in the cities, and that rural populations are still more fertile. He suggests that urban living has made it difficult to accommodate large families in cramped living quarters. Urban living has also reduced the value of a large family as a source of unpaid labor. Beegle (1966) found that rural areas still have a higher rate of fertility. He credits this partly to the fact that children still play an important role on farms, but in addition, the rural people reflect a more traditional value system. He indicates, however, as does Tarver (1969), that such differences between urban and rural people are diminishing.

Even though Utah is classified as an urban state, the 1970 Statistical Abstract of the United States shows that

its birth rate of 23.6 births per thousand persons is higher than North Dakota's birth rate of 18.4. Both birth rates are above the United States average of 17.7.

Christensen and Gregg (1970) in their study of sex norms found the Intermountain region to be more conservative than the Midwest region. This was attributed to what they termed the "highly restrictive Mormon culture" found in the Intermountain area. Westoff and Potvin (1967) also discuss the more traditional values of the Mormon people. No doubt these religious values account for the high birth rate in this area, despite its urban classification.

The Pill, Marital Status, and Sex

This investigator has been unable to find any studies in the literature which deal with attitudinal differences regarding fertility or contraceptives between married and single persons. Westoff and Potvin (1967) have done a very detailed study of fertility values of college students. Most other studies or surveys have dealt with married persons. If age, education, and other such factors are held constant, there does not appear to be any substantial difference between the attitudes of single and married persons. Actual use of contraceptives cannot be fairly compared between these groups, but Ryder and Westoff (1966) state that the majority of young women with college training have already used the pill.

Most studies which have differentiated responses from males and females, have found males to be slightly more

liberal in contraceptive attitudes and less accepting of large families. The male-female differences are not great, though. For example, in the study conducted for the Salt Lake Tribune by Bardsley and Haslacher, Inc. (January 3, 1971), 60 percent of the males generally approved of the concept of family planning, while 55 percent of the women did. The Gallup Opinion Index (March, 1971 and September, 1970) found similar differences. Bajema (1966) found that as males increased in educational attainment, they had fewer offspring. This was not true for women. This agrees with the proposition of Westoff and Potvin (1967) that girls formulate their reproductive values before reaching college age.

Summary

Since the pill is the object of so much controversy today, one would assume that the attitudes toward it must vary. The literature shows that attitudes do indeed differ. While the reasons for such variance are not completely clear, there are many possible factors which could influence one's attitudes toward the oral contraceptive. The literature indicates many things about which an individual might have questions or fears concerning the pill.

Even though physicians appear to regard the pill as safe to use, recent investigations and magazine articles have led many persons to doubt the pill's safety. They also fear unpleasant side effects such as nausea or weight gain.

While the concern is not as widespread, some fear negative psychological reactions as a result of using the pill. For others, using the pill involves a religious or moral consideration. The pill has been suggested as a partial solution to several social problems such as abortion, illegitimacy, and poverty. Some persons fear the consequences of using the pill in this manner.

Only a few studies have dealt specifically with attitudes toward the oral contraceptive. Outside of the Gallup Opinion Index, most of them have been done by Westoff, Potvin, and Ryder in the years 1966, 1967, 1968, and 1970. Data indicate some difference between persons of different sex, age, religion, and educational attainment. As time passes, these differences appear to be lessening. This investigator could find no study using recent data. Most studies have not used figures from later than 1968. Polls have been common, but these generally do not deal with determining significant relationships.

This study has attempted to fill some of the gaps in the literature by (1) adding to the somewhat incomplete body of knowledge regarding significant factors relating to one's attitude toward the pill (2) providing more recent data; and (3) studying young persons who are just entering or will soon enter their reproductive years, rather than persons who are now in this stage or nearing its completion.

PROCEDURE

The Instrument

Data for this study were collected with an instrument containing background information and a scale. The scale was adapted from one developed by Bardis (1969). It was a Likert-type scale with summated ratings and contained 30 items.

The original scale as developed by Bardis was developed from a preliminary list of almost 600 statements dealing with opinions concerning oral contraception. Preliminary studies eliminated all but 38 items. The final scale, which contained 25 items, was determined on the basis of internal consistency of 100 subjects. The 10 highest and the 10 lowest scores were used to determine the discriminatory power of each of the 38 items. Those with the highest difference were retained.

This investigator eliminated items 3 and 22 on the basis that they repeated attitudes surveyed in other items. One dealt with the decline of the family institution, and the other with sexual promiscuity. Items 3, 8, 11, 14, 19, 22, and 30 were added to the scale. They dealt with medical safety and psychological aspects of the pill. These were included because they are controversial topics today.

For each item the subject indicated the extent of his agreement or disagreement with the statement by answering

0, 1, 2, 3, or 4. The meaning of each of these figures was:

0 - strongly disagree

1 - disagree

2 - undecided

3 - agree

4 - strongly agree

The individual's total score was attained by adding the total of the numbers indicated. The possible range of scores was from 0 to 120, with 0 representing the most conservative score, and 120 representing the most liberal score.

Validity and reliability

The scale was tested for validity by Bardis (1969) by giving it to groups known to differ on their views toward contraception. The scale was found valid in each case much beyond the .001 level.

Bardis (1969) also tested the scale for reliability by using the test-retest method and two split-half methods. The scale was found to be reliable in each case with coefficients of correlation being .90, .97, and .94.

The Sample

Questionnaires were distributed to high school students, single college students, and married college students in Utah and in North Dakota. The majority of the questionnaires were administered by teachers in selected high schools and at Utah State University and North Dakota State University. Questionnaires with a self-addressed, stamped envelope were

mailed to randomly selected occupants of the married student housing at North Dakota State. This method was also used to obtain data from a few high school students who could not be reached through the high schools. Married students at Utah State were contacted in person and given a questionnaire with a self-addressed, stamped envelope which they returned at their convenience.

The total sample included 240 subjects. These were selected in a systematic random fashion from the completed questionnaires. The sample was comprised of 40 single college students from each region, 40 married college students from each region, and 40 high school students from each region.

Only those students who listed as their home state one of the two states used in this study or a state from the same general region were included in the final sample. For example, included in the Utah sample are a few subjects who listed their home state as Idaho, Wyoming, or Nevada. Included in the North Dakota sample are some persons from Minnesota and South Dakota.

As much as was possible, distribution of sexes, ages, and religions was kept equal among the sample groups. The Mormon sample was larger than either of the other two religious samples. The age group of over 25 was very small. All other groups were distributed as planned. Table 1 shows the composition of the sample by religion, educational attainment, marital status, region, age, and sex.

Table 1. Composition of the total sample by religion, educational attainment, marital status, region, age, and sex.

	Number	Percentage
<u>Religion</u>		
Roman Catholic	58	24.2
Protestant	75	31.2
Mormon	107	44.6
<u>Educational Attainment</u>		
High School	80	33.3
College	160	66.6
<u>Marital Status</u>		
Single	160	66.6
Married	80	33.3
<u>Region</u>		
Intermountain	120	50.0
Great Plains	120	50.0
<u>Age</u>		
16-18	80	33.3
19-21	88	36.6
22-25	54	22.5
over 25	18	7.6
<u>Sex</u>		
Male	115	47.9
Female	125	52.1

Table 2 shows the distribution of sample characteristics within the individual groupings used for analysis. In most cases the distribution within the sample group was quite even. There were some notable exceptions, with the greatest being the Mormon sample which is 100 percent from the Intermountain region. Age is also distributed unevenly in some cases. The Great Plains sample is somewhat more dominated by males than is the Intermountain sample. Also, more females than males are in the Mormon sample.

Table 2. Distribution of Sample Characteristics¹

	Male	Female	Catholic	Protestant	Mormon	High School	College
Male	100.0	0.0	26.9	34.8	38.2	30.4	69.6
Female	0.0	100.0	21.6	28.0	50.4	36.0	64.0
Catholic	53.4	46.6	100.0	0.0	0.0	34.5	65.5
Protestant	53.3	46.7	0.0	100.0	0.0	29.3	70.7
Mormon	41.1	58.9	0.0	0.0	100.0	35.5	64.5
High School	43.7	56.3	25.0	27.5	47.5	100.0	0.0
College	50.0	50.0	23.8	33.1	43.2	0.0	100.0
Married ²	55.0	45.0	26.3	30.0	43.7	0.0	100.0
Single ²	45.0	55.0	21.2	36.3	42.5	0.0	100.0
16-18	43.8	56.2	25.0	27.5	47.5	100.0	0.0
19-21	39.8	60.2	21.6	40.9	37.5	0.0	100.0
22-25	64.8	35.2	25.9	18.5	55.6	0.0	100.0
over 25	55.6	44.4	27.8	38.9	33.3	0.0	100.0
Intermountain	40.0	60.0	2.5	8.3	89.2	33.3	66.7
Great Plains	55.8	44.2	45.8	54.2	0.0	33.3	66.7

¹all figures indicate percentage²college sample only

Table 2. (cont.)

	Married	Single	16-18	19-21	22-25	over 25	Intermtn.	Gr. Plains
Male	38.3	61.7	30.4	30.4	30.4	8.7	41.7	58.3
Female	28.8	71.2	36.0	42.4	15.2	6.4	57.6	42.4
Catholic	36.2	63.8	34.5	32.8	24.1	8.6	5.2	94.8
Protestant	32.0	68.0	29.3	48.0	13.3	9.3	13.3	86.7
Mormon	32.7	67.3	35.5	30.8	28.0	5.6	100.0	0.0
High School	0.0	100.0	100.0	0.0	0.0	0.0	50.0	50.0
College	50.0	50.0	0.0	55.0	33.7	11.3	50.0	50.0
Married ²	100.0	0.0	0.0	37.5	42.5	20.0	50.0	50.0
Single ²	0.0	100.0	100.0	72.5	25.0	2.5	50.0	50.0
16-18	0.0	100.0	100.0	0.0	0.0	0.0	50.0	50.0
19-21	34.1	65.9	0.0	100.0	0.0	0.0	44.3	55.7
22-25	63.0	37.0	0.0	0.0	100.0	0.0	64.8	35.2
over 25	88.9	11.1	0.0	0.0	0.0	100.0	33.3	66.7
Intermountain	33.3	66.7	33.3	32.5	29.2	5.0	100.0	0.0
Great Plains	33.3	66.7	33.3	40.8	15.8	10.0	0.0	100.0

¹all figures indicate percentage

²college sample only

Analyses of Data

Range, median, mean, and percentage were used to describe the composition of the sample and the results of the responses on the questionnaire. The chi square test was used to test the hypotheses, with .05 employed as the criterion of significance. An item analysis was also run to determine which items discriminated between attitudes. Facilities of the Utah State University computer center were utilized.

FINDINGS

Scores were analyzed to find ranges, medians, and means. Scores ranged from a high of 115 to a low of 4. The median was 70, and the mean was 68 for the total sample. This indicates that the total sample leaned slightly toward a positive position on the pill, because a score of 60 would indicate neutrality.

HypothesesHypothesis 1

Hypothesis one stated that Protestants have a more liberal score concerning use of the pill than Roman Catholics and Mormons. It was accepted for Mormons, but rejected for Catholics. Table 3 shows the range, median, and mean for each of these groups.

Table 3. Range, median, and mean by religion for total sample.

	Protestants	Catholics	Mormons
High Score	114	113	115
Low Score	21	42	4
Median	78	74	58
Mean	76.8	75.7	57.5

The Mormon group contained both the high and low score for the total sample. This indicates a very wide spread of

opinion among this group. The Mormon standard deviation was 22.21. This compares to standard deviations of 17.19 for the Protestants and 19.40 for the Roman Catholics. All the groups displayed a large range which indicates that individuals within each group vary considerably in their opinions about the pill.

It appears that the Roman Catholics are favorable toward the pill, despite the Pope's ban on artificial contraception. There was very little difference between the attitudes of the Catholics and the Protestants regarding the pill. The chi square value was 1.29. This was not significant at the .05 level.

The Mormons, on the other hand, seem to display an attitude toward the pill that is more in keeping with their Church's somewhat negative position on birth control. The difference between Mormons and Protestants was significant at the .0005 alpha level with a chi square value of 19.10.

Hypothesis 2

The second hypothesis stated that college students are more liberal than high school students. This hypothesis was accepted. Table 4 shows the range, median, and mean for these groups.

Table 4. Range, median, and mean by education for total sample.

	High School	College
High Score	105	115
Low Score	14	4
Median	62.5	74
Mean	60.4	71.6

It appears that the high school students, at least in the regions sampled, are still basically undecided about the pill. A review of the questionnaires showed a lot of undecided responses to items from the high school group. The college sample was more likely to take a stand on the items. Responses to individual items will be discussed later in the thesis.

The high school group was also clustered somewhat closer around the mean than was the college group. This difference was not great, though, as the high school standard deviation was 20.27 compared with 22.07 for the college sample.

The resulting chi square value of 10.20 for these groups was significant at the .0005 level. Thus, there is indeed a more liberal opinion among college students than among high school students regarding oral contraception.

Hypothesis 3

The third hypothesis stated there is no significant difference between the attitudes of married and single college students regarding the pill. Table 5 shows the range,

median, and mean for these groups. Only the college sample was considered in the analysis of this portion of the data, since none of the high school students were married.

Table 5. Range, median, and mean by marital status of college students.

	Married	Single
High Score	115	112
Low Score	4	11
Median	70	81
Mean	69	74.3

The data shown in Table 5 indicate that the married sample of college students scored more conservatively than did the single sample. The chi square value for these groups was 4.30. It was significant at the .05 alpha level, and the hypothesis was therefore rejected.

Table 2 shows that the married college group was somewhat older than single college group. In the married sample only 37.5 percent of the subjects were in the 19-21 age group, while 72.5 percent of the single college students were in this age grouping. This age difference might have had some effect on the scores of these groups.

The standard deviations for these two groups varied only a little. The married group had a standard deviation of 21.24, while the single group's was 22.71.

Hypothesis 4

Hypothesis four stated that region is not related to attitudes toward the pill. This hypothesis was rejected. Table 6 shows the range, median, and mean for these groups.

Table 6. Range, median, and mean by region for total sample.

	Intermountain	Great Plains
High Score	115	114
Low Score	4	33
Median	60	76
Mean	58.8	77

It appears that the Great Plains region was somewhat more unified in its opinion than was the Intermountain region, for the Intermountain region not only displayed a larger range than the Great Plains region, but it also had a standard deviation of 22.32 compared to a 17.71 for the Great Plains region.

The chi square value for these groups was 22.81 which was significant at the .0005 alpha level. So the regional factor can be assumed to be an important one in relationship to attitudes toward the pill.

Much of the regional difference can be accounted for by the religious influence in each area. Table 2 indicated that 89.17 percent of the Intermountain sample was Mormon, while none of the Great Plains sample was Mormon. Since the Mormon sample had significantly more conservative attitudes

than the Roman Catholic or Protestant, it would follow that the Intermountain sample would also be more conservative.

Since the Great Plains median of 76 approximated the Catholic median of 74 and the Protestant median of 78, this investigator believes that there is little difference between the attitudes of persons of the same religion who are in different regions. This, however, needs further research in order to substantiate.

Both regions in this study would probably be conservative in comparison to other regions in the United States. This is because the Intermountain region is predominately Mormon, while the Great Plains region is chiefly rural. Studies comparing other regions to these would be of interest.

Hypothesis 5

The fifth hypothesis stated that age is not related to attitudes toward the pill. Table 7 gives the range, median, and mean for these groups. This study dealt with mostly persons under the age of 30, with only 7.6 percent of the subjects being in the age grouping of over 25.

Table 7. Range, median, and mean by age for total sample.

	16-18	19-21	22-25	over 25
High Score	105	114	115	98
Low Score	14	17	4	37
Median	63	74.5	74	73.5
Mean	60.5	72.3	70.9	71.1

This study did not afford a good opportunity for analysis by age, because the age spread was not great. No difference existed among the three oldest groups. The 16-18 age group scored significantly lower than each of the other three age groups. This comparison was the same as the comparison between high school and college students, because these groups contained the same subjects. This chi square value for this comparison was 10.20. It was significant at the .05 alpha level, so the hypothesis was rejected for the 16-18 age group when compared to those older than that. The hypothesis could not be rejected for those 19 and over.

Hypothesis 6

The sixth hypothesis stated there is no significant difference in attitudes between males and females. It was not possible to reject this hypothesis. Table 8 shows the range, median, and mean for these groups.

Table 8. Range, median, and mean by sex for total sample.

	Male	Female
High Score	115	112
Low Score	11	4
Median	63	56
Mean	71.8	64.3

While the males scored more liberally, this difference resulted in a chi square value of 2.38. This was not significant at the .05 level.

Table 2 showed that 58.26 percent of the males were from the Great Plains region, while only 42.40 percent of the females were from that region. Since the Great Plains region was significantly more liberal than the Intermountain region, this may have had some influence on the male response.

The range for both groups was very similar. The standard deviations varied a little, with the male standard deviation being 20.22, and the female's being 23.17.

Responses to Items on the Questionnaire

Psychological and Physical Safety of the Pill

Items 3, 6, 11, 14, 19, and 30 all dealt with the psychological and physical safety of the pill. A large portion of the sample indicated that they were uncertain as to the safety of the pill. For example, 37.5 percent responded "undecided" to the item stating that the pill is safe for a healthy woman to use (item 3). However, a similar portion (40 percent) responded in agreement to that item. Answers to other questions about physical safety were similar, except that most persons did not feel that a woman on the pill was apt to be healthier because of frequent visits to the doctor (item 30). Only 21.7 percent of the sample agreed with this item.

The subjects were also concerned about the psychological effects of the pill, especially as related to the female. Only 35 percent felt that the woman would not be psychologically harmed (item 6) with men being more likely to fear such an

effect. Apparently there is less fear of harmful effects on the male as a result of a woman's using the pill, for 57.5 percent answered affirmatively to item 11 which stated that the man would not be psychologically harmed.

Use of the Pill

Items 2, 7, 8, 10, 13, 16, and 20 all dealt with uses of the pill. The results of this study showed that the majority of the respondents were willing to see the pill used to reduce the rate of illegitimacy (item 2), for medical reasons other than preventing conception (item 8), to reduce the abortion rate (item 16), and to help with the spacing of children (item 20). Only 29 percent of the sample indicated that they felt the pill should be used to make coitus outside of marriage safe (item 7). A large number of persons were uncertain as to whether the pill should be used to promote the economy of poor countries (item 10).

Married students were more likely to approve use of the pill for medical reasons other than preventing conception and for spacing of children than were single students. Many persons, especially single students and males, appeared unaware that the pill had other uses than preventing conception. This was indicated by comments made by the subjects.

The Mormon sample differed from the other religions more on these items than on the items dealing with physical and psychological safety of the pill. For example, 48.7 percent of the Mormons would favor using the pill to reduce the abortion rate (item 16) compared to 84 percent of the

Protestants and 84.5 percent of the Catholics. The exception to this is item 8. Catholics were most in favor of using the pill for reasons other than preventing conception, followed by the Mormons. The Protestants scored lowest on this item.

Surprisingly, for most of these items there was little difference between high school and college students, although the college scores were higher. However, college students were much more apt to favor using the pill to promote the economy of poor countries and for the spacing of children than were high school students.

Religious and Moral Aspects of the Pill

Items 5, 18, 22, 26, and 27 dealt with the religious and moral aspects of the pill. Over 60 percent of the total sample felt that use of the pill was not sinful or immoral, and that religious organizations should not forbid their members to use the pill (items 5, 26, and 27 respectively). However, only 42 percent of the sample felt that using the pill was not against God's will (item 22). Apparently, persons' perceptions of what is not God's will and what constitutes sinful or immoral behavior are not necessarily one and the same. Only 27 percent of the sample responded affirmatively to item 18 which stated that the pill does not promote free love.

Married students were less likely to view use of the pill as against God's will or sinful than were single students. Single students were more apt to feel that the pill

would not promote free love than were married students. Females tended to view use of the pill as being against God's will more frequently than the males.

Again, the Mormons tended to answer all of these items more conservatively than did the Protestants and Catholics. Item 22 was the only one in which the Catholics differed greatly from the Protestants. About 20 percent of the Mormons, 48 percent of the Catholics, and 63 percent of the Protestants felt that it was not against God's will to use the pill. It is interesting to note that 77 percent of the Catholics feel that the Church should not forbid them to use the pill. This is in direct conflict with the Pope's encyclical ban on such contraceptives. Mormons tended to be more accepting of such a restriction by the Church, with only 47 percent of them indicating that the Church should not forbid use of the pill (item 27).

Distribution of the Pill

Items 1, 4, 9, 17, and 24 dealt with how the pill should be distributed and who should use it. Sixty-seven percent of the sample indicated that they favored selling the pill to both married adolescents and married adults without any restriction. Many of the questionnaires had the comment that the only restriction they would impose would be a medical exam. Feedback from the respondents indicated that some persons were confused about items 1, 9, 17, and 24. They were not sure whether the items implied that a medical exam was included in restrictions or not. Forty percent of the

sample would be willing to sell the pill to unmarried adults (item 1) without any restriction, but only 21 percent felt the same about single adolescents (item 24). Fifty-one percent indicated that they would favor giving the pill to poor women free of charge (item 4).

Differences between the responses to these items by married and single students tended to be greater here than in the previous areas. Item 1 represented the biggest difference with 31 of the married students favoring selling the pill to single adults and 51 percent of the single students favoring this.

Large differences also appeared between high school and college students in this area. For example, 27 percent of the high school students favored giving the pill to poor women free, compared to 62 percent of the college students.

Males tended to be much more liberal in this area than females. This was especially true for item 24, which dealt with the selling of the pill to single adolescents.

Effect of the Pill

Items 12, 15, 21, 23, 28, and 29 dealt with the effects the pill would have. Over 75 percent agreed to item 21, which stated that the pill would help a couple enjoy sexual relations more. Sixty-two percent felt that the pill would not lead to a loss of respect for women (item 29). A slight majority indicated that they thought the pill would help solve various social problems (item 15). Somewhat fewer felt that the pill would help raise the family's standard of living.

Only about 30 percent of the sample accepted the idea that the pill would make parents love their children more, or that it would promote a nation's economic welfare.

Only 16 percent of the Mormon sample felt that using the pill would cause parents to love children more. This compares to 47 percent of the Protestants and 41 percent of the Catholics. The Catholics scored highest on the items which dealt with using the pill to solve social ills, raise a family's standard of living, and promote a nation's economic welfare.

High school students responded considerably more conservatively than did the college students on all these items. The item on which they differed the most was item 23. It stated that using the pill would help raise the family's standard of living.

Item Analysis

An item analysis was run on the scale to determine which items discriminated between those with liberal attitudes toward the pill and those with conservative attitudes. A chi square test was run for each of the items utilizing the highest and lowest 25 percent of the scores. The scale was collapsed for this test to include responses of three or four for one group and zero or one for the other.

The .05 alpha level was employed as the criterion of determining significance. All the items proved to be significant in determining attitudes toward the pill. The item with the lowest chi square value was item 8 which stated that

the pill should be used for medical reasons other than preventing conception. The value for this item was 18.40. The highest chi square value, 84.40, was for item 22, which stated that using the pill is not against God's will.

Table 9 shows the chi square values for each of the 30 items on the scale. Although all the items were successful in discriminating attitudes, there is a great deal of spread in these values, indicating that some items were still more effective than others. The reason that all items were able to discriminate is probably that the range of scores on the scale was so large. Also, most of these items had been previously tested for their ability to discriminate attitudes toward the pill by Bardis (1969). He eliminated those which did not discriminate from the scale.

Table 9. Chi square values for item analysis.

Item Number	Statement	Chi Square Value
1	The pill should be sold to single adults without any restriction.	80.02
2	The pill should be used to reduce the rate of illegitimacy.	60.71
3	The pill is safe for a healthy woman to use.	47.22
4	The pill should be given to poor women without charge.	47.10
5	It is not sinful to use the pill.	66.11
6	Use of the pill will not harm women psychologically.	59.63
7	The pill should be used to make coitus outside marriage safe.	57.06

Table 9. (con't.)

Item Number	Statement	Chi Square Value
8	The pill should be used for medical reasons (other than preventing conception).	18.40
9	The pill should be sold to married adolescents without any restriction.	42.13
10	The pill should be used to promote the economy of poor countries.	45.67
11	A woman's use of the pill will not harm the man psychologically.	45.77
12	Use of the pill will cause parents to love their children more (since most pregnancies will be planned).	44.38
13	It is not selfish to use the pill.	67.57
14	The medical risk caused by the pill is not great.	50.28
15	The pill will help solve various social issues.	46.27
16	The pill should be used to reduce the abortion rate.	47.96
17	The pill should be sold to married adults without restriction.	52.91
18	The pill does not promote free love.	29.71
19	The side effects of the pill are small when compared to the benefits.	74.30
20	The pill should be used to help with the spacing of children.	44.83
21	Using the pill will help a couple enjoy sexual relations more, because they won't fear a pregnancy.	36.71
22	Using the pill is against God's will.	84.40
23	Using the pill will raise the family's standard of living.	46.82
24	The pill should be sold to single adolescents without any restriction.	65.77

Table 9. (con't.)

Item Number	Statement	Chi Square Value
25	The pill should be used to prevent the birth of unwanted children.	55.64
26	It is not immoral to use the pill.	74.81
27	Religious organizations should not forbid their members to use the pill.	40.13
28	The pill promotes a nation's economic welfare.	56.59
29	Use of the pill will not lead to loss of respect for women.	60.29
30	Women who use the pill are apt to be more healthy because they see the doctor often.	48.73

SUMMARY AND CONCLUSIONS

Scope of the StudyObjectives

This study had two objectives. They were:

1. to compare the relative conservatism or liberalism in overall attitudes toward use of the oral contraceptive as related to religious, regional, educational, age, marital status, and sex factors.
2. to determine which items on the scale discriminate attitudes in regard to substantive areas of opinion.

Procedure

Data for this study were collected with a 30 item pill scale. It was adapted from one developed by Bardis (1969). The subjects responded to the items by indicating the extent of their agreement with each item. This was done by placing a 0, 1, 2, 3, or 4 in the blank to the left of the statement. The meaning of these figures was:

- 0 - strongly disagree
- 1 - disagree
- 2 - undecided
- 3 - agree
- 4 - strongly agree

The individual's score was computed by adding the total of his responses. The most conservative score possible was 0, and the most liberal score was 120.

The sample consisted of 240 high school and college students from Utah and North Dakota. The instrument was administered by teachers in selected high schools and at Utah State University and North Dakota State University. As much as possible, the distribution of the following characteristics was kept equal throughout the sample:

1. Religion (Mormon, Protestant, and Catholic)
2. Region (Intermountain and Great Plains)
3. Sex (male and female)
4. Educational attainment (high school and college)
5. Age (16-18, 19-21, 22-25, and over 25)
6. Marital status (single and married)

Analyses of Hypotheses

Six hypotheses were tested for significance. They are listed and discussed separately under the heading "Findings" in this chapter. The test employed was the chi square test, with the .05 alpha level utilized as the criterion for significance.

Other statistics were used as needed to describe the sample and the findings. An item analysis of the scale was also conducted with the chi square test.

Findings

Scores ranged from a high of 115 to a low of 4. The sample median was 70 and its mean was 68. A neutral score would be 60, so the sample reflected a slightly positive position on the pill.

Hypotheses

1. Protestants have a more liberal score concerning use of the pill than will Roman Catholics and Mormons. This hypothesis was accepted for Mormons, but rejected for Catholics. There was no notable difference between Protestants and Catholics. Median score for the Mormons was 58, and their mean was 57.5. The Catholic median was 74 with a mean of 75.7. The Protestant median was 78, and their mean was 76.8.

2. College students are more liberal than high school students on their scores on the scale. This hypothesis was accepted. The high school median was 62.5, and the college median was 74. Means were 60.4 and 71.6 respectively.

3. There is no significant difference between the attitudes of married and single college students regarding the pill. Only the college sample was analyzed for this hypothesis. It was rejected. Married students demonstrated more conservative scores than single students with a median of 70 and a mean of 69. The single median and mean were 81 and 74.2.

4. Region is not related to attitudes toward the pill. This hypothesis was also rejected. The Intermountain median and mean were 60 and 58.8, while the Great Plains median was 76 and its mean was 77. Since the Intermountain sample was mostly Mormon, and the Great Plains sample contained no Mormon individuals, this may be a religious difference, rather than a regional difference.

5. Age and attitudes toward the pill are not related. This hypothesis was rejected when comparing those 18 or

under to those 19 and over. It could not be rejected for the other age comparisons. There was not enough age difference in this sample to do an adequate study of the age factor. More study is needed in this area. The mean and median for the 16-18 age group were 60.5 and 63; for the 19-21 age group were 72.3 and 74.5; for the 22-25 age group were 70.9 and 74; and for the over 25 age group were 71.1 and 73.5.

6. No significant difference in attitudes exists between males and females. This hypothesis could not be rejected. The male response, however, was more liberal, but it was not significant. The medians for male and female respectively were 63 and 56. The means were 71.6 and 60.4.

Responses to Items on the Questionnaire

The sample responses to most of the items were in keeping with the attitudes reflected by the total score for the scale. The only area in which differences tended to be small was in the area of physical and psychological safety of the pill. A large portion of the sample was uncertain of the safety of the pill.

The majority of the respondents felt the pill should be used to reduce the rate of illegitimacy and the abortion rate, but they did not think it should be used to make coitus outside of marriage easier. They also felt that the pill would promote free love.

The Catholic response was perhaps the most interesting part of this study. For most of the religious and moral items, the Catholic-Protestant responses were very similar.

However, more Catholics felt that using the pill was against God's will than Protestants. Still, 77 percent of the Catholics indicated that they felt that the church should not forbid use of the pill. The Mormon sample tended to be more conservative than either of the other religions on all of the items. They were more likely to accept restrictions by the Church on use of the pill. In regard to the religious issue, the married students who usually tended to score more conservatively than the single students, were not as likely to view using the pill as against God's will as were those who were single.

Most of the sample accepted the idea that the pill would make sexual relations more enjoyable. They were also willing to sell the pill to both married adults and married adolescents without restriction. They were much less liberal in regard to selling of the pill to single persons, especially adolescents.

Item Analysis

All of the items were significant in discriminating between liberal and conservative attitudes toward the oral contraceptive. The item which was most successful in discriminating was item 22 which stated that using the pill is not against God's will. The item with the lowest chi square value was item 8 which stated that the pill should be used for medical reasons other than preventing conception.

Conclusions

The wide range of scores within the sample indicates that the pill is still subject to much debate. Some persons are very opposed to it, while others applaud it. The majority of the sample clustered near a neutral score. This suggests that most persons have questions about the pill and its use, and they are quite undecided in their attitudes toward it. This is especially true of the high school youth.

The traditional differences found between the attitudes of Catholics and Protestants in earlier studies are apparently diminishing. This study found no difference between their attitudes. One should not conclude from this evidence that no differences still exist. The sample in this study was chiefly middle class, a young age, and student status. Research conducted over a broader sample of individuals in different parts of the country may show different results. Nevertheless, this finding points to an important change in Catholic thinking. The Mormons appear to reflect more traditional values than the other religions.

If attitudes do indeed determine actions, it appears that the factor holding persons back from using the pill may not be only one of a religious ideology, but also one of concern for the safety in using the pill. The majority of this sample did not feel that the pill was safe for a healthy woman to use. Many indicated they were undecided about this issue. Those who wish to see oral contraception used more widely will either have to make a safer contraceptive or prove to the public that this pill is safe to use.

This is not to discount the importance of a religious belief. The one most discriminating item was the one dealing with whether or not using the pill is against God's will. However, as this study has shown (at least for Catholics), religious attitudes toward the pill are becoming more liberal.

The regions utilized in this study are probably two of the most conservative in the United States, yet the findings show that the general attitude toward the pill leans in the positive direction. One could expect to find more liberal attitudes in other regions of the country.

As expected, education was an important factor in determining attitudes. This confirms the much stated thesis that college education tends to liberalize persons. As more persons become educated, it is not unreasonable to expect that the proportion of liberal attitudes will become greater. It is, however, generally the less educated who have greater need for birth control. For those who wish to see contraceptives used more widely, this suggests the need for contraceptive education for these people.

The more conservative response of the married college students implies that as persons are faced with the responsibility of deciding whether or not to use the pill they become more cautious. On the other hand, it may be that the conservative students are more apt to marry while still in school. This would be a fruitful area for further investigation.

The high school students in this study did not appear to have made their decision about the pill. This study did

not adequately separate age and education, because these groups were mutually inclusive. Therefore, it is difficult to draw any conclusions regarding the relationship of one's age to attitudes toward the pill from this study, except that there did not appear to be any difference among the age groups in the college sample. This conclusion is not based on sufficient evidence to generalize that such age differences do not exist in the general population.

Male-female differences appear to be unimportant in relationship to attitudes toward the pill. Even if there were a difference, it may not have much effect on use of the pill, since most such decisions are made by a couple, and it is generally not the sole responsibility of either male or female.

Suggestions for Further Research

Suggestions for further research have been offered periodically in this study. The three considered most important are:

1. More research on Catholic attitudes toward the pill to see if the liberal trend found here is true for most Catholics.
2. Studies involving other regions, specifically urban ones.
3. Research with more age groups represented apart from educational level.

LITERATURE CITED

- Allingham, J. D., T. R. Balakrishnan, and J. F. Kantner. 1969. Time Series of Growth in Use of Oral Contraception and the Differential Diffusion of Oral Anovulants. *Population Studies* 23:43-51.
- Bajema, Carl J. 1966. Relationship of Fertility to Educational Attainment in an Kalamazoo Public School Population. *Eugenics Quarterly* 13:306-315.
- Bardis, Panos D. 1969. A Pill Scale: A Technique for the Measurement of Attitudes toward Oral Contraception. *Social Science* 44:35-41.
- Bardsley and Haslacher, Inc. 1971. Majority in Utah Stand Behind Planned Parenthood Concept. *The Salt Lake Tribune*, January 3, p. 10.
- Beegle, J. Allan. 1966. Social Structure and Changing Fertility of the Farm Population. *Rural Sociology* 31:415-427.
- Blake, Judith. 1966. The Americanization of Catholic Reproductive Ideals. *Population Studies* 20:22-43.
- Charles, David. 1968. Thromboembolic Phenomena in Relation to Oral Contraceptives. In Moyer, Dean L. 1968. *Progress in Conception Control 1968*. J. B. Lippincott Co., Philadelphia, Pennsylvania.
- Chilman, Catherine S. 1968. Fertility and Poverty in the United States: Some Implications for Family Planning Programs, Evaluation, and Research. *Journal of Marriage and the Family* 30:207-227.
- Christensen, H. and C. Gregg. 1970. Changing Sex Norms in America and Scandinavia. *Journal of Marriage and the Family* 32:616-627.
- Christianity Today. 1968. Birth Control Fallout. August 30. p. 61.
- Christianity Today. 1968. Evangelical Scholars Endorse Birth Control. September 27. p. 68.
- Christianity Today. 1968. Pope Faces Birth Control Crisis. August 16. p. 42.

- Davis, Kingsley. 1939. Illegitimacy and the Social Structure. *American Journal of Sociology* 45:215-233.
- Dickey, R. P. and C. H. Dorr. 1968. Management of the Minor Side Effects of Oral Contraception. In Moyer, Dean L. 1968. *Progress in Conception Control 1968*. J. B. Lippincott Co., Philadelphia, Pennsylvania.
- Erskine, Hazel C. 1966. The Polls: The Population Explosion, Birth Control, and Sex Education. *Public Opinion Quarterly* 30:402-501.
- Frank R. and C. Tietze. 1965. Acceptance of an Oral Contraceptive Program in a Large Metropolitan Area. *American Journal of Obstetrics and Gynecology* 93:122-127.
- Furstenberg, Frank Jr., Leon Gordis, and Milton Markowitz. 1969. Birth Control Knowledge and Attitudes among Unmarried Pregnant Adolescents. *Journal of Marriage and the Family* 31:34-42.
- Gallup Poll Index. 1969. 44:16.
- Gallup Poll Index. 1970. 57:12-16.
- Gallup Poll Index. 1971. 69:17-19.
- Hardin, Garrett. 1969. *Population, Evolution, and Birth Control*. Freeman & Co., San Francisco, California.
- Hawthorn, Geoffrey. 1970. *The Sociology of Fertility*. Macmillan Co., Toronto, Canada.
- Himes, Norman E. 1963. *Medical History of Contraception*. Gamult Press, Inc., New York.
- Jaffe, Frederick S. 1967. Family Planning, Public Policy, and Intervention Strategy. *Journal of Social Issues* 23:145-161.
- Jones, Gavin W. 1969. The Economic Effect of Declining Fertility in Less Developed Countries. *The Population Council*.
- Kroger, William S. 1968. Psychophysiological Aspects of Oral Contraception. In Moyer, Dean L. 1968. *Progress in Conception Control 1968*. J. B. Lippincott Co., Philadelphia, Pennsylvania.
- Kuznets, Simon. 1970. Economic Aspects of Fertility Trends in the Less Developed Countries. In Behrman, S. S., L. Corsa, and P. Freedman. 1970. *Fertility and Family Planning*. University of Michigan Press, Ann Arbor, Michigan.

- Landis, J. T., T. Poffenberger, and S. Poffenberger. 1950. The Effects of First Pregnancy upon the Sexual Adjustment of 212 Couples. *American Sociological Review* 15:766-772.
- Lees, H. 1966. The Negro Response to Birth Control. *The Reporter*. May 19. p. 46-48.
- McConkie, Bruce R. 1958. *Mormon Doctrine*. Bookcraft, Inc., Salt Lake City, Utah.
- McKay, D., H. Brown, and N. Tanner. 1969. Letter issued to some members by the First Presidency of the Church of Jesus Christ of the Latter Day Saints. April 14.
- Newsweek. 1970. Poll on the Pill. February 9. p. 52-53.
- Paredes, Horacio V. 1970. Population Control, 1986. *Atlas* 19:33-39.
- Pincus, G., M. C. Chang, M. X. Zarrow, E. S. E. Hafez, and A. Merrill. 1956. Studies of the Biological Activity of Certain 19-nor Steroids in Female Animals. *Endocrinology* 59:695-707.
- Pincus, G., J. Rock, M. C. Chang, and C. R. Garcia. 1959a. Effects of Certain 19-nor Steroids on Reproductive Processes and Fertility. *Federation Proceedings* 18: 1051-1056.
- Pincus, G., J. Rock, and C. P. Garcia. 1959b. Field Trials with Norethynodrel as an Oral Contraceptive. In *International Planned Parenthood Federation. 1959. Sixth International Conference on Planned Parenthood*.
- Pohlman, Edward. 1969. *The Psychology of Birth Planning*. Schenkman Publishing Co., Inc., Cambridge, Massachusetts.
- Pope Paul VI. 1968. *Humanae Vitae and Credo of the People of God*. Paulist Press, New York.
- Population Council. 1966. American Attitudes on Population Policy. *Studies in Family Planning* 10:6-15.
- Potvin, R., C. Westoff, and N. Ryder. 1968. Factors Affecting Catholic Wives' Conformity to their Church Magisteriums's Position on Birth Control. *Journal of Marriage and the Family* 30:263-272.
- Rainwater, Lee. 1960. *And the Poor Get Children*. Quadrangle, Chicago, Illinois.
- Rainwater, Lee. 1967. Family Planning in Cross-National Perspective. *Journal of Social Issues* 23:1-11.

- Rock, John. 1963. *The Time has Come*. Knopf, New York.
- Ryder, N. and C. Westoff. 1966. Use of Oral Contraception in the U. S. - 1965. *Science* 153:1199-1205.
- Schofield, M. 1965. *The Sexual Behavior of Young People*. Longmans and Green, London, England.
- Stoffel, Jerome. 1971. Monseigneur of St. Jerome's Chapel, Logan, Utah. Personal Interview conducted May 5.
- Tarver, James D. 1969. Gradients of Urban Influence on the Educational, Employment, and Fertility Patterns of Women. *Rural Sociology* 34:356-367.
- United Methodist Church. 1968. Responsible Parenthood. In *Church Discipline* p. 63-64.
- U. S. Department of Commerce, Bureau of the Census. 1970. *Statistical Abstract of the United States*.
- Westoff, C. and R. Potvin. 1967. *College Women and Fertility Values*. Princeton University Press, Princeton, New Jersey.
- Westoff, C. and N. Ryder. 1967. Methods of Fertility Control in the U. S. In Lui, W. T. (ed.). 1967. *Family and Fertility*. University of Notre Dame Press, Notre Dame, Indiana.
- Westoff, C. and N. Ryder. 1970. Recent Trends in Attitudes Toward Fertility Control and in the Practice of Contraceptions in the U. S. In Behrman, S. J., L. Corsa, and R. Freedman. 1970. *Fertility and Family Planning*. University of Michigan Press, Ann Arbor, Michigan.
- Wrong, Dennis. 1967. *Population and Society*. Random House, New York.

APPENDIXES

Appendix A. The Instrument

Appendix B. Letters

Appendix C. Sample Response to Individual
Items

APPENDIXES

Appendix A

The Instrument

Sex _____ Religion _____
 Age _____ Home State _____
 Class _____ Marital Status _____

Below is a list of issues concerning the pill (the well-known oral contraceptive for women). Please read all the statements very carefully and respond to all of them on the basis of your own true beliefs without consulting any other person. Do this by reading each statement and then writing, in the space provided at its left, only one of the following numbers: 0, 1, 2, 3, or 4. The meaning of each of these numbers is:

- 0 - strongly disagree
- 1 - disagree
- 2 - undecided
- 3 - agree
- 4 - strongly agree

- _____ 1. The pill should be sold to single adults without any restriction.
- _____ 2. The pill should be used to reduce the rate of illegitimacy.
- _____ 3. The pill is safe for a healthy woman to use.
- _____ 4. The pill should be given to poor women without charge.
- _____ 5. It is not sinful to use the pill.
- _____ 6. Use of the pill does not harm women psychologically.
- _____ 7. The pill should be used to make coitus outside marriage safe.
- _____ 8. The pill should be used for medical reasons (other than preventing conception).
- _____ 9. The pill should be sold to married adolescents without any restriction.
- _____ 10. The pill should be used to promote the economy of poor countries.
- _____ 11. A woman's use of the pill will not harm the man psychologically.
- _____ 12. Use of the pill will cause parents to love their children more (since most pregnancies will be planned).
- _____ 13. It is not selfish to use the pill.
- _____ 14. The medical risk caused by the pill is not great.
- _____ 15. The pill will help solve various social problems.
- _____ 16. The pill should be used to reduce the abortion rate.
- _____ 17. The pill should be sold to married adults without any restriction.

- ___ 18. The pill does not promote free love.
- ___ 19. The side effects of the pill are small when compared to the benefits.
- ___ 20. The pill should be used to help with the spacing of children.
- ___ 21. Using the pill helps the couple enjoy sexual relations more, because they don't fear a pregnancy.
- ___ 22. Using the pill is not against God's will.
- ___ 23. Using the pill will help raise the family's standard of living.
- ___ 24. The pill should be sold to single adolescents without any restriction.
- ___ 25. The pill should be used to prevent the birth of unwanted children.
- ___ 26. It is not immoral to use the pill.
- ___ 27. Religious organizations should not forbid their members to use the pill.
- ___ 28. The pill promotes a nation's economic welfare.
- ___ 29. Use of the pill will not lead to loss of respect for women.
- ___ 30. Women who use the pill are apt to be more healthy because they see the doctor often.

Appendix BLettersLetter Enclosed with Questionnaire
Mailed to Married Students

February 20, 1971

Dear

Birth control and oral contraception are one of our times' most controversial subjects. You have been selected to help us study this issue. The study is to be used as my master's thesis.

You were selected from among the students at North Dakota State. I am especially interested in including North Dakota in my sample, because I graduated from NDSU and plan to come back to North Dakota to teach.

It will take no more than ten minutes of your time for ONE of you to complete the enclosed questionnaire and return it to me in the stamped envelope provided. If you are not both students, will the one of you who is a student please fill it out?

The questionnaire is completely anonymous. Your name will be in no way included in the study.

It is IMPORTANT that you return your questionnaire at your earliest convenience in order for this study to be completed. Thank you for your cooperation. It is most appreciated!

Best wishes to you as you complete your studies.

Sincerely,

Carmen Ptacek
Graduate Student
Dept. of Family and Child Development
Utah State University

Appendix BLettersThank You Letter to Those Who Assisted
in the Research Effort

65 West Second North
Logan, Utah 84321
April 28, 1971

Dear

Thank you for helping me with my study on attitudes toward the oral contraceptive. Without the cooperation of all those who assisted me, the study would have been impossible to complete. Your contribution is most appreciated.

I am now in the process of writing up the thesis. You are probably interested in knowing the results of the study, so I am taking this opportunity to share them with you. I have included a brief summary of my findings. If you have any questions or would like further information, please let me know.

Again, I thank you.

Sincerely,

Carmen Ptacek
Graduate Student
Department of Family &
Child Development
Utah State University

CP/sw

Appendix C

Sample Response to Individual Items

The following statements are those which appeared on the questionnaire. The numbers in parentheses indicate the percentage responding to that answer.

1. The pill should be sold to single adults without any restriction.

(23.8) strongly disagree	(25.4) agree
(28.3) disagree	(14.6) strongly agree
(7.9) undecided	

2. The pill should be used to reduce the rate of illegitimacy.

(8.6) strongly disagree	(30.4) agree
(20.0) disagree	(22.9) strongly agree
(17.9) undecided	

3. The pill is safe for a healthy woman to use.

(7.9) strongly disagree	(32.9) agree
(14.2) disagree	(7.5) strongly agree
(37.5) undecided	

4. The pill should be given to poor women without charge.

(6.7) strongly disagree	(29.2) agree
(19.6) disagree	(22.1) strongly agree
(22.5) undecided	

5. It is not sinful to use the pill.

(7.9) strongly disagree	(33.8) agree
(10.8) disagree	(31.7) strongly agree
(16.7) undecided	

6. Use of the pill does not harm women psychologically.

(7.5) strongly disagree	(29.6) agree
(17.1) disagree	(6.7) strongly agree
(39.2) undecided	

7. The pill should be used to make coitus outside marriage safe.

(28.6) strongly disagree	(20.4) agree
(25.0) disagree	(8.8) strongly agree
(17.1) undecided	

8. The pill should be used for medical reasons (other than preventing conception).
- | | |
|-------------------------|-----------------------|
| (3.8) strongly disagree | (39.6) agree |
| (10.8) disagree | (18.3) strongly agree |
| (27.5) undecided | |
9. The pill should be sold to married adolescents without any restriction.
- | | |
|-------------------------|-----------------------|
| (7.5) strongly disagree | (34.2) agree |
| (19.2) disagree | (32.9) strongly agree |
| (6.3) undecided | |
10. The pill should be used to promote the economy of poor countries.
- | | |
|-------------------------|-----------------------|
| (6.3) strongly disagree | (29.2) agree |
| (18.8) disagree | (13.8) strongly agree |
| (32.1) undecided | |
11. A woman's use of the pill will not harm the man psychologically.
- | | |
|-------------------------|-----------------------|
| (4.2) strongly disagree | (40.0) agree |
| (10.8) disagree | (17.5) strongly agree |
| (27.5) undecided | |
12. Use of the pill will cause parents to love their children more (since most pregnancies will be planned).
- | | |
|--------------------------|-----------------------|
| (19.6) strongly disagree | (20.4) agree |
| (28.8) disagree | (11.3) strongly agree |
| (20.0) undecided | |
13. It is not selfish to use the pill.
- | | |
|-------------------------|-----------------------|
| (7.9) strongly disagree | (30.1) agree |
| (12.1) disagree | (20.8) strongly agree |
| (22.1) undecided | |
14. The medical risk caused by the pill is not great.
- | | |
|-------------------------|----------------------|
| (8.3) strongly disagree | (28.8) agree |
| (17.1) disagree | (3.3) strongly agree |
| (42.5) undecided | |
15. The pill will help solve various social problems.
- | | |
|-------------------------|----------------------|
| (6.3) strongly disagree | (42.9) agree |
| (15.4) disagree | (9.2) strongly agree |
| (26.3) undecided | |

16. The pill should be used to reduce the abortion rate.
- | | |
|-------------------------|-----------------------|
| (5.4) strongly disagree | (49.2) agree |
| (15.0) disagree | (19.2) strongly agree |
| (11.3) undecided | |
17. The pill should be sold to married adults without any restriction.
- | | |
|-------------------------|-----------------------|
| (6.3) strongly disagree | (35.4) agree |
| (20.4) disagree | (31.7) strongly agree |
| (6.3) undecided | |
18. The pill does not promote free love.
- | | |
|--------------------------|----------------------|
| (17.9) strongly disagree | (20.0) agree |
| (31.7) disagree | (9.6) strongly agree |
| (20.8) undecided | |
19. The side effects of the pill are small compared to the benefits.
- | | |
|-------------------------|----------------------|
| (8.3) strongly disagree | (31.3) agree |
| (18.3) disagree | (8.3) strongly agree |
| (33.8) undecided | |
20. The pill should be used to help with the spacing of the children.
- | | |
|-------------------------|-----------------------|
| (5.8) strongly disagree | (54.6) agree |
| (10.0) disagree | (17.1) strongly agree |
| (12.5) undecided | |
21. Using the pill helps the couple enjoy sexual relations more, because they don't fear a pregnancy.
- | | |
|-------------------------|-----------------------|
| (5.4) strongly disagree | (51.3) agree |
| (7.9) disagree | (24.6) strongly agree |
| (10.8) undecided | |
22. Using the pill is not against God's will.
- | | |
|--------------------------|-----------------------|
| (12.9) strongly disagree | (24.2) agree |
| (12.9) disagree | (17.9) strongly agree |
| (32.1) undecided | |
23. Using the pill will help raise the family's standard of living.
- | | |
|-------------------------|-----------------------|
| (9.2) strongly disagree | (32.9) agree |
| (21.3) disagree | (10.0) strongly agree |
| (26.7) undecided | |

24. The pill should be sold to single adolescents without any restriction.
- | | |
|--------------------------|----------------------|
| (35.4) strongly disagree | (15.4) agree |
| (26.3) disagree | (5.8) strongly agree |
| (17.1) undecided | |
25. The pill should be used to prevent the birth of unwanted children.
- | | |
|-------------------------|-----------------------|
| (4.2) strongly disagree | (50.8) agree |
| (12.5) disagree | (19.6) strongly agree |
| (12.9) undecided | |
26. It is not immoral to use the pill.
- | | |
|-------------------------|-----------------------|
| (8.8) strongly disagree | (41.7) agree |
| (8.8) disagree | (20.0) strongly agree |
| (20.8) undecided | |
27. Religious organizations should not forbid their members to use the pill.
- | | |
|-------------------------|-----------------------|
| (8.3) strongly disagree | (39.2) agree |
| (8.8) disagree | (24.6) strongly agree |
| (19.2) undecided | |
28. The pill promotes a nation's economic welfare.
- | | |
|-------------------------|----------------------|
| (5.4) strongly disagree | (26.7) agree |
| (13.8) disagree | (5.4) strongly agree |
| (48.8) undecided | |
29. Use of the pill will not lead to a loss of respect for women.
- | | |
|-------------------------|-----------------------|
| (6.7) strongly disagree | (45.4) agree |
| (10.0) disagree | (16.7) strongly agree |
| (21.3) undecided | |
30. Women who use the pill are apt to be more healthy, because they see the doctor often.
- | | |
|--------------------------|----------------------|
| (15.0) strongly disagree | (15.0) agree |
| (33.3) disagree | (6.7) strongly agree |
| (30.0) undecided | |

VITA

Carmen Knudson Ptacek

Candidate for the Degree of

Master of Science

Thesis: Personal and Familial Correlates of Attitudes
Towards Oral Contraception among High School and
College Students.

Major Field: Family Relations.

Biographical Information:

Personal Data: Born at Grand Forks, North Dakota,
October 14, 1949, daughter of Nels and Pheobe
Knudson; married Lanny Ray Ptacek August 24, 1969;
no children.

Education: Attended elementary school in District
#42, Hegton Township, Grand Forks County, North
Dakota. Graduated from Larimore Public High
School, Larimore, North Dakota, in 1967; received
B. S. degree from North Dakota State University
in 1970 with a major in home economics education;
completed requirements for Master of Science
degree, majoring in family relations, at Utah
State University in 1971.

Professional Experience: 1971, research grant, Utah
State Board of Education.