

ATTITUDES ABOUT ABORTION AMONG COLLEGE STUDENTS

by

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ABSTRACT

The attitudes about abortion held by 390 undergraduate students were investigated. Three hypotheses were formulated for testing: (1) there is no significant difference between the attitudes of religious and non-religious students; (2) there is no significant difference between the attitudes of students with experience with abortion and those having no experience; (3) there is no significant difference between the attitudes of students reporting political involvement with the issue of elective abortion, and those reporting noninvolvement.

Two instruments, the Abortion Attitude Scale (AAS), and the Demographic Questionnaire were used. The AAS was a Likert-type summed rating scale with a range from 30, very disapproving to 150, very approving and a reliability of .91. The demographic questionnaire measured the variables of sex, religiosity, experience with abortion, and political involvement with the issue of elective abortion.

An analysis of variance was performed to measure the variance due to sex, religiosity, and experience with abortion. Main effects, two-way interaction effects, and

a three-way interaction of sex, religiosity and abortion experience were analyzed. The level of significance was set at $<.05$. A preliminary analysis of data revealed there was insufficient cell size to measure the effect of the variable political involvement with the issue of elective abortion, and the third hypothesis was not tested. Significant results were found for both individual factors, religiosity and abortion experience, at both the $p < .05$ and $p < .01$ levels, and null hypotheses 1 and 2 were rejected. No interactive effects were found to be significant. The mean of the entire sample was 96.13, slightly above the midpoint. This would indicate that the level of support for elective abortion by college students has decreased from past levels of support. These findings confirmed results of several earlier studies, which indicated that sex did not influence attitudes about abortion, whereas religiosity and experience with abortion did. Future research could probably be aimed at determining what specific factors are more strongly related to attitudes about abortion, and to determining whether most individuals feel the issue to be important.

TABLE OF CONTENTS

	Page
Abstract	i
Acknowledgements	ii
Table of Contents	iii
List of Tables	iv
Chapter I	1
Chapter II	11
Chapter III	44
Chapter IV	52
Chapter V	59
Appendices	
A. Informed Content Form	70
B. Demographic Questionnaire	72
C. Abortion Attitude Scale	74
D. Frequencies of Variables Measuring Political Involvement	76
References	78

LIST OF TABLES

Table	Page
1. Frequency of Age	45
2. Frequency of Educational Level	46
3. Tests of Significance Using Sequential Sums of Squares	53
4. Means and Standard Deviations on AAS and Number of Subjects for Factors of Sex, Religiosity, and Abortion Experience	56
5. Means, Standard Deviations and Cell Sizes for Three-way Interaction Variables of Sex, Religiosity and Abortion Experience . .	57
6. Frequency of Variable Measuring Political Involvement	76

CHAPTER I

INTRODUCTION

Historical Background

For centuries many societies have possessed the ability to deliberately terminate pregnancies. Historically techniques to induce abortions have been known at least since the time of Hippocrates, c. 460-370 B.C. (Potts, Diggory & Peel). The ability to induce abortion, then, was not recently discovered.

Just as the methods of inducing abortion varied from culture to culture and time period to time period, so did the social mores and legislation regarding abortion. Thus the issue of elective abortion in its many facets as moral, immoral, safe, dangerous, legal and illicit was not new to our time. A brief survey of some of the past laws regarding induced abortions reflected the concerns and legal attitudes current in those times and laid background for examining current attitudes towards abortion.

The United States generally followed the tradition of British Common Law until the mid-nineteenth century.

British Common Law held that (a) induced abortion before quickening was not criminal, and that (b) an aborted woman was immune from prosecution. Beginning in 1821 with Massachusetts, individual states began passing statutes concerned with induced abortions. By 1860, 20 out of the 43 states had statutes concerning abortions. Of the twenty, half held that abortion before quickening was not a crime, and 17 held that an aborted woman was immune from prosecution (Tietze, 1981).

After 1860 anti-abortion campaigns were organized, and restrictive statutes passed, usually prohibiting abortion, even before quickening. Only if the life of the pregnant woman was threatened could an abortion be obtained. In light of the methods employed in performing abortions and the real risk to health and life, these restrictions were humane. Consider an excerpt from the 1858 opinion of the Supreme Court of New Jersey in State v. Murphy: "The design of the statute was not to prevent the procuring of abortions, so much as to guard the health and life of the mother against the consequences of such attempts" (Hall, 1970). Death from surgery, abortion being no exception, was not rare and was regarded as a significant risk. Adding to the risk of complications from abortions was the frequency of infection, which frequently caused death attributable to sepsis or infection.

Throughout the nineteenth century individual states continued to pass more regulatory and restrictive abortion laws. While health concerns figured heavily in some laws, morality was at issue in others (Potts et al., 1977). After this period the legal climate was largely static until the 1960's.

In the 1950's interested groups of people began to discuss the issue of abortion repeal and to lobby in some states for reform. Potts et al. (1977) mention two coincidental occurrences during the 1960's that partially brought the issue of elective abortion prominently before American citizens. The first was the use of thalidomide during pregnancy in the early 1960's, followed by reports of the resulting deformities in many offspring. The second was a rubella, or German measles, epidemic, which ran two years and which accounted for thousands of congenitally abnormal babies. The level of support among the public for elective abortion in cases of supposed grave fetal defect rose.

In 1962 the American Law Institute proposed a model liberal abortion law. Colorado broke legal ground in 1967 when it passed a reform bill based on the 1962 proposal which permitted abortion. Within five years 28 more states had reformed abortion laws, permitting abortion under certain circumstances (Jaffe, Lindheim & Lee,

1981), and a movement for total repeal was underway. As these pieces of abortion legislation were proposed, debated, and sometimes passed, public interest and activity increased.

In 1973 the United States Supreme Court handed down a decision in two abortion cases it had accepted for argument. The decision effectively created legal abortion on request in every state. The Supreme Court ruling held that a state could not regulate the performance of abortion during the first trimester other than to require performance by a licensed physician, and that in the second trimester the state may regulate abortions in ways that were reasonably related to the health of the pregnant woman. In the third trimester, the Court ruled, the state may prohibit abortion after the fetus is viable except when necessary to preserve the life or health of the pregnant woman (Tietze, 1981). This landmark ruling had the effect of immediately altering and liberalizing abortion regulation nationwide. Thus a climate was created where an individual who had access to a doctor willing to perform an abortion and to necessary funding could make a choice to either continue or terminate a pregnancy.

While the Supreme Court ruling was hailed as timely and appropriate in many quarters, other individuals and

groups were dismayed and outraged. For these groups the ruling helped provide a nationwide focus and a more urgent call to action for opponents of liberalized abortion laws.

Since 1973 only three significant pieces of legislation regarding abortion have been passed. All were appealed to the Supreme Court. In 1976 the Court held that parental permission could not be required in order for a minor to obtain an abortion, and that the spouse's consent could not be required in order for a woman to obtain an abortion. In 1977 the Court upheld legislation allowing individual states to ban Medicaid from paying for abortions unless the life of the pregnant woman was threatened or the pregnancy was the result of rape or incest (Tietze, 1981).

Legislatively, the situation today has not changed. Some opponents of induced abortion on request have continued to work for passage of a constitutional amendment banning all abortions. Many active supporters of abortion on request have continued to work to hold the ground they have gained, and to defeat a proposed constitutional amendment banning all abortions.

Statement of Problem

The issue of elective abortion has remained current for over a decade, and has continued to be studied and debated by many interested parties. Removed, perhaps, from the debate are many of the individuals affected by availability of abortion and perhaps by the debate itself. Most abortions have been obtained by single women under the age of twenty-five, the age group containing most college students. Most of the highly visible activities of the various right-to-life and pro-choice organizations have been within the past 15 years, the period of time when today's college students were reaching the end of their childhood and entering adolescence.

The purpose of this thesis was to investigate the attitudes which traditionally aged college students have about abortion. The measured attitudes have been correlated with selected demographic descriptions.

Limitations of Research

The study of attitudes about abortion offered numerous possible approaches to take and populations to sample. In the past much research has been directed at ascertaining the attitudes of women undergoing abortion (Luker, 1975). Many polls sampled the attitudes of the

"general public," such as the Gallup or Harris polls (Jaffe, Lindheim, & Lee, 1981).

This study was limited to exploring the attitudes of a sample of traditionally aged college students. They were selected for study based on their age and availability. Their ages matched the ages reported for over a third of all abortion seekers. However, accurate national data on the incidence of abortion among college students were not available. Thus, no relationship between attitudes about abortion and the frequency of abortion among college students should be assumed. Indeed, such relationships would be tenuous at best, for Jaffe, Lindheim and Lee (1981) note, "the attitudes people express about abortion seem to be keyed more to events and the climate of opinion in the society at large than to personal experience or willingness to use abortion." The results then, applied only to college students.

A sizeable population from which to draw a sample was another incentive to use college students. Comparison with other studies was tentative, as some are exclusively concerned with college students' attitudes, while others sampled the attitudes of other people. Thus, any comparison across groups has been made with caution. Additional limitations which pertained to study design have been discussed in Chapter V.

Definition of Terms

As this thesis was primarily concerned with attitudes, the use of medical terms has been held to a minimum. Still, as abortion and pregnancy were situations with both medical and social ramifications, providing medically acceptable definitions seemed appropriate. The term abortion, as defined by Tietze (1981), referred to the termination of a pregnancy after the fertilized egg or blastocyst had implanted in the uterine lining or endometrium, but before the fetus was considered viable, or capable of surviving outside the womb, initially with the help of life support systems and eventually without them.

Abortions, medically speaking, all fell into one of two categories, spontaneous or induced. Induced abortions were those deliberately performed to end the pregnancy. All other abortions were considered spontaneous abortions (Tietze, 1981). As this thesis was concerned solely with induced abortions, the term "abortion" referred to induced abortion unless it was otherwise modified.

Research Hypotheses

1. There is a significant difference in attitude about abortion between religious and non-religious students.
2. There is significant difference between the attitudes about abortion of college students reporting experience with abortion and of those reporting no experience.
3. There is a significant difference between the attitudes about abortion of college students reporting political involvement with the abortion issue and those reporting no involvement.

Null Hypotheses

1. There is no significant difference in attitude between religious and non-religious students.
2. There is no significant difference between the attitudes of college students reporting experience with abortion and those reporting no experience.
3. There is no significant difference between the attitudes of college students reporting political involvement with the abortion issue and those reporting no involvement.

Summary

A brief review of the history of induced abortion revealed that the ability to deliberately end pregnancies has been known for centuries. The recent rise of elective abortion as a social, moral and legal issue has been well documented and studied. This thesis has been designed to investigate the attitudes held by traditionally aged college students about the issue of elective abortion. Variables predicted to have a significant effect on attitudes about abortion were religiosity, experience with abortion, and involvement with the elective abortion issue.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In the decade since the Supreme Court decision of 1973 which struck down restrictive statutes concerning abortion, thus creating abortion on request, numerous studies on different aspects of induced or elective abortion have been conducted. As legal elective abortion is a relatively recent phenomenon in the United States it has only recently become widely studied. Much of the research on elective abortion was concerned with characteristics of women seeking abortions (Gerrard, 1977; Monsour & Stewart, 1973; Shaw, Funderburke, & Franklin, 1979) or with psychological sequelae to abortion (Miekle, Robionson, & Brody, 1977; Monsour & Stewart, 1973; Robbins, 1979). Studies of attitudes about abortion tended to demonstrate that attitudes about abortion were not static, but tended to change over time (Arney & Trescher, 1976; Blake, 1971; Combs & Welch, 1982; Ebaugh & Haney, 1980). Thus, results of attitude research about elective abortion have tended to more accurately reflect

a developing and refining of the ability to measure abortion attitudes as well as to reveal the attitudes different groups hold about the issue of elective abortion.

Reviewed in this chapter were the studies which contributed to the growing body of research on elective abortion, either as studies on abortion attitudes in particular populations or as research on the best methods of studying attitudes about abortion.

With the increased attention given to the issue of elective abortion by researchers in many fields (counseling, psychiatry, demography, family planning), a large body of literature has been developed. Unless such research bore directly on attitudes about abortion, it was not reviewed.

Instrumentation

Studies on abortion attitudes have frequently placed the researcher in the position of needing to design an instrument of measurement in a study. By far the Likert-type summed rating scale was the most commonly developed measurement instrument (Bardis, 1975; Bowers & Weaver, 1979; Fischer & Farina, 1978; Snegroff, 1976).

Another method has been to ask a direct question or questions, or to ask the respondent to agree or disagree with a statement. One frequent approach has been to use

either the same or very similar items about abortion used by the National Opinion Research Center's (NORC) General Social Survey (GSS) (Clayton & Tolone, 1973), or to use the GSS data and have it analyzed in accordance with the researcher's study (Arney & Trescher, 1976; Ebaugh & Haney, 1980; Wagenaar & Knol, 1977; Combs and Welch, 1982).

Other researchers employed more traditional instruments and methods of measuring subjects' attitudes, personalities, and psychological states. The Minnesota Multiphasic Personality Inventory (M.M.P.I.) was used by Meikle et al (1977) and by Robbins (1979). Werner (1978) used a combination of measurement instruments (California Psychological Inventory, Rotter's Locus of Control Scale, Adjective Check List, and Gough's Abortion Attitude Scale), two questionnaires on abortion activism and abortion acceptance which he had developed, and an open ended essay.

Opinion Surveys of the General Public

As noted in Chapter One, it was during the 1960's that the issue of elective abortion began to gain nationwide attention. Queries were made about the attitudes held by different segments of the American public by different pollsters and surveys. A review of the research

on attitudes about elective abortions held by the general public revealed that those attitudes had changed considerably during the last two decades.

Blake (1971) dealt with attitudes about abortion during the 1962-1969. The data used was taken from five Gallop polls conducted between 1962-1969 and from the National Fertility Study (NFS) of 1965. Although the polls and the NFS took slightly different approaches, the results in terms of general trends in attitudes as well as in level of support for legalized abortion were probably representative of the nation. The level of approval for abortion was sought for each of four conditions: health of mother endangered, child might be deformed, cannot afford child, and does not want another child.

The condition receiving the highest level of support for legalized abortion was health of mother, which was disapproved of by 16% of respondents in the 1962 Gallop poll, and by 13% in the 1969 poll. The condition no more children, which elicited the highest rates of disapproval (and which corresponded most closely to what has become thought of as elective abortion), was disapproved of by 91% of the women sampled in the 1965 NFS, by 85% of the respondents to the 1968 Gallop poll, and by 77% of the respondents to the 1969 poll.

Legalized abortion received strongest support from non-Catholic, well educated males from the North/East and Mountain/Pacific regions of the United States. Generally, women disapproved of abortion more than their male peers for all four conditions.

Among non-Catholics, individuals in the lowest educational bracket, with only grade school education, had the highest levels of disapproval. The age difference in level of approval had decreased by the end of the decade in the population as a whole. Regionally, the South was the most conservative area, with non-Catholics there being more conservative than Catholics in the country as a whole. The North/East and Mountain/Pacific regions were the areas with the lowest levels of disapproval for legalized abortion.

As might have been predicted, Catholics as a group disapproved of legal abortion more than non-Catholics. For the condition of mother's health, disapproval by male and female Catholics fell from 36% in 1962 to 20% in 1969. For the condition of no more children, the 1965 NFS found a disapproval rate of 94% among Catholic women, and Gallop polls of 1968 and 1969 found that Catholics as a group disapproved at the 86% and 83% levels.

Blake provided useful background material about the nationwide level of support for legalized abortion in the

decade preceding the Supreme Court ruling of 1973. While the data contained no information on levels of significance or margin of error, it contributed a beginning to a continuum of attitude change, and dealt in detail with a decade less studied by following researchers.

General Social Survey Studies

On a nearly annual basis the National Opinion Research Center had, in their General Social Survey, collected data on attitudes about abortion as well as gathered vast amounts of demographic information about respondents. In the GSS respondents were asked to state whether it should be possible for a woman to obtain a legal abortion in each of six situations. The first three situations included threats to mother's health, serious defect in child, and result of rape, and were termed hard reasons, which meant that no control could be exercised over them. The second group of situations included low income/can't afford to raise a child, not married and not wanting to marry, and not wanting more children; these reasons were termed soft reasons, meaning that some degree of control might be exercised over them. Many researchers have taken data from the GSS and analyzed it for use in particular studies. Studies of trends in attitudes about abortion were greatly facili-

tated by the nearly annual repetition of nearly identical surveys to a random, nationwide sample of the noninstitutionalized population of the United States aged 18 or older. The following studies relied heavily on data gathered by the GSS in different years.

Arney and Trescher (1976) noted the emergence of new patterns of approval for abortion. Examination of 1972 GSS data revealed that prior to the Supreme Court ruling in 1973 no soft reason had received approval from half of the respondents. In 1973 a soft reason, unable to afford child, had risen to 52% approval by the sample, and it remained near that level through 1975. Approval of abortion if the mother's health was endangered usually indicated approval of abortion for the other hard reasons. Approval of any soft reason usually indicated approval for abortion in all six situations. While level of education was an effective predictor of attitude in 1972, it was less so in the years following the Supreme Court decision when increased levels of approval for abortion for both hard and soft reasons were found in respondents with less than a high school education.

Religious commitment appeared to be strongly related to attitudes about abortion. Frequency of church attendance was related to attitudes about abortion, with Catholics and Protestants who attended church more than

once a month reporting less support than their less frequently church attending counterparts. Between 1972 and 1973, the level of support for abortion for all reasons among infrequent church attenders was steady, with Catholics reported supporting for all reasons at 65% in 1972 and 66% in 1973. Protestants reported support for all reasons at 66% in 1972 and at 71% in 1973. When support for hard reasons was examined in 1972 Catholics supported at 32%, and Protestants at 36%. These percentages were very similar in 1973, with Catholics approving at 30% and Protestants at 27%.

A different pattern emerged when level of support among frequent church attenders was considered. In 1972, 34% of Catholics approved of abortion for all reasons and 39% approved only for hard reasons. For the same year 44% of the Protestant respondents approved of abortion for all reasons, while 36% approved for hard reasons only. In 1973 support for all reasons by Catholics fell to 30%, while support for hard reasons increased to 52%. In 1974, among Catholics, movement to more extreme positions occurred. Support for abortion for all reasons rose to 40%, while support for only hard reasons fell to 37%. In 1973 51% of the Protestant respondents supported abortion for all reasons and 36% for hard reasons only. This level of support was stable among Protestants in

1974. Religious commitment had a greater impact on attitudes about abortion than did denominational identification.

Differences between the sexes in attitudes about abortion diminished during the 1970's. By 1974 no significant differences remained between the attitudes of men and women within the same educational level. Higher educational levels continued to be related to more approving attitudes about abortion.

A period of rapid liberalization of abortion attitudes was reflected in the 1973 GSS. Arney and Trescher (1976) noted that between 1973 and 1975 2.6 million legal abortions were performed in the United States.

Hedderson, Hodgson, Bogan and Crowley (1974) used 1972 GSS data to investigate abortion attitude differentials by use of path diagrams of multiple regressions for four groups: Catholic males, Catholic females, non-Catholic males and non-Catholic females. In conclusions drawn from their study, Hedderson et al (1974) found that differences remained between the attitudes of Catholics and non-Catholics, with Catholics the most conservative in attitudes about abortion. These differences were reported as being less than in previous studies. Religiosity was correlated with stronger opposition to abortion

for both sexes, although a stronger effect was found among Catholics.

Education was another variable which affected attitudes about abortion. It was found that education had a significant negative correlation with anti-abortion attitudes of non-Catholics and of Catholic males. Educational levels of Catholic women had insignificant but positive relationship correlations with anti-abortion attitudes. Other findings of Hedderson et al (1974) were also discussed by other researchers using GSS data (Arney & Trescher, 1976; Ebaugh & Haney, 1980) and have not been repeated here.

One of the more thorough analyses of the GSS data was performed by Wagenaar and Knol (1977) with data collected in the 1973 and 1975 surveys. Their basic finding was that higher levels of support for abortion were found among college educated respondents who lived in the northeast or west, had no religious affiliation, were of higher socioeconomic status, and had lower exposure to children. A regression analysis was performed to determine the relative predictive importance and unique effect of each of 15 independent variables. Church attendance was the most important predictor with its contribution to R^2 at 13% and its beta weight at $-.34$ in 1975. This variable was also the most predictive in 1973, although the

values were lower then. Educational level was the second best predictor, with its contribution to R^2 at 5% and its beta weight at .17 for 1975; values for 1973 were somewhat higher.

Detailed information on bivariate relationships was provided. A one-way analysis of variance of support for abortion was performed with the nominal level independent variables. The level of significance was .05. Significant differences were found in increased levels of support from both blacks and women between 1973 and 1975. Difference in marital status was significant in 1973, but was not in 1975. Significant differences were found between blacks and whites in both years. All three measures of religiosity were found to be significant: belief in an afterlife, attendance at religious services, and religious affiliation. A significant but modest correlation was found for socioeconomic status as determined through three variables: respondent's education, total family income, and father's income.

Three variables were found to have significant, modest, negative relationships with attitude about abortion: number of children, number of siblings, and geographical region of residence.

No statistically significant relationships were found for age, city size, receipt of government aid, full time employment, or political party affiliation.

Wagenaar and Knol (1977) found slight reductions in level of support for abortion, and concluded that a reappraisal of elective abortion had occurred. Stress was placed on the necessity of employing multivariate analysis of independent variables in research on abortion attitudes. The 15 independent variables analyzed accounted for approximately 23% of the variance in support for abortion, and had moderate beta weights, reinforcing the fact that most of the sources of variance in levels of support for abortion remain unknown.

In 1978 Singh and Leahy pooled GSS data from 1974 and 1975, and selected as their sample only the respondents who consistently supported or opposed discretionary abortion. Their use of the term discretionary abortion meant the three soft reasons. A discriminant analysis was performed to determine how the dependent variable of discretionary abortion was differentiated by the selected independent variables, as well as to determine the variables which were able to account for variance in attitudes about abortion. Next, variables with discriminant function coefficients of $\pm .30$ or greater were entered into a stepwise regression to separate their influence on

attitudes about abortion. The contextual variables of education and attendance at religious services were found to be the strongest determinants of attitudes about abortion. Two ideological variables, fertility ideology and sexual permissiveness, were identified, and both had very significant effects on abortion attitudes. Singh and Leahy hypothesized that greater sexual permissiveness led to greater approval of abortion.

Ebaugh and Haney (1980) noted a decrease in attitudes supporting elective abortion between 1974 and 1975, with slight increased support in 1976. A firm trend towards greater opposition to elective abortion for soft reasons was noted for 1978. In that year, GSS data indicated 88% approval for all respondents if the mother's health was endangered, and 40% approval if she was unmarried and did not want to marry. Differences in attitudes of men and women about abortion had virtually disappeared by 1978, with decreased levels of approval of abortion for hard reasons and for all reasons being reported by both men and women.

Levels of approval of abortion were analyzed for effects of age. By 1972 younger people were no longer more opposed to abortion than older people; the level of support for abortion for all reasons was 66% in 1972 for respondents under 30. For the under 30 years of age

group, the highest level of support was 72% for all reasons in 1973. By 1978 support by that group had fallen to 58% for all reasons.

In contrast, respondents over 44 indicated less support for abortion. In 1972, 52% indicated support for abortions for all reasons. This level of support rose to 60% in 1973, 1974, and 1977, but fell to 58% in both 1975 and 1978.

Level of education continued to be related to attitudes about abortion, with college educated persons indicating higher levels of support. In 1978, however, a conservative trend was found. Support from all educational levels was lower than support from the same educational level in 1972.

Religion continued to have a bearing on attitudes about abortion. Ebaugh and Haney (1980) had a more complete analysis of NORC data than other researchers (Arney & Trescher, 1976; Wagennar & Knol, 1977), and analyzed data on Jews, nonaffiliates, and Protestants by denominations as well as for Catholics. In 1972, Jewish respondents offered the highest level of support for abortion for all reasons, 90%, and continued to have the highest level of support through 1978, when it was measured at 91%. Nonaffiliated individuals' level of support closely paralleled that of Jews, with 90% in 1972 and 84% in 1978

approving of abortion for all reasons. When Protestant and Catholic respondents were considered as groups in the 1978 GSS, their levels of approval for abortion in all situations were 50% and 41% respectively, the lowest levels of absolute support reported in that category during the years surveyed.

Consideration of Protestants by denomination revealed wide variation in levels of support. When considering respondents who approved of all abortions, Episcopalians had the highest level of support, 71%, followed by Presbyterians at 64%. This pattern held for all years covered by the GSS, with the lowest levels of support having occurred in 1978 when the rates were 71% by Episcopalians and 64% by Presbyterians.

Ebaugh and Haney (1980) studied the decade of the 70's, and reported that by the end of the decade a pronounced conservative trend was occurring in attitudes about abortion. College education and, to some degree, being under 30, were related to a more favorable attitude about abortion.

In a study of the significance of race on abortion attitudes, Combs and Welch (1982) hypothesized that racial differences, although diminished, still existed, but that different demographic characteristics and religious practices would account for part of the racial dif-

ference reported in abortion attitudes. They used data from the 1972 through 1980 GSS's conducted by the NORC. Surveys were divided into three groups, 1972-1974, 1975-1977, and 1978-1980 (no survey was conducted in 1979) in order to increase the number of blacks in each sample. After creating a scale (0-6) for support for abortion, simple differences between blacks and whites were examined. After controlling for demographic factors, the differences were examined again, and finally religious practice was controlled for and the remaining difference was examined.

As expected, racial differences between blacks and whites were significant, but due to increasing levels of support from blacks and decreasing levels of support from whites, the differences were less by 1978-1980. A strong and significant relationship was found between education and attitudes toward abortion. Southern residence, rural childhood residence, current rural residence and low income were related to decreased support for abortion among blacks. Religious variables had a greater impact on abortion attitudes than socioeconomic status, with church attendance having the greatest effect, along with Catholicism and Fundamentalism. Thus, many of the same independent variables which affect the abortion attitudes of blacks have also been proven to affect the abortion

attitudes of whites. Race had, however, a significant effect on attitudes about abortion.

Studies on College Students

Proper instrumentation for use in studying attitudes about abortion was one of the first difficulties encountered by researchers studying the population of college students. What occurred was a period of multiple approaches to the study of abortion attitudes. While most trends were similar, some differences emerged in terms of findings, and the sources of these differences remained unclear--did the instrument uncover previously untapped information, were the findings jeopardized by a poorly constructed instrument, or were the different samples extremely different? However, the multiple approaches taken were essential as a period in which instrumentation could be refined.

One of the first issues which confronted researchers of abortion attitudes among college students was the construction or selection of an appropriate measurement instrument. Bardis (1975) constructed an instrument, the Bardis Abortion Scale, a 25 item Likert-type scale designed as a quantitative measurement of abortion attitudes. In the scale, a score of "0" indicated the most conservative stance, and a score of "100"

the most liberal. Bardis (1975) focused his study on a sample of 200 undergraduate students at a midwestern Roman Catholic-affiliated liberal arts college. The random sample was controlled for United States citizenship, Roman Catholic faith, sex and college rank, with 25 men and women being drawn from each of the four classes of undergraduates.

The mean of males was 42.20, and of females 28.52. These results were significant, and lent support to earlier findings that men were more liberal than women in their attitudes about abortion. No statistically significant differences were found for subjects coming from cities with a population of under 5,000 as compared to population of over 5,000. No significant differences were found for students of different marital status. Students with social science majors were significantly less liberal than natural science majors, and students planning graduate study were significantly more liberal than students not planning graduate study. No effort to control for the influence of sex in either selection of field of study or intent to pursue graduate level work was reported; such an effort might have been appropriate, as the level of significance might have been affected.

A strong negative correlation was found between the number of religious services attended and attitudes about

abortion. Indeed, the sample as a whole reported attending an average of 4.38 religious services per month.

Malak (1972), who assisted Bardis in the collection of data for his 1975 study, also investigated the attitudes of Catholic college students concerning abortion. She administered the Bardis Abortion Scale to 200 undergraduate students at a small midwestern liberal arts college, controlling for Catholicism, enrollment at the college, United States citizenship, and sex and class rank with 25 men and women being drawn from each of the four classes of undergraduates. As in other studies, a significant difference was found between the attitudes of males and females. Males had a mean score of 41.69 and females a mean score of 29.02. No significant difference was found between the attitudes of freshmen and seniors. An examination of the correlation between years of parochial school education and scores on the Bardis Abortion Scale revealed no significant differences. There was a tendency (nonsignificant) for unfavorable attitudes about abortion to be correlated with a high number of years spent in parochial schooling.

Lackey and Barry (1973) described the construction and administration of a questionnaire to measure attitudes about abortion. Reliability as determined by the split-halves method was .90. A correlation coefficient

of .48 was assumed to indicate concurrent validity. The 55 item questionnaire included an attitude scale, an information scale, a lie scale, and a scale of nine items drawn from previous studies in an effort to provide a basis for comparison. The responses of 206 subjects were analyzed, over half of them students at the University of Georgia. The other subjects were female assembly line workers (N = 32) and wives of physicians (N = 19) who lived in Athens, Georgia.

The students were subdivided into four groups for purposes of analyzing the data: single males, single females, married males, and married females. No significant differences were found between any of the student groups. The only significant difference found between groups was found between students and industrial workers, which may have provided support for the finding that the higher the educational level, the more accepting of abortion. Comparing the nine items drawn from previous studies with the new items on this questionnaire provided a correlation coefficient of .48 ($p < .001$), which indicated some content validity.

The relationship between personality variable and attitudes about legalized abortion was the focus of one study. Corenblum (1973) studied 40 students with extremely pro and con attitudes about elective abortion in

an effort to find if personality correlates existed which would indicate extreme positions. Rotter's Internal-External Scale and Tuckman's Topical Inventory were administered and all results submitted to chi-square analysis. The only significant finding was that females who had external control, as measured by Rotter's Internal-External Scale, had more favorable attitudes about abortion than females who evidenced internal control. Corenblum (1973) concluded that the latitude of acceptance exhibited by a subject should not be viewed as a measure of attitude, because the attitude of acceptance reflected a personality variable, and confounded interpretations.

In a later study, Corenblum and Fisher (1975) employed a factor analysis of attitudes toward abortion using 31 bipolar adjectives on the semantic differential to rate the concept of abortion. Their intent was to determine if attitudes about abortion were multidimensional in nature. Subjects were 700 undergraduate students, 385 male and 315 female. A correlational matrix was determined by computing a Pearson product-moment correlation, and the matrix was factored. It was found that four factors, which accounted for 50% of the total variance, could reproduce the correlational matrix. The factors were two evaluative dimensions, an emotional-

serious dimension, and a rational-impulsive dimension. Significantly different from the midpoint were the measures of the adjectives immoral, repelling, bad, cruel, destructive, ugly, sinful, emotional, serious, rational, and impulsive. Males and females had very similar factor structures. The responses appeared to indicate a negative attitude about abortion, but the researchers concluded otherwise. Corrmblum and Fisher (1975) compared their findings with a similar study by Jenkins, Wallace, and Suci done in 1958, and found that of the mean rating for the nine adjectives which were included on both studies, results for the current study were significantly more moderate. The results, then, indicated a trend towards a more liberal position in attitudes about abortion.

In an investigation of the relationship between religiosity and attitudes about elective abortion, Clayton and Tolone (1973) designed a study which hypothesized that increased religiosity was related to decreased approval of elective abortion. As a sample they used 821 students enrolled in one of three universities: Georgia Southern College, University of Kentucky at Lexington, and Illinois State University at Normal. Half of the sample were Freshmen, and 59% were female.

Religiosity was measured by a Guttman-type scale, and attitudes towards abortion were determined by use of the same conditions investigated by the 1965 NORC survey. Three control variables were used, one for sex, the others for other aspects of fertility control. Fertility control was measured by means of two Guttman-type scales, one designed to measure social constraints and coercive control ("As a means of population control, couples should have to apply to the federal government for permission to bear children."), the other designed to measure delivery of contraceptive education/materials.

As expected, religiosity was found to have an inverse relationship with approval of abortion. Gamma values, rather than r values, were listed, with a range of $-.48$ when mother's health was the issue to $-.39$ for low income. Religiosity was found to be a better predictor of women's attitudes than men's. Consideration of the two factors constructed to measure attitudes about fertility control indicated that attitudes about abortion were affected by attitudes about other population control issues.

Nutt and Sedlacek (1974) analyzed questionnaire responses from 752 randomly selected incoming freshmen students at the University of Maryland. While the purpose of their research was to determine whether a gap

existed between students' reported attitudes and reported behaviors, only their results pertaining to abortion have been discussed. The position that abortions should be easily available without parental consent was supported by 82% of the sample. Experience with abortion was not reported at nearly as high a level, with 5% of the females reporting they personally had had an abortion during the past 12 months, while 57% of the females indicated they knew someone who had an abortion during the past 12 months. The males responded in a similar fashion, with 2% reporting sexual involvement with someone who had had an abortion during the past 12 months, and 48% reporting knowing someone who had had an abortion in the past year. Significant differences were found between men and women, and between individuals reporting sexual experience and those not reporting sexual experience. Level of significance was set at .05. A factor analysis revealed two factors which accounted for 85% of the variation. The first loaded on sexual identity items and behaviors, the second on sexual codes including personal, ideal or expectations.

Snegroff (1976) reviewed the difficulty of accurately measuring attitudes about abortion, and noted that the role of knowledge about abortion in forming attitudes about abortion was not known. While he emphasized that

whether or not students were in favor of elective abortion was not of concern to the health educator, he emphasized the importance of accurately assessing students' attitudes, students' level of knowledge in terms of accuracy, and amount of information, and how this knowledge affected their attitudes. Snegroff noted that accurate information was essential for objectivity in decision-making about emotional or controversial issues.

Snegroff reviewed the available measurement instruments and found that none existed which were suitable for his purposes. The Bardis Abortion Scale was rejected because its construction placed all items on the favorable end of the continuum. A Likert-type scale developed by Maxwell was dismissed because it contained too few items, twelve in all. Abortion knowledge inventories were not reviewed by name, although it was stated that the available inventories were not scientifically accurate.

The Abortion-Attitude Scale (AAS) was constructed as a five point Likert-type summed rating scale with 30 items. These items were in random order, with the polarity of half of them reversed. Scores ranged from a completely favorable attitude of 150 to a completely disapproving attitude of 30. The midpoint of the scale was 90, don't know. The reliability-coefficient was calcu-

lated by the split-halves method, and measured .91. Content validity was obtained by the use of expert judges.

The Abortion-Knowledge Inventory (AKI) was comprised of 30 multiple choice items, each with four possible answers. The options for each item were arranged so that correct answers were evenly distributed. Each question was worth one point, thus the scores ranged from a low of 0 when no items were answered correctly, to a high of 30 when all items were correctly answered. The reliability coefficient was .79. Content validity was based on the judgment of expert profession. The AAS and the AKI were constructed to permit their use separately or together.

After construction of the AAS and AKI, they were administered to a sample of 527 undergraduate students, 266 males, 261 females. For the sample as a whole, the mean AAS score was 116.6 with a standard deviation of 27.3. The mean AKI score was 16.1, with a standard deviation of 3.8. The correlation of the scores was moderate, with $r = .36$, and the level of significance $p < .01$. Thus, a significant relationship exists between the sets of scores. The mean score on the AAS indicated that attitudes had been formed, and that the sample as a whole was mildly accepting of abortion.

Finlay (1981) examined sex differences in attitudes about abortion when correlated with six independent variables. Previous studies had found little support for significant differences in the attitudes of males and females about abortion, but Finlay hypothesized that men and women approached the issue of abortion from different perspectives, and that differences did exist. Two scales of attitudes about abortion were administered, one to measure the subject's moral view of abortion, one to measure the subject's opinion of legalized elective abortion. The independent variables analyzed were family background, sexual conventionality, importance of children, sex role conventionality, general conventionality, and pro-life sentiment. The sample was comprised of 280 students at a large southern university. Due to the method of selecting subjects, the results of the study were not assumed to be representative of college students; the main thrust of Finlay's research was to detect trends and patterns in approval of abortion, and it was indicated by the researcher that the patterns of relationships of variables would likely remain the same.

Based on the abortion attitude scale judging moral views of abortion, no significant difference was found between men and women in their attitudes about abortion. A strikingly different pattern emerged when males and

females were compared on the question of legalized abortion. That scale had consisted of a single question where the respondent was asked to indicate a personal opinion about "legalized abortion" by selecting a score from one, strongly oppose, to five, strongly agree. In summing together those strongly approving and those approving abortion, legalized abortion was favored by 72.8% of the women and by 59.1% of the men. Thus, the two scales appeared to measure different elements of attitudes about abortion.

When family background was considered, differences emerged for men and women. The variable of parent's church attendance was more strongly related to males' attitudes about abortion, with an inverse relationship between frequency of attendance and support for abortion. For women, the most predictive and significant variables were father's socioeconomic status, mother's church attendance, and parent's education.

All items in the sexual conventionality variable were significantly related to attitudes about abortion held by men and women. Here, the more conventional respondents were more opposed to abortion on both attitude scales. This variable had the strongest correlations of all six variables studied. Findings here supported Singh and Leahy (1978) who also determined that a nonpermiss-

sive, or traditional sexual attitude was correlated with opposition to abortion.

Differences between males and females emerged again when the third variable, importance of children, was considered. No significant correlations were found for males' attitudes on either abortion scale. Attitudes about abortion, as measured on both scales, were found to be significantly correlated with the third variable. As subjects' reported wanting increased numbers of children, and as they strongly accepted that life was incomplete without children, their measured attitudes about abortion declined. The importance of children, then, was found to affect women's attitudes about abortion, but not men's.

The fourth variable of sex-role conventionality also found significant differences between men and women as correlated with their attitudes about abortion. Items contained in this variable concerned the importance of college education for women, opposition to ERA, female candidate for President of the United States, the importance of a woman being a successful wife and mother, and sharing of housework in dual career marriages. Among males, there was slight correlation between sex-role and abortion attitudes with the exception of maternal role. For females, however, strong correlations existed for all items except maternal role, and caused the researcher to

comment that Singh and Leahy's (1978) findings on the nonimportance of sex-role attitudes in forming abortion attitudes be reassessed.

On the general conventionality, the same pattern of responses emerged for both sexes, with more conventional attitudes about nonsex-related issues correlating with increased opposition to abortion.

Pro-life sentiment was measured by one item on capital punishment for murder. Again, different findings appeared for males and females, with males' attitudes about capital punishment not correlating with attitudes about abortion. There was a significant correlation between pro-life attitudes on the question of capital punishment and abortion attitudes, with opposition to capital punishment being linked to abortion opposition as well.

Finlay (1981) concluded that the abortion question is more complex for females than for males, in light of the effects of sex-role conventionality, sexual conventionality, family background, and general conventionality. The importance of not generalizing the trends found here to other populations was underscored by the researcher, who pointed out that the relatively young age of the sample would indicate that most of them grew up

during the heated debates over legalized abortion which followed the liberalization of abortion laws.

Summary

The review of pertinent literature in the field of induced abortion provided a basis for general, global views of what kinds of attitudes college students have about the issue of abortion as well as insight into difficulties in such studies. Particularly apparent was the difficulty of beginning to investigate an attitude or opinion that was not only rapidly changing, but which had little systematic investigation in the past. This perhaps partially explained the frequent reliance on data from the GSS.

It was seen that among the general population attitudes in support of elective abortion increased rapidly following the Supreme Court ruling in 1973. However, certain factors remained predictive of levels of support for elective abortion. Religiosity, as measured in various ways, appeared to be correlated with decreased levels of support for abortion, particularly for soft reasons. Sex has generally not been demonstrated to account for differences in attitudes of men and women about abortion. While most data indicated that both sexes were very similar in their attitudes about abortion, there was some

indication (Finlay, 1981) that this finding must be re-appraised. No doubt the development of more refined instruments to measure attitudes about abortion would allow more to be stated with certainty.

College students' attitudes were investigated by several researchers. The pattern which emerged indicated that Catholics had more disapproving attitudes about elective abortion for soft reasons, although they had fairly high levels of support for hard reasons. Among Protestants, care needed to be exercised in determining which specific denomination was being studied, for many fundamentalist Protestants have attitudes about abortion that are as conservative as Catholics. Age was not found to have a great effect on attitudes, but it must be kept in mind that samples of college students were very homogeneous in nature when compared to the general population. Family background entered heavily into predicting the attitudes of college students about elective abortion. No specific studies comparing attitudes of blacks and whites, or any other racial group, were encountered in attitude studies among college students. Experience with abortion had occurred at a high level in some studies, if one was willing to accept knowledge of someone else having an abortion as comprising experience.

Much of the early work in the area of attitudes about abortion was descriptive work of samples, and only recently have efforts been made to discover the particular factors which would enable an accurate prediction of attitude.

CHAPTER III

METHOD

The purpose of this research was to study the attitudes about abortion held by traditionally aged undergraduate students. The hypotheses tested were listed in Chapter One.

Sample

Three hundred and ninety undergraduate students attending classes at the University of Kansas during the Spring Semester of 1983 were selected as subjects for this study. These subjects were selected from a larger pool of 422 subjects. Of the original 422 subjects, four were dropped because their questionnaires were returned as unusable. After selecting only those students whose ages fell between 17 and 23 and those students who identified themselves as undergraduates, 390 subjects remained and were used in this study.

The composition of the sample was basically homogeneous in that all subjects were undergraduate, traditionally aged college students. In terms of marital

status, 96.7% of the sample were single, 2.3% married/partnered, and 1% divorced/separated. Females comprised 55.4% of the sample, and males 44.6%. Table 1 described the sample by age and Table 2 described the sample by educational level.

Several majors or intended majors were listed by schools, with 34.6% of the sample indicating a major or planned major in the College of Liberal Arts and Sciences. Majors or intended majors in Business were indicated by 21.3%; 10.0% indicated a major or intended major in Education; 8.2% indicated they were undecided about their major.

Table 1
Frequency of Age as Reported on
Demographic Questionnaire

Age	Absolute Frequency	Relative Frequency (Percent)	Adjusted Frequency (Percent)	Cumulative Frequency (Percent)
17	6	1.5	1.5	1.5
18	83	21.3	21.3	22.8
19	104	26.7	26.7	49.5
20	66	16.9	16.9	66.4
21	80	20.5	20.5	86.9
22	40	10.3	10.3	97.2
23	11	2.8	2.8	100.0

Table 2
 Frequency of Educational Level as Reported
 on Demographic Questionnaire

Educa- tional Level	Absolute Frequency	Relative Frequency (Percent)	Adjusted Frequency (Percent)	Cumulative Frequency (Percent)
Freshman	157	40.3	40.3	40.3
Sophomore	71	18.2	18.2	58.5
Junior	75	19.2	19.2	77.7
Senior	87	22.3	22.3	100.0

Instrumentation

The Abortion Attitude Scale. The Abortion Attitude Scale (AAS) was developed in 1973 by Stanley Snegroff. The scale was a 30 item Likert-type summed rating scale. The reliability coefficient determined by a split halves method was reported as .91. Content validity was assumed.

The AAS was developed for use in measuring the attitudes of undergraduate students serving as subjects in Snegroff's research (Snegroff, 1976). Administration time for both the AAS and the Demographic Questionnaire was under fifteen minutes.

Demographic Questionnaire. A nine item questionnaire was specifically designed for this study. Questions concerning age and educational level were used to

select the subjects as well as to describe the sample. Five questions (religiosity/spirituality, sex, two questions relating to political involvement with the issue of elective abortion, and experience with an elective abortion) were used as dependent variables in investigating attitudes. The remaining questions concerned marital status and intended major in school and were used to describe the sample.

Procedure

Permission was sought and received to administer the AAS and the Demographic Questionnaire in four undergraduate classes at the University of Kansas. All questionnaires were administered within a one-week period during the Spring Semester of 1983. Students attending class on the day the experimenter came were asked to participate, were assured their participation was voluntary, and were given three pages (informed consent form, Demographic Questionnaire and AAS) to complete. (See Appendices A, B, and C). Instructions given were to respond to all items and to give only one response to each item. Estimated administration time for all items was under fifteen minutes.

Four hundred and twenty-two questionnaires were returned to the investigator. Three of these were elimi-

nated due to questions corresponding to the dependent variables not having been answered. One questionnaire was eliminated because none of the questions on the AAS were answered. Four hundred eighteen usable questionnaires remained. This sample was later reduced to 390 students by eliminating all students not identified as freshmen, sophomores, juniors, or seniors who were also 17 to 23 years of age.

Of this sample of 390 students, 26 students, or 6.6% of the subjects had left one or two items on the AAS, a 30 item scale, either blank or had provided two responses. The missing data, totaling 31 items, was supplied by assigning the value of the mid-point to each item.

Statistical Analysis

Analysis of variance was selected as the method best suited for analyzing these data as both categorical and continuous variables would be used. The initial design, calling for a four-way analysis of variance, was changed to a three-way analysis when a preliminary analysis of data revealed that there was insufficient cell size to assess the third variable, political involvement with the issue of elective abortion. (See Appendix D). Thus, a three factor analysis of variance

(sex, religiosity, and experience with abortion) was used to analyze the variability in AAS scores.

The ASS scores represented the dependent variable. Question 6 was used to test Hypothesis I. Questions 7 and 8 were used to test Hypothesis II (later dropped due to insufficient cell size). Question 9 was used to test Hypothesis III.

Three analyses of variance were performed. First, the variance of the AAS scores was divided into three main effects for variability due to sex, variability due to religiosity/spirituality, and variability due to experience with abortion.

Next, the variance of the AAS scores was analyzed for two-way interaction effects. Variability due to sex as it interacted with religiosity/spirituality, variability due to sex as it interacted with experience with abortion, and variability due to religiosity/spirituality as it interacted with experience with abortion would all be investigated.

Finally, a three-way interaction effect was analyzed for the combined effect of sex with religiosity/spirituality with experience with abortion.

Because the cell sizes were unequal (although they were large), two methods were used to control for these possible violations of assumptions basic to the analysis

of variance. First, a Bartlett box test for homogeneity of variance was performed. Second, the sums of squares for each effect to be entered into the analysis were entered sequentially as a method for controlling for correlations between groups which may be inherent in unequal cell sizes.

Summary

A three way analysis of variance was performed to measure the attitudes about abortion of a basically homogeneous sample of 390 undergraduate students. A Likert-type summed rating scale, the AAS, with a reliability coefficient of .91, provided the dependent variable. The independent variables of religiosity, experience with abortion, and involvement with the issue of elective abortion were investigated to test the hypotheses that (1) there would be no significant difference in attitude about abortion between religious and non-religious students; (2) there would be a significant difference between attitudes about abortion of college students reporting experience with abortion and of college students not reporting experience with abortion; (3) there would be a significant difference between the attitudes about abortion of college students reporting involvement with the abortion issue and of college students reporting no

involvement with the abortion issue. Main effects, two-way interaction effects, and a three-way interaction effect were analyzed. Possible violations of assumptions basic to the analysis of variance were controlled for by use of a Bartlett box test and by sequentially entering the sums of squares for each effect.

CHAPTER IV

RESULTS

In this research the attitudes about abortion held by 390 undergraduate students at the University of Kansas were studied. Each subject completed an AAS and a Demographic Questionnaire. The data were analyzed using a three factor analysis of variance (sex, religiosity, and experience with abortion). Main effects, as well as interactive effects were investigated. A Bartlett Box for homogeneity of variance was performed to determine whether assumptions of the F-test were upheld. The results of each hypothesis will be discussed in turn.

Hypotheses

Hypothesis 1, that there was no significant difference in attitude between religious and non-religious students, was rejected. A significant difference at both the $p < .05$ and $p < .01$ levels was found in the attitudes about abortion between religious and non-religious students. The tests of significance are listed in Table 3.

Table 3

Tests of Significance for AAS Using Sequential Sums of Squares

Source of	Sum of Squares	DF	Mean Squares	F	Signifi- cance of F
Abortion Experience	11492.79734	1	11492.79734	19.03284	0.000 ⁺ *
Sex	1026.16494	1	1026.16494	1.69940	0.193
Religiosity	17098.31598	1	17098.31598	28.31595	0. ⁺ *
Abortion by Sex	10.85624	1	10.85624	0.01798	0.893
Abortion by Religion	1319.17324	1	1319.17324	2.18464	0.140
Sex by Religion	308.22561	1	308.22561	0.51044	0.475
Abortion by Sex by Religion	627.00154	1	627.00154	1.03836	0.309
Bartless Box Test for Homogeneity of Variance				E (7,91592) = 1.47828	
				P = 0.170	
+ p < .01					
* p < .05					

Hypothesis 2, that there is no significant difference between the attitudes of college students reporting experience with abortion and those reporting no experience, was rejected. Here too, a significant difference was found at both the $p < .05$ and $p < .01$ levels between the attitudes of college students reporting experience with abortion and those reporting no experience.

Hypothesis 3, that there is no significant difference between the attitudes of college students reporting political involvement with the issue of elective abortion and those reporting no involvement, was not tested. The cell size for college students reporting involvement with the issue of elective abortion, either by some form of communication with an elected official or by participation in a demonstration, was insufficient to test this hypothesis.

Main Findings

A significant effect on attitudes about abortion was found for two factors, religiosity and experience with abortion. The effect for involvement with the issue of elective abortion could not be tested due to insufficient cell size. There were no significant differences between the female and male subjects in their attitudes about abortion.

Tests of significance were run individually for each factor and were run for each possible multiple combination of factors to investigate interactive effects. These results were listed in Table 3. All data were entered using sequential sums of squares. No significant results were found for one order of entry that were not found for the other orders of entry.

As reported in Table 3, significant results were found only for the factor of religiosity and the factor of experience with abortion. No significant results were found for any interactive effects.

The mean on the AAS for the entire sample of 390 subjects was 96.13, and the standard deviation was 25.98. The combined observed means on the AAS, the standard deviations, and the ranges were computed for each factor and each interactive effect. The combined observed means for each individual factor were reported in Table 4.

The combined observed means for the interaction of sex by religion by experience with abortion were reported in Table 5. None of the data reported in Table 5 were found to be significant at the $p < .05$ level.

Table 4
 Combined Observed Means, Standard Deviations,
 and Ranges for Individual Factors

Factor	Group	N	Combined Observed Means	SD	Range
Sex	Male	174	100.76524	26.43784	111
	Females	216	99.33598	25.64433	107
Relig*	No	118	107.25678	21.66303	95
	Yes	272	92.8444	26.35073	111
Abort*	No	223	95.66180	26.84999	110
	Yes	167	104.43942	23.41508	111

*p < .05

Table 5
 Combined Observed Means, Standard Deviation, and
 Cell Sizes for Three-Way Interaction by Sex
 by Religion by Abortion Experience
 on the AAS

Religion	Abortion Experience	Male	Female
No	No	102.45714 (22.70442) N=35	107.40741 (21.19916) N=27
No	Yes	111.84000 (19.46938) N=25	107.32258 (22.57194) N=31
Yes	No	88.39241 (26.44366) N=79	84.39024 (27.29571) N=82
Yes	Yes	100.37143 (28.15617) N=35	98.22368 (21.67247) N=76

Summary

The attitudes about abortion held by 390 undergraduate students were studied. A three factor analysis of variance was used. Significant results were found for religiosity and for experience with abortion. No significant difference was found in the attitudes about abortion held by females and males. The effect of political involvement with the issue of elective abortion could not be determined due to insufficient cell size. No significant results were found for any interactive effects.

CHAPTER V

CONCLUSION

Introduction

A review of literature about induced abortion suggested several variables which were correlated with attitudes about elective abortion. Much of the literature about elective abortion described characteristics of women who were pregnant and seeking abortion, or described psychological sequelae to elective abortion. The actual review contained in Chapter II focused on studies about the attitudes of college students about abortion.

Among the general population as well as among college students, as indicated by the literature, one of the most salient determinants of attitude was religiosity. Religiosity was defined several ways, with different studies setting different definitions of it. It was variously defined as denominational affiliation, belief in an afterlife, frequency of attendance at religious services, and as a simple self report--are you religious. In most studies, increased religiosity was correlated

with negative attitudes about elective abortion. Studies that further analyzed data on religious affiliation found that the particular religious body one was affiliated with could better predict one's attitude if one was a frequent attender of religious services; even so, several denominational affiliations remained predictive of attitude.

Another variable was educational level, with respondents from higher educational status being, in general, most tolerant of elective abortion.

The variables of age and sex were generally regarded as no longer being effective predictors of attitudes about abortion. Some doubt has been cast on the presumed ineffectiveness of sex as a predictor (Ebaugh and Haney, 1980) and it has been suggested that this conclusion be re-examined.

When research has been conducted on a sample as homogeneous as that of college students, the likelihood of finding no significant differences between variables has increased. Thus, even though age has not been found to be significantly related to attitudes about abortion, it would have been even less likely to have emerged in a sample composed of college students. The same cautionary note would be appropriate about educational level and socioeconomic status of the individual.

One of the great difficulties in deriving general, global conclusions about abortion attitudes was that abortion attitudes among the general population have never been stable, indeed, there were nearly annual shifts in levels of support. Similar shifts in attitude occurred among college students, where attitudes about abortion have tended to become slightly more conservative over the last few years, with greater levels of disapproval occurring among more religious students. Still, most students were found to be moderately approving of abortion, or to approve of abortion in a particular situation. It was almost as if separate profiles developed of those who supported abortion, those who absolutely opposed abortion, and those who had very little response to the issue.

Discussion of Results

The results of this study tended to support earlier findings, in that most of the sample was moderately approving of abortion. The possible range of AAS scores went from a high of 150, totally approving, to a low of 30, totally disapproving, with a midpoint of 90, don't know. The combined observed means for individual factors were all above 90. None, however, exceeded 110. The factor of religion appeared to be the most determinative,

as the nonreligious/spiritual group had a mean of 107.25, the highest mean reported for any factor and any group. Among students who considered themselves to be religious/spiritual, a mean score of 92.84 was reported, barely above the midpoint. This was the lowest reported for any factor and any group. It must be stressed that the AAS arrived at one global score to describe an individual's attitude about induced abortion. Thus the factor of religiosity/spirituality was by far the best able to account for variability in attitudes about elective abortion.

The large standard deviations indicated that even within groups, the spread of scores was quite large. This further indicated that while the factors of religiosity and abortion experience were significant, other factors were likely to exist which might be more strongly related to attitudes about abortion.

The factor of experience with abortion was found to be statistically significant. Here, those reporting experience with abortion had a combined observed mean of 104.44, while those reporting no experience with abortion had a combined observed mean of 95.66. Both AAS scores were above the midpoint, but the group reporting experience with abortion was more accepting of abortion. This was interesting in light of the fact that while experi-

ence tended to be related to higher level of acceptance, the inexperienced group was also marginally accepting.

While both religiosity and experience with abortion played a role in determining attitudes about abortion, the role played by religiosity was obviously stronger. This finding was in accord with the findings of previous research (Clayton & Tolone, 1973; Lackey & Barry, 1973) on college students, and also confirms the research conducted on the general population (Arney & Trescher, 1976; Ebaugh & Haney, 1980).

It was unfortunate that the hypothesis concerned with political involvement with the issue of elective abortion was not testable due to insufficient cell size. It was anticipated that involvement would have been even more strongly related to attitudes, a reasonable hypothesis since more strongly held opinions would be more likely to propel someone to take political action. It was also anticipated that this factor would also give some indication of what proportion of college students had felt strongly enough about the issue to have taken some kind of political action. The actual proportion of students was very small.

The relationship of sex of respondent was not found to be statistically significant. This was not tested by hypothesis since it had been anticipated that this was

the case, and since this factor had been examined in most other studies of both the general population and college students (Arney & Trescher, 1976; Clyton & Tolone; McNab, 1976). The main study which reported sex differences was one of the more recent studies (Finlay, 1981). After a long period where no significant differences were found among college students by sex in relation to attitudes about abortion Finlay found significant differences, and suggested that the structure of attitudes was different for men and women. If Finlay was correct in her conclusions, then future research must be directed at refining the sex-related differences.

Limitations of Research

Earlier, a discussion on limitations of research was carried out in Chapter I. One of the cautionary statements made earlier needed re-emphasis. The findings of this research could not be generalized as being representative of all college students. The method of gathering a sample was not truly random, in that the sample was a convenience sample; however, the large size (390 subjects) and the variety of classes subjects were tested in (basic biology, religious studies, health education) do contribute to the randomness of the sample.

Future Research

One avenue for future research would be the collection of more demographic variables, and further inquiry into specifically what the components were which caused religiosity and experience with abortion to have significant effects upon attitudes about abortion.

Still, one cannot argue with the fact that the two factors found to be significantly correlated with attitudes about abortion have been found to be strongly related in other studies as well. Possibly, what was tapped here was of importance in underscoring that abortion is perceived as very different, depending on which approach one takes. Some people, usually very committed to a pro-life position, have taken the position that abortion was a moral, religious and theological issue. Others, apparently, judged by the numbers of women receiving induced abortions, must have believed that abortion was a personal matter, a medical treatment--for an unwanted pregnancy--and must have placed greater importance on that issue than any other, which included NOT seeing elective abortion as a political issue, as a feminist issue, or as a women's rights issue. Others, who have taken a pro-choice position, believe that every woman should have the right to decide for herself whether or not she should receive an abortion. While abortion

may be a moral issue for them, the proponents of pro-choice feel that the moral decision would be an individually made decision.

The general population, then, was found to be moderately prochoice for completely elective abortion, and most of the population was even more accepting of abortion for hard reasons. Again, the higher level of approval of abortion among students reporting experience with abortion was probably indicative of the personal matter viewpoint. Future research might be directed to determining whether a sizeable group of the population in general or students in general would subscribe to the view that abortion, although a serious matter, would best be left up to the judgment of the parties involved (the woman, her partner, and the doctor, or some variation).

Most college students, in all likelihood, would be shown to be only mildly concerned about the issue, would hold moderately approving views, and would regard it as a personal, medical matter best left to the individual. Frequently understressed in studies about abortion attitudes was the fact that many respondents fell in the moderate or undecided opinion category, and were, in some studies, eliminated from further consideration in an effort to arrive at what determined the more extreme positions. If studies were to become reflective, it

would be necessary to reflect this mid ground of a large group of undecided, generally uninvolved members of the population.

The issue of religiosity correlated with attitudes about abortion. Another avenue of approach would be a wider breakdown of how the different protestant groups fell. Lumped together as "other," the Unitarians may well have cancelled out the Holy Rollers, the pentacostals, or the Eastern Orthodoxes. This would primarily provide a better description of how different groups viewed abortion, but would probably not provide new insight.

Another direction for future research would be to determine what people feel abortion represents, rather than who feels what way. This might be more suited to an open ended question format, or an interview, but would probably leave new avenues of approach open. Just as abortion has represented far different things to women obtaining them (loss of a baby, loss of innocence, a new chance, loss of someone to love and be loved by, a dangerous operation, a safe operation, relief, successful coping with a crisis), abortion has probably represented different things to the population. Those differences probably formed the crux of the entire elective abortion issue.

Future research could be focused on many different aspects of attitudes about abortion. Many different lines of inquiry have already been proposed and taken. Future research could be most productive at winnowing out the salient variables in attitude determination.

A recurrent problem in determining attitudes about abortion has been that the attitudes were not stable, but changed. Over time, the attitudes of subgroups have changed, and they will probably continue to change. Research then, must also be designed to detect the change. As attitudes change, the variables which are related to attitude change may also change, and close attention must be paid to this. In a sense, research in this area may call for a continual reinvention of the wheel, as well as a continual perfection of it.

Summary

In the present study an analysis of variance was performed to find main effects and any interactive effects for selected demographic variables on attitudes about abortion. Only two significant differences were found, both for main effects--religiosity and experience with abortion. This finding reconfirmed previous findings in research on the abortion attitudes of college students.

Future research would be appropriately directed at determining the different elements which compose these factors. Another approach would of necessity be a continuation of present research into what demographic variables were correlated with particular attitudes. This would be important due to the continuation of attitude change. Inquiry would productively be aimed at the group of respondents who were frequently labeled undecided, or moderate, in an effort to describe the composition of that group. That particular group may compose a large segment of the general public, and further examination of their attitudes could provide direction for future research.

APPENDIX A
INFORMED CONSENT FORM

2/21/83

INFORMED CONSENT FORM

The Department of Counseling supports the practice of protection for human subjects participating in research. The following information is provided so that you can decide whether you wish to participate in the study. You are free to withdraw at any time. This study involves no deception, and there is no risk of physical injury to you.

This study is concerned with the kinds of attitudes college students have about the issue of elective, or voluntary abortion. You will be asked to fill out a questionnaire about your own attitudes on this issue, and to answer other questions that tell more about the kinds of people answering the questionnaire, such as your age and year in school. These questions will not identify you to me or to anyone else. You will remain completely anonymous.

Your participation is asked, but is strictly voluntary. Please ask any questions you have about the study. Be assured that your name will not be associated in any way with the research findings. I appreciate your cooperation very much. I am doing this study in order to gather data to use in writing my master's thesis.

If you wish to learn the results of the study, take down my name and telephone number and contact me later. I will be happy to tell you the research findings.

Sincerely,

Karen Ross
Principle Investigator
842-8504

Signature of subject agreeing to participate

APPENDIX B
DEMOGRAPHIC QUESTIONNAIRE

Please fill in the following information. It will be used in my analysis of the data. In order to use this questionnaire all questions must be answered. Please respond to all items. Work quickly. Thank you for your help.

Demographic Information

1. Sex: M____ or F____
2. Age: _____ years
3. Marital status: Single____ Partnered/
Married____ Div./Sep.____ Widowed____
4. Year in school: Fr____ Soph____ Jr____ Sr____ Grad____ Other____
5. Major in college or planned major: _____
6. Do you consider yourself a religious or spiritual person?
Yes____ No____
7. Have you ever communicated with an elected official about the issue of elective abortion, such as sending a postcard/letter, signing a petition, or talking to an elected official?
Yes____ No____
8. Have you ever participated in a public demonstration about the issue of elective abortion?
Yes____ No____
9. Have you or has someone close to you ever experienced an elective abortion?
Yes____ No____

The Abortion Attitude Scale by Stanley Snegroff

INSTRUCTIONS : On the following page are thirty (30) statements about abortion. They have been arranged in such a manner as to permit you to indicate the extent to which you agree or disagree with each statement. REMEMBER there are no correct or incorrect answers. Be sure to respond with your own feelings, and not as to how someone else would expect or want you to answer.

Read each statement carefully and proceed as rapidly as possible, indicating the extent to which you agree or disagree according to the following scale.

SA-strongly agree, A-agree, U-undecided, D-disagree, SD-strongly disagree.

Place an X thru the response that most closely corresponds to your own feelings about each statement. After answering all items turn in your questionnaire as you leave the classroom. The consent form will be torn from the questionnaire as you turn them in to us.

The Abortion Attitude Scale is used through the courtesy of Family Life Publications, Inc./ Box 427/ Saluda, N. C./ 28773. Copyright 1978 by Stanley Snegroff.

APPENDIX C
ABORTION ATTITUDE SCALE

- | | | | |
|---|-------------|--|-------------|
| 1. Abortion penalizes the unborn for the mother's mistake. | sa a u d sd | 17. Liberalization of abortion laws should be viewed as a positive step. | sa a u d sd |
| 2. Abortion places human life at a very low point on a scale of values. | sa a u d sd | 18. Abortion should be illegal, for the Fourteenth Amendment to the Constitution holds that no state shall "deprive any person of life, liberty or property without due process of law." | sa a u d sd |
| 3. A woman's desire to have an abortion should be considered sufficient reason to do so. | sa a u d sd | 19. The unborn should never be aborted no matter how detrimental the possible effects on the family. | sa a u d sd |
| 4. I approve of the legalization of abortion so that a woman can obtain one with proper medical attention. | sa a u d sd | 20. The social evils involved in forcing a pregnant woman to have a child are worse than any evils in destroying the unborn. | sa a u d sd |
| 5. Abortion ought to be prohibited because it is an unnatural act. | sa a u d sd | 21. Decency forbids having an abortion | sa a u d sd |
| 6. Having an abortion is not something that one should be ashamed of. | sa a u d sd | 22. A pregnancy that is not wanted and not planned for should not be considered a pregnancy but merely a condition for which there is a medical cure, abortion. | sa a u d sd |
| 7. Abortion is a threat to our society. | sa a u d sd | 23. Abortion is the equivalent of murder. | sa a u d sd |
| 8. Abortion is the destruction of one life to serve the convenience of another. | sa a u d sd | 24. Easily accessible abortions will probably cause people to become unconcerned and careless with their contraceptive practices. | sa a u d sd |
| 9. A woman should have no regrets if she eliminates the burden of an unwanted child with an abortion. | sa a u d sd | 25. Abortion ought to be considered a legitimate health measure. | sa a u d sd |
| 10. The unborn should be legally protected against abortion since it cannot protect itself. | sa a u d sd | 26. The unborn ought to have the same rights as the potential mother. | sa a u d sd |
| 11. Abortion should be an alternative when there is contraceptive failure. | sa a u d sd | 27. Any outlawing of abortion is oppressive to women. | sa a u d sd |
| 12. Abortions should be allowed since the unborn is only a potential human being and not an actual human being. | sa a u d sd | 28. Abortion should be accepted as a method of population control. | sa a u d sd |
| 13. Any person that has an abortion is probably selfish and unconcerned about others. | sa a u d sd | 29. Abortion violates the fundamental right to life. | sa a u d sd |
| 14. Abortion should be available as a method of improving community socioeconomic conditions. | sa a u d sd | 30. If a woman feels that a child might ruin her life she should have an abortion. | sa a u d sd |
| 15. Many more people would favor abortion if they knew more about it. | sa a u d sd | | |
| 16. A woman should have an illegitimate child rather than an abortion. | sa a u d sd | | |

APPENDIX D

FREQUENCIES FOR POLITICAL INVOLVEMENT WITH THE
ISSUE OF ELECTIVE ABORTION AS MEASURED BY
COMMUNICATION WITH ELECTED OFFICIAL AND
BY PARTICIPATION IN PUBLIC DEMONSTRATION

TABLE 6

Table 6

Frequencies for Variable of Political Involvement
with the Issue of Elective Abortion

Variables	Absolute Frequency	Relative Frequency (Percent)
Communication with official		
No	372	89.0
Yes	46	11.0
Public Demonstration		
No	408	97.6
Yes	10	2.4
N=418		

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