# ABORTION DECISION-MAKING ATTITUDES OF ADOLESCENTS ATTENDING ROMAN CATHOLIC SCHOOLS

by

ROSEMARY J. CROCK

B.M., Saint Mary's College, Notre Dame, IN
M.A., Texas Woman's University
M.S., Kansas State University

AN ABSTRACT OF A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Family Studies and Human Services
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2007

ABSTRACT

This exploratory study examines abortion decision-making attitudes of adolescents attending Roman Catholic schools. With a theoretical background using both cognitive-developmental theory and moral development theory, this study investigated adolescent abortion decision-making attitudes with a multi-part paper and pencil survey.

The first part of the Abortion Attitude Scale consisted of a combination of the seven General Social Survey (GSS) abortion questions, intermingled with seven additional author-devised abortion questions. The second part of the survey consisted of sixteen reality-based scenarios, each containing a high or low level of four dimensions. The dimensions consisted of the four most common reasons for abortion females wrote about in their online written testimonies about their actual abortion experiences. The four dimensions were determined after the author conducted a frequency count of reasons for abortion originating from 87 testimonies from pro-choice web sites and 82 testimonies from pro-life web sites, plus phone calls to 8 pro-choice agencies and phone calls to 8 pro-life agencies.

The Abortion Attitude Scale was offered to a convenience sample of 8$^{th}$ through 12$^{th}$ graders attending the Topeka, Kansas Catholic Schools, which includes five elementary schools and one high school. Written parental consent and written student ascent were required for students to be eligible to participate in the study. A total of 350 students participated.

The study's six hypotheses explored whether or not the combined GSS and author-devised abortion questions are unidimensional; whether or not interaction effects exist among the four dimensions in each of the scenarios; and how the independent

variables of gender, age, ethnicity, and intrinsic religiosity may impact adolescents' abortion attitudes.

Results suggest several conclusions. The GSS and author-devised abortion questions are multidimensional. Regarding the four dimensions used in each of the scenarios, there were interaction effects among the four dimensions. Whereas the adolescent female participants in this study did appear to be less accepting of abortion than the male participants, and the adolescents with higher intrinsic religiosity appeared to be less accepting of abortion, the hypotheses regarding younger age and greater ethnic diversity did not appear to lend support to adolescents being less accepting of abortion. The findings thus appear to show that this study's participants had complex attitudes about abortion decision-making, and that these attitudes appear to be at least somewhat situationally-dependent.

Implications for further studies are discussed, along with limitations and conclusions.

# ABORTION DECISION-MAKING ATTITUDES OF ADOLESCENTS ATTENDING ROMAN CATHOLIC SCHOOLS

by

ROSEMARY J. CROCK

B.M., Saint Mary's College, Notre Dame, IN
M.A., Texas Woman's University
M.S., Kansas State University

A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Family Studies and Human Services
College of Human Ecology

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2007

Approved by:

Major Professor
Walter R. Schumm

ABSTRACT

This exploratory study examines abortion decision-making attitudes of adolescents attending Roman Catholic schools. With a theoretical background using both cognitive-developmental theory and moral development theory, this study investigated adolescent abortion decision-making attitudes with a multi-part paper and pencil survey.

The first part of the Abortion Attitude Scale consisted of a combination of the seven General Social Survey (GSS) abortion questions, intermingled with seven additional author-devised abortion questions. The second part of the survey consisted of sixteen reality-based scenarios, each containing a high or low level of four dimensions. The dimensions consisted of the four most common reasons for abortion females wrote about in their online written testimonies about their actual abortion experiences. The four dimensions were determined after the author conducted a frequency count of reasons for abortion originating from 87 testimonies from pro-choice web sites and 82 testimonies from pro-life web sites, plus phone calls to 8 pro-choice agencies and phone calls to 8 pro-life agencies.

The Abortion Attitude Scale was offered to a convenience sample of 8$^{th}$ through 12$^{th}$ graders attending the Topeka, Kansas Catholic Schools, which includes five elementary schools and one high school. Written parental consent and written student ascent were required for students to be eligible to participate in the study. A total of 350 students participated.

The study's six hypotheses explored whether or not the combined GSS and author-devised abortion questions are unidimensional; whether or not interaction effects exist among the four dimensions in each of the scenarios; and how the independent

variables of gender, age, ethnicity, and intrinsic religiosity may impact adolescents' abortion attitudes.

Results suggest several conclusions. The GSS and author-devised abortion questions are multidimensional. Regarding the four dimensions used in each of the scenarios, there were interaction effects among the four dimensions. Whereas the adolescent female participants in this study did appear to be less accepting of abortion than the male participants, and the adolescents with higher intrinsic religiosity appeared to be less accepting of abortion, the hypotheses regarding younger age and greater ethnic diversity did not appear to lend support to adolescents being less accepting of abortion. The findings thus appear to show that this study's participants had complex attitudes about abortion decision-making, and that these attitudes appear to be at least somewhat situationally-dependent.

Implications for further studies are discussed, along with limitations and conclusions.

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

# ACKNOWLEDGMENTS

This dissertation is dedicated to the memory of four women who led by lifelong examples: my mother, Mary Eileen Fitzpatrick Crock, my mother-in-law, Mae Helene Clark Appel Hoelscher, and my grandmothers, Rose Veronica Donnelly Fitzpatrick, and Dorothy Brennan Crock. Grateful acknowledgement is also extended to my dad, Don Crock, and to the memories of my grandfathers, Ray Crock, Sr., and Raymond Fitzpatrick. Encouragement along life's journey has been gratefully received from numerous aunts and uncles, especially from Aunt Ramona Patricia Fitzpatrick Eidenmiller and Monsignor Don Fitzpatrick.

I extend special thanks to my major professor, Dr. Walter R. Schumm, for his invaluable skills, insight, and patience in guiding me, from beginning to end, through my five year Ph.D. journey. Thanks also to my committee members, Dr. William H. Meredith, Dr. M. Betsy Bergen, Dr. Sally J. Yahnke, and Dr. Donald H. Kropf.

The members of Partners in Prayer have buoyed me throughout my K-State journey. I thank you, especially Kathy Welch, Lavina McCall, Rose McMurphy, Mary Gootee Schafers, and the late Bob Steffes. Thank you, also, to the support of members of our Topeka doctoral study group, especially Dr. Hazel Marquez.

Without the participation of the Topeka Catholic Schools parents, students, teachers, principals and priests, this study would not have been possible. Thank you.

The most foundational thanks, however, is reserved for my husband, Linden, who has been there through thick and thin, often covering for me on the home front when school responsibilities occupied so much of my time and energy. Thank you, Linden!

# CHAPTER 1 – INTRODUCTION

## Introduction

With 1,290,000 abortions performed in the United States in 2002 (Guttmacher, 2005), abortion is one of the legal options used to address an unplanned or unwanted pregnancy. Numerous surveys about attitudes toward abortion have been given to adults and to college students, but there appears to be a paucity of information regarding the attitudes of Roman Catholic adolescents toward abortion or abortion decision-making.

## Purpose of the Study

Since more than 245,000 abortions performed in the United States in 2002 were obtained by teenagers (Guttmacher, 2005), the purpose of this study was to carry out an exploratory study on one group of adolescents, specifically Roman Catholic adolescents, from this point forward, referred to as Catholic adolescents, to better understand their attitudes about abortion decision-making, especially when they are offered reality-based scenarios in which abortion is being considered. This study was designed to help parents, service-providers, policymakers, curriculum planners, teachers, and researchers better understand Catholic adolescents' attitudes on the subject of abortion decision-making. The information gained from this survey could contribute to better educate adolescents through new or revised curricula and media campaigns concerning abortion decisions.

A survey was offered, with parental permission, to a convenience sample from 8th -12$^{th}$ grade adolescents attending Roman Catholic schools in Topeka, Kansas, from this point forward, referred to as Catholic schools. The survey focused on the seven abortion questions from the annual national General Social Survey (GSS), supplemented by seven

author-constructed abortion questions. The total of 14 abortion questions' themes and underlying dimensions were ascertained; then an underlying dimensions' frequency count was calculated from *pro-choice* Web site 87 actual written abortion testimonies and from *pro-life* Web site 82 actual written abortion testimonies. These testimonies were further supplemented by phone calls to 8 pro-choice service providers and 8 pro-life service providers. The most frequent top four dimensions were tabulated from the total of 169 testimonies and 16 phone calls in order to create 2x2 matrixes upon which reality-based scenarios were designed to augment the GSS and author-constructed abortion questions.

## Research Hypotheses

The following research hypotheses concerning Catholic adolescents were investigated in relation to the purpose of the study:

Null Hypothesis 1: When factor analyzed, the results of the study's combined General Social Survey (GSS; National Opinion Research Center [NORC], 2005) and author-devised foundational abortion questions will be unidimensional.

Null Hypothesis 2: There will be no interaction effects on the four scenario dimensions predicting students' attitudes about abortion.

Hypothesis 3: Adolescent females will be less accepting of abortion than adolescent males.

Hypothesis 4: The younger the adolescents, the less accepting they will be of abortion.

Hypothesis 5: Adolescents of diverse ethnic backgrounds will be less accepting of abortion than Caucasian adolescents.

Hypothesis 6: The greater the adolescents' intrinsic religiosity, the less accepting they will be of abortion.

## Variables

Dependent Variable:

1. Adolescents' attitudes about abortion decision-making.

Independent Variables:

1. Pregnant female's perception of the pregnancy's *negative* impact on her *Future.*
2. Pregnant female's perception of the pregnancy's *negative* impact on the *Moral Image* of the pregnant female and/or her parents.
3. *Father* of the baby *wanting* the pregnant female to get an *abortion.*
4. *Parents* of the pregnant female *wanting* the pregnant female to get an *abortion*.
5. *Gender* of study participant.
6. *Age* of study participant.
7. *Diverse Ethnic Background* of study participant.
8. *Intrinsic Religiosity* of study participant.

## Definition of Terms

The term *adolescents* refers to young people ages 12 through 19. Numerous studies have examined *attitudes* about abortion, with *attitude* being a product of a larger belief system. Fishbein and Ajzen (1975) described *attitude* as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p. 6).

The term ***abortion,*** as used in this study**,** will refer only to *induced* abortion and will not refer to spontaneous abortion (miscarriage) or to loss of an ectopic pregnancy,

"an extrauterine implantation of a fertilized ovum, usually in the fallopian tubes, but occasionally in the peritoneum, ovary, or other locations" (*Taber's*, 2005, p. 1756).

The terms that comprise four of this study's independent variables are gleaned from actual written testimonies of females who had abortions. These testimonies have been published on various pro-choice and pro-life Web sites. The independent variables include (a) the pregnant female's perception of the pregnancy's *negative* impact on her *Future*, (b) the pregnant female's perception of the pregnancy's *negative* impact on her *Moral Image* and that of her parents, (c) the *Father* of the baby *wanting* the pregnant female to get an *abortion*, and (d) the *Parents* of the pregnant female *wanting* the pregnant female to get an *abortion*.

*Future* encompasses the female's overall perception of readiness for pregnancy, including her education, career, marriage, caring for children the female already has, parenting future children, a perception of adequate financial resources, and a perception of adequate maturity. *Moral Image* refers to how the pregnant female views her own morality; her perception of how others, especially her parents, would view her morality; and the perception of how others would view her parents if others knew of her pregnancy. The term, *Father*, addresses the biological male parent of the baby; whereas the term, *Parents*, refers to the parents of the pregnant female.

*Age* of the study's participants refers to the chronological age of each student. *Diverse Ethnic Background* includes all racial or ethnic origins *other than* Caucasian: American Indian or Alaska Native, Asian or Pacific Islander, African-American (Black; not of Hispanic origin), Hispanic (Mexican-American, Latino, Latina), and Other.

*Intrinsic Religiosity*, as it is used in this study, refers to students' perception of the strength of their personal faith.

## Organization of the Study

Chapter 1 includes the purpose of the study, hypotheses, variables, and definition of terms. Chapter 2 discusses the theoretical background upon which this study is based and introduces the literature. Due to a paucity of literature on adolescents' attitudes about abortion, undergraduate students' and adults' abortion attitude studies are also discussed. Chapter 3 discusses the population and sample, the instrument, group design, data collection and analyses procedures. Chapter 4 provides the results of the study, while Chapter 5 includes discussion of the results, along with a consideration of implications, limitations, and conclusions regarding the study.

# CHAPTER 2 – LITERATURE REVIEW

## Theoretical Background

Numerous studies have examined abortion attitudes, yet most of those studies have explored the abortion attitudes of *adults*, only. While theoretical foundations have varied greatly or been absent in much of the research, there has also been a significant amount of variety regarding instrumentation. Most of the *adolescent* abortion attitude studies in the United States have been conducted with adolescents seeking the assistance of service providers. Because the proposed study's adolescent participants may vary in age from 12 to 19 years of age, the responses of the participants were examined from the theoretical developmental perspectives of cognitive developmental theory and moral development theory.

### *Cognitive-Developmental Theory*

Piaget developed a cognitive-developmental view of the stages of thinking through which individuals progress (Berk, 2003; Steinberg, 2002). At the beginning of the first stage, the *sensorimotor* stage (birth to about age 2), infants are not aware of themselves, but learn by acting on external objects (Roberts, 1994). During the second stage, the *preoperational* stage (from about 2 until about 6), children learn to think symbolically, become less egocentric than in the prior stage, and become more aware that others may hold different views. The third stage, *concrete operations* (from about 6 until early adolescence), and corresponding to the elementary grades, is a time during which children learn to think more logically, seeing connection and causality between events, and becoming even less egocentric. "The child begins to see that parents have different beliefs and perspectives about events that may be as viable as his/her own" (Roberts,

1994, p. 36). During *formal operations*, the final cognitive development stage and roughly the period of adolescence, the young person develops the skill of adult-like rational processing. Despite possibly experiencing more egocentrism than in the prior stage, the abstract and hypothetical reasoning that develops during this stage allows the young person to weigh alternatives and consider consequences before making a decision.

Erikson (1968) believed that during the adolescent phase of life, young people strive to create a sense of personal identity. He called this developmental challenge the "Identity Crisis" and claimed that one cannot separate "the identity crisis in individual life and contemporary crisis in historical development because the two help to define each other and are truly relative to each other" (p. 23).

### *Moral Development Theory*

Piaget (1997) formed his theory of moral development showing how young persons' moral development evolves from interactions with both adults and peers. Kohlberg extended Piaget's moral development work, organizing the process of moral development stages grouped into three major levels, with each stage occurring in sequence (Kohlberg, 1987; Roberts, 1994).

Corresponding to the cognitive egocentric level, at the earliest moral stage, the *premoral* level, children act in such ways as to maximize reward and minimize punishment, while having little concern for others' rights or feelings. The more legalistic viewpoint of the next stage, the *conventional* level, develops *prior* to adolescence. At this level, moral behavior is minimally internalized, and instead, children conform to the guidelines established by people in roles of authority, such as their parents and teachers. The next stage, the *principled* level of moral development, forms the highest moral stage.

This stage involves understanding the responsibility for behavior, using internal standards of justice to make moral decisions. Some children are able to achieve this stage at the beginning of adolescence, while others may be in late adolescence or in early adulthood before achieving this moral stage.

According to Gilligan (1982), earlier moral development theories did not address gender differences. She proposed that males and females have contrasting responses to moral conflict: males are socialized to develop a "morality of justice", whereas females are socialized to develop a "morality of care". Hoffman (2000), utilizes portions of both Kohlberg's and Gilligan's approaches by examining the effects of young persons' developmental changes on the capacity for justice and caring.

## Abortion Attitude Studies

Multiple studies, conducted in the United States, have explored attitudes about abortion. For the purpose of this literature review, abortion attitude studies will be grouped by their data source, such as undergraduate students or participants in the General Social Survey (GSS). In priority of their relevance to the current study, the literature review groupings will include:

1. American adolescent abortion attitudes of clients at family planning and abortion *service providers*;
2. Adolescent abortion attitude studies from *other countries*
3. *Undergraduate students'* abortion attitudes
4. Abortion attitude studies using *GSS* data for secondary analysis
5. Abortion attitude studies using *other secondary analysis* data

*American Adolescent Abortion Attitudes of Clients at **Service Providers***

In a study of adolescent females receiving services at a family planning clinic, Paikoff (1987) utilized a two-part study, conducting a questionnaire survey and a short interview each time. In the first part of the study, 51 adolescent females participated and were asked questions assessing causal and consequential reasoning about pregnancy, the facts of conception, family background, and history of contraceptive use and pregnancy. In the second part of the study, 78 adolescent females participated. They were asked similar questions as the first group, plus they were asked what they would do if they became pregnant now. Results suggested that the adolescents' pre-pregnancy perception of the long term consequences of adolescent childbirth is a key factor in determining whether an adolescent female carries a pregnancy to term.

In a study of abortion attitudes of incarcerated female adolescent offenders in Los Angeles County, California, McClure (2000) collected data from 100 African American and Latina adolescents in order to assess their abortion attitudes, their number of pregnancies and abortions, and their religious participation frequency. Data were obtained via a structured interview. Findings showed that abortion attitudes did not differ significantly by race. The participants reported they had experienced miscarriage (45%), birth (29%), and abortion (26%), but also indicated that they held strongly antiabortion attitudes. The participants reported a large decrease in religious participation after the age of 12. No significant relationship was shown to exist between religious attendance and abortion attitudes.

Griffin-Carlson and Schwanenflugel (1998) surveyed adolescents at seven abortion clinics in three states to conduct a survey of 159 females under the age of 18

who brought a parent with them to the clinic. The purpose of the study was to investigate the relationship between family factors and perceived quality of parental involvement following parents' receiving the notification that their daughter was planning to have an abortion.

Family adaptability, as evidenced by how a family was able to alter its power structure, role relationships, and relationship rules, was the most significant variable in predicting the family's response. The results were likely biased, however, since 50-75% of the pregnant adolescent females refused to participate in the study.

*Adolescent Abortion Attitude Studies from **Other Countries***

Conducting a study in Italy and Sweden, Agostino and Wahlberg (1991) described adolescents opinions about abortion, identified cultural differences, and determined attitude differences by gender. A questionnaire was given to 400 students, 177 from Stockholm, 141 in Rome, and 82 in a smaller town of southern Italy, Locri. All participants were in their last year of secondary school and ranged in age from 17 to 22. The questionnaire had 24 items and focused on areas ranging from religious background and belief to questions about abortion. Sixteen percent of the students in Stockholm said their families were religious, 69% in Rome and 84% in Locri.

The majority of Swedish participants (81%) considered abortion justified on social grounds, while students from Locri (59%) and Rome (49%) considered abortion justified only for medical reasons. Both males and females from all three sample sites indicated that a decision to abort should be made by the couple.

In a study of 2,347 15-19 year old high school students from Newfoundland, Westera and Bennett (1994) distributed a 53-item questionnaire to assess students'

values, relationships, activities, and beliefs and attitudes about sexual issues. Among the findings related to sexuality, the researchers found that only 28% of the students supported abortion as a means of birth control; however, if a pregnancy was caused by rape, 81% of the students considered abortion acceptable.

The Czech Republic provided the setting for a study of 304 high school students, including 154 girls and 150 boys, with 100 age 14-15 year olds and 204 16-18 year olds. Tyrlik and Macek (2001) used a classroom survey with a five-point scale to allow respondents to express their attitudes regarding abortion decision-making when eight solutions were presented: four leading to abortion and four leading to carrying the pregnancy. Regarding internality versus externality, the researchers found a correlation between male students' increase in externality and being in favor of abortion when the pregnancy was explained as possibly being linked with the male's possible future failure; whereas with female participants, older females were found to be less external than younger females, plus the older female students were less supportive of abortion than male students.

Barcelona, Spain was the setting in which 116 students, ages 15 to 18, participated in another related study. Mugny and Perez (1988) offered the students a 7-point questionnaire scale about abortion, with 1 = total disagreement and 7 = total agreement. The students, in general, were supportive of abortion.

Sweden provided the setting for Rosen (1992) to examine abortion beliefs, attitudes and intentions of 53 pregnant women who called a Stockholm abortion clinic and 53 non-pregnant women from the surrounding area. The pregnant women were presented printed information by a female clinical psychologist who told them that in

addition to their abortion option of a surgical vacuum aspiration procedure, before the end of the 7th week of pregnancy, they could opt for the medical alternative of a pharmacological prostaglandin analogue in a vaginal pessary, inducing uterine contractions, which would be followed in a few hours by bleeding and the expulsion of the embryo.

Rosen (1992) hypothesized that two factors could impact women's decision regarding which abortion procedure to select: whether the female was actually facing an abortion, plus whether she had previously had an abortion. Experience has been found to change the strength of a belief, its evaluation, or both, so the researcher assumed a prior abortion would impact a woman's beliefs toward a positive perceived outcome of the alternative medical/pharmacological abortion versus the surgical vacuum aspiration abortion. Women in the clinical situation were asked the survey questions in person, whereas women participants from the surrounding area who had not called the clinic were asked the questions via a written survey. The written survey participants were asked if they were pregnant, and if they were not, they were asked if they would request an abortion if they had been pregnant in their present circumstances, plus they were asked if they thought they would ever request an abortion in the future. Findings showed that women in the clinical sample, especially those with no previous abortions, rated beliefs about positive outcomes from both abortion methods as more probable and negative beliefs as less probable than did the women in the non-clinical sample, thus confirming both of the study's hypotheses.

In a more recent study of adolescents' attitudes toward abortion in north-east Brazil, Bailey, Bruno, Bezerra, Queiros, and Oliveira (2003) compared three groups of

adolescents to determine what factors influenced their abortion attitudes. Abortion is legal in Brazil for rape and for the life of the pregnant female. The first group of 95 adolescents had an abortion; the second group of 68 adolescents became pregnant, considered abortion but carried their pregnancies to term; and the third group of 204 adolescents became pregnant but did not consider abortion.

Results showed that in regard to support from family or partners, adolescents who chose abortions had the least support, and adolescents who did not consider abortion had the most support. Half of the females in the abortion group received support for terminating the pregnancy. About a quarter from each group received abortion suggestions from their parents and in-laws, whereas friends recommended abortion to nearly half of the group which carried their pregnancies to term.

### ***Undergraduate Students**' Abortion Attitude Studies*

Because undergraduates can include students 17-19 year olds, studies of undergraduates are also examined in this chapter. In a retrospective study of parent-adolescent communication about abortion, Langholz (1992) studied 51 male and 51 female undergraduate student volunteers, ages 18 to 24, from the San Francisco Bay area. Results showed that communication about abortion occurred more frequently with mothers than with fathers. Daughters expressed that they had more communication about abortion with their mothers than was reported by the sons. There were no significant differences in abortion communication between fathers and sons than between fathers and daughters. The personal aspects of abortion were discussed less frequently than the social, moral, and political aspects of abortion, with television serving as a common facilitator of such communication. Overall, students felt satisfied with the level of

abortion communication they had with their parents. It appears that parents' abortion attitudes may be transmitted even with occasional abortion communication, although there appears to be a positive relationship between the frequency of the communication and its influence on adolescents' abortion attitudes.

Finlay (1981) studied 225 freshmen and sophomore dormitory residents at a large southern state university, then supplemented the sample to 280 by adding students from two sociology classes. The investigator used two different abortion attitude measures. The first scale measured participants' own moral position on abortion, whereas the second scale yielded a more public attitude about abortion. Findings showed that not only did males favor legalized abortion nearly 60% of the time compared to females favoring abortion 73% of the time, but that males' attitudes toward abortion were simpler in structure when compared to those of the females. Sex-role attitudes formed the most important abortion attitude correlate regarding male and female survey response differences. The author surmised relative salience to be the cause of those differences: "Given the limited involvement of males in the experience of pregnancy and child rearing, it seems reasonable to assume that the lack of correlation of sex role attitudes with abortion attitudes for men derives from a lack of identification with the general problems associated with pregnancy, childbirth, and child rearing or giving a child up for adoption (p. 580)."

Stets and Leik (1993) sought to identify if there is a difference in attitude structure between students who are pro-life and those who are pro-choice. A survey was issued to 309 students from upperclassses at two large western universities during the 1989-1990 school year. Twenty items made up the scale, encompassing the dimensions of abortion

availability, moral acceptability, and a female's autonomy in opting for abortion. The researchers found that the students with pro-life attitudes tended to have more unified attitude structures than those of the students with pro-choice attitudes.

A sample of 122 males and 152 females in a 1981 undergraduate personal health course was studied by Ryan and Dunn (1983). About 75% of the sample was composed of 18-19 year old freshmen. Nearly all were unmarried, and most were white. A questionnaire was based on seven actual cases of unplanned pregnancy. Students indicated their perception of the extent the male should participate in the abortion decision. Participants' gender, religious preference, and religious activity were also tabulated.

Findings revealed that in a married situation scenario, over 80% of the students believed that an abortion decision should only be made with the support and agreement of the male. Slightly more than half of the students felt this way in regard to an engaged couple, with only a third indicating a male should be completely involved in a repeat abortion decision. A quarter of the students indicated the male should be involved in an abortion decision if a couple were only dating steadily; a fifth felt this way for a couple no longer involved; and less than 10% felt this way for resolving an unplanned pregnancy as a result of casual dating or a single sexual encounter. Levels of religious activity appeared to influence males' and females' attitude toward shared responsibility in both casual dating and engaged relationships, while religious preference was not significantly associated with shared responsibility. Overall, males were often more willing to share in the responsibility for abortion decision-making than females thought males should be involved.

Embree (1998) surveyed undergraduates from a small Midwestern university in 1997, including 72 males and 27 females. The students completed the author-written 60-item Personal Beliefs Scale, then selected one of four options to resolve a hypothetical situation in which a pregnant woman had just received a diagnosis of abnormal fetal development. About 83% of the participants had a pro-choice attitude regarding the hypothetical situation of the fetus developing abnormally. The author concluded that more attention should be given to contextual effects in regard to moral decision making and specifically, how attitude about abortion is often a "negotiated reality" serving persons' needs to be consistent with their beliefs.

Wright and Rogers (1987) conducted a questionnaire survey study of 840 undergraduate students enrolled in a central Texas state university's psychology class in 1984. The class was nearly evenly divided by gender, and nearly 300 of the students were 18 years of age or younger. Students were asked if they would approve or disapprove of abortion under four specific conditions: a.) an unmarried college freshman who accidentally became pregnant; b.) a pregnant mother of five who says she cannot afford another child either emotionally or financially; c.) a woman who became pregnant out of rape; d.) and a pregnant woman who has been told her life is endangered by the pregnancy. Students were asked if they had ever had an abortion or been responsible for a pregnancy terminated by an abortion. They were also asked whether, as a young person, they were members of a church that encouraged pro-life attitudes.

Results indicated that the majority of males and females approved of abortion under all four conditions. The abortion attitudes of the males were more liberal than those of the females, with the older students having the most liberal attitudes toward abortion.

The students who had been members of pro-life churches were significantly more conservative in their responses to the four conditions, even though the majority of those students were still pro-choice in regard to the four conditions. The authors concluded that the great majority of undergraduate participants were pro-choice, and that abortion survey questions must be worded carefully in order to avoid skewing results.

Vander Ryk, O'Neill, and Lester (1999) explored 51 college students' attitudes toward the social issues of abortion, capital punishment, and assisted suicide. Older students were less in favor of all three issues; whereas students who considered themselves "Christians" were less in favor of abortion and assisted suicide, but more in favor of capital punishment. The authors concluded that there did not appear to be a consistent anti-death or pro-death attitude among the 51 students.

In the summer of 1986, a study was conducted by Parsons, Richards, and Kanter (1990) to construct and validate the Reasoning About Abortion Questionnaire (RAQ). The scale was pilot tested with nearly 134 undergraduate and graduate students at the University of Virginia, revised, and then the revised 20-item scale was offered to 230 undergraduates, evenly divided between males and females. Reasoning scores were categorized as: a.) extreme personal reasoners, b.) personal reasoners, c.) ambivalent reasoners, d.) moral reasoners, and e.) extreme moral reasoners. *Personal reasoners* were characterized by the core beliefs that birth is the beginning of human life; a fetus is part of the mother; and abortion is important for a woman's self-determination. *Moral reasoners* were characterized by the core beliefs that a fetus is a human being; abortion is the equivalent of killing, and only God should make the decision whether the fetus lives or dies. An interview-based follow-up study was conducted with 38 graduate students.

Findings showed that the RAQ measures a continuum of belief that is stable and reliable, with the interview outcomes supporting the RAQ's validity. The questionnaire's results supported RAQ's polarity scores as a viable reasoning index about abortion.

Among the multiple studies exploring undergraduate students' attitudes about abortion, one of the newer studies is Carlton, Nelson, and Coleman (2000). The purpose of the study was to examine undergraduate students' abortion attitudes and their level of commitment to abortion. The authors devised a new abortion attitude and commitment scale, giving it to 1,118 volunteers from psychology classes at a midsized southeastern university. A 20-item scale addressed interest in, knowledge of, and active involvement in the subject of abortion, formulating overall abortion attitudes on a pro-choice to pro-life continuum. A 5-point Likert scale ranged from "strongly disagree" to "strongly agree."

The results revealed a normal distribution of abortion attitudes. There were no significant differences between the responses of males and females; however, individuals with direct abortion experience were more likely to be more pro-choice than those without direct abortion experience. Overall, the results indicated that the students held a moderate degree of commitment to abortion, with females being significantly more committed to the abortion issue than were males. Individuals with extreme abortion attitudes were significantly more committed than those with weaker, more ambivalent attitudes. Most participants reported ambivalent abortion attitudes, but were conditionally approving of abortion. The researchers found that situational factors played a large role in determining subjects' abortion attitudes and recommended that future research should further explore males' and females' abortion attitudes regarding specific situations in

which abortion may be considered. This recommendation appears to lend support for this study because students will have the opportunity to assess various reality-based abortion scenarios.

Using a category formation study of undergraduate students' abortion attitudes, Pickrell (2002) focused on the number of categories created. Category formation is a way to gain less observable information about an individual. Important terms included in such studies include "category width," the number of different categories created by the participants, and "equivalence range," the number of items a participant puts in each category. Narrow categorizers were those who created many categories; whereas broad (or wide) categorizers created few categories.

In her categorization of abortion scenarios, Pickrell selected 175 undergraduates from several psychology classes. Her results captured a moment in time. Each participant was offered 30 separate cards, each card with a realistic abortion scenario drawn from real-life situations. The scenarios had three forms: abstract, personally salient for females, and personally salient for males. Before determining the category, the students were asked if they considered the reason given for each abortion scenario acceptable or not acceptable, then the participants were asked to create personally meaningful piles or categories, while also being told that there was no right or wrong way to make the categories.

The findings indicated that pro-life students created fewer (broader) categories, whereas pro-choice students created significantly more piles, with pro-choice students giving more reasons for abortion being acceptable than did pro-life students. There were more females than males in the pro-choice group, and more males than females in the

pro-life group. The researcher found no significant differences between abortion scenarios that were personally salient and those versions that were abstract; in other words, personal wording did not alter participants' responses. Pickrell concluded that no one theory appears adequate for explaining narrow versus broad categorization concerning abortion issues, and she recommended that future research should also include the dimension of asking participants to describe the meaning of each of their abortion categories.

In one of the early studies of college students' abortion attitudes, Bardis (1975) asserted that "it is necessary to educate the masses concerning abortion…. Abortion will remain controversial for a long time, since even medical and non-medical experts disagree" (p. 433). In this study, he used the Bardis Abortion Scale, a 25-item Likert scale covering 25 abortion attitudes, to explore the difference between Catholic and Protestant attitudes toward abortion, and to investigate the influence of Catholic education on such attitudes. The subjects in his sample included 200 students, with an average age of 20, from a mid-western liberal arts college affiliated with the Roman Catholic Church. Twenty-five males and 25 females were randomly selected from each of the four class years, and the sample controlled for U.S. citizenship, Catholic faith, and sex. Possible scores ranged from 0 (most conservative) to 100 (most liberal).

Results indicated that Catholics tended to have more conservative attitudes toward abortion than Protestants. There was no significant difference between urban and rural residents' abortion attitudes, whereas female participants had more conservative abortion attitudes than males. Number of religious services attended and number of years of Catholic education before college were negatively and significantly correlated with a

positive attitude toward abortion. With the exception of urban versus rural, these variables will be reexamined in the proposed study.

Petkova, Ajzen, and Driver (1995) explored the importance of beliefs. “Strong beliefs are considered more stable than weak beliefs, easier to access in memory, and better behavior predictors” (p. 463). Although people can form many different beliefs about a topic, they can attend to only a small number at any given time, and salient beliefs are assumed to contribute to a person’s attitude. This study looked at participants’ beliefs in regard to abortion attitude formation, evidenced by the participants’ beliefs in combination with their degree of commitment regarding whether abortion should remain legal or become illegal.

The participants included 152 undergraduates who were asked to state their beliefs regarding whether abortion should be made illegal. They were also asked to indicate their commitment to their position, as evidenced by how willing they were to distribute one of two petitions to collect signatures supporting their side of the abortion issue. One petition was to ensure that abortion remained legal in the state, and the other petition was to make abortion illegal in the state. Participants were told that each petition would be sent to the state legislature.

The results of the study showed that salient beliefs predicted attitudes significantly better than nonsalient beliefs. More specifically, salient beliefs were found to significantly discriminate between pro-choice and pro-life respondents, thus giving the researchers valuable information concerning the “cognitive underpinnings” of pro-life attitudes. Slightly more than 80% of the pro-life students were willing to circulate a petition supporting their belief, whereas slightly less than 20% of the pro-choice students

were willing to do so; however, the researchers indicated that the discrepancy may have been because pro-choice students knew that abortion was already legal in their state. The authors found that the higher the commitment, the more extreme the attitude. Salient beliefs showed a statistically significant correlation with intentions.

*Abortion Attitude Studies using **GSS** data for Secondary Analysis*

The General Social Survey (GSS) is a national survey with a broad span of topics, including seven abortion attitude questions. The formerly annual, but biennial since 1994, survey originated in 1972, was administered for the 25th time in 2004, and is sponsored by the National Opinion Research Center (NORC) of the University of Chicago, with the National Science Foundation providing core funding (accessed at www.norc.org on January 17, 2006).

Among the most comprehensive analyses of abortion attitudes in recent years, Xu (1999) used data from the General Social Survey in order to develop a latent variable model of abortion attitudes. She found serious methodological flaws in numerous past studies; in particular, she noted that many of them were lacking any theoretical framework. Xu confirmed that many of the past abortion attitude studies had an atheoretical orientation and used arbitrary models; thus the studies findings varied from study to study.

Xu elected to examine abortion attitudes from the two dimensions of abortion for social reasons and abortion for medical reasons. She combined the 1993 and 1996 GSS data sets, using 42 variables with a merged sample of 500 participants. In developing her structural model, she examined the exogenous variables of religiosity, education, and general ideology along with the endogenous variables of sexual morality, fertility values,

gender role ideologies, attitudes toward suicide for both medical and social reasons, and belief in civil liberties.

The results of her study differed from other abortion attitude studies in a number of ways. Her study found that attitudinal variables (sexual morality, fertility values, and attitudes toward suicide for both medical and social reasons) were primary factors in the development of abortion attitudes. Her research showed a difference between abortion attitudes as they relate to the medical and social dimensions of abortion; and she found such factors as religiosity and education have an indirect effect on abortion attitudes as opposed to a direct effect.

Petersen (2001) used plausibility theory to support his investigation of attitudes toward induced abortion. Hypothesizing that education and religion had an interactive influence on support for abortion, the author's first hypothesis focused on frequent church attenders. He hypothesized that the liberalizing effect of education toward abortion would be least among conservative Protestants and Catholics, intermediate among moderate Protestants, and greatest among liberal Protestants and Jews. Secondly, he hypothesized that education's effect on abortion attitude would be less among frequent church attenders than among infrequent church attenders except for liberal Protestants and Jews. Thirdly, he hypothesized that education's effect for infrequent church attenders would not vary by religious group. Using the GSS, the researcher found support for his first two hypotheses and partial support for his third hypothesis. Beliefs tend to be resistant to erosion when they are held within religious groups where the support of those beliefs is high. Such groups tend to have strong plausibility structures that resist erosion. Strong plausibility structures may counteract education's impact on traditional beliefs.

Because many past studies have averaged participants' GSS abortion responses into a single score, Sullins (1999) used the most recent five year grouping of GSS data available at the time of his research (1992-1996) to disaggregate participants' responses into three categories: those who consistently said that abortion should never be permitted; those who consistently said abortion should always be permitted; and "situationalists" whose answers were dependent on situations. When he divided responses into these three categories, he found no difference between Protestant and Catholic views about abortion. Younger, committed Protestants appear to be growing more restrictive in their attitudes toward abortion, while younger Catholics appear to be growing less restrictive in their abortion attitudes, thus yielding contrasting trends, but an overall Protestant and Catholic converging movement. Sullins concluded that these changes may be due to a decline in Catholics attending church, but not a decline in Protestants' church attendance; increasing variance from church teaching; and strong polarism by age.

Zhu (1992) divided GSS responses into ten different subsamples of socio-demographic data. She found that higher education is linked to support of abortion. Adults who are older tend to approve of abortion. Catholics' abortion attitudes are more impacted when they are living where there is a high concentration of Catholics, e.g. in a Hispanic region. Persons' attachment to their subculture impacts how much their abortion attitudes are similar to the norms of their subculture. Abortion attitudes tend to be less favorable where tradition is strong and where cultural change is slower.

Emerson (1996) explored the concept that worldviews form an integral link between religion and abortion attitudes. The author conceptualized religion as two dimensions, religiosity (practices and behaviors) and orthodoxy (beliefs and decisions);

then he divided each dimension into public and private. Analyzing 1988 GSS data, Emerson concluded that only public religiosity (frequency of church attendance, whether one is a member of a church, and how much one is involved with church activities other than just at services) directly impacts abortion attitudes.

Weeden (2003) carried out one of the more complex recent abortion attitude studies. Combining and analyzing GSS data from 1989-2000 for participants ages 35-55, 2001 survey data from the Harvard and Radcliffe class of 1977, and data from 400 University of Pennsylvania undergraduates surveyed from 2000-2002, he arrived at a number of intriguing conclusions. He found that abortion attitudes are related to presumptive interests in childless sex. Abortion attitudes are not derived from simple beliefs about fetal personhood and killing. The most relatively coherent sets of political and moral positions and "symbolic predispositions" are items that are religiously salient (e.g. premarital and extramarital sex, pornography, etc.) and basic economic distributive areas (e.g. welfare, racial preferences, and subsidized daycare). It is not clear what other personal positions relate to abortion positions, but religiosity strongly correlates with abortion attitudes.

Investigating alternative ways of asking the GSS abortion questions, Bumpass (1997) examined the responses of a national sample of telephone survey respondents who were asked the GSS abortion questions in both original and alternative formats. Participants were randomly assigned to receive one of the five formats. One group within the sample received the GSS abortion questions in their standard format, with the *last* question being "for any reason". Alternative format 1 added "and she is less than 3 months pregnant" at the end of each possible reason for abortion. Alternative 2 only

added “and she is less than 3 months pregnant” in the introduction. Alternative 3 added the length of pregnancy (1, 2, 3, 4, and 6 months) at the end of the questions. Alternative format 4 added the length of pregnancy at the end of the questions, but the pregnancy lengths were in the opposite order of alternative 3. Alternative format 5 had the *first* question ask if the participant agreed that a woman should be able to get a legal abortion for any reason.

Results showed that abortion levels of approval were similar between the questions that indicated gestational length and those that did not indicate gestational length. Levels of approval (for abortion for any reason) were higher when the “for any reason” question was asked first as opposed to last. When the question was asked *last*, Baptists and Catholics were less likely to agree with the question, 37% and 41%, respectively, when compared to non-Baptist Protestants, 55%. With the segment of the study’s sample receiving the “for any reason” question *first*, the Baptists and Catholics agreed with the question, 42% and 61%, respectively, with non-Baptist Protestants expressing 63% agreement.

*Abortion Attitude Studies using **Other Secondary Analysis***

Scott (1998) explored the changing of abortion attitudes over time, investigating differences in gender, age, and country of residence by grouping survey responses of United States and Great Britain, then comparing the grouped responses to those of people living in Ireland, Germany, Sweden, and Poland. Scott used data from the 1965, 1974/1975, 1984/1985, and 1994 GSS; the 1983-1994 British Social Attitudes surveys (BSA), which has abortion questions very similar to the GSS abortion questions; and the

1994 International Social Survey Programme module on Family and Changing Sex Roles.

American participants of the mid-90's GSS appeared to be equally supportive of abortion as earlier GSS participants. There appeared to be no differences in terms of abortion support between American men and women. Regarding the British, since the mid-80's, there appears to have been little change in abortion attitudes of British men, but British women show a marked increase in their support of abortion. The responses of the mid-90's Irish participants were similar to the attitudes expressed by the American and British mid-90's participants. Polish responses were similar to the US and Britain, while Sweden and at the time, *East* Germany, expressed the most liberal views. The older women of all six countries had the most conservative abortion attitudes, while overall, church attendance was clearly linked to attitudes opposed to abortion.

Ellison, Echevarria, and Smith (2005) carried out one of the most recent and most comprehensive abortion attitude studies with non-GSS secondary analysis. Using the 1990 Latino National Political Survey (LNPS) completed by a sample of over 2,700 Hispanic participants, the researchers studied religion and abortion attitudes of U.S. Hispanics. Results showed that committed (regularly attending) Hispanic Protestants, more so than committed Catholics, are more strongly pro-life than any other Latinos. The researchers found that regularly attending Catholics are pro-life, but more likely to support abortion in cases of rape, incest, and life of the mother; thus, religious factors appear to be important predictors of abortion attitudes.

## Summary

This study used cognitive development theory and moral development theory to explore adolescent attitudes about abortion decision-making**.** Numerous studies have investigated adult attitudes about abortion, but a paucity of research exists which has studied Catholic adolescents' abortion decision-making attitudes in the United States. Past studies have had a variety of purposes, assessed by a wide variety of instruments. Theoretical orientations have also been varied, and as often as not, have been non-existent.

The literature provides varied levels of support to this study's hypotheses. Regarding hypothesis 1, we know that numerous studies found prospective abortion decisions to be situationally dependent (Agostina & Wahlberg, 1991; Westera & Bennett, 1994; Rosen, 1992; Bailey, Bruno, Bezerra, Queiros, & Oliveira, 2003; Langholz, 1992; Stets & Leik, 1993; Wright & Rogers, 1987; Carlton, Nelson, & Coleman, 2000; Pickrell, 2002; Bardis, 1975; Xu, 1999; Sullins, 1999; Zhu, 1992; Bumpass, 1997; and Ellison, Echevarria, and Smith, 2005), that is, in different situations or under different conditions, many study participants reported they would make different abortion decisions. However, few studies have used more than a few conditions and those conditions have not been equally balanced. For example, if one had two different conditions (e.g., father wants baby or does not want baby and the young woman feels ready or does not feel ready to have a baby yet), there are actually four possible scenarios related to those two conditions. The present study of abortion decision-making attitudes considered several situational issues and attempted to assess, using a balanced within-subjects design, how

those issues interacted with each other in influencing abortion decision-making of the subjects.

With respect to hypothesis 2, since this was the first time the author's Abortion Attitude Scale was administered in a full-scale study, we did not know whether the results of the study's combined General Social Survey and author-devised foundational abortion questions would be unidimensional or multidimensional. The results of this study answer this question.

With respect to hypothesis 3, two studies (Pickrell, 2002; Finlay, 1981) supported the hypothesis that females would be more favorable towards deciding in favor of an abortion under at least certain circumstances, and two studies (Wright & Rogers, 1987; Bardis, 1975) supported the hypothesis that males would have more favorable attitudes deciding in favor of abortion. One study (Carlton, Nelson, & Coleman, 2000) did not find significant gender differences here, whereas there were mixed results, as in Scott (1998), indicating there were no differences in the findings between *American* men and women, but *British* women were more favorable than men towards deciding in favor of an abortion under at least certain circumstances.

With respect to hypothesis 4, we know that seven studies (Xu, 1999; Petersen, 2001; Emerson, 1996; Weeden, 2003; Scott, 1998; Wright and Rogers, 1987; and Ellison, 2005) supported the hypothesis that greater religiosity is often correlated with less favorable attitudes deciding in favor of abortion. It was predicted that this study's findings would parallel these prior findings.

In examining hypothesis 5, we did not know if diverse ethnic backgrounds are correlated with abortion attitudes. One study (Zhu, 1992) discussed a link between

attachment to ones subculture and how much abortion attitudes are similar to the norms of the subculture, indicating that attitudes tend to be less in favor of abortion when cultural tradition is strong. Another study (Ellison, Echevarria, & Smith, 2005) examined abortion attitudes of U.S. Hispanics and found that Hispanic Protestants and Hispanic Catholics who attended church regularly were more strongly pro-life than other Latinos. Because we did not know if diverse ethnic background may impact abortion attitudes, this study examined whether there appears to be a correlation between diverse ethnic backgrounds and attitudes in favor of abortion.

In examining hypothesis 6, we know that cognitive-developmental theory suggests that the stage of concrete operations is the developmental stage corresponding to the elementary grades and lasting until early adolescence. While this stage includes young persons' developing the ability to see connection and causality between events, it is during the cognitive development stage of formal operations, roughly the period of adolescence, that young persons develop the abstract and hypothetical reasoning used to weigh alternatives prior to decision-making. Kohlberg's theory of moral development suggests that moral behavior is minimally internalized *prior* to adolescence, whereas the next stage, the principled level of moral development, includes the development of understanding responsibility for behavior, and this stage may be achieved at the beginning of adolescence, in late adolescence, or in early adulthood. These two theories appear to support the idea that young persons' attitudes about abortion may alter as they pass through adolescence. One study (Wright & Rogers, 1987) found that older students had the most liberal attitudes toward abortion. One other study (Sullins, 1999) found that when analyzing the responses of 18 year olds and older, that young, committed

Protestants appear to be growing more restrictive in their abortion attitudes, while young Catholics appear to be growing less restrictive.

# CHAPTER 3 – METHODOLOGY

## Population

The population consisted of 8th through 12th graders attending all six Catholic schools in Topeka, Kansas. Topeka is part of the Archdiocese of Kansas City, Kansas. The Archdiocese of Kansas City, Kansas Catholic School System's Department of Education highly recommends that Archdiocesan Catholic schools use the 1st-8th grade sex education "Project Genesis Series" (Gallagher, Heinzen, Hogan, and Taylor, 1996). Most of the Catholic schools in Topeka use this series, which by 7th grade focuses on "positive and negative behaviors", including such topics as free will, chastity, pornography, intimate touching, premarital sexual activity, emotional and social changes during puberty, contraception and sterilization, and abortion.

Many of the Topeka Catholic schools' 9th-12th grade students may have attended a two-hour Topeka regional pro-life forum in the fall of eighth grade since the forum is open to all Topeka 8th graders, and nearly all Topeka Catholic school 8th graders attend, although this study's 8th grade participants had not yet attended since the forum was scheduled after the survey was administered. Several of the Topeka Catholic parishes also require pro-life forum attendance by their public school 8th graders participating in parish weekly religious education programs. Within its two-hour single session, the 8th grade pro-life forum consists of approximately half a dozen speakers, each briefly addressing one of the following: the position of the Catholic Church on life issues; fetal development evidenced by sonogram video clips and medically accurate fetal models; a verbal description of several common abortion techniques; a man sharing his experience of the abortion of his and his past girlfriend's baby; a woman sharing her abortion

experiences; a presentation of free and confidential resources available for individuals who have had direct or indirect experience with abortion about which they feel the need to discuss their experience and/or feelings; a young unmarried woman sharing the story of her decision, as a 16 year old, to carry to term and then place her baby for adoption; a counselor, with a master's degree in marriage and family therapy, discussing the value of saving sex for marriage; and a brief overview of Natural Family Planning.

Institutional Review Board (IRB) approval for this study was received on June 6, 2006 (See Appendix A) before implementing the study in September and October, 2006. The study's sample was a convenience sample of the Topeka Catholic Schools' $8^{th}$ -$12^{th}$ grade students for whom the author received both parental written consent *and* student written assent. Neither pastors nor principals were informed of who did and who did not participate.

## Instrument

The instrument's central abortion questions, consisting of the seven General Social Survey (GSS) abortion questions and seven author-devised abortion questions, formulated the 14 foundational abortion questions of the Abortion Attitude Scale (See Appendix J). Dr. Tom Smith, the director of the GSS**,** indicated (personal communication, December 8, 2005, and January 17, 2006) that the GSS has a reliability of .70, and that the GSS researchers do not use a validity score**,** although if the GSS questions are taken just as they are, they have strong face validity**.** Dr. Tom Smith gave the author written permission to use the GSS abortion questions, indicating, "You have our permission to use the abortion items. When the dissertation is completed, we would appreciate receiving its citation." (personal communication of February 21, 2006). The

following are the seven *GSS* abortion condition questions as listed in the scale's questions 1 and 2:

b. She does not want to marry the baby's father.

e. There's a strong chance the baby has a serious disability.

f. The pregnancy is a result of rape.

g. The family has a very low income and feels they cannot afford any more children.

h. For any reason, at any time in pregnancy.

i. She is married and does not want any more children.

l. Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related) & age-related.

The following are the *author-devised* abortion condition questions as listed in the scale's questions 1 and 2:

a. She does not feel ready to have a baby.

c. She does not want her parents to know she's pregnant.

d. Her parents want her to get an abortion.

j. The father of the baby wants the female to get an abortion.

k. The father of the baby wants the baby.

m. Another other abortion condition you'd like to write here? (Optional)

n. There are no conditions under which abortion is acceptable.

*Fictitious Scenario Creation*

To augment the 14 foundational abortion questions of the scale, those 14 questions were analyzed for *key themes* derived from the investigator's reflection and brainstorming:

*1)* ***Mother***

*2)* ***Readiness*** *to have a Baby*

*3) Relationship with the* ***Father*** *of the Baby*

*4)* ***Baby*** *Characteristics*

*5) Process of* ***Conception***

*6)* ***SES***

Upon additional reflection and brainstorming, the investigator added *underlying dimensions* for each theme. Fictitious abortion scenarios were next created using the *underlying dimensions*. In order to create scenarios that were as reality-based as possible, before starting to write the fictitious scenarios, the investigator explored both pro-life and pro-choice Web sites that contained written testimonies by females who had abortions. The investigator printed the first 87 abortion testimonies from pro-choice Web sites and 82 pro-life site testimonies. Each testimony was analyzed for the *underlying dimensions* of the *six key themes* from the 14 foundational abortion questions of the combined GSS/Crock scale. Based on the actual abortion scenarios, additional *underlying dimensions* were added to the list of dimensions. An *underlying dimensions* frequency distribution was tabulated for all the printed testimonies. These processes were further supplemented with phone calls to eight regional and national pro-choice service providers and to eight pro-life local, regional, and national service providers. Each phone call was

analyzed for the same *underlying dimensions* used to analyze the Web site abortion testimonies. New *underlying dimensions* that surfaced in the phone calls were added to the list of prior underlying dimensions. A dimensions frequency distribution was tabulated for all the phone calls. All of the *underlying dimensions* from both the Web site testimonies and the phone calls were combined to identify the four most frequent *underlying dimensions* (see Table 3.1).

Table 3.1 -- Actual Abortion Testimonies' Underlying Dimensions' Frequency Count
List of **Themes (in Bold)** and *Underlying Dimensions (in Italics)*
Sites: http://imnotsorry.net; http://www.fwhc.org/stories/story11.htm;
www.prochoiceminnesota.org; http://silentnomoreawareness.org

1. **Mother**
    a. *impact on **Future**: getting schooling, having/continuing marital prospects/marriage, pursuing career/retirement,* **67**, **plus** *6a:Can't afford a baby,* **38** and 2a: Not ready to be a parent, **31***)* = **67+ 38+31= 136**
    b. *impact on **Moral Image** (avoiding damage to your/other's perception)* **43**
    c. *Mother's mother or both of **Mother's Parents** are in favor of abortion* . **29**

2. **Readiness** to have a Baby
    a. *Not ready to be a parent **31*** (tabulated with 1a – Mother; *impact on Future*)
    b. *Believes there will be no more fun with friends **1***
    c. *Feels they may abuse the child* **1**
    d. *Nobody there to support the decision to carry baby to term/ Alone* **14**

3. Relationship with the **Father** of the Baby
    a. ***Father of the baby** wants the pregnant female to get an abortion.***43**
    b. *Father of the baby wants to raise the baby.* **3**
    c. *Pregnant female does not want to be married to father of the baby.***11**
    d. *Baby's biological father not known* **2**
    e. *Sexual/Physical Abuse* **12**
    f. *Infidelity* **0**
    g. *Incarceration* **0**
    h. *Baby's father has died* **0**.
    i. *Father says it's up to mother* **8**
    j. *Fr. is gone/no longer on the scene* **11**
    k. *Fr. threatens to kill mother* **1**
    l. *Fr.'s parents want the abortion* **3**

4. **Baby** Characteristics
    ***a.*** *Disability diagnosed* **4**
    ***b.*** *Disability probable* **6**
    ***c.*** *Not the desired sex* **0**
    ***d.*** *Not the desired race/culture* **1**

5. Process of **Conception**
    a. *Failed family planning* **15**
    b. *Rape or Incest* **8**

6. **SES**
    a. *Can't afford a baby* **38** (tabulated with 1a – Mother; *impact on Future*)
    b. *Can't afford legal costs (Defending against others who want to raise baby, e.g. baby's father or other family members.)*

The four most frequent *underlying dimensions* were identified and included among the *independent variables* of this study:

1. *Pregnant female's perception of the pregnancy's **negative** impact on her **Future***

2. *Pregnant female's perception of the pregnancy's **negative** impact on the **Moral Image** of the pregnant female and/or her parents*

3. ***Father** of the baby **wanting** the pregnant female to get an **abortion***

4. ***Parents** of the pregnant female **wanting** the pregnant female to get an **abortion***

A series of 2 × 2 matrices (see Figure 3.1) are used to exhibit both low and high levels of each of the four variables in all possible combinations, thus yielding a total of 16 fictional scenarios (see Table 3.2).

| Dimensions | | LO | | | | HI | | | |
|---|---|---|---|---|---|---|---|---|---|
| #1 Perception of Negative Future Impact | | Pregnant Female's Perception that Pregnancy will <u>not</u> have a Negative Impact on her Future | | | | Pregnant Female's Perception that Pregnancy <u>will</u> have a Negative Impact on her Future | | | |
| | | LO | | HI | | LO | | HI | |
| #2 Perception of Negative Impact on Moral Image | | Pregnant Female's Perception that Pregnancy will <u>not</u> have a Negative Impact on her Moral Image | | Pregnant Female's Perception that Pregnancy <u>will</u> have a Negative Impact on her Moral Image | | Pregnant Female's Perception that Pregnancy will <u>not</u> have a Negative Impact on her Moral Image | | Pregnant Female's Perception that Pregnancy <u>will</u> have a Negative Impact on her Moral Image | |
| #3 Father Wants Abortion | | LO | HI | LO | HI | LO | HI | LO | HI |
| #4 Mother's Parents Want Abortion | LO | Fr. wants Pregnancy; Parents want Pregnancy | Fr. Wants Abortion; Parents want Pregnancy | Fr. wants Pregnancy; Parents want Pregnancy | Fr. Wants Abortion: Parents want Pregnancy | Fr. wants Pregnancy; Parents want Pregnancy | Fr. Wants Abortion; Parents want Pregnancy | Fr. wants Pregnancy; Parents want Pregnancy | Fr. Wants Abortion; Parents want Pregnancy |
| | HI | Fr. wants Pregnancy; Parents want Abortion | Fr. wants Abortion; Parents want Abortion | Fr. wants Pregnancy; Parents want Abortion | Fr. wants Abortion; Parents want Abortion | Fr. wants Pregnancy; Parents want Abortion | Fr. wants Abortion; Parents want Abortion | Fr. wants Pregnancy; Parents want Abortion | Fr. wants Abortion; Parents want Abortion |

**Figure 3.1 --** Study scenario boxes, based on the most frequently given reasons for having an abortion from 87 testimonies from pro-choice Web sites, 82 testimonies from pro-life Web sites, 8 calls to pro-choice agencies and 8 calls to pro-life agencies.

**Table 3.2 -- All Sixteen Possible Combinations (a. - p.) of the four Most Common scenario dimensions, as Indicated by the 169 Web Abortion testimonies and by the 16 Phone Calls to Service Providers.**

Scenario **a.**

1. Baby will not have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want baby

Scenario **b.**

1. Baby will not have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants pregnant female to get an Abortion
4. Mother's Parents want baby

Scenario **c.**

1. Baby will not have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want Abortion

Scenario **d.**

1. Baby will not have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want Abortion

Scenario **e.**

1. Baby will not have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want baby

Scenario **f.**

1. Baby will not have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want baby

Scenario **g.**

1. Baby will not have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want Abortion

Scenario **h.**

1. Baby will not have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want Abortion

Scenario **i.**

1. Baby will have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want baby

Scenario **j.**

1. Baby will have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want baby

Scenario **k.**

1. Baby will have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want Abortion

Scenario **l.**

1. Baby will have negative impact on female's Future
2. Baby will not have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want Abortion

Scenario **m.**

1. Baby will have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want baby

Scenario **n.**

1. Baby will have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want baby

Scenario **o.**

1. Baby will have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants baby
4. Mother's Parents want Abortion

Scenario **p.**

1. Baby will have negative impact on female's Future
2. Baby will have negative impact on Moral Image of female and/or her family
3. Father wants Abortion
4. Mother's Parents want Abortion

## Piloting the Instrument

The scale was piloted to confirm the scale's reliability and suitability in terms of readability and length, especially for the youngest participants. Over a four week period, the scale was presented to 20 adolescents, 15 of them being Topeka Catholic adolescent $7^{th}$-$12^{th}$ graders who attended *public* schools. This latter group of 15 included two $7^{th}$ graders, eight $8^{th}$ graders, two $9^{th}$ graders, one $10^{th}$ grader, one $11^{th}$ grader, and one $12^{th}$ grader. Written parental consent and written student assent were first obtained, then these students were administered the scale. To further support evidence of validity, the same group of students completed the scale a second time within two to three weeks.

The students in the pilot study took approximately 15 minutes to complete the paper and pencil scale at school or at home, then the researcher interviewed each student, asking for feedback on instruction clarity; questions' understandability and sequence; students' ability to understand and relate to the scenarios; and concern for overall scale length. Using the most current version of SPSS, SPSS 14, reliability of the scale was analyzed at the item level, and questions that reduced liability were considered for removal. Without removing any questions, the reliability of the scale was .93, considered a high degree of reliability, so no questions were removed.

During the interviews after the first administration of the piloted scale, several students indicated the following aspects of the scale were not clear:

1. Question 1 and 2, letter l, "Other:" (fill in the blank) condition for which students could put any other pregnancy condition considered a reason for pregnancy termination. The purpose of the question was to allow the students to write any condition not listed which they believed to be reason for pregnancy termination or which they believed others

may consider a reason for pregnancy termination, e.g. incest. The author then rewrote this question as, “Any other abortion condition you’d like to write here? (Optional).”

2. Question 10: “How many years have you been a member of your faith community?” During interviews, pilot study students most frequently asked about this question, wondering if it referred to the date of baptism, confirmation, birth, or from the point they could first remember. The author revised this question as, “How many years have you been a member of your faith community? (Please count the years **since birth**, e.g. if you were born into a Catholic family and are 13, write “13”, but if you are a convert to your present faith, only count the number of years since you converted.).”

3. Question 13: “What is the average number of hours per month you have spent outside of the regular school day in faith-based activities during the past 12 months?” The range of answers seemed to be large, although there was little variability between the first administration of the scale and its second administration, e.g. 60/56; 100/100; 5/6; 2/2; 8/8. The author revised this question as, “Not including required service hours or paid employment, what is the **average** number of **hours per month** you have spent **outside the regular school day** in **faith-based activities** during the past twelve months, e.g., church attendance, youth group, bible study, church music group practice, bible and other religious reading, and personal prayer?”

## Group Design

The group design included five groups identified by grade level: 8th, 9th, 10th, 11th, and 12th. Each group was composed of students from the five Catholic elementary schools and the only Catholic high school in Topeka, Kansas. Assignment to group was based solely on each participant’s grade level on the date of the survey; for example, the

first group consisted of all the 8th graders who had turned in their signed permission forms before the implementation of the study; the second group consisted of all the 9th graders who turned in their signed permission forms before the implementation of the study, and so on.

## Data Collection Procedures

At the beginning of the fall 2006 semester, all six Topeka Catholic Schools' principals received information packets which included a letter of introduction (See Appendix E) and several copies of the parent consent/student assent form, one to be returned to school (See Appendix F) and one for each family's records, (See Appendix G), along with five sealed copies of the survey (See Appendix J) for the principal to keep in his/her office for parents wishing to see the survey prior to making consent decisions.

All Catholic school 8$^{th}$ grade classroom teachers and high school English teachers were given a one page Statement for Teachers (See Appendix B) which gave an overview of the study and which gave them contact information if they had further questions. These teachers also received sample scripts (See Appendices C & D) to use when they distributed the survey permission forms. Elementary students had approximately a week to return a signed permission form in order to be eligible for survey participation.

Since all the high school students were enrolled in English class, all English teachers were given enough letters of introduction and sets of permission forms to send home with all the high school students. High school students had approximately three days in which to get their signed permission form returned to their English teacher. One English teacher independently determined not to send the survey introduction letter and permission forms home with one of that teacher's English classes, out of concern that the

students in that one class would not take the survey seriously. This teacher informed the researcher of the teacher's independent decision when the researcher arrived at that classroom to administer the survey; therefore, that one English class did not receive survey information and did not participate in the survey.

The researcher administered all surveys from mid-September, 2006 through early October, 2006. At the designated day and time of survey of administration, students not participating in the survey either read a book or did homework. All students who returned a consent form that had been signed by both a parent or guardian *and* the student were asked to pick a pencil (all of which were the same in order to further assure each participant's anonymity) from the researcher's pencil cases that were passed around the classroom, then these students were given an Assent Form (See Appendix H) to read and sign, verifying that they wished to take the survey of their own accord. When the Assent Forms were turned in, the researcher distributed the surveys and told the students to keep the surveys turned over until the researcher read the Survey Introduction and Instructions (See Appendix I), and answered any questions the students had concerning the survey. All participants were told to pick up a Debriefing Statement (See Appendix K) after turning in their survey, to read the debriefing statement, and at their option, to complete the bottom section of the sheet if they wanted to receive a one-page summary of the study's results, separate that section and place it in the bright business envelope next to the oversized white survey collection envelope, and then return the pencil to one of the pencil cases.

After reading the survey introduction, the researcher reminded the students that the survey asked about the acceptability of abortion, then she asked the students to look at

their surveys while she read aloud question 1.a. from the first page, pointing out that the only difference between the *first* survey page questions and those of the *second* page, was that the first page asked students to answer as if they were speaking on behalf of *someone else*, whereas the second page asked the students to answer the same questions, but this time speaking for *themselves*.

## Incomplete Responses

There were four instances in which a student started to complete a survey but did not finish it. All of the four students were in eighth grade and white. Two of the students were males and two were females. One student had to leave early because of a school responsibility elsewhere in the building. Three students started the survey, and after completing from one page to up to half of the survey, those three students, all from the same setting, a lunchroom shared by two classes taking the survey at the same time, got up at different times and silently placed the survey in the oversized survey return envelope and returned to their seats.

## Response Rates

In addition to the four incomplete responses noted above, not all students responded to the surveys. Overall, 350 students (53.4%) responded to the survey from among all of the 659 students enrolled in all of the eighth through twelfth grade classrooms among all of the Roman Catholic elementary and high schools in Topeka, Kansas as of the fall of 2006. Response rate varied significantly by grade and gender of student, but not by ethnic background of student. With respect to grade level, response rates declined with increasing grade level – eighth grade (65.6%), ninth grade (61.7%), tenth grade (50.0%), eleventh grade (46.1%), and twelfth grade (36.7%), a significant

difference by chi-square test (df = 4) of 27.56 ($p < .001$). With respect to gender, female students had a higher response rate (68.1%) than male students (40.7%), a significant difference by chi-square test (df = 1) of 48.98 ($p < .001$). With respect to ethnicity, response rates differed but not significantly, for Whites (54.6%), Hispanics (45.5%), African-Americans (45.5%), Asians or Pacific Islanders (50.0%), and Native Americans (75.0%), with chi-square test (df = 4) of 3.34 ($p < .51$).

With respect to grade level for male and female students separately, response rates declined with increasing grade level – eighth grade (males, 58.1%; females 74.3%), ninth grade (males, 48.5%; females, 75.4%, tenth grade (males, 33.3%; females, 67.2%), eleventh grade (males, 33.3%; females, 66.0%), and twelfth grade (males, 22.0%; females, 52.1%). The changes by grade level represented a significant difference by chi-square test (df = 4) of 23.11 ($p < .001$) for the male students but not quite for the female students for whom the chi-square (df = 4) test had a value of 8.70 ($p < .07$). When response rates were evaluated across gender (males versus females) for each of the five grade levels separately, the results were statistically significant for each of the five grade levels. For each grade level the degrees of freedom for the chi-square tests was one. The chi-square test values for each grade level were as follows: eighth grade (4.62, $p < .05$), ninth grade (10.14, $p < .002$), tenth grade (15.56, $p < .001$), eleventh grade (13.09, $p < .001$), and twelfth grade (9.54, $p < .003$). For all of the above tests with df = 1, the results obtained using Fisher's Exact Tests were similar.

Response rates, in summary, were higher for female students than male students, which was true not only in general but within each of the five grade levels separately. Response rates declined for both male students and female students, as well as for both

genders combined, as grade levels increased, but the decline was not quite significant for female students considered separately. The lower response rates for the high school students may have been related to a shorter time period provided for parents and students to evaluate their decision to participate (3 days) as compared to the time allowed for eighth grade students (a week). The variations in response rates represent a substantial limitation of this study. In particular, study results may generalize more accurately to female students than male students and to lower rather than higher grade levels for both male and female students. Results for male students in higher grade levels may least accurately reflect what the total population of those male students might have reported had they all responded to the survey.

## Sample

The final sample included 350 students, of whom 207 (59.1%) were females and 143 (40.9%) were males. The students ranged in age from 12 years (0.6%) to 18 years (2.9%) with most being 13 (24.6%), 14 (23.4%), 15 (19.7%), 16 (16.9%), or 17 (12.0%). The average age was 14.75 (SD = 1.46); the median age was 15 years old.

The vast majority of the students were Whites (86.6%) but others were Hispanics (10.0%), Blacks (1.4%), Asians or Pacific Islanders (1.1%), or Native Americans (0.9%) in terms of ethnic origin.

Most of the students identified themselves as Catholics (97.4%). Reported years of attendance at Catholic schools ranged from one to fifteen, with an average and median of 10.0 years (SD = 2.40). Less than eleven (10.6%) percent of the students had attended Catholic schools for seven or fewer years.

The students included those in eighth grade (30.0%), ninth grade (23.4%), tenth

grade (19.4%), eleventh grade (16.9%), and twelfth grade (10.3%).

As would be expected, the sample consisted mostly of Catholic students, many of whom had been affiliated with their church for many years.

## Data Analyses

The Statistical Package for the Social Sciences (14.0 (SPSS, Inc. 2005) was used to analyze the data. Alpha was set at $p < .05$. Factor analysis was used to analyze Hypothesis 1. An analysis of variance (ANOVA) with repeated measures for a within subjects design was used to analyze Hypothesis 2. An independent samples t-test was used to analyze Hypothesis 3. To examine Hypothesis 4, an analysis of variance (ANOVA) was used to determine any association between participants' age and their attitudes about abortion**.** Analyses of variance (ANOVA's) were used to analyze Hypotheses 5 and 6.

# CHAPTER 4 – RESULTS

The focus of this study was information collection and analysis of Topeka Catholic schools' adolescents' attitudes regarding abortion decision-making. In this chapter, descriptive statistics and analyses of research questions are discussed. Examined data were from the survey given to Topeka Catholic Schools' $8^{th}$-$12^{th}$ graders in the fall of 2006. This survey combined seven General Social Survey (GSS) abortion questions and seven author-derived abortion questions; author-derived reality-based abortion decision-making scenarios; and questions concerning when life begins, intrinsic religiosity, and demographics. Completed analyses of hypotheses are discussed, as are analyses of the influence of cognitive development and moral development theoretical models on attitudes regarding abortion decision-making.

Table 4.1 represents the varimax rotated maximum likelihood factor loadings for items from the General Social Survey (GSS) and from the author-derived abortion attitude measure for *someone else*. The two rotated factors were labeled as Factor 1, "Perceived Readiness" and Factor 2, "Extenuating Factors". Factor 1, Perceived Readiness, with subscale items above .4, and in factor loading order from greatest to least, included the following survey items: b.) She does not want to marry the baby's father; a.) She does not feel ready to have a baby; i.) She is married and does not want any more children; k.) The father of the baby wants the baby; g.) The family has a very low income and feels they cannot afford any more children; c.) She does not want her parents to know she's pregnant; h.) For any reason, at any time in pregnancy; and j.) The father of the baby wants the female to get an abortion.

Factor 2, Extenuating Factors, with subscale items loading above .4, and in factor loading order from greatest to least, included the following survey items: f.) The pregnancy is the result of rape; l.) Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related), & age-related; e.) There's a strong chance the baby has a serious disability; g.) The family has a very low income and feels they cannot afford any more children; d.) Her parents want her to get an abortion; j.) The father of the baby wants the female to get an abortion. Most items loaded on their respective factors alone; however, items g and j featured substantial (double) loadings on both factors.

Eigenvalues for Factors 1 and 2 were 5.378 and 1.374, respectively, indicating that the first factor accounted for the largest degree of common variance among the items under study. The KMO Measure of Sampling Adequacy was .904, which is considered excellent. The Bartlett Test of Sphericity was 1584.248, $p < .001$, $df = 78$, indicating that the underlying correlation matrix was not an identity matrix (i.e., the correlations among the items were, on average, significantly different than zero).

Table 4.1 -- Varimax Rotated Maximum Likelihood Factor Loadings for Items from Combined General Social Survey (GSS) and Author-Devised Abortion Attitude Measure for Someone Else (N = 334)

| Subscale Items | Rotated Factors | |
|---|---|---|
| | 1<br>Perceived<br>Readiness | 2<br>Extenuating<br>Factors |
| b. She does not want to marry the baby's father. (GSS) | **.744** | .136 |
| a. She does not feel ready to have a baby. (RJC) | **.695** | .384 |
| i. She is married and does not want any more children. (GSS) | **.598** | .236 |
| k. The father of the baby wants the baby. (RJC) | **.574** | .103 |
| g. The family has a very low income and feels they cannot afford any more children. (GSS) | **.545** | **.507** |
| c. She does not want her parents to know she's pregnant. (RJC) | **.509** | .365 |
| h. For any reason, at any time in pregnancy. (GSS) | **.486** | .311 |
| j. The father of the baby wants the female to get an abortion. (RJC) | **.441** | **.438** |
| f. The pregnancy is a result of rape. (GSS) | .196 | **.742** |
| l. Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related), & age-related. (GSS) | .213 | **.678** |
| e. There's a strong chance the baby has a serious disability. (GSS) | .249 | **.626** |
| d. Her parents want her to get an abortion. (RJC) | .297 | **.502** |
| n. There are no conditions under which abortion is acceptable. (RJC) | -.098 | -.385 |
| Eigenvalues | 5.378 | 1.374 |
| KMO Measure of Sampling Adequacy | .904 | |
| Bartlett Test of Sphericity | 1584.248, $p < .001$ (df = 78) | |

Note: GSS = General Social Survey items. RJC = Rosemary J. Crock, author-created items for this study.

Table 4.2 represents the varimax rotated maximum likelihood factor loading for items from the General Social Survey (GSS) and from the author-derived abortion attitude measure for *oneself*. The two rotated factors produced were similar to those found previously and, accordingly, were labeled again as Factor 1, "Perceived Readiness" and Factor 2, "Extenuating Factors". Factor 1, Perceived Readiness, with subscale items above .4 printed in bold, and in factor loading order from greatest to least, included the following items: i.) She is married and does not want any more children; a.) She does not feel ready to have a baby; h.) For any reason, at any time in pregnancy; g.) The family has a very low income and feels they cannot afford any more children; j.) The father of the baby wants the female to get an abortion; c.) She does not want her parents to know she's pregnant; b.) She does not want to marry the baby's father; and d.) Her parents want her to get an abortion.

Factor 2, Extenuating Factors, with subscale items above .4 printed in bold, and in factor loading order from greatest to least, included the following survey items: f.) The pregnancy is a result of rape; l.) Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related), & age-related; c.) She does not want her parents to know she's pregnant; g.) The family has a very low income and feels they cannot afford any more children; and d.) Her parents want her to get an abortion. Results showed that most subscale items loaded primarily on one factor; however items g, c, and d featured substantial (double) loadings on both factors.

Eigenvalues for Factors 1 and 2 were 6.124 and 1.325, respectively, with the first factor accounting for the majority of common variance among the items. The KMO Measure of Sampling Adequacy was .910, which is excellent. The Bartlett Test of

Sphericity was 2129.424, $p < .001$, $df = 78$, again rejecting the hypothesis of the basic correlation matrix being nothing other than an identity matrix.

Table 4.2 -- Varimax Rotated Maximum Likelihood Factor Loadings for Items from Combined General Social Survey (GSS) and Author-Devised Abortion Attitude Measure for Oneself or Ones Partner (N = 340)

| Subscale Items | Rotated Factors 1 Perceived Readiness | 2 Extenuating Factors |
|---|---|---|
| i. She is married and does not want any more children. (GSS) | **.810** | .100 |
| a. She does not feel ready to have a baby. (RJC) | **.757** | .361 |
| h. For any reason, at any time in pregnancy. (GSS) | **.673** | .322 |
| g. The family has a very low income and feels they cannot afford any more children. (GSS) | **.618** | **.489** |
| j. The father of the baby wants the female to get an abortion. (RJC) | **.605** | .316 |
| c. She does not want her parents to know she's pregnant. (RJC) | **.557** | **.492** |
| b. She does not want to marry the baby's father. (GSS) | **.545** | .272 |
| k. The father of the baby wants the baby. (RJC) | **.525** | .172 |
| d. Her parents want her to get an abortion. (RJC) | **.496** | **.447** |
| f. The pregnancy is a result of rape. (GSS) | .178 | **.834** |
| l. Continuing the pregnancy would injure her health: physical, emotional, psychological, family (age-related), & age-related. (GSS) | .204 | **.703** |
| e. There's a strong chance the baby has a serious disability. (GSS) | .331 | **.605** |
| n. There are no conditions under which abortion is acceptable. (RJC) | -.176 | -.309 |
| Eigenvalues | 6.124 | 1.325 |
| KMO Measure of Sampling Adequacy | .910 | |
| Bartlett Test of Sphericity | 2129.424, $p < .001$ (df = 78) | |

Note: GSS = General Social Survey items. RJC = Rosemary J. Crock, author-created items for this study.

The readiness scales were derived from items a, b, h, i and k. The extenuating circumstances scales were derived from items e, f, and l but the sum of those items was multiplied by 5/3 (1.67) in order to make the scales comparable.

The first readiness scale's scores ranged from 5 to 20 (Mean = 7.18, SD = 3.08), with 4 missing cases. Cronbach's alpha for the first readiness scale was 0.80. The second readiness scale's scores ranged from 5 to 19 (Mean = 7.20, SD = 3.20), with one missing case. Cronbach's alpha for the second readiness scale was 0.83.

The first extenuating circumstances scale's scores ranged from 5 to 25 (Mean = 11.95, SD = 4.75) with 5 missing cases. Cronbach's alpha for the first extenuating circumstances scale was 0.76. The second extenuating circumstances scale's scores ranged from 5 to 25 (Mean = 11.98, SD = 5.26) with 3 missing cases. Cronbach's alpha for the second extenuating circumstances scale was 0.80.

In summary, all of the scales featured fair to good estimates for internal consistency reliability as measured by Cronbach's alpha. Scores tended to reflect pro-life orientations on average but responses covered the full spectrum of pro-life to pro-choice viewpoints.

Table 4.3 presents an analysis of variance for four within-subjects factors predicting abortion attitudes. The four factors, also referred to as “effects” or “dimensions”, were A, Future; B, Moral Image; C, Father of the Baby; and D, Parents of the Mother. Three of the four factors/effects/dimensions were significant, with only *moral image* not significant, SS = .337, MS = .337, df = 1, F = .826, p = .364. Regarding the significant factors/effects/dimensions, for Future, SS = 24.542, MS = 24.542, df = 1, F = 30.299, $p < .001$. For Father of the Baby, SS = 96.306, MS = 96.306, df = 1, F =

128.531, $p < .001$. For Parents of Mother, SS = 56.939, MS = 56.939, df = 1, F = 67.352, $p < .001$. MS, the mean square, is obtained by dividing SS, the sum of squares, by the degrees of freedom, which are usually df = 1 in Table 4.3. MS represents the average variance accounted for per degree of freedom. F values are determined by the ratio of the MS for selected main or interaction effects to the MS for the appropriate error terms, in other words the ratio of explained variance, that associated with the main or interaction effects, per degree of freedom to the unexplained or error variance per degree of freedom associated with the number of subjects in the analysis.

Simple (two-way) and more complex (three-way and four-way) interactions are also presented in Table 4.3. Only one of the six simple interactions was not significant: C x D, Father of the Baby x Parents of the Mother, SS = .474, MS = .474, df = 1, F = 1.193, p=.275. The remaining five of the six simple interactions were significant: A x B, Future x Moral Image, SS = 19.247, MS = 19.247, df = 1, F = 40.552, $p < .001$; A x C, Future x Father of the Baby, SS = 22.194, MS = 22.194, df = 1, F = 41.225, $p < .001$; A x D, Future x Parents of Mother, SS = 6.102, MS = 6.102, df = 1, F = 14.727, $p < .001$; B x C, Moral Image x Father of Baby, SS = 5.454, MS = 5.454, df = 1, F = 12.221, $p < .01$; and B x D, Moral Image x Parents of Mother, SS = 3.726, MS = 3.726, df = 1, F = 7.973, $p < .01$.

Of the complex interactions, only one of the four 3-way interaction terms was significant: 3-way interaction, A x B x C, Future x Moral Image, x Father of Baby, SS = 2.165, MS = 2.165, df = 1, F = 4.964, $p < .05$. Given that, if there had been twenty interaction effects, one would have been expected to have been significant by chance alone, it is probably reasonable to disregard the significant finding, at just $p < .05$, for the

A x B x C interaction rather than attempting to interpret it in a meaningful way. The remaining three 3-way and one 4-way interactions were not significant: A x B x D, Future x Moral Image x Parents of Mother, SS = .512, MS = .512, df = 1, F = 1.257, p = .263; A x C x D, Future x Father of Baby x Parents of Mother, SS = .369, MS = .369, df = 1, F = .881, p = .349; B x C x D, Moral Image x Father of Baby x Parents of Mother, SS = .723, MS = .723, df = 1, F = 1.585, p = .209; A x B x C x D, Future x Moral Image x Father of Baby x Parents of Mother, SS = .474, MS = .474, df = 1, F = 1.149, p = .280. Accordingly, for purposes of this study, none of the three-way interaction effects will be considered as being interpretable in any meaningful way.

Results showed that three of the four main effects (dimensions) were significant: A, Future; C, Father of Baby; and D, Parents of Mother, with the **most powerful main effect**, C, **Father of the Baby**, with an F of 128.531. Five of the six simple (2 x 2) interactions were significant: A x B, Future x Moral Image; A x C, Future x Father of the Baby; A x D, Future x Parents of the Mother; B x C, Moral Image x Father of the Baby; B x D, Moral Image x Parents of the Mother; and C x D, Father of the Baby x Parents of the Mother, with the **most powerful 2-way effect**, A x C, **Future x Father of the Baby**, with an F of 41.225. Only one of the five complex interactions was statistically significant: A x B x C, Future x Moral Image x Father of the Baby, but, as noted, it is considered to most likely have occurred by chance.

Table 4.3 -- Analysis of Variance for Four Within-Subjects Factors Predicting Abortion Attitudes

| Effects | SS | MS | df | F | p |
|---|---|---|---|---|---|
| FUTURE (A) | 24.542 | 24.542 | 1 | 30.299 | < **.001** |
| MORAL IMAGE (B) | .337 | .337 | 1 | .826 | .364 |
| FATHER of Baby (C) | 96.306 | 96.306 | 1 | **128.531** | < **.001** |
| PARENTS of Mother (D) | 56.939 | 56.939 | 1 | 67.352 | < **.001** |
| Simple Interactions | | | | | |
| A x B | 19.247 | 19.247 | 1 | 40.552 | < **.001** |
| A x C | 22.194 | 22.194 | 1 | **41.225** | < **.001** |
| A x D | 6.102 | 6.102 | 1 | 14.727 | < **.001** |
| B x C | 5.454 | 5.454 | 1 | 12.221 | < **.01** |
| B x D | 3.726 | 3.726 | 1 | 7.973 | < **.01** |
| C x D | .474 | .474 | 1 | 1.193 | .275 |
| Complex Interactions | | | | | |
| A x B x C | 2.165 | 2.165 | 1 | 4.964 | < **.05** |
| A x B x D | .512 | .512 | 1 | 1.257 | .263 |
| A x C x D | .369 | .369 | 1 | .881 | .349 |
| B x C x D | .723 | .723 | 1 | 1.585 | .209 |
| A x B x C x D | .474 | .474 | 1 | 1.149 | .285 |

Note: The Factors refer to the 4 dimensions in the scenarios: Future, Moral Image, Father of the Baby, and Parents of the Mother.

Table 4.4 illustrates mean scores as a function of four within-subject dimensions with simple and complex interactions. Within Table 4.4 are four subsets of tables, 4.4a through 4.4d, each containing low and high values for each dimension (effect) and for each level of interaction.

Table 4.4a presents four main effects (dimensions), N = 343, including future/low, M = 1.41, SE = .030; future/high, M =1.54, SE = .040; moral/low, M = 1.47, SE = .033; moral/high, M = 1.48, SE = .036; father/low, M = 1.34, SE = .027, father/high, M = 1.61, SE = .042; and parents/low, M = 1.37, SE = .029, and parents/high, M = 1.58, SE .042.

Table 4.4b presents simple 2 x 2 interactions, N = 343, including future x moral, future x father, future x parents, moral x father, future x parents, and father x parents. Future/low x moral/low, M = 1.34, SE = .029; future/low x moral/high, M = 1.48, SE = .036; future/high x moral/low, M = 1.59, SE = .044; future/high x moral/high, M = 1.49, SE = .04. Future x father: future/low x father/low, M = 1.21, SE = .023; future/low x father/high, M = 1.61, SE = .044; future/high x father/low, M = 1.47, SE = .038; future/high x father/high, M = 1.61, SE = .046. Future x parents: future/low x parents/low, M = 1.34, SE = .028; future/low x parents/high, M = 1.48, SE = .037; future/high x parents/low, M = 1.41, SE = .035; and future/high x parents/high, M = 1.68, SE = .051. Moral x father: moral/low x father/low, M = 1.30, SE = .026; moral/low x father/high, M = 1.63, SE = .044; moral/high x father/low, M = 1.38, SE = .033; moral/high x father/high, M = 1.59, SE = .044. Future x parents: future/low x parents/low, M = 1.39, SE = .031; future/low x parents/high, M = 1.54, SE = .039; future/high x parents/low, M = 1.36, SE =.031; future/high x parents/high, M = 1.61, SE

= .047. Father x parents: father/low x parents/low, M = 1.25, SE = .026; father/low x parents/high, M = 1.44, SE = .035; father/high x parents/low, M = 1.50, SE = .037; and father/high x parents/high, M = 1.72, SE = .051.

Table 4.4c presents four 3-way complex interactions, N = 343, while Table 4.4d presents the one four-way complex interaction, N = 343. However, since it is likely that none of these complex interaction effects were significant beyond chance, their exact patterns of mean scores will not be discussed in detail as done previously for the much more significant two-way interaction terms and the main effect terms.

Using a binary approach to examine within-subject dimensions/main effects, all four dimensions were written in the same direction, **against** carrying the pregnancy to term: Dimension **1**, Pregnant female's perception that pregnancy will have a negative impact on her **future**; Dimension **2**, Pregnant female's perception that pregnancy will have a negative impact on her **moral image** or that of her parents; Dimension **3**, **Father** of the baby wants abortion; and Dimension **4**, Mother's **parents** want abortion. The four dimensions were measured as either Low and most pro-life attitude, or High, the most pro-choice attitude. For example, for a Low Level of **dimension/main effect 1**, Pregnant female's perception that the pregnancy will have a negative effect on her **Future**, a **Low Level** (a minimum Mean of **1**) meant that the female's pregnancy was **not** perceived as having a **negative impact** on her **future**, but a **High Level** (a maximum Mean of **2**) meant that the female's pregnancy **was perceived** as having a **negative impact on her Future**.

Results showed that all main effect Low Levels had lower means, while main effect High Levels had higher means, as would be expected, except that the difference for

the moral dimension was not statistically significant because the mean scores were very similar (1.47 versus 1.48). These results indicate that at least three of the dimensions selected for use in the reality-based scenario were perceived by the predominately Catholic adolescents in this sample as relevant and important as part of their abortion-decision making process. Of the four main effects/dimensions, Low Level of Father, M = 1.34, and High Level of Father, M = 1.61, resulted in the most highly contrasting low and high means, indicating the relative importance of the perceived role of the alleged father to the abortion decision-making process among the adolescents in this sample.

All six of the two-way simple interactions resulted in **lowest** means for the interaction of each Low Level dimension, except for Future x Parents, in which the Future (High) x Parents (Low) had the lowest mean, M = 1.36, although this mean was only .03 lower than for the interaction of Low levels of both these dimensions, M = 1.39. The **highest** mean with four of the six 2-way simple interactions was High Levels of both dimensions. Exceptions included Future (High) x Moral (Low), M = 1.59; Moral (Low) x Father (High), M = 1.63; and Future (Low) x Father (High), M = 1.61, tied with Future (High) x Father (High), M = 1.61.

The fact that more significant simple and complex intractions (six of eleven possible interactions terms were statistically significant, $p < .05$) were obtained than would have been expected by chance (one of twenty interaction terms would have been significant by chance alone, $p < .05$) indicates that the adolescents in this sample were responding in a complex fashion with respect to their abortion decision-making process, even though none of the three-way or four-way interaction terms have been deemed to have been statistically significant.

Table 4.4 – Mean Scores (S.E.) as a function of Four Within-Subject Dimensions with Simple and Complex Interactions

Table 4.4a -- Within-Subject Dimensions, Main Effects

| Effects | Level | N | M | S.E. |
|---|---|---|---|---|
| FUTURE | LOW | 343 | 1.41 | .030 |
| | HIGH | 343 | 1.54 | .040 |
| MORAL | LOW | 343 | 1.47 | .033 |
| | HIGH | 343 | 1.48 | .036 |
| FATHER | LOW | 343 | 1.34 | .027 |
| | HIGH | 343 | 1.61 | .042 |
| PARENTS | LOW | 343 | 1.37 | .029 |
| | HIGH | 343 | 1.58 | .042 |

Table 4.4b – 2-Way Simple Interactions

| | | MORAL | N | M | S.E. |
|---|---|---|---|---|---|
| FUTURE | LOW | LOW | 343 | 1.34 | .029 |
| | LOW | HIGH | 343 | 1.48 | .036 |
| | HIGH | LOW | 343 | 1.59 | .044 |
| | HIGH | HIGH | 343 | 1.49 | .041 |

| | | FATHER | N | M | S.E |
|---|---|---|---|---|---|
| FUTURE | LOW | LOW | 343 | 1.21 | .023 |
| | LOW | HIGH | 343 | 1.61 | .044 |
| | HIGH | LOW | 343 | 1.47 | .038 |
| | HIGH | HIGH | 343 | 1.61 | .046 |

| | | PARENTS | N | M | S.E. |
|---|---|---|---|---|---|
| FUTURE | LOW | LOW | 343 | 1.34 | .028 |
| | LOW | HIGH | 343 | 1.48 | .037 |
| | HIGH | LOW | 343 | 1.41 | .035 |
| | HIGH | HIGH | 343 | 1.68 | .051 |

| | | FATHER | N | M | S.E. |
|---|---|---|---|---|---|
| MORAL | LOW | LOW | 343 | 1.30 | .026 |
| | LOW | HIGH | 343 | 1.63 | .044 |
| | HIGH | LOW | 343 | 1.38 | .033 |
| | HIGH | HIGH | 343 | 1.59 | .044 |

| | | PARENTS | N | M | S.E. |
|---|---|---|---|---|---|
| FUTURE | LOW | LOW | 343 | 1.39 | .031 |
| | LOW | HIGH | 343 | 1.54 | .039 |
| | HIGH | LOW | 343 | 1.36 | .031 |
| | HIGH | HIGH | 343 | 1.61 | .047 |

| | | PARENTS | N | M | S.E. |
|---|---|---|---|---|---|
| FATHER | LOW | LOW | 343 | 1.25 | .026 |
| | LOW | HIGH | 343 | 1.44 | .035 |
| | HIGH | LOW | 343 | 1.50 | .037 |
| | HIGH | HIGH | 343 | 1.72 | .051 |

Table 4.4c – 3-Way Complex Interactions

| FUTURE | MORAL | FATHER | N | MEAN | S.E. |
|---|---|---|---|---|---|
| LOW | LOW | LOW | 343 | 1.13 | .023 |
| LOW | LOW | HIGH | 343 | 1.55 | .046 |
| LOW | HIGH | LOW | 343 | 1.29 | .032 |
| LOW | HIGH | HIGH | 343 | 1.66 | .051 |
| HIGH | LOW | LOW | 343 | 1.47 | .041 |
| HIGH | LOW | HIGH | 343 | 1.71 | .053 |
| HIGH | HIGH | LOW | 343 | 1.47 | .042 |
| HIGH | HIGH | HIGH | 343 | 1.51 | .045 |

| FUTURE | MORAL | PARENTS | N | MEAN | S.E. |
|---|---|---|---|---|---|
| LOW | LOW | LOW | 343 | 1.31 | .031 |
| LOW | LOW | HIGH | 343 | 1.38 | .035 |
| LOW | HIGH | LOW | 343 | 1.37 | .036 |
| LOW | HIGH | HIGH | 343 | 1.58 | .046 |
| HIGH | LOW | LOW | 343 | 1.48 | .041 |
| HIGH | LOW | HIGH | 343 | 1.71 | .053 |
| HIGH | HIGH | LOW | 343 | 1.34 | .039 |
| HIGH | HIGH | HIGH | 343 | 1.64 | .054 |

| FUTURE | FATHER | PARENTS | N | MEAN | S.E. |
|---|---|---|---|---|---|
| LOW | LOW | LOW | 343 | 1.16 | .024 |
| LOW | LOW | HIGH | 343 | 1.26 | .030 |
| LOW | HIGH | LOW | 343 | 1.51 | .042 |
| LOW | HIGH | HIGH | 343 | 1.69 | .053 |
| HIGH | LOW | LOW | 343 | 1.34 | .037 |
| HIGH | LOW | HIGH | 343 | 1.61 | .050 |
| HIGH | HIGH | LOW | 343 | 1.48 | .043 |
| HIGH | HIGH | HIGH | 343 | 1.75 | .056 |

| MORAL | FATHER | PARENTS | N | MEAN | S.E. |
|---|---|---|---|---|---|
| LOW | LOW | LOW | 343 | 1.23 | .028 |
| LOW | LOW | HIGH | 343 | 1.38 | .034 |
| LOW | HIGH | LOW | 343 | 1.56 | .045 |
| LOW | HIGH | HIGH | 343 | 1.71 | .053 |
| HIGH | LOW | LOW | 343 | 1.28 | .032 |
| HIGH | LOW | HIGH | 343 | 1.49 | .043 |
| HIGH | HIGH | LOW | 343 | 1.44 | .039 |
| HIGH | HIGH | HIGH | 343 | 1.73 | .057 |

Table 4.4d – 4-Way Complex Interaction

| FUTURE | MORAL | FATHER | PARENTS | N | MEAN | S.E. |
|---|---|---|---|---|---|---|
| LOW | LOW | LOW | LOW | 343 | 1.12 | .030 |
| LOW | LOW | HIGH | LOW | 343 | 1.50 | .053 |
| LOW | HIGH | LOW | LOW | 343 | 1.21 | .035 |
| LOW | HIGH | HIGH | LOW | 343 | 1.54 | .052 |
| HIGH | LOW | LOW | LOW | 343 | 1.34 | .043 |
| HIGH | LOW | HIGH | LOW | 343 | 1.62 | .056 |
| HIGH | HIGH | LOW | LOW | 343 | 1.34 | .044 |
| HIGH | HIGH | HIGH | LOW | 343 | 1.34 | .044 |
| LOW | LOW | LOW | HIGH | 343 | 1.15 | .030 |
| LOW | LOW | HIGH | HIGH | 343 | 1.60 | .057 |
| LOW | HIGH | LOW | HIGH | 343 | 1.38 | .044 |
| LOW | HIGH | HIGH | HIGH | 343 | 1.78 | .064 |
| HIGH | LOW | LOW | HIGH | 343 | 1.61 | .056 |
| HIGH | LOW | HIGH | HIGH | 343 | 1.81 | .064 |
| HIGH | HIGH | LOW | HIGH | 343 | 1.60 | .055 |
| HIGH | HIGH | HIGH | HIGH | 343 | 1.68 | .060 |

An independent samples t-test was run to assess the impact of **gender** on adolescents' attitudes regarding acceptability of abortion for *someone else*. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), female students (N = 204) reported M = 6.83 (SD = 2.73) while male students (N = 142) reported M = 7.67 (S.D = 3.47), with t = -2.40 ($p < .02$) with 255.445 degrees of freedom. With respect to Factor 2 (Extenuating Circumstances), female students (N = 205) reported M = 11.25 (SD = 4.91) while male students (N = 140) reported M = 12.96 (SD = 4.32), with t = -3.42 ($p < .002$) with 322.015 degrees of freedom (See Table 4.5).

With respect to both **Factors 1 and 2**, **female students** had a significantly lower mean score, indicating those female students were **less accepting of abortion** than male students.

Table 4.5 -- T-test of Gender by Acceptability of Abortion for Someone Else

| Outcome Variable | Gender | N | Mean | SD | df | t | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | Female | 204 | 6.83 | 2.73 | 255.445 | -2.40 | < .02 |
| | Male | 142 | 7.67 | 3.47 | | | |
| Pro-Choice (Extenuating Circumstances) | Female | 205 | 11.25 | 4.91 | 322.015 | -3.42 | < .002 |
| | Male | 140 | 12.96 | 4.32 | | | |

Note: Higher scores represent higher pro-choice responses.

An independent samples t-test was run to assess the impact of **gender** on adolescents' attitudes regarding acceptability of abortion for *oneself or ones partner*. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), female students (N = 206) reported M = 6.89 (SD = 2.90) while male students (N = 143) reported M = 7.65 (SD = 3.55), with t = -2.11 ($p < .04$) with 264.604 degrees of freedom. With respect to Factor 2 (Extenuating Circumstances), female students (N = 205) reported M = 11.40 (SD = 5.36) while male students (N = 142) reported M = 12.82 (SD = 5.02), with t = -2.52 ($p < .02$) with 315.502 degrees of freedom (See Table 4.6).

With respect to both **Factors 1 and 2**, **female students** had a lower mean score, indicating those female students were **less accepting of abortion** than were male students, although the difference between mean scores was only **significant** for **Factor 2**.

Table 4.6 -- T-test of Gender by Acceptability of Abortion for Oneself or Ones Partner

| Outcome Variable | Gender | N | Mean | SD | df | t | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | Female | 206 | 6.89 | 2.90 | 264.604 | -2.11 | < .04 |
| | Male | 143 | 7.65 | 3.55 | | | |
| Pro-Choice (Extenuating Circumstances) | Female | 205 | 11.40 | 5.36 | 315.502 | -2.52 | < .02 |
| | Male | 142 | 12.82 | 5.02 | | | |

Note: Higher scores represent higher pro-choice responses.

The next analysis was an analysis of variance (ANOVA) of acceptability of abortion for *someone else* as a function of **age**. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), the means, standard deviations, and cell counts observed were: age 12 (M = 14.00, SD = .00, N = 2), age 13 (M = 8.46, SD = 3.60, N = 83), age 14 (M = 6.80, SD = 2.91, N = 82), age 15 (M = 6.66, SD = 2.47, N = 68), age 16 (M = 6.29, SD = 2.15, N = 59), age 17 (M = 7.14, SD = 3.25, N = 42), age 18 (M = 7.10, SD = 3.38, N = 10) with F (6,339) = 11.68 ($p < .01$).

With respect to Factor 2 (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: age 12 (M = 15.00, SD = .00, N = 2), age 13 (M = 12.16, SD = 4.18, N = 85), age 14 ( M = 12.01, SD = 5.28, N = 82), age 15 (M = 10.92, SD = 4.82, N = 67), age 16 (M = 11.64, SD = 4.45, N = 57), age 17 (M = 12.34, SD = 4.46, N = 42), age 18 (M = 16.00, SD = 5.78, N = 10) with F (6,338) = 8.88 ($p < .01$) (See Table 4.7).

With respect to both **Factors 1 and 2**, results showed that the lowest mean score, indicating those students expressing the **least acceptance of abortion**, belonged to the mid-age range of adolescents, specifically, the **14, 15, and 16** year olds, with **16** year olds having the lowest mean score for **Factor 1** and **15** year olds having the lowest mean score for **Factor 2**.

Table 4.7 -- Analysis of Variance of Acceptability of Abortion for Someone Else as a Function of Age

| Outcome Variable | Age Level | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | 12 | 2 | 14.00 | .00 | 6,339 | 11.68 | < .01 |
| | 13 | 83 | 8.46 | 3.60 | | | |
| | 14 | 82 | 6.80 | 2.91 | | | |
| | 15 | 68 | 6.66 | 2.47 | | | |
| | 16 | 59 | 6.29 | 2.15 | | | |
| | 17 | 42 | 7.14 | 3.25 | | | |
| | 18 | 10 | 7.10 | 3.38 | | | |
| Pro-Choice (Extenuating Circumstances) | 12 | 2 | 15.00 | .00 | 6,338 | 8.88 | < .01 |
| | 13 | 85 | 12.16 | 4.18 | | | |
| | 14 | 82 | 12.01 | 5.28 | | | |
| | 15 | 67 | 10.92 | 4.82 | | | |
| | 16 | 57 | 11.64 | 4.45 | | | |
| | 17 | 42 | 12.34 | 4.46 | | | |
| | 18 | 10 | 16.00 | 5.78 | | | |

Note: Higher scores represent higher pro-choice responses. Using Scheffe post hoc tests, none of the pairwise comparisons across levels of age were statistically significant ($p < .05$) for either outcome variable.

The following analysis was an analysis of variance (ANOVA) of acceptability of abortion for *oneself or ones partner* as a function of **age**. Higher scores represent higher pro-choice responses. With respect to Factor 1, (Perceived Readiness), the means, standard deviations, and cell counts observed were: age 12 (M = 12.00, SD = 5.66, N = 2), age 13 (M = 8.53, SD = 3.55, N = 85), age 14 (M = 6.72, SD = 3.28, N = 82), age 15 (M = 6.57, SD = 2.42, N = 69), age 16 (M = 6.59, SD = 2.55, N = 59), age 17 (M = 7.19, SD = 3.05, N = 42), age 18 (M = 7.00, SD = 4.32, N = 10) with F (6,342) = 14.19 (P < .001).

With respect to Factor 2, (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: age 12 (M = 12.50, SD = 3.54, N = 2), age 13 (M = 12.06, SD = 4.54, N = 84), age 14 (M = 12.00, SD = 5.67, N = 81), age 15 (M = 11.14, SD = 4.40, N = 69), age 16 (M = 11.89, SD = 5.14, N = 59), age 17 (M = 12.34, SD = 5.32, N = 42), age 18 (M = 15.83, SD = 6.82, N = 10), N = 10) with F (6,340) = 4.60 (p < .05) (See Table 4.8).

With respect to both **Factors 1** and 2 (Extenuating Circumstances), results showed that the lowest mean score, indicating students who expressed the **least acceptance of abortion**, belonged to the mid-age range of adolescents, specifically, the **14, 15, and 16** year olds, with the **15 year olds** expressing the lowest mean for both Factors 1 and 2.

Table 4.8 -- Analysis of Variance of Acceptability of Abortion for Oneself or Ones Partner as a Function of Age

| Outcome Variable | Age Level | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | 12 | 2 | 12.00 | 5.66 | 6,342 | 14.19 | < .001 |
| | 13 | 85 | 8.53 | 3.55 | | | |
| | 14 | 82 | 6.72 | 3.28 | | | |
| | 15 | 69 | 6.57 | 2.42 | | | |
| | 16 | 59 | 6.59 | 2.55 | | | |
| | 17 | 42 | 7.19 | 3.05 | | | |
| | 18 | 10 | 7.00 | 4.32 | | | |
| Pro-Choice (Extenuating Circumstances) | 12 | 2 | 12.50 | 3.54 | 6,340 | 4.60 | < .05 |
| | 13 | 84 | 12.06 | 4.54 | | | |
| | 14 | 81 | 12.00 | 5.67 | | | |
| | 15 | 69 | 11.14 | 5.40 | | | |
| | 16 | 59 | 11.89 | 5.14 | | | |
| | 17 | 42 | 12.34 | 5.32 | | | |
| | 18 | 10 | 15.83 | 6.82 | | | |

Note: Higher scores represent higher pro-choice responses. Using Scheffe post hoc tests, none of the pairwise comparisons across levels of age were statistically significant ($p < .05$) for extenuating circumstances. Likewise, none of the comparisons were statistically significant ($p < .05$) for perceived readiness except that 13 year olds reported more pro-choice attitudes than did 14, 15, and 16 year old students.

The next analysis was an analysis of variance (ANOVA) of acceptability of abortion for *someone else* as a function of **ethnicity**. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), the means, standard deviations, and cell counts observed were: Black (M = 11.00, SD = 4.95, N = 5), Hispanic (M = 9.12, SD = 3.62, N = 34), White (M = 6.80, SD = 2.75, N = 300), Other (M = 11.14, SD = 4.60, N = 7) with F (3,342) = 13.84 ($p < .001$).

With respect to Factor 2 (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: Black (M = 20.00, SD = 4.08, N = 4), Hispanic (M = 13.71, SD = 4.87, N = 35), White (M = 11.58, SD = 4.61, N = 299), Other (M = 14.29, SD = 4.60, N = 7) with F (3,341) = 6.97 ($p < .001$) (See Table 4.9).

With respect to both Factors 1 (Perceived Readiness) and 2 (Extenuating Circumstances), results showed that the lowest mean score, indicating those students expressing the **least acceptance for abortion,** were **White**.

Table 4.9 -- Analysis of Variance of Acceptability of Abortion for Someone Else as a Function of Ethnicity

| Outcome Variable | Ethnicity | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | Black | 5 | 11.00 | 4.95 | 3,342 | 13.84 | < .001 |
| | Hispanic | 34 | 9.12 | 3.62 | | | |
| | White | 300 | 6.80 | 2.75 | | | |
| | Other | 7 | 11.14 | 4.60 | | | |
| Pro-Choice (Extenuating Circumstances) | Black | 4 | 20.00 | 4.08 | 3,341 | 6.97 | < .001 |
| | Hispanic | 35 | 13.71 | 4.87 | | | |
| | White | 299 | 11.58 | 4.61 | | | |
| | Other | 7 | 14.29 | 4.60 | | | |

Note: Higher scores represent higher pro-choice responses. For perceived readiness, using Scheffe post hoc tests, the mean scores for Whites are significantly different ($p < .05$) from those for each of the other three ethnic groups, but none of the other pairwise comparisons yielded significant differences. For extenuating circumstances, using Scheffe post hoc tests, the only pairwise comparison that was statistically significant ($p < .05$) was that comparing the mean score for Whites versus Blacks.

The next analysis was an analysis of variance (ANOVA) of acceptability of abortion for *oneself or ones partner* as a function of **ethnicity**. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), the means, standard deviations, and cell counts observed were: Black (M = 11.20, SD = 4.27, N = 5), Hispanic (M = 8.94, SD = 4.06, N = 35), White (M = 6.86, SD = 2.88, N = 302), Other (M = 10.29, SD = 4.92, N = 7) with F (3,345) = 10.10 ($p < .001$).

With respect to Factor 2 (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: Black (M = 15.67, SD = 7.32, N = 5), Hispanic (M = 13.62, SD = 4.99, N = 35), White (M = 11.68, SD = 5.22, N = 300), Other (M = 13.81, SD = 5.42, N = 7) with F (3,343) = 2.58 ($p < .06$) (See Table 4.10).

With respect to both Factors 1 (Perceived Readiness) and 2 (Extenuating Circumstances), results showed that the lowest mean score, indicating those students expressing the **least acceptance for abortion,** were **White**.

Table 4.10 -- Analysis of Variance of Acceptability of Abortion for Oneself or Ones Partner as a Function of Ethnicity

| Outcome Variable | Ethnicity | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | Black | 5 | 11.20 | 4.27 | 3,345 | 10.10 | < .001 |
| | Hispanic | 35 | 8.94 | 4.06 | | | |
| | White | 302 | 6.86 | 2.88 | | | |
| | Other | 7 | 10.29 | 4.92 | | | |
| Pro-Choice (Extenuating Circumstances) | Black | 5 | 15.67 | 7.32 | 3,343 | 2.58 | < .06 |
| | Hispanic | 35 | 13.62 | 4.99 | | | |
| | White | 300 | 11.68 | 5.22 | | | |
| | Other | 7 | 13.81 | 5.42 | | | |

Note: Higher scores represent higher pro-choice responses. For perceived readiness, using Scheffe post hoc tests, the mean scores for Whites are significantly different ($p < .05$) from those for each of the other three ethnic groups, but none of the other pairwise comparisons yielded significant differences. For extenuating circumstances, using Scheffe post hoc tests, none of the pairwise comparisons were statistically significant ($p < .05$).

The following analysis was an analysis of variance (ANOVA) of acceptability of abortion for *someone else* as a function of **intrinsic religiosity**, with level of intrinsic religiosity ranging from level 5, the greatest, to level 1, the least. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), the means, standard deviations, and cell counts observed were: level 5 (M = 7.20, SD = 3.19, N = 222), level 4 ( M = 6.89, SD = 2.85, N = 100), level 3 (M = 7.71, SD = 2.40, N = 14), level 2 ( M = 8.71, SD = 3.77, N = 7) level 1 (M = 20.50, SD = .71, N = 2). N = 2) with F (4,340) = 3.46 (p = .064).

With respect to Factor 2 (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: level 5 (M = 11.29, SD = 4.61, N = 220), level 4 (M = 12.99, SD = 4.70, N = 101), level 3 (M = 12.50, SD = 4.17, N = 14), level 2 (M = 16.67, SD = 6.09, N = 7), and level 1 (M = 15.00, SD = 2.36, N = 2) with F (4,339) = 2.63 (p = .106) (See Table 4.11).

With respect to **Factor 1** (Perceived Readiness), results showed that students with the lowest mean score, having the **least acceptance of abortion**, were those students with **next to the greatest intrinsic religiosity**. With respect to **Factor 2** (Extenuating Circumstances), results showed that students **least accepting of abortion** were those students with the **greatest intrinsic religiosity.**

Table 4.11 -- Analysis of Variance of Acceptability of Abortion for Someone Else as a Function of Intrinsic Religiosity

| Outcome Variable | Level of Intrinsic Religiosity (5 = Greatest; 1 = Least) | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | 5 | 222 | 7.20 | 3.19 | 4,340 | 3.46 | .064 |
| | 4 | 100 | 6.89 | 2.85 | | | |
| | 3 | 14 | 7.71 | 2.40 | | | |
| | 2 | 7 | 8.71 | 3.77 | | | |
| | 1 | 2 | 10.50 | .71 | | | |
| Pro-Choice (Extenuating Circumstances) | 5 | 220 | 11.29 | 4.61 | 4,339 | 2.63 | .106 |
| | 4 | 101 | 12.99 | 4.70 | | | |
| | 3 | 14 | 12.50 | 4.17 | | | |
| | 2 | 7 | 16.67 | 6.09 | | | |
| | 1 | 2 | 15.00 | 2.36 | | | |

Note: Higher scores represent higher pro-choice responses. Using Scheffe post hoc tests, none of the pairwise comparisons across levels of intrinsic religiosity were statistically significant ($p < .05$) for either outcome variable.

The last analysis was an analysis of variance (ANOVA) of acceptability of abortion for *oneself or ones partner* as a function of **intrinsic religiosity**, with level of intrinsic religiosity ranging from level 5, the greatest, to level 1, the least. Higher scores represent higher pro-choice responses. With respect to Factor 1 (Perceived Readiness), the means, standard deviations, and cell counts observed were: level 5 (M = 7.17, SD = 3.30, N – 224), level 4 (M = M = 6.94, SD = 2.86, N = 101), level 3 (M = 8.07, SD = 2.43, N = 14), level 2 (M = 9.57, SD = 4.76, N = 7), and level 1 (M = 11.50, SD = .71, N = 2) with $F(4,343) = 5.84$ ($p < .05$).

With respect to Factor 2 (Extenuating Circumstances), the means, standard deviations, and cell counts observed were: level 5 (M = 11.18, SD = 5.16, N = 223), level 4 (M = 13.10, SD = 5.04, N = 100), level 3 (M = 13.45, SD = 4.69, N = 14), level 2 (M = 17.86, SD = 6.58, N = 7), and level 1 (M = 16.67, SD = .00, N = 2) with $F(1,341) = 4.33$ ($p < .05$) (See Table 4.12).

With respect to **Factor 1** (Perceived Readiness), results showed that students with the lowest mean score, having the **least acceptance of abortion**, were those students with **next to the greatest intrinsic religiosity**. With respect to **Factor 2** (Extenuating Circumstances), results showed that students **least accepting of abortion** were those students with the **greatest intrinsic religiosity.**

Table 4.12 -- Analysis of Variance of Acceptability of Abortion for Oneself or Ones Partner as a Function of Intrinsic Religiosity

| Outcome Variable | Level of Intrinsic Religiosity (5 = Greatest; 1 = Least) | N | Mean | SD | df | F | p |
|---|---|---|---|---|---|---|---|
| Pro-Choice (Perceived Readiness) | 5 | 224 | 7.17 | 3.30 | 4,343 | 5.84 | < .05 |
| | 4 | 101 | 6.94 | 2.86 | | | |
| | 3 | 14 | 8.07 | 2.43 | | | |
| | 2 | 7 | 9.57 | 4.76 | | | |
| | 1 | 2 | 11.50 | .71 | | | |
| Pro-Choice (Extenuating Circumstances) | 5 | 223 | 11.18 | 5.16 | 1,341 | 4.33 | < .05 |
| | 4 | 100 | 13.10 | 5.04 | | | |
| | 3 | 14 | 13.45 | 4.69 | | | |
| | 2 | 7 | 17.86 | 6.58 | | | |
| | 1 | 2 | 16.67 | .00 | | | |

Note: Higher scores represent higher pro-choice responses. Using Scheffe post hoc tests, none of the pairwise comparisons across levels of intrinsic religiosity were statistically significant ($p < .05$) for either outcome variable.

# CHAPTER 5 – DISCUSSION

## Purpose

The purpose of this study was to explore Catholic adolescents' attitudes about abortion decision-making, especially when the adolescents are offered reality-based scenarios in which abortion is being considered. The study was designed to inform parents, policymakers, curriculum planners, teachers, and researchers on Catholic adolescents' attitudes about abortion decision-making. The information gained from this study could contribute to better educate adolescents through new or revised curricula and media campaigns concerning abortion decisions.

A survey was offered, with parental permission, to a convenience sample from 8th -12$^{th}$ grade adolescents attending Catholic schools in Topeka, Kansas. The survey focused on the seven abortion questions from the annual national General Social Survey (GSS), supplemented by seven author-constructed abortion questions. Reality-based scenarios supplemented these 14 abortion questions. The scenarios each used a high or low level of four dimensions gleaned from Web site abortion testimonies and from phone calls with service providers.

## Hypotheses

The following research hypotheses concerning Catholic adolescents were investigated in relation to the purpose of the study:

**Null** Hypothesis 1: When factor analyzed, the results of the study's combined General Social Survey (GSS; National Opinion Research Center [NORC], 2005) and author-devised foundational abortion questions will be **unidimensional**.

***Rejected.*** *The combined GSS and author-devised questions were multidimensional, yielding* ***two Factors****, Factor 1, Perceived Readiness, and Factor 2, Extenuating Circumstances.*

**Null** Hypothesis 2: There will be **no interaction effects** on the four scenario dimensions predicting students' attitudes about abortion.

***Rejected.*** *The* ***multiple significant interaction effects*** *included: Future x Moral Image, Future x Father of Baby, Future x Parents of Mother, Moral Image x Father, Moral Image x Parents of Mother, and Future x Moral Image x Father of Baby.*

Hypothesis 3: Adolescent **females** will be less accepting of abortion than adolescent males.

***Accepted.*** *Female participants were less accepting of abortion than were males.*

Hypothesis 4: The **younger** the adolescents, the less accepting they will be of abortion.

***Rejected. Mid-range*** *adolescents, ages 14, 15, and 16, were the least accepting of abortion.*

Hypothesis 5: Adolescents of **diverse ethnic backgrounds** will be less accepting of abortion than White adolescents.

***Rejected. White*** *adolescents were less accepting of abortion than adolescents of diverse backgrounds.*

Hypothesis 6: The greater the adolescents' **intrinsic religiosity**, the less accepting they will be of abortion.

***Accepted.*** *On a scale of 1 to 5, with 5 being greatest intrinsic religiosity, students with levels 4 and 5 intrinsic religiosity were the least accepting of abortion.*

## Methodological Limitations and Recommendations

Since this study was conducted with a convenience sample of 8th-12th grade students attending Catholic schools in Topeka, Kansas, the generalizability of the findings may be reduced significantly. Caution must be exercised in seeking to generalize the results of this study to Catholic adolescent populations in different school settings, with different age groups, or in different geographical locations. The results, of course, may not generalize to non-Catholic adolescent populations, at least to adolescents who are not participating in Catholic school systems.

Although the size of the response rate was good, students in lower grade levels participated more often than students in higher grade levels, and more females participated than males. This imbalance may have affected the results of the study. Future studies should allow equal time for dissemination of information about proposed surveys across grade levels; greater encouragement of male student participation in such surveys may be necessary.

The questionnaire, itself, could be improved with several slight modifications. Three of the seven author-devised condition statements from the first two pages of the survey yielded somewhat unexpected or contradictory results. The two author-devised condition statements dealing with the father appeared to yield contradictory responses. Both of the statements offered conditions relating to the father of the baby, with the first

stating, “The father of the baby wants the female to get an abortion” (item j), immediately followed by the statement “The father of the baby wants the baby” (item k). Since at least nine of the ten condition statements prior to item k were stated in the opposite direction of item k, the switch to a different direction may have confused students. Additionally, prior to administering the survey, the author had *not* informed students that assorted condition statements were written in *opposing* directions, with some conditions which could be interpreted as *more* supportive of terminating a pregnancy, but with *other* conditions which could be interpreted as *less* supportive of terminating a pregnancy. This additional administrative comment could heighten awareness of future participants regarding opposing directions of several of the condition statements. Additionally, clarity may be improved by moving the current condition statement k, “The father of the baby wants the baby.” to position a, first, on the condition list.

To further balance the distribution of condition statement *directions*, current statement n, “There are no conditions under which abortion is acceptable.” which is currently located at the end of the survey condition statements, could exchange position with condition statement h, “For any reason, at any time in pregnancy.” This repositioning may allow a more balanced arrangement of condition directions.

## Conclusions

Although some people may have expected that there would be little variance in the attitudes of the students in this study and thus, little complexity in their abortion attitudes, the results show that these Catholic school adolescents do have complex attitudes about abortion decision-making. This complexity may have been influenced by several reasons.

Using reality-based scenarios, in and of themselves, may alter the attitudes people express in comparison to when they are asked theoretical questions. Reality-based scenarios may bring out more hard case type issues which may not be captured in theoretical questions. Perhaps reality-based scenarios could be added to the teaching of not only the topic of abortion, but for other moral issues as well.

Female participants may have expressed less accepting attitudes of abortion than males because they have had more exposure to pregnancy issues as opposed to male students, who may feel that abortion does not concern them, even though student participants indicated the father of the baby played the most important role in students' decisions when responding to the reality-based abortion scenarios.

Although younger students were not least accepting of abortion, that may have been because the survey was given so close to the beginning of the school year, and the 8th graders had not yet attended the 8th grade pro-life forum, as well as only beginning preparation for the sacrament of Confirmation. Freshman students' answers may have been as pro-life as they were because the survey was administered in the first quarter of the school year, when the 8th grade pro-life forum and the 8th grade year-long preparations for the sacrament of Confirmation were only in the recent past, and thus quite fresh in their minds. Sophomore responses may have been only slightly less pro-life than those of freshman because of the carry-over effect of the 8th grade forum and the intensity of Confirmation preparation during the 8th grade year. Extenuating circumstances appeared to be associated with more pro-choice responses in most of the analyses, reflecting the complexities associated with such circumstances.

The theoretical foundation of this study may lend support to the reason for the responses of the juniors and seniors, who were increasingly pro-choice. In Piaget's final cognitive development stage, *formal operations* (Berk, 2003; Inhelder & Piaget, 1958; Piaget, 1997; and Steinerg, 2002), young people develop the skill of adult-like rational processing. With the abstract and hypothetical reasoning that develops during this stage, young people can be capable of weighing alternatives and considering consequences before making a decision. Juniors and seniors may be more open to input from outside sources as much or more than following earlier training they've received from parents, teachers, and Catholic leadership. Parents, teachers, and Catholic Church leaders may want to reintroduce age-appropriate instruction for juniors' and seniors' abortion decision-making skills to strengthen the students' pro-life beliefs about abortion. The last time many of these students had such programming may have been the 8th grade pro-life forum and confirmation preparation classes.

Moral development theory also may support the findings of this study as they pertain to abortion attitudes relating to age. In Kohlberg's theory of moral development, at the *principled* level of moral development, which may occur in early or late adolescence, or in early adulthood (Kohlberg, 1987; Roberts, 1994), people use internal standards of justice to make moral decisions. By the junior and senior year in high school, students may be at that stage and are basing their abortion decision-making on internal standards, and not so much on the standards of their parents, teachers, or Catholic leadership. Likewise, in terms of Erikson's theory, students may be forming identities that partially reflect their prior socialization and yet, at the same time, reflect adoption of

their own unique value positions with respect to difficult and controversial issues such as abortion.

Regarding ethnicity, White students were the least accepting of abortion. This result may have occurred because Hispanic and Black students may have come from lower social and economic environments in which they may not have been afforded some of the advantages afforded to White students. It is also possible that reality may intrude into the lives of ethnic minority students earlier than for more affluent majority students, giving them more reasons to make situationally dependent abortion-related decisions.

Intrinsic religiosity was highest among those students who were least accepting of abortion. This was an anticipated response, but more research could provide insights into how and why this occurred, as well as with respect to the process by which intrinsic religiosity develops in elementary and high school age male and female students.

## Future Research

Future research could be done with other school system Catholic school adolescents, perhaps in other Catholic schools or in public schools within and outside of Kansas. Other intriguing settings may include doing this research with home schooled Catholic students, home schooled students of other faiths, and with students attending parochial school of other denominations. It would also be interesting to compare the responses and findings of this study with those which could take place in other parts of the country, perhaps within a capital city in the west, north, south, and/or east. Indeed, research could be conducted internationally with respect to these issues.

Future research might follow adolescents through their development, to assess longitudinal changes in attitudes about controversial issues over time. It is also possible

that additional or other dimensions might be incorporated into reality-based scenarios. In particular, since the moral image dimension did not explain much of the variance in attitudes in this study, that dimension might be exchanged for other, presumably more important dimensions, in future research. An alternative might be to not include moral image as a dimension, leaving only three dimensions, which would reduce the number of required scenarios from sixteen to eight, which might reduce the logistical burden for future researchers.

## Implications

The 350 study participants expressed complex attitudes about abortion, with their attitudes appearing to be situationally-dependent. Because student attitudes about abortion appear to be changing as they mature, any ethical discussion about controversial issues should not be confined to any one grade level (e.g., eighth grade). Students may benefit from detailed ethical discussions at all grade levels. Males may benefit from abortion decision-making programming focused more on the importance of their role in the abortion decision-making process. The year-long preparation for Confirmation and attendance at the pro-life forum in 8$^{th}$ grade may have influenced the students to be most pro-life in the mid-range of adolescent years, 14-16. Strong intrinsic religiosity appeared to influence these students' attitudes concerning acceptability of abortion. Ways could be explored to help students explore and seriously consider the sources of their religious values and development. Students could be instructed in ways they could constructively discuss abortion-decision making situations with their own peers.

REFERENCES

Agostino, M. B., & Wahlberg, V. (1991). Adolescents' attitudes to abortion in samples from Italy and Sweden. *Social Science & Medicine, 33*(1), 77-82.

Bailey, P. E., Bruno, Z. V., Bezerra, M. F., Quiros, I., & Oliveira, C. M. (2003). Adolescents' decision-making and attitudes towards abortion in north-east Brazil. *Journal of Biosocial Science, 35,* 71-82.

Bardis, P. D. (1975). Abortion attitudes among Catholic college students. *Adolescence,10*(39), 433-441.

Berk, L. E. (2003). *Child development* (6th ed.). Boston, MA: Allyn and Bacon.

Bumpass, L. (1997). The measurement of public opinion on abortion: The effects of survey design. *Family Planning Perspectives, 29*(4), 177-180.

Carlton, C., Nelson, E., & Coleman, P. (2000). College students' attitudes toward abortion and commitment to the issue, *Social Science Journal, 37*(4), 619-625.

Ellison, C. G., Echevarria, S., & Smith, B. (2005). Religion and abortion attitudes among U.S. Hispanics: Findings from the 1990 Latino National Political Survey. *Social Science Quarterly, 86*(1), 192-208.

Embree, R. A. (1998). Attitudes toward elective abortion: Preliminary evidence of validity for the personal beliefs scale. *Psychological* Reports, *82*, 1267-1281.

Emerson, M. O. (1996). Through tinted glasses: Religion, worldviews, and abortion attitudes. *Journal for the Scientific Study of Religion*, *35*(1), 41-55.

Erikson, E. (1968). *Identity: Youth and crisis.* New York: Norton.

Finlay, B. A. (1981). Sex differences in correlations of abortion attitudes among college students. *Journal of Marriage and the Family*, 571-582.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An Introduction to theory and research.* Reading, MA: Addison-Wesley.

Gilligan, C. (1982). *In a different voice.* Cambridge, MA; Harvard University Press.

Griffin-Carlson, M. S., & Schwanenflugel, P. J. (1998). Adolescent abortion and parental notification: Evidence for the importance of family functioning on the perceived quality of parental involvement in U.S. families. *Journal of Child Psychology and Psychiatry, 39*(4), 543-553.

Guttmacher Institute. (2005). Induced abortion in the United States. Retrieved November 10, 2005, from http://www.agi-usa.org/pub/fb_induced_abortion.html

Hoffman, M. L. (2000). *Empathy and moral development.* New York: Cambridge University Press.

Inhelder, B. & Piaget, J. (1958). *The growth of logical thinking from childhood to adolescence.* New York: Basic books, Inc.

Kohlberg, L. (1987). *Child psychology and childhood education*. New York: Longman.

Langholz, L. (1992). *Parent-adolescent communication about abortion.* Unpublished doctoral dissertation, The California School of Professional Psychology, Berkeley/Alameda, CA.

McClure, R. M. (2000). *Attitudinal correlates of abortion among female adolescent offenders.* Unpublished doctoral dissertation, Fuller Theological Seminary, Pasadena, CA.

*Merriam-Webster's collegiate dictionary*. (10th ed.). (2001). Springfield, MA, Merriam-Webster, Inc.

Mugny, G. & Perez, J. A. (1988). Conflicto intergrupal, vlaidacion e influencia minoritaria inmediata y diferida. *Revista de Psicologia Social, 3,* 23-36.

National Opinion Research Center. (2005). *General Social Survey: GSS study description.* Retrieved January 17, 2006, from http://www/norc.org/projects/gensoc1.asp

Paikoff, R. L. (1987). *Causal and consequential thinking about adolescent pregnancy: Developmental and individual factors.* Unpublished doctoral dissertation, University of Minnesota, Minneapolis, MN.

Parsons, N.K., Richards, H. C., & Kanter, G. D. P. (1990). Validation of a scale to measure reasoning about abortion. *Journal of Counseling Psychology, 37*(1), 107-112.

Petersen, L. R. (2001). Religion, plausibility structures, and education's effect on attitudes toward elective abortion. *Journal for the Scientific Study of Religion, 40*(2), 187-204.

Petkova, K. G., Ajzen, I., & Driver, B. L. (1995). Salience of anti-abortion beliefs and predictive validity of anti-abortion attitudes. *Journal of Applied Social Psychology, 25*(2), 463-483.

Piaget, J. (1997). *The moral judgment of the child.* New York: Simon & Schuster.

Pickrell, S. J. (2002). *Categorization of abortion scenarios as a function of pro-life and pro-choice attitudes and sex.* Unpublished doctoral dissertation, Colorado State University, Fort Collins, CO.

Roberts, T. (1994). *A Systems Perspective of Parenting. The Individual, the Family, and the Social Network.* Pacific Grove, CA: Brooks/Cole.

Rosen, A. (1992). Beliefs, attitudes, and intention in the context of abortion. *Journal of Applied Social Psychology, 22,* 1464-1480.

Ryan, I. J., & Dunn, P. C. (1983). College students' attitudes toward shared responsibility in decisions about abortion: Implications for counseling. *College Health, 31*(June), 231-235.

Scott, J. (1998). Generational changes in attitudes to abortion: A cross-national comparison. *European Sociological Review, 14*(2), 177-190.

SPSS, Inc. (2005). *Statistical package for the social sciences, 14.0.* Chicago, IL: SPSS.

Steinberg, L. (2002). *Adolescence.* New York: McGraw-Hill.

Stets, J. E., & Leik, R. K. (1993). Attitudes about abortion and varying attitude structures. *Social Science Research, 22,* 265-282.

Sullins, D. P. (1999). Catholic/Protestant trends on abortion: Convergence and polarity. *Journal for the Scientific Study of Religion, 38*(3), 354-369.

*Taber's cyclopedic medical dictionary*. (2005). Philadelphia: F. A. Davis.

Tyrlik, M. & Macek, P. (2001). Atribucni charakteristiky zduvodneni moralnich dilemat. *Ceskoslovenska Psychologie, 45*(3), 270-280.

Vander Ryk, A. L., O'Neill, M. J., & Lester, D. (1999). Attitudes toward abortion, capital punishment, and assisted suicide. *Psychological Reports, 85,* 904.

Weeden, J. (2003). *Genetic interests, life histories, and attitudes towards abortion*. Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia, PA.

Westera, D. A., & Bennett, L. R. (1994). Population-focused research: a broad-based survey of teens' attitudes, beliefs, and behaviors. *International Journal of Nursing Studies, 31*(6), 521-531.

Wright, L. S., & Rogers, R. R. (1987). Variables related to pro-choice attitudes among undergraduates. *Adolescence, 22*, 517-524.

Xu, Y. (1999). *A study of abortion attitudes as components of an attitudinal system, non-structurally supplied attitudes, and latent variables.* Unpublished doctoral dissertation, University of Notre Dame, Notre Dame, IN.

Zhu, C. (1992). *Regional subcultures and attitudes toward abortion.* Unpublished doctoral dissertation, University of Notre Dame, Notre Dame, IN.

# APPENDIX A

## IRB APPROVAL

K-STATE
Kansas State University
University Research
Compliance Office
203 Fairchild Hall
Lower Mezzanine
Manhattan, KS 66506-1103
785-532-3224
Fax: 785-532-3278
http://www.ksu.edu/research/comply

TO: Walter Schumm
FSHS
311 Justin Hall

Proposal Number: 3912

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: June 2, 2006

RE: Approval of Proposal Entitled, "Roman Catholic adolescents' attitudes about abortion decision-making."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. **This proposal is approved until** June 2, 2009.

In giving its approval, the Committee has determined that:

☐ There is no more than minimal risk to the subjects.
☒ There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file. Any change affecting human subjects must be approved by the Committee prior to implementation. All approved proposals are subject to continuing review at least annually, which may include the examination of records connected with the project. Announced in-progress reviews will be performed during the course of this approval period by a member of the University Research Compliance Office staff. Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if appropriate and if the subjects are KSU students, to the Director of the Student Health Center.

When deemed appropriate by the IRB and prior to involving human subjects, properly executed informed consent must be obtained from each subject or from an authorized representative, and documentation of informed consent must be kept on file for at least three years after the project ends. Each subject must be furnished with a copy of the informed consent document for his or her personal records. The identification of particular human subjects in any publication is an invasion of privacy and requires a separately executed informed consent.

It is important that your human subjects project is consistent with submissions to funding/contract entities. It is your responsibility to initiate notification procedures to any funding/contract entity of any changes in your project that affects the use of human subjects.

# APPENDIX B

## STATEMENT FOR TEACHERS

Fall, 2006

Statement for Teachers

The primary purpose of this research is to try to better understand the complex attitudes that many adolescents, including Catholic adolescents, currently hold with respect to abortion decision-making issues. A secondary purpose of learning about such complex attitudes is to present and/or publish the findings so they can help inform other researchers and educators about the ways in which adolescents are currently thinking about abortion-related issues.

The researcher will administer a single, 20-minute, anonymous, paper and pencil, multiple-choice survey to all Topeka Catholic school 8th-12th graders who return a consent form signed by a parent or guardian **and** the student. Completed surveys will not be shared with pastors, principals, or teachers, although the combined results and analysis of the surveys will be shared with them.

Any questions can be addressed to the principal investigator, Dr. Walter R. Schumm, School of Family Studies and Human Services, Kansas State University, schumm@ksu.edu, 785.785.532-1494, or researcher Rosemary J. Crock, rcr3953@ksu.edu; Topeka: 785.228.9304; cell: 785.806.5173.

# APPENDIX C

## SAMPLE SCRIPT FOR 8TH GRADE TEACHERS

Fall, 2006

**Sample Script for Distributing Survey Permission Forms**

For her final school project, a KSU graduate student has written a survey to learn more regarding adolescents' attitudes about abortion. The survey is a single, multiple-choice, 20-minute, anonymous survey.

Take this envelope home to your parents. Ask them to read the information. One of your parents needs to sign it, and so do you, in order for you to be able to participate. The survey will be given during this class period. (**Optional**: "If your parent and/or you do not want you to take the survey, simply write, 'No, thanks' on the form and return it to me.")

Each of you need to return your form to me by _____ (within at least a week) (**optional**: "whether or not you'll be participating").

You can reuse this envelope to return the form to me.

Thank you.

# APPENDIX D

## SAMPLE SCRIPT FOR HIGH SCHOOL TEACHERS

Sample Script for Distributing Survey Permission Form Envelopes

HHS English Classes

Fall, 2006

For her final school project, a KSU graduate student has written a survey to learn more regarding adolescents' attitudes about abortion decision-making. During this class period, she will be administer the paper and pencil survey, which is multiple choice, anonymous, and takes about 20 minutes to complete.

I am passing out information about the survey for each of you to take home to your parents. Please return the school form to me (**Optional**: "within the week."). (**Optional**: If you and/or your parents elect for you not to participate, just write, "No, Thanks." on the form, put it in the envelope, and return it to me.)

All students may take the survey provided 3 conditions are met:

1. The school permission form is signed by one of your parents;

2. The same permission form is also signed by you;

3. and the form is returned to me by _____ (within a wk).

Each of you, please, re-use this envelope to return the school form to me by _____. Thank you.

Thanks very much, Teacher!

# APPENDIX E

## LETTER TO PARENTS

Fall, 2006

Dear Parents, Guardians, and Students,

Our school has the opportunity to participate in a unique, optional, research survey. A single, during-the-school-day, 20-minute, anonymous, paper and pencil, multiple-choice survey is being offered to all Topeka Catholic school 8th-12th grade students for whom written parent consent **and** written student assent is received within a week. This research activity is approved by the K-State Institutional Review Board. The purpose of the survey is to collect information which may help teachers, administrators, and program planners improve instruction for youth on the topic of abortion. Students are not to put their name on the survey. Choosing not to participate will involve no penalty. Likewise, if students become uncomfortable at any time while taking the survey, they may stop immediately, without any negative consequence. Completed surveys will not be shared with pastors, principals, or teachers, although the combined results and analysis of the surveys will be shared with them.

Sealed surveys will be available at the school office for parents and guardians wishing to see the survey. Please do not share the survey with students before they take it in school.

To participate in this unique opportunity, only three steps are needed:

1. One parent or guardian signs the attached consent form.
2. Topeka Catholic school 8th-12th graders also sign the form.
3. The signed form must be returned within a week.

I have reviewed the survey, find it to be a worthwhile endeavor, and encourage you to sign and return the attached form. Any questions can be addressed to the principal investigator, Dr. Walter R. Schumm, School of Family Studies and Human Services, Kansas State University, schumm@ksu.edu, 785.785.532-1494, or researcher Rosemary J. Crock, rcr3953@ksu.edu; Topeka: 785.228.9304; cell: 785.806.5173.

Thank you,
Principal

# APPENDIX F

## PERMISSION FORM TO RETURN TO SCHOOL

# KANSAS STATE UNIVERSITY
# INFORMED CONSENT
# PLEASE RETURN THIS COPY TO YOUR SCHOOL

PROJECT TITLE: Roman Catholic Adolescents' Attitudes about Abortion Decision-Making

APPROVAL DATE OF PROJECT: 6-2-06 EXPIRATION DATE OF PROJECT: 6-2-09

PRINCIPAL INVESTIGATOR; CO-INVESTIGATOR: Dr. Walter R. Schumm; Rosemary J. Crock

CONTACT AND PHONE FOR ANY PROBLEMS/QUESTIONS: Dr. Walter R. Schumm, 785.532.1494; schumm@ksu.edu; Rosemary J. Crock, 785.228.9304; cell: 785.806.5173; rcr3953@ksu.edu

IRB CHAIR CONTACT/PHONE INFORMATION: Dr. Rick Scheidt, 785.532.3224

PURPOSE OF THE RESEARCH: The primary purpose of this research is to try to better understand the complex attitudes that many adolescents, including Catholic adolescents, currently hold with respect to abortion decision-making issues. A secondary purpose of learning about such complex attitudes is to present and/or publish the findings so they can help inform other researchers and educators about the ways in which adolescents are currently thinking about abortion-related issues.

PROCEDURES OR METHODS TO BE USED: Anonymous, in-school, paper and pencil multiple-choice survey which will take about 20 minutes.

LENGTH OF STUDY: Approximately 20 minutes.

RISKS ANTICIPATED: Potential risks include possible stress due to answering questions and thinking about experiences or decisions of the participant, friends, or family members. Children should be emotionally mature enough to share their attitudes about decision-making processes involving abortion. Children should not feel pressured to participate in this research or to respond to any particular questions. Children should not participate in this research if they have been involved in a past or recent incident that would make participation in a survey about abortion uncomfortable or distressing, nor should they participate if they believe they may become upset sharing their views about the topic of abortion.

BENEFITS ANTICIPATED: The research will ultimately help the public better understand the complex attitudes held by adolescents, including Catholic adolescents, with respect to abortion decision-making. Policy makers and educators may be able to take advantage of these insights to improve the quality and relevance of their policies and educational activities in a variety of such settings.

EXTEND OF CONFIDENTIALITY: Confidentiality will be maintained by participants' contact information being protected. Participants' names will not be linked to the survey. A number will be assigned to each participant. All records will be kept in a locked file only accessible by the primary investigator and the researcher.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: Local agencies and services are prepared to help participants consider any reactions they may experience from responding to the survey.

TERMS OF PARTICIPATION: I understand this project is research, and that my child's participation is completely voluntary. I also understand that if my child decides to participate in this study, s/he may withdraw at any time without explanation, penalty, or loss of benefits, or academic standing to which s/he may otherwise be entitled.

I verify that the signatures below indicate that we have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that our signatures acknowledge that we have received a signed and dated copy of this consent form.

PARENT/GUARDIAN NAME: _____

PARENT/GUARDIAN SIGNATURE: _____

DATE: _____

STUDENT NAME: _____

STUDENT SIGNATURE: _____

DATE: _____

# APPENDIX G

## PERMISSION FORM FOR YOUR RECORDS

# KANSAS STATE UNIVERSITY
# INFORMED CONSENT
# PLEASE RETAIN FOR YOUR RECORDS

PROJECT TITLE: Roman Catholic Adolescents' Attitudes about Abortion Decision-Making

APPROVAL DATE OF PROJECT: 6-2-06 EXPIRATION DATE OF PROJECT: 6-2-09

PRINCIPAL INVESTIGATOR; CO-INVESTIGATOR: Dr. Walter R. Schumm; Rosemary J. Crock

CONTACT AND PHONE FOR ANY PROBLEMS/QUESTIONS: Dr. Walter R. Schumm, 785.532.1494; schumm@ksu.edu; Rosemary J. Crock, 785.228.9304; cell: 785.806.5173; rcr3953@ksu.edu

IRB CHAIR CONTACT/PHONE INFORMATION: Dr. Rick Scheidt, 785.532.3224

PURPOSE OF THE RESEARCH: The primary purpose of this research is to try to better understand the complex attitudes that many adolescents, including Catholic adolescents, currently hold with respect to abortion decision-making issues. A secondary purpose of learning about such complex attitudes is to present and/or publish the findings so they can help inform other researchers and educators about the ways in which adolescents are currently thinking about abortion-related issues.

PROCEDURES OR METHODS TO BE USED: Anonymous, in-school, paper and pencil multiple-choice survey which will take about 20 minutes.

LENGTH OF STUDY: Approximately 20 minutes.

RISKS ANTICIPATED: Potential risks include possible stress due to answering questions and thinking about experiences or decisions of the participant, friends, or family members. Children should be emotionally mature enough to share their attitudes about decision-making processes involving abortion. Children should not feel pressured to participate in this research or to respond to any particular questions. Children should not participate in this research if they have been involved in a past or recent incident that would make participation in a survey about abortion uncomfortable or distressing, nor should they participate if they believe they may become upset sharing their views about the topic of abortion.

BENEFITS ANTICIPATED: The research will ultimately help the public better understand the complex attitudes held by adolescents, including Catholic adolescents, with respect to abortion decision-making. Policy makers and educators may be able to take advantage of these insights to improve the quality and relevance of their policies and educational activities in a variety of such settings.

EXTENT OF CONFIDENTIALITY: Confidentiality will be maintained by participants' contact information being protected. Participants' names will not be linked to the survey. A number will be assigned to each participant. All records will be kept in a locked file only accessible by the primary investigator and the researcher.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: Local agencies and services are prepared to help participants consider any reactions they may experience from responding to the survey.

TERMS OF PARTICIPATION: I understand this project is research, and that my child's participation is completely voluntary. I also understand that if my child decides to participate in this study, s/he may withdraw at any time without explanation, penalty, or loss of benefits, or academic standing to which s/he may otherwise be entitled.

I verify that the signatures below indicate that we have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that our signatures acknowledge that we have received a signed and dated copy of this consent form.

PARENT/GUARDIAN NAME: _____

PARENT/GUARDIAN SIGNATURE: _____

DATE: _____

STUDENT NAME: _____

STUDENT SIGNATURE: _____

DATE: _____

# APPENDIX H

# ASSENT FORM

Fall, 2006

Thank you for participating in this research project, which has been designed to inform researchers and educators about the complex attitudes toward abortion held by Catholic school adolescents today. It will take about 20 minutes to complete the survey. In case you become uncomfortable while taking the survey and would like to speak to a counselor about those concerns, all participants will be given a list of recommended counselors.

This research activity is approved by the K-State Institutional Review Board. Completion of this survey is completely voluntary and anonymous. You may refuse to complete this survey or any items on it without penalty of any kind. You may refer questions to Dr. Rick Scheidt, Chair, Committee on Research Involving Human Subjects at 785.532.3224 or Dr. Walter Schumm at 785.532.1494 or schumm@ksu.edu. Completed surveys will not be shared with pastors, principals, or teachers, although the combined results and analyses will be shared with them.

If you wish to take this survey, please, once again, sign below. Leave this sheet attached to the survey. The researcher will remove this sheet before looking at your survey answers. **Your signature is required here if your answers are to be included in the study's results.** Thank you!

Participant's Name: _____

Participant's Signature: _____

Date: _____

# APPENDIX I

## SURVEY DISTRIBUTION SCRIPT

Survey Distribution Script
Fall, 2006

This survey is for all students who have turned in a consent form with two signatures: a parent or guardians, and yours. This is an anonymous survey. Do not put your name on it. Once you begin the survey, you may stop at any time for any reason and you will not be penalized. If you find something upsetting and would like to talk to a trusted adult about anything that you find upsetting, an appointment will be arranged.

This survey seeks your serious and honest answers about your opinions regarding abortion decision-making. The author of the survey has spent the last four years preparing for this moment, so please take this seriously, giving honest and thoughtful answers.

It is very important that you read the directions carefully. All the abortion questions concern legal and purposeful induced abortion. The questions are **not** about miscarriage, the natural loss of a pregnancy, and the questions are **not** about ectopic pregnancy, a pregnancy occurring outside the uterus. Purposeful, induced abortion will be referred to as "To terminate a pregnancy".

Take your time. You may erase or cross out and replace an answer if you wish since the scales will be hand scored, instead of machine scored. When you are finished, put your completed survey into this large envelope. The last person to finish should seal and tape the envelope closed. Thank you for agreeing to be an anonymous participant in this potentially ground-breaking research study.

# APPENDIX J

# SURVEY

## Abortion Attitudes Scale

Thank you in advance for your participation in this survey, which is being conducted to better understand your attitudes about legal abortion. **Please read the directions carefully.** This survey is about purposeful, induced abortion, **not** miscarriage or loss of an ectopic pregnancy (occurring outside the uterus). "To terminate the pregnancy" will refer to a purposeful, induced abortion. If you become uncomfortable filling out this survey, feel free to stop at any time. Fill in answers that best represent your attitudes.

**1.** If you were speaking for **someone else** who became pregnant, under what conditions would you agree or disagree that it would be **acceptable** for her to **terminate** the pregnancy? Please check only one answer per condition.

| Conditions | Strongly Agree | Somewhat Agree | Un-decided | Somewhat Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| a. She does not feel ready to have a baby. | | | | | |
| b. She does not want to marry the baby's father. | | | | | |
| c. She does not want her parents to know she's pregnant. | | | | | |
| d. Her parents want her to get an abortion. | | | | | |
| e. There's a strong chance the baby has a serious disability. | | | | | |
| f. The pregnancy is a result of rape. | | | | | |
| g. The family has a very low income and feels they cannot afford any more children. | | | | | |
| h. For any reason, at any time in pregnancy. | | | | | |
| i. She is married and does not want any more children. | | | | | |
| j. The father of the baby wants the female to get an abortion. | | | | | |
| k. The father of the baby wants the baby. | | | | | |
| l. Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related), & age-related. | | | | | |
| m. Any other abortion condition you'd like to write here? (Optional):_____ | | | | | |
| n. There are no conditions under which abortion is acceptable. | | | | | |

**2.** Speaking for **yourself**, if you or your partner became pregnant, under what conditions would you agree or disagree that it would be **acceptable** to **terminate** the pregnancy? Please check only one answer per condition.

| Conditions | Strongly Agree | Somewhat Agree | Un-decided | Somewhat Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| a. She does not feel ready to have a baby. | | | | | |
| b. She does not want to marry the baby's father. | | | | | |
| c. She does not want her parents to know she's pregnant. | | | | | |
| d. Her parents want her to get an abortion. | | | | | |
| e. There's a strong chance the baby has a serious disability. | | | | | |
| f. The pregnancy is a result of rape. | | | | | |
| g. The family has a very low income and feels they cannot afford any more children. | | | | | |
| h. For any reason, at any time in pregnancy. | | | | | |
| i. She is married and does not want any more children. | | | | | |
| j. The father of the baby wants the female to get an abortion. | | | | | |
| k. The father of the baby wants the baby. | | | | | |
| l. Continuing the pregnancy would injure her health: physical, emotional, psychological, familial (family-related), & age-related. | | | | | |
| m. Any other abortion condition you'd like to write here? (Optional):_____ | | | | | |
| n. There are no conditions under which abortion is acceptable. | | | | | |

**3.** The following scenario items do not cover all possible scenarios (e.g. rape or incest) that might lead to abortions, but rather represent conditions of particular interest to the researchers. After each of the following fictional scenarios (*****), there are two questions. First, please select one answer that best reflects how much you agree or disagree with the idea of the pregnant female terminating the pregnancy now. Secondly, please check one answer to show how likely you believe she may terminate the pregnancy now.
(*****) *Any resemblance to actual situations is purely coincidental.*

**a.** I love being a stay-at-home mom with my husband's and my children in our comfortable home. I just found out I'm pregnant, and both my husband and I are thrilled. All our close friends know that we love children and were hoping to have more. Both my husband's parents and mine are looking forward to having a new baby in our extended family.

- How much do you *agree* with the pregnant female *terminating the pregnancy now?*

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**b.** My husband and I have good careers and a beautiful new home. I have always wanted to be a mom, and last week I found out that I am pregnant. After I told my husband, I called my parents, and they were thrilled to hear my news. My company offers generous maternity leave and a great day care on the first floor of the company headquarters where I work. This week my husband learned that his company is reducing its workforce by 20%. He had just started working there, and his is one of the positions being eliminated. Jobs are hard to come by in his field. He says we can't afford this baby right now, and he wants me to have an abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**c.** I met my boyfriend 10 years after we had both gotten our degrees at a nearby university. After dating for several years, we decided to marry, and have now been married for 3 years. We just found out we are expecting our first child, and we're both elated, as are most of our friends and relatives. My parents, who married and had their children early in life, think I'm too old to have a baby in my late 30s, so they think I should have an abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**d.** My husband and I have four children ranging from in age from a high school freshman to a college junior. We were starting to look forward to all our children being grown when I found out I am pregnant again. I love children and would welcome this baby, but my husband does not feel up to the task of being a new dad all over again, plus my parents think it would be too much for me, too, so both my husband and my parents want me to have an abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**e.** My fiancé and I are university seniors, who already have our rings and a date for our upcoming wedding. We've been dating for the past 3 years, and I love him very much and so do my folks. I live with my parents, who both make excellent incomes and are leaders in our church and at our country club. I just found out I'm pregnant. My boyfriend wants us to have the baby, and so do my folks, but I know my parents are going to be really embarrassed when their friends hear that I'm pregnant before being married.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**f.** I have a great job, with great benefits and, fortunately, a great on-site child care center. I work in the same community where I grew up, and where my parents still live and are community leaders. I met a guy at a party a few months ago; we had a few drinks, and I just found out I'm pregnant. When I told him about the pregnancy, he told me he'd pay for an abortion. My parents are very pro-life, so they want me to have the baby, even though they are disappointed and embarrassed.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**g.** I am just back from a year of study in England on a full scholarship. I started my new teaching position at the local community college in the same town where my parents chose to take early retirement. I met a special guy during my year abroad, and I just found out I'm pregnant. My boyfriend followed me back to the U.S. and found a job at the college, too. He wants the baby. My parents are mortified that their only daughter is pregnant outside of marriage. They say it would be best if I had an abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**h.** I am a college-educated, single, career woman who sings in the church choir and is on several community organizations' boards of directors. I have done well in the stock market, have a beautiful home, and enjoy traveling. Two months ago, I attended an out-of-town conference, had a few drinks with one of the men who was also attending the conference, and I just found out I am pregnant. I am so ashamed. What am I going to tell people? I'm a community leader. I called the man, and all he had to say was that he'd pay for an abortion. When I told my parents, they said the simplest resolution to the situation was for me to get an abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**i.** I am 19 years old and just beginning my career as a hair stylist. I love my boyfriend, and I just found out I'm pregnant. I really wanted to be well established as a hair stylist before I had a baby. I'm not embarrassed being pregnant in this new community where I moved to go to school. My boyfriend wants the baby, and my parents think I should have the baby, but I don't see how I can have the baby and build my career.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**j.** I am 17. My boyfriend and I just found out I'm pregnant. I play basketball and run track, and my boyfriend is captain of the boy's basketball team. Two different universities have offered him 4-year full scholarships to play university basketball. My parents are very pro-life and support me having this baby. My boyfriend does not need a baby at this point in his life. He said he'd pay for the abortion.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**k.** I live in a big city and am a 17-year-old senior, attending a high school program for gifted students. I knew all about conception, but my boyfriend and I just found out that I'm pregnant. I had just been offered a 4-year full-ride scholarship at the school I've always dreamed of attending. I've always looked forward to being a mom, and my mother always considered me her right-hand helper with my younger siblings. My boyfriend wants the baby, but my parents say they know what's best for me, and they've scheduled an appointment for me at a nearby abortion clinic.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**l.** I am 19 and enlisted in the military a few months ago. Now I'm pregnant. I know a number of other girls my age who are pregnant, so I'm not upset about the idea. It's just that this is a bad time. A soldier can't go to boot camp if she's pregnant. My boyfriend says he'll leave me if I don't get an abortion, and my parents say abortion is really my only option.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**m.** I am 17 and pregnant. I make minimum wage at one of the local department stores, but had hoped to give my child all the great things in life. I can't believe this has happened to me. When my parents found out I was pregnant, they were mortified. My college senior boyfriend wants the baby, and even though my parents were furious at first, they have calmed down and now want me to have the baby, too.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**n.** I am a very mentally mature 17-year-old who is pregnant. When my parents found out, they were really mad at first. My boyfriend had already left. When I called him to tell him about my pregnancy, he said that he had already moved on, so he offered to pay for half of the abortion. My parents know someone who works at a wonderful adoption agency, so they are encouraging me to make an adoption plan while carrying the baby to term.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**o.** I am 17 and pregnant, with no marketable skills. My mother said it would kill my 65-year-old father to learn that I am pregnant. I am so ashamed. My boyfriend wants the baby, but my mom said she knows what is best for me, and she has made an appointment for me at the abortion clinic.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**p.** I am an 18-year-old college freshman with a college senior boyfriend. I just found out I am pregnant. My parents are so disappointed in me. My boyfriend feels like he has his whole life ahead of him and is pressuring me to have an abortion. My parents are insisting I have an abortion, too.

- How much do you *agree* with the pregnant female *terminating the pregnancy now*?

**O *Strongly Agree*** **O *Somewhat Agree*** **O *Somewhat Disagree*** **O *Strongly Disagree***

**O *Undecided; not sure***
**O *Undecided; this would be the woman's personal decision***

- *How likely* do you believe it is that a person in this situation would go ahead and terminate the pregnancy now?

**O *Very Likely*** **O *Likely*** **O *Unlikely*** **O *Very Unlikely*** **O *Undecided***

**4.** When do you think human life begins? (Please pick one.)

a. When the sperm and egg join (conception)
b. When the female finds out she's pregnant
c. When the pregnant female feels the baby move
d. When the baby can live outside the female's body
e. When the baby is born
f. Undecided

**Demographics**

**5.** Please indicate your current grade level in school.

a. 8 b. 9 c. 10 d. 11 e. 12

**6.** Counting this school year, and beginning with preschool, how many years have you attended Catholic schools? _____ years

**7.** Please identify your sex

a. Female b. Male

**8.** Please indicate your age as of your last birthday.

a. 13 b. 14 c. 15 d. 16 e. 17 f. 18

g. 19 h. Other _____

**9.** What is your racial or ethnic origin? Please mark one.

a. American Indian or Alaska Native

b. Asian or Pacific Islander

c. African-American (Black), not of Hispanic origin

d. Hispanic (Mexican-American, Latino, Latina)

e. Caucasian (White)

f. Other (Please specify): _____

**Faith**

**10.** What is your faith community? Please pick one.

a. Catholic

b. Other (Please specify)_____

**11.** How many years have you been a member of your faith community? (Please count since birth, e.g. if you were born into a Catholic family and are 13, write "13", but if you converted to your present faith, count the number of years since you converted.)_____

**12.** My relationship with God is a vitally important part of my life. Please pick one.

a. Strongly Agree

b. Somewhat Agree

c. Undecided

d. Somewhat Disagree

e. Strongly Disagree

**13.** Not including required service hours or paid employment, what is the **average** number of **hours per month** you have spent **outside the regular school day** in **faith-based activities** during the past twelve months, e.g., church attendance, youth group, bible study, church music group practice, bible and other religious reading, and personal prayer? _____

Thank you for your participation

# APPENDIX

## DEBRIEFING STATEMENT

## Debriefing Statement

Thank you for participating in this research project, which has been designed to inform researchers and educators about the complex attitudes toward abortion held by Roman Catholic school adolescents today. Your sharing of your opinions is greatly appreciated.

If you have not already requested a copy of the results of this research, you may do so on the bottom portion of this page, which will be detached if you wish to keep this debriefing statement for future reference.

The possibility exists that you may have felt uncomfortable answering questions on the controversial topic of abortion or may have been emotionally upset thinking about your own experiences or decisions in this area or perhaps those of a close friend or relative.

There are agencies and services in the Topeka area prepared to help you consider any reactions you might have experienced while responding to these difficult questions. We suggest the following sources of assistance, most of which charge by your ability to pay.

Sally Pauzauskie LSCSW, 214 SW 7th, Topeka, KS 66603; 785.232.4433; spauzauskie@cox.net

Terry's Tools for Living; Terry Stewart LSCSW; 3601 SW 29th St., Suite 214, Topeka, KS 66614; 785.249.7787; terrystools@cox.net

Francis J. Gerner, Ph.D. Psychologist; 909 W. Tenth St., Topeka, KS 66604; 785.234.4743

Family Foundations; Barbara Bruner LMFT; 909 S. Kansas Ave., #6, Topeka, KS 66612; 785.354.8610; barbarabruner@famfoundations.org

CFCC & Associates; Corey Schliep LCMFT; 2000 SW Gage Blvd., Topeka, KS, 66604; 785.272.0778; schliep@ksu.edu

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

I would like a copy of the results of this study on abortion attitudes among Roman Catholic school youth in the Topeka area.

Email: _____

Postal Address: _____