

COMMUNICATION BARRIERS
INHIBITING SEX EDUCATION
IN THE HOME

by

Hazel J. Rozema
B.A., Calvin College, 1975
M.A., Michigan State University, 1976

Submitted to the Department of Speech and Drama
and the Faculty of the Graduate School of the
University of Kansas in partial fulfillment of the
requirements for the degree of Doctor of Philosophy.

Dissertation Defended: July, 1981

Acknowledgments

I would like to thank my committee for their dedication and hard work. I thank Bobby for being my advisor, for helping me refine the original idea, for his supportiveness, and his speedy turn-around time. Ken, I appreciate your patience, your sense of humor, and the way you held my hand as you introduced me to the world of computers (Don't take that too literally, Mitzi). Kim was, as always, supportive and offered insightful comments. I am grateful to my family for their support throughout my education. I also would like to thank my students for all they have taught me and thanks to the students who served as subjects for this study. Hugs and kisses to Tanya for her splendid, bargain-rate typing.

I do not know how to thank the many friends in Lawrence and elsewhere who have seen me through the last three years. I am grateful for the love, support, and listening ears of: Alan, Edie, Cathy, Kathy, Pat, Mike, John, Francis, Russ, Larry, Angi, Phil, Robert, Terry, Ginger, Kevin, Noreen, Joe, Bonnie, Lois, Jan, Pete, Barb, Craig, Gregg, Carol, Helga, Ann, Robin, Roz, Julie, Janene, Clare, Marsha, Layne, Sally, Mitzi, Tom, Randy, Tanya, Bill, and others.

Several people deserve special mention. I express my gratitude to Deanna, who empathized in a special way since we were writing our dissertations simultaneously. Equally notable is Del, who was responsible for my becoming a speech major in the first place (I think I'm thankful. Check with me in about 40 years). My

special friends who were always there in person or by phone: Nancy, Jeannette, Sheryl (for dissertation survival kits) and Jody (for her ability to write memorable letters of recommendation). Finally, thanks to the kids who reminded me that life is more than graduate school and that I shouldn't take myself too seriously: John, Sarah, Kristin, Eric, Brad, Joey, Heather, and Peter.

I shall always have warm memories of Lawrence, of the SCHR faculty and graduate students. Thank you, my friends, for a multitude of gifts: love, laughter, crazy notes in my mailbox, massages and encouragement. You have seen me through tears, triumphs, giggles, and costume parties. It has been delightful celebrating a piece of my life with you.

H.J.R.
Summer, 1981

Table of Contents

	Page
Chapter One:	
Introduction	1
Justification for the Study	2
Purpose of the Study	5
Research Questions	9
The Hypotheses	9
Overview of Subsequent Chapters	11
Chapter Two:	
Review of the Related Literature	12
Who Provides the Majority of Sex Education?	12
The Critical Effects	14
Are Parents Desirable as Sex Educators?	16
Can Schools Provide Adequate Sex Education?	17
What is the Role of Communication Climate?	19
Who Provides the Sex Education at Home?	23
What is the Role of Religiosity?	24
Does Value Similarity Affect Sex Education?	27
Summary of the Literature and Extensions to this Study	27
Chapter Three:	
The Research Design	31
The Pilot Study	32
Antecedent Variables	32
Consequent Variables	34

	Page
Subjects	37
Pilot Procedures	37
The Instrument	38
Pilot Analysis and Results	40
Second Pilot Procedures and Results . .	45
The Main Study	46
Subjects	46
Procedures	47
Initial Data Analysis	48
Summary of Data Analysis of Main Study	52
Chapter Summary	53
Chapter Four: Results	54
Climate Differences between Parents and Peers	55
Peer versus Parent-Child Conversations	57
Desire for Additional Sex Information .	58
Mother-Child versus Father-Child Conversations	59
Religiosity and Amount of Information .	60
Communication Climate and Religiosity .	61
Similar Sexual Values and Amount of Information Conveyed	63
Communication Climate and Amount of Information Conveyed	65
Amount of Sexual Information Received from Parents and from Peers Broken Down by Sex of the Respondent . .	69
Communication Climate with Parents and Friends Broken Down by Sex of Respondent	70

	Page
Sources and Amount of Sexual Information Acquired Broken Down by Sex of the Respondent	72
Summary	75
Chapter Five: Discussion and Implications	79
Communication Climate and Sex Education	80
Mothers' and Fathers' Role in Sex Education	85
Parental Religiosity and Sex Education	86
Value Similarity and Sex Education . . .	87
Desire for More Sex Information	89
Different Sources for Different Genders	90
Limitations of the Study	91
Implications	93
Suggestions for Future Research	101
Conclusion	103
Endnotes	105
References	106
Appendix A Questionnaire Packet	110
Appendix B Debriefing Statement	125
Appendix C Reliability Correlation Coefficients	128
Appendix D Summary of Demographics	133

Tables

Table	Page
1. Factor Loadings for Communication Climate with Mother, Father, Closest Same-Sex Friend and Closest Opposite-Sex Friend	48
2. T-tests Comparing Communication Climate between Subjects and Their Mothers, Fathers, Closest Same-Sex Friend and Closest Opposite-Sex Friend When Discussing Sexuality	56
3. T-test Comparing Amount of Sexual Information Gained from Peers versus Parents	57
4. T-tests Comparing Subjects Desire for More Sex Information from Mothers, Fathers, Same-Sex Friends, and Opposite-Sex Friends	58
5. T-test Comparing Amount of Sex Information Gained from Mothers versus Fathers	60
6. One-way Analysis of Variance for the Amount of Sex Information Conveyed by Parents by the Degree of Conservative Religiosity of Parents	61
7. One-way Analysis of Variance for Communication Climate with Parents by Degree of Conservative Religiosity of Parents	62
8. One-way Analysis of Variance for Amount of Sexual Information Conveyed by Parents and Similarity of Sexual Values Among Parents and Children	64
9. One-way Analysis of Variance for Communication Climate with Mother by Amount of Sexual Information Conveyed to the Subject	66
10. One-way Analysis of Variance for Communication Climate with Father by Amount of Sexual Information Conveyed to the Subject	67
11. One-way Analysis of Variance for Communication Climate with Closest Same-Sex Friend by Amount of Sexual Information Conveyed to the Subject	68

Table	Page
12. One-way Analysis of Variance for Communication Climate with Closest Opposite-Sex Friend by Amount of Sexual Information Conveyed to the Subject	68
13. T-test Comparing Amount of Sexual Information Gained from Parents by Males and by Females	69
14. T-test Comparing Amount of Sexual Information Gained from Peers by Males and by Females	70
15. T-test Comparing Communication Climate with Mother, Father, Closest Same-Sex Friend, and Closest Opposite-Sex Friend Broken Down by Sex of the Respondent	71
16. A Rank Ordering of Sources of Sex Information Broken Down by Sex	73
17. T-tests Comparing Amount of Sex Information Acquired from Each Source by Males and by Females	73

Chapter One

Introduction

The study of human communication is an all-encompassing, pervasive endeavor. Communication scholars have subdivided the field into more discrete, manageable context areas such as public communication, organizational communication, interpersonal communication, intercultural communication and family communication. This project focuses on one of the more recent context areas that has emerged in the communication field, namely, family communication. Within each family, there are norms for communication: who talks to whom? about what topics? where and when? One topic that has been deliberately and consistently ignored in many families is the topic of sex education. While many factors such as family history and cultural influences may affect the degree of silence in the home about human sexuality, the scope of this study is limited to the investigation of two basic questions: 1) Does communication climate affect the extent to which parents and children talk about sexuality? 2) Do three additional variables: a. the sex of the parent, b. the degree of religiosity in the family and c. the degree of perceived attitude similarity between parents and children about sexuality, affect the extent to which sexuality is talked about between parents and children?

This chapter shall consist of a brief justification for the study, an explanation of the purpose for the study, an outline of the research questions, and an identification of the hypotheses. Finally, an overview is provided for the remaining chapters in the

dissertation.

Justification for the Study

Numerous studies from 1915 to the present clearly document the contention that sexual information is primarily obtained from peers, not from parents (Bennett and Dickinson, 1980, p. 114). Ironically, both students and their parents would like to be able to discuss human sexuality with each other (Inman, 1974, p. 1866; Bennett and Dickinson, 1980, p. 115). This study attempts to explore several possible reasons for the discrepancy between the attitudes and actions of parents and children toward discussing human sexuality in the home.

Before examining why this communication is lacking, it seems pertinent to ask why this discrepancy even matters. Frequently, one can identify discrepancies between stated attitudes of individuals and their resultant behavior patterns. Often the penalties for these incongruencies are small or seemingly non-existent. However, in the case of sexuality, there are some possible severe negative consequences for the failure of parents to provide sex education in the home. Briefly, consider the following three possible consequences: 1) the perpetuation and spread of misinformation among peers, 2) rising rates of venereal disease, and 3) rising rates of premarital pregnancies.

The lack of sex education in the home causes students to turn to their peers for information. What happens, then, is that by exchanging information, jokes, and swapping stories or personal experiences, a lot of misinformation is perpetuated. McCary, a

prominent sex educator, estimates that the information he received behind the barn door in a small Texas town from his confused and equally ignorant friends was about 80 percent completely wrong, while the other 20 percent was at least partly incorrect (1973, p. 4).

Friends are a great source of inaccurate information. Some of the conclusions current among adolescents are:

If a boy takes his penis out of a girl's vagina before he ejaculates, she can't get pregnant. All you have to do is take one birth control pill and you won't get pregnant. It's ok for a girl to use someone else's birth control pills. (Uslander, 1977, p. 202)

Still other misconceptions are reported by workers at a Chicago Planned Parenthood Center. "Girls believe they cannot get pregnant if their boyfriend ejaculates only once." Or, "girls can only get pregnant right after their menstrual period. The rest of the time they are safe." Then there are girls who took their mother's, sister's, or friend's pills right before or after they had sex (Arnold, 1974, p. 371). Finally, there is a long standing misconception that girls cannot get pregnant the first time.

The results of ill-informed or mis-informed adolescents experimenting with sexuality are disastrous. Ignorance does not provide a deterrent to premarital sexual activity. Zelnik and Kantner estimate that premarital sexual activity is more prevalent than it has ever been (1978, p. 11). The results are:

epidemic rates of gonorrhoea and increasing rates of syphilis (Darrow, 1976) as well as increasing rates of teenage unwed pregnancy (Kantner and Zelnik, 1972; U.S. Commission on Population Growth, 1972). When 90% of teenage women age 15-19 years old say that they do not always use contraception during intercourse, problems are likely to result (and for about 1/3 of these young women, the main problem is a pregnancy to be dealt with). (Scales and Everly, 1977, p. 38)

In a study of teenagers suffering from venereal disease, once again, peers had served as the chief source of sexual information for these adolescents. As a result, all of the teenagers were extremely ignorant of basic biological facts, including a knowledge of venereal disease (McCary, 1973, p. 84). Having seen the disastrously high rates of venereal disease that exist, it should be evident that adolescents lack adequate information about sexuality. Much of this is due to the fact that information is frequently acquired from peers who lack accurate or complete data. A study by Schwartz found that only .9 percent of the preadolescents studied had excellent information, while:

13.9 percent had adequate information, 66.3 percent poor information, 13.2 percent distorted information, and 5.6 percent no information. Knowledge about masturbation, venereal disease, nocturnal emissions, and menstruation was poorest. (Thornburg, 1974, p. 36)

In addition to poor information and an increase in venereal disease, the third possible consequence is the risk of premarital pregnancy. The rising rate of premarital pregnancies is receiving national attention and has been labelled a major social problem. Zelnik reported that one in five U.S. females has had sexual intercourse by age 16 and two-thirds of all women by age 19. The same survey showed that 10 percent of U.S. women are pregnant before age 17, and twenty-five percent before they are 19 years of age. Eighty percent of these pregnancies are premarital (Zelnik, Kim, and Kantner, 1979, p. 177). In an earlier study Zelnik and Kantner found that about 780,000 teenagers experience a premarital pregnancy each year and that eighty percent of these teenagers who do not want to get pregnant are nevertheless, not using any contraception when the

pregnancy occurs (1978, pp. 135-141). In 1978, 20 percent of the babies born in the U.S. had mothers who were sixteen years old or younger, (Bernstein, 1978, p. 149).

This rapid increase in premarital pregnancy leads to severe costs for both society and individuals. A study of over 100 premarital pregnancies in New York City indicated that:

91% of the women who first had babies at 15-17 had neither full nor part-time employment and that 72% of those 15 and older were receiving welfare.... Teen marriages have been found to be two to three times more likely to break up than marriages occurring after age 20 (Alan Guttmacher Institute, 1976). Sixty percent of teen brides 17 years of age and under divorce within six months; 20% divorce within 12 months (Furstenberg, 1976)....Pregnant adolescents comprise a large percentage of AFDC recipients costing society an estimated \$100,000 per recipient over the course of a lifetime (Krantz, 1965). (McKendry, Walters and Johnson, 1979, p. 25)

The severity of these consequences indicates a need to examine the nature of barriers that prevent sex education from occurring at home between parents and their children.

Purpose of the Study

The objective of this study is to gather descriptive data from undergraduate students regarding their sources of sex information and possible barriers that prevented sex education from occurring in their parent's home. Dubbe (1965) found that sexuality was the single topic that adolescents found most difficult to discuss with their parents (p. 96). When he asked students why it was difficult for them to communicate with their parents about sexuality, the primary reasons they listed were: 1) fear, 2) nagging, and 3) feeling condemned, (Dubbe, 1965, p. 86). These reasons sound

similar to a concept developed by Jack Gibb called "defensive communication climate." Gibb found that defensive behavior occurs when a person feels threatened by others (Gibb, 1961, p. 141). Individuals have a natural tendency to resist perceived threat or change induced by others (Smith and Williamson, 1977, p. 285). Gibb identified six behaviors that tend to create a defensive communication climate by threatening a person's self-image. Similarly, he identified six behaviors that can aid in reducing defensiveness and contribute to the establishment of a supportive communication climate. Gibb's categories for these behaviors are listed below:

**Categories of Behavior Characteristic
of Supportive and Defensive Climates**

Defensive Climates

1. Evaluation
2. Control
3. Strategy
4. Neutrality
5. Superiority
6. Certainty

Supportive Climates

1. Description
2. Problem Orientation
3. Spontaneity
4. Empathy
5. Equality
6. Provisionalism

(Gibb, 1961, p. 143)

Each of the behaviors presented above exist in pairs. Thus, evaluation and description comprise behaviors on opposite ends of a continuum where evaluative behaviors may tend to elicit defensiveness and descriptive behavior may tend to elicit a supportive response or create a supportive climate. Evaluation is behavior which appears to judge the receiver. This judgment may be expressed through tone of voice, nonverbal gestures, or verbal content. The effect is that the receiver's guard goes up. Description in contrast

is a non-judgmental neutral presentation of information, (Gibb, 1961, pp. 142-144).

Control is exemplified in behavior that tries to change the behavior or attitudes of another person. "Implicit in all attempts to alter another person is the assumption by the change agent that the person to be altered is inadequate," (Gibb, 1961, p. 144). Therefore, control tends to evoke resistance. Problem orientation differs from control because now the source allows the receiver to set his/her own goals and make her/his own decisions (Gibb, 1961, p. 145). Such behavior is oriented toward cooperative problem-solving.

Strategy suggests a planned approach and the attempt to manipulate the receiver. Spontaneity, in contrast, is unplanned, open, free, and honest (Gibb, 1961, pp. 145-146).

Neutrality is conveyed when the source is distant, uninvolved, detached, communicating a lack of concern for the other's welfare. Empathic behavior however, is behavior emphasizing concern for and identification with the feelings and problems of the receiver (Gibb, 1961, pp. 146-147).

Superiority is communicated when the source implies that he/she is older, wiser, or superior in power, position, personality characteristics, or experience. A position of equality is conveyed when the source tries to keep the roles on an equal level, treating the receiver as equal in position, power, intelligence and experience (Gibb, 1961, p. 147).

Finally, certainty relates to dogmatism. Certainty is expressed when a person claims to have the "right" answers, requires

no additional information, and sees their ideas as the truth. Provisional is demonstrated by the person who wants to explore all options, is tentative and willing to investigate issues rather than taking sides (Gibb, 1961, p. 148). By contrasting the six pairs of behavior, it is possible to see how the first items in each pair tend to create a defensive climate, while the second items in each pair contribute to a supportive communication climate.

A major focus of the present study is to compute and compare students' perceived communication climate existent between themselves and their mothers, fathers, same-sex peers, and opposite-sex peers concerning conversations about sexuality. This computation is possible using scores from descriptive questions about each of Jack Gibb's 12 categories. A detailed description of computation procedures is provided in Chapter Three.

A second focus of this study is to explore the effect of three additional variables on sex education in the home. Thus, the questionnaire also explores: a. whether or not mothers provide more information than fathers; b. whether families with a high degree of conservative religiosity provide less education than non-religious families; and c. whether students perceived attitude similarity on the part of parents and children about sexuality facilitates more sex education in the home.

It is hoped that this descriptive study of students' perceptions of their parents' home will make it possible to identify communication barriers to sex education in the home. Identification of these barriers can be a first step toward devising ways to reduce these barriers and promote more effective sex education within the

family.

Research Questions

Having delineated the purpose of the study, it is possible to establish the parameters for this project. Stemming from the purpose as outlined above, two basic questions guide the research:

1. Is there a more defensive climate between parents and children regarding the topic of human sexuality than between children and their peers?
2. How do three variables (a. the sex of the parent, b. the degree of perceived conservative religiosity present in the family, and c. the degree of perceived attitude similarity between parents and children about sexuality) affect the extent to which sexuality is talked about between parents and children?

The Hypotheses

Based on the research questions, the following hypotheses were posed.

Hypothesis One: There is no difference in the degree of supportiveness perceived in the communication climate of conversations between peers and between parents and children.

Since this is an extension beyond the current literature, the hypothesis is presented as a non-directional, null hypothesis. Where a directional hypothesis is indicated and supported through the literature review presented in Chapter Two, the hypothesis will be stated

in that format.

Hypothesis Two: More information about sexuality will be gained from peer conversations than from parent-child conversations.

Hypothesis Three: There is no difference in the degree of desire for more sexual information from parents versus the degree of desire for more sexual information from peers.

The literature review presented in Chapter Two suggests that students would appreciate more information about sexuality from their parents. While peers provide the majority of information, there is no data on whether students would prefer even more information exchange between themselves and their peers. Thus, hypothesis three is also non-directional.

Hypothesis Four: More information about sexuality will be gained from mother-child conversations than from father-child conversations.

Hypothesis Five: There is no difference in the amount of information gained from parents as the degree of perceived religiosity of the parents varies from high to moderate to low.

Hypothesis Six: There is no difference in the degree of supportiveness in the communication climate in parent-child interactions about sex education as the degree of perceived religiosity of the parents varies from high to moderate to low.

Since churches are changing their image and role in the area of sex education, hypotheses five and six are stated in a non-directional format.

Hypothesis Seven: There is no difference in the amount of information gained from parents with sexual values perceived to be highly

similar to the student's values versus parents with moderately similar sexual values versus parents with significantly different sexual values.

Overview of Subsequent Chapters

The research project exploring the seven hypotheses just presented is an extension from previous research. An exploration of past research on the roles of mothers, fathers, peers, schools and churches is a basic prerequisite to my research. Thus, the second chapter will provide a review of the related literature in an attempt to answer the following questions: 1) Do peers serve as the major source of sex information? 2) Are parents desirable as sex educators? 3) Can schools provide adequate sex education? 4) Does communication climate play an inhibiting role in parent-child communication about sexuality? 5) Do mothers provide more sex education than fathers? 6) Does religion play a positive or negative role in sex education? 7) How does similarity of sexual values between parents and children affect sex education in the home?

The third chapter will explain the procedures and methodology for the main study and the pilot study. It will detail the nature of the instrument and the statistical analyses employed.

Chapter Four will contain the results of the statistical analyses. Tables will be presented showing the basis for acceptance or rejection of each of the seven hypotheses.

Finally, Chapter Five will provide a discussion of interpretations drawn from the results. In addition, it will present implications and recommendations for further research.

Chapter Two

Review of the Related Literature

In this chapter I shall first review the relevant literature which addresses the central issues related to parent-child and peer interactions about human sexuality. The chapter will explain where adolescents currently obtain the majority of their sexual information and explore possible barriers to parent-child interactions in the home. Finally, I will draw conclusions from the literature review and show how my study is an extension from these conclusions.

Who Provides the Majority of Sex Education?

Research as far back as 1915 concluded that peers, not parents served as the single most significant source of sexual information (Bennett and Dickinson, 1980, p. 114). From a 1948 study of Kinsey through studies done in the late 1970's, the findings consistently reveal that most adolescents obtain their sexual information from their peers. Throughout the last thirty years, substantial documentation exists to support the claim that while many sexual norms are being bent, broken, or transformed, the norm of silence in the home between parents and children about sexuality remains unchanged. There appears to be a steadfast reluctance among parents to talk about sexuality with their children.

Thornburg (1974) provides repeated examples of studies that show the primary source of sexual information and knowledge of pre-adolescents comes from peers: Elias and Gebhard, 1969; Lee, 1952;

Ramsey, 1943; Schwartz, 1969; Thornburg, 1970, 1972; (p. 36).

Bennett and Dickinson (1980) update and expand Thornburg's review of the literature to include: Gagnon, 1965; Gebhard, 1977; Gordon, Scales and Everly, 1979; Kirkendall and Miles, 1968; Payne, 1970; Roberts, Kline, and Gagnon, 1978; Schofield, 1965, 1973; (p. 115).

Even a cursory look at several representative studies demonstrates the extent to which communication between parents and children about human sexuality is ineffective or often, nonexistent. Morton Hunt (1974) cites a 1972 survey of over 2000 individuals in 24 cities which ranks peers as the number one source of information about sexuality. Fifty-nine percent of the males and forty-six percent of the females turned to their friends for their sexual education. Books and other written materials provide a secondary source of information. Parents come in a poor third, since only nine percent of the males and seventeen percent of the females received their sexual information from their parents (p. 122). Elias and Gebhard (1969) found that the percent of sexual information acquired from peers was seventy-five percent, "a finding comparable to studies done by Bell in 1938," (Thornburg, 1974, p. 37).

A 1973 survey among high school honor students revealed that students were very critical about the failure of their parents to discuss human sexuality with them. Two-thirds stated that their parents had told them NOTHING, while others felt they had received only superficial, often inaccurate information (McCary, 1973, p. 7). Still another sample of a hundred teenage boys and a hundred teenage girls revealed that out of a list of thirty topics, all of the students "marked sex as the most difficult one to discuss with their

parents," (McCary, 1973, p. 7). After an extensive survey of the literature, Michael Schofield (1974) concluded that in many homes, parents refrain from any discussion of sexuality at all, estimating that two-thirds of all males and one-quarter of all females learn nothing about sexuality from their parents. This prompted him to write, "If we had to rely on our parents to educate us about sex, most of us would still be waiting," (p. 18).

Even in homes where parents do initially provide a minimal amount of reproductive information, as the children grow older, the amount of sex education diminishes. Dr. Gordon Shipman (1968) questioned 400 university students in Wisconsin and confirmed the absence of communication between parents and adolescents about human sexuality. The minimal communication that was present noticeably deteriorated when the children moved from childhood to adolescence (p. 3). Merilee Inman (1974) concurs in the American Journal of Nursing where she reports her finding from a sample of over 400 high school students in Yuma and Phoenix. They described their sources of sex information as "dirty" talks with friends or reading sexually oriented magazines with friends (p. 1866).

The Critical Effects

Lack of open communication about sexuality is a critical issue since the adolescents either remain ignorant or acquire information from their peers. This lack of detailed information contributes to severe negative consequences which will be briefly outlined below.

Ill-informed adolescents experimenting with sexuality create

some astounding statistics. In 1978, one out of every five babies born in the U.S. was born to a mother who was not yet seventeen! In the light of such statistics, withholding information about sexuality and contraception is nothing short of ridiculous (Bernstein, 1978, p. 149). A survey in the mid-seventies showed unwed mothers had received little sex information at home or at school with their mothers either unwilling or unable to provide accurate instruction for their daughters (McCary, 1973, p. 11).

By 1976, researchers were estimating that four out of every ten women aged 15-19 had had premarital intercourse (Zelnik and Kantner, 1978, p. 11). The result of this teenage sexual activity is a seventy-five percent increase in out-of-wedlock births among younger adolescents and a thirty-three percent increase among 18-19 year olds in the last decade according to the Alan Guttmacher Institute in 1976 (McKendry, 1979, p. 17). Kantner and Zelnik found that more than three-fourths of all births resulting from first conceptions were conceived premaritally. Moreover, of the teenagers who experienced unwanted pregnancies, only thirteen to sixteen percent were using any contraception ("Teens Sexually Active," 1974, p. 3). In a later study, Zelnik and Kantner of John Hopkins sampled over 4600 teenage women and found that over three-quarters of all sexually-active teens used contraception only sometimes or never. The same 1976 study revealed that about 780,000 teenagers experience a premarital pregnancy each year and that 80% of these teenagers who do not want to get pregnant are nevertheless, not using any contraception when the pregnancy occurs (Zelnik and Kantner, 1978, pp. 135-141). Admittedly, it is difficult for parents to talk to their children

about sexuality and particularly about contraception. However, as Uslander (1977) points out, "not talking about birth control does not help children any more than not telling them to look both ways before they cross the street," (p. 202).

Are Parents Desirable as Sex Educators?

As has been demonstrated, the majority of parents are consistently silent about sexuality around their children. This absence of verbal communication does not imply that the parent can abdicate his/her role as a sex educator. As Uslander (1977) points out, and as most sex educators agree,

from the moment of birth, children are educated sexually. The attitude of parents and their relationship to each other shapes the attitude of the child. Children acquire sexual signals when they are cuddled, fondled, and spoken to as infants. (p. 9)

Brenton (1972) concurs that every single day parents talk to their children about sex through nonverbal messages. They clearly convey attitudes and expectations (p. 134).

While many parents do a poor job of verbally providing their children with sex information, they nevertheless adamantly maintain that home is where sex education belongs. And indeed, parents, teenagers, and experts agree that parents are a desirable source for sex education.

Studies of adult opinion indicate an overwhelming preference for parents, or parents along with school or church, as the best source of sex education for young people (Abelson, Cohen, Heaton, and Slider, 1970; Libby, Acock, and Payne, 1974; Roberts, Kline, and Gagnon, 1978). (Bennett and Dickinson, 1980, p. 115)

Not only adults, but students also want to see sex education available in their homes. Merilee Inman (1974) in a survey of 400 Arizona youth found that mothers particularly were mentioned as a preferred source of sex information (p. 1966). Research by Byler, Lewis, and Totman, 1969; Schofield, 1965; and Sorensen, 1973 confirms that teenagers would like to be able to talk with their parents about sex (Bennett and Dickinson, 1980, p. 116). Students expressed a yearning to be able to sit and talk with both parents instead of the more common practice of sitting down with just one parent, usually the mother. Indeed, students are seeking more than factual information, wanting to go beyond facts to explore values and attitudes toward their own sexuality and their interactions with others.

Finally, experts agree with the desires of parents and children that sex education belongs in the home. In a 1971 survey of over 125 marriage counselors and physicians, the majority of the professionals (68%) supported the viewpoint that "the best place for children to learn about sex is from their parents," (Coombs, p. 276).

Another source of support for parental involvement in sex education is provided by studies indicating that teenagers who confide in their parents or gain a major portion of their sex education from their parents report significantly lower levels of sexual intercourse, less promiscuity, and more responsible use of contraceptives than other teenagers (Kantner and Zelnik, 1972; 1973; Lewis, 1973; Spanier, 1977). (Bennett and Dickinson, 1980, p. 115)

Can Schools Provide Adequate Sex Education?

This study will focus on the importance of sex education in the home because this author believes that while school programs play

a very important role in sex education, they cannot fill the gap that exists in most homes. Let me briefly outline the arguments supporting this contention. Many communities will not even allow sex education in the schools. Parents across the nation have formed lobbying groups in the past and in recent months these groups are being revived. Lobbying groups such as:

MOMS--Mothers Organized for Moral Stability
 PURE--Parents United for Responsible Education
 POSSE--Parents Opposed to Sex and Sensitivity Education
 POPE--Parents for Orthodoxy in Parochial Education
 PRIDE--Parents and Residents Interested in Decent Education
 MOTOREDE--Movement to Restore Decency (Breasted, 1970,
 p. 5; Kerckhoff, 1970, p. 105)

are very effective in limiting the amount of sex education offered in public schools.

Second, even when the schools are allowed to offer sex education courses, there are often great restrictions placed on what is taught (e.g. you may scare children by teaching them about venereal disease, but you cannot teach them about contraception). The attempt is made to keep the program as value-free as possible, which means you end up with a watered-down program that teaches virtually nothing and still fails to be value-free. Szasz (1980) cogently makes the argument that "there is no such thing as value-free sex education, nor can there be," (p. 100). Sol Gordon, (1975) when outlining additional problems with school programs says that "inexperience, timidity, lack of curricular coordination...these account for the failure of sex education in the public schools" (p. 38). Donald Doyle (1975) documents that teachers are notoriously ill-prepared to teach sex education. In addition to poor teacher preparation, he completes the argument about value-free education.

Given the diversity of most school communities, values taught from one point of view (or presented amorally) would violate the sensibility of large segments of the community. To complicate matters, even if a set of specific values on sexual behavior could be agreed upon, there is some question whether values or social behavior can be taught formally. It is questionable indeed that schools can establish experiences in a school environment that would be conducive to "a healthy sexual attitude." (p. 41)

Finally, as has been illustrated earlier, initial attitudes toward sexuality are formed at an early age at home, before the school can intervene. Thus, one cannot diminish the importance of sex education at home and let the schools fill the gap by default. Sex education, no matter how covert and convoluted, does inherently occur at home.

What is the Role of Communication Climate?

As the previously cited studies illustrate, parents often fail to communicate verbally in an open and effective manner with their children about sexuality. However, little research has been conducted beyond this point to address the issue of "why?" If both parents and students desire more parent-child communication about sexuality, why is it not occurring? This study attempts to go beyond admitting the existence of the gap, to ask the question "why?" and to explore possible communication barriers inhibiting conversations about sexuality in the home. An additional realm of investigation focuses on whether the degree of religiosity in the home encourages or inhibits sex education in the home.

A number of possible answers can be given to the question "Why don't parents communicate with their children about sexuality?"

Some parents fear that talking about sex will lead to negative consequences like sexual experimentation. In other homes, strict religious values inhibit any comfortable conversation about sexuality beyond the prohibition "don't." In general, many people are uncomfortable with the semantics of sex talk. They find few terms that they are comfortable using. Clinical language sounds cold and distant. Street language carries connotations of being filthy and obscene. A neutral sexual vocabulary does not seem to exist. Finally, neither parents nor students are willing to recognize the other side as sexual beings. Students cannot imagine their parents having a sex life, since it is hidden behind closed doors. Parents are unwilling to admit that their children have developed and grown to the point of participating in sexual activities.

All of these reactions can lead to a defensive communication climate that could inhibit open, accepting, communication between parents and children. Meanwhile, as has been demonstrated, students obtain most of their sexual information from their peers. Thus, it seems that peers have established a more supportive communication climate, where sexuality is a topic that can be more openly discussed. This study seeks to investigate the nature of the communication climate in peer conversations and in parent-child conversations to see if indeed, parent-child communications operate in, or fail to occur because of a defensive communication climate.

Little empirical testing has been undertaken to explore why communication channels between parents and children about sexuality are so limited or closed. One study which does ask "why" sex is so difficult for parents and children to discuss, generates

reasons that relate to defensive communication climates. Dubbe (1965) asked samples of ninth graders and college freshmen to list the topics that were most difficult to discuss with parents. The students responded that sexuality (petting, sex, and courtship) was the number one topic most difficult to discuss with their parents. Both age groups were consistent in their ranking of sexuality as the most inhibiting topic, (p. 96).

Dubbe then asked students for their perceptions of why they had trouble communicating with their parents. Among the reasons listed were: fear, nagging, being condemned, age differences, conservative beliefs and feelings of inferiority. Upon examining each of these reasons in turn, they appear to contribute to a defensive communication climate as defined by Gibb.

Jack Gibb generated 12 categories of communication behavior and then contended that six of these categories tend to create a supportive climate, while the other six tend to create a defensive climate. Gibb's categories are listed below:

Defensive Behaviors

1. Evaluation
2. Control
3. Strategy
4. Neutrality
5. Superiority
6. Certainty

Supportive Behaviors

1. Description
2. Problem Orientation
3. Spontaneity
4. Empathy
5. Equality
6. Provisionalism

(1961, p. 142)

A detailed description of each category was provided in Chapter One.

In his description of defensive communication, Jack Gibb suggests that these twelve categories are interrelated. He indicates that six of the behaviors tend to elicit a supportive response while six tend to elicit a defensive response. However, a combina-

tion of several of the supportive and defensive behaviors may result in a climate that is perceived to be slightly supportive or slightly defensive. As he illustrates:

If the listener thinks that the speaker regards him as an equal and is being open and spontaneous, for example, the evaluativeness in a message, will be neutralized and perhaps not even perceived. This same principle applies equally to the other five categories of potentially defense producing climates. The six sets are interactive. (1961, p. 143)

Thus, a continuum is established for communication climate ranging from highly supportive climates on one end to highly defensive on the other. Chapter Three elaborates on how the categories were operationalized in this study.

A comparison of the reasons cited by students in the Dubbe study (1965) for communication difficulty or avoidance and Gibb's categories of defensive communication behavior highlights several commonalities. The number one reason cited by the students for avoiding conversations with their parents about sexuality was fear. This was operationalized as "I do not tell my parents about certain topics because I fear the anger and scoldings of which they are capable," (p. 86). A second reason was nagging. Both of these explanations suggest a climate of evaluation, strategy, and control rather than an open climate of individual choice. If parents nag, it suggests an approach governed by evaluation, strategy, certainty, and control. Parents who respond through anger and scolding appear to be evaluative and certain of what is proper conduct, rather than being provisional and descriptive. The third reason cited was feeling condemned which is a feeling more likely to be generated by evaluative judgments than a non-judgmental, descriptive approach.

Age difference and feelings of inferiority relate to Gibb's fifth pair of behaviors, namely equality versus superiority. Students feel in a one-down, unequal position relative to parents, who claim to be older, wiser and operating from a more mature, experienced perspective on life. Whereas when communicating with peers, students are more likely to be operating on an equal level and less likely to be engaged in a struggle for equality.

Finally, conservative beliefs was listed as a communication barrier between parents and children (Dubbe, 1965, p. 87). This issue of differing belief systems is explained by Brooks who hypothesized that the more homophilous communicators are, the easier it is for them to effectively communicate, (1981, p. 128). Thus, students who have significantly different attitudes about sexuality than their parents, may be inhibited by the possibility of conflict.

While this project is primarily concerned with the communication climate differences between parent-child conversations and peer conversations, there are additional variables that may affect the communication climate. Three additional variables will be considered: 1) The sex of the parent involved in the communication, 2) the degree of religiosity present in the family and how sexuality was viewed within the context of their religion, and 3) the degree of attitude similarity shared by parents and children regarding the topic of human sexuality.

Who Provides the Sex Education at Home?

Research shows that the limited sex education that occurs in the home is usually done by the mother (Libby, Acock, and Payne,

1974, p. 75). Roberts, Kline, and Gagnon try to explain why mothers are more approachable and responsible for this aspect of parenting. 1) Mothers are still seen as primarily responsible for child care and therefore children have more opportunities to ask them questions and perceive them as more likely to respond. 2) Mothers are likely to be seen as the more emotionally expressive parent who one could ask questions about affection or intimacy. 3) In many homes, the father is seen as the disciplinarian, and thus children would be unlikely to approach him about topics on which there may be value differences which could invoke conflict or verbal rebuke, (Hass, 1979, p. 195).

While these may sound like very traditional, sex-stereotypical reasons for placing the burden of sex education on the mother, I suspect that they are very accurate in the majority of homes. Hunt's survey shows that two-thirds of the males and four-fifths of the females queried, reported that their fathers "had NEVER talked to them about sexual matters before or during their high school years" (Hunt, 1974, p. 123). Shipman (1968) concurs that sex education is negligible in father-daughter and father-son relationships, (p. 3).

What is the Role of Religiosity?

Another variable of interest to me is the degree of religiosity present in the parental home and how this religiosity affects the climate and amount of sex information exchanged between parents and children. Traditionally, religiosity has been an inhibiting variable. Many religions portray the spirit as good and the body as

evil. Catholicism is but one denomination that provides excellent examples of this dichotomy. Thomas Aquinas is noted for saying, "Marriage without sex is more holy than marriage with sexual intercourse," and "He who loves his own wife too ardently is an adulterer," (Carswell, 1969, p. 679).

The result of viewing sex as negative and sinful is the promotion of prohibitions and guilt feelings. Gunderson and McCary (1979) in their research on sex guilt and religion maintain that sex guilt is an intervening variable between religiosity and sexual behavior. They establish the following chain of relationships: Religiosity leads to...church attendance which leads to...sex guilt which leads to...acquiring less sexual information which leads to...more conservative attitudes and behavior about sex (pp. 353-354). Mahoney (1980), in his review of the literature, documents the argument that more religious adolescents are less likely to have sexual intercourse. He cites studies such as: Clayton, 1972; Davidson and Leslie, 1977; Jackson and Potkay, 1973; Jessor and Jessor, 1975; Rorhbaugh and Jessor, 1975; (p. 97). Curran, Neff, and Lippold, 1973, indicate that religiosity is negatively related to the extensiveness of sexual experience (Mahoney, 1980, p. 98).

To extend the argument of negative inhibition to the realm of sex education, I turn to Judith Rubenstein's dissertation. She administered a Sex Education Vocabulary Checklist to ninth graders in the Boston Public Schools and in Boston Catholic Schools. She concluded that students in Catholic schools had approximately twice as many unknown words per student as did the students in the public

schools. Moreover, she then examined thirty trade books on sex education for junior high school students. She first analyzed the tone of each book and classified it as either: impartial, having moral overtones, or containing Christian moral overtones. After having classified the books, she proceeded to analyze the content according to an information rating sheet. She concluded that books with Christian moral overtones contained less than half as much information as the other books (Rubenstein, 1975, p. 5153). Thus, not only may communication between parents and children be restricted, but even if the children turn to books which the parents have provided, these books are likely to contain a minimum amount of information.

However, lest the church appear to be a totally inhibiting force in the world of sex education, let me add that religious institutions are changing. Several denominations, Protestant and Catholic alike, are holding weekend workshops at local churches for junior high school children and their parents. The programs are facilitated by trained professionals who divide the parents into one group and the adolescents into another. Each group works separately with a facilitator, discussing not only the factual information about sexuality, but also the problematic area of values and attitudes. Facilitators are careful to diffuse dogmatic statements that might create a defensive climate and thus the attempt is made to keep the peer discussions operating in a supportive climate. To the best of this author's knowledge, these innovative programs are operating on a very small scale in scattered cities, initiated and sustained through the energy of isolated individuals.¹ The majority

of programs offered by churches are open to the students only, in an attempt to provide information and instruction in the values held by the formal religious institution.

Does Value Similarity Affect Sex Education?

The third variable that could affect the communication climate in the home regarding the topic of human sexuality is the degree to which parents and children perceive their sexual values as being similar. Aaron Hass (1979) in a recent study of teenage sexuality contends that there is a greater probability of parent-child conversations about sexuality if the teenagers perceive a similarity of sexual values between themselves and their parents (either both being conservative or both liberal), (p. 195). He illustrates with comments by a seventeen-year-old male:

It's hard to be open with someone who has basically completely opposite opinions about sexual behavior. My parents are from the Midwest and are extremely conservative. There really isn't anything to talk about, it would be more like arguments. (1979, p. 199)

Thus, as Brooks pointed out, the greater the degree of homophily between the source and the receiver, the easier it may be for them to communicate (1981, p. 128). Value differences or conflicts may lead to a defensive communication climate and therefore communication avoidance.

Summary of the Literature and Extensions to this Study

The literature review presented in this chapter supports the following conclusions: 1) peers do serve as the major source

sex information; 2) parents are desirable as sex educators; 3) schools cannot fill the role of sex educator adequately; 4) communication climate plays an inhibiting role in parent-child communication about sexuality; 5) mothers provide more sex education than fathers; 6) religion has traditionally played a negative inhibiting role, but is slowly changing to a more positive role in sex education, and 7) similarity of values about sexuality enhances the ease of communication between parents and children.

Given these conclusions from the literature, the hypotheses presented in Chapter One can be seen as extensions beyond the past studies to explore the nature of the communication barriers which inhibit sex education in the home.

Hypothesis one explores whether or not there is a statistically significant difference in the degree of supportiveness in the perceived communication climate of conversations between parents and children and between peers. The Dubbe study suggested that a defensive climate exists between parents and children about the topic of sexuality. This hypothesis attempts to test empirically that suggestion.

Hypothesis two seeks to replicate the findings of earlier studies and confirm the contention that peers still serve as the major source of sex information for adolescents.

Hypothesis three tests the degree to which adolescents desire more information from parents compared to the degree to which they desire more information from their peers. As Bennett and Dickinson have shown, parents are desirable as sex educators and students would like more information from their parents (1980, pp.

115-116). This study goes beyond and explores whether or not students would like more information from peers. In addition, it seeks to investigate the degree to which more sexual information is desired from parents as opposed to more sexual information from peers.

Hypothesis four seeks to replicate the findings of studies cited earlier in this chapter that indicate mothers still provide more sex information than do fathers.

Hypothesis five tests whether the degree of perceived religiosity of parents affects the amount of sexual information they convey to their children. As the literature shows, religion has traditionally been an inhibiting factor, but may be changing to play a more positive role.

Hypothesis six is an extension along the same lines as hypothesis five. It examines whether or not the degree of supportiveness of the communication climate in parent-child interactions varies with the degree of perceived religiosity of the parents.

Finally, hypothesis seven is an extension from Aaron Hass who contends that similarity of sexual values may enhance open communication in the home. Hypothesis seven attempts to empirically test whether or not homes where parents and children share similar sexual values are also homes where parents and children share more sexual information.

Thus, this chapter summarizes the current relevant literature and explains how the hypotheses for this study are extensions from past research. In many cases, past researchers have speculated about the role of climate, the role of religion, or the role of

value similarity without ever testing their assumptions or assertions. This research project attempts to investigate extensions from their assertions through the seven hypotheses previously stated. Chapter Three will detail the methodology used to test these seven hypotheses.

Chapter Three

The Research Design

In order to test the hypotheses presented in Chapter One, a research project was designed to gather descriptive data about the communication climate surrounding parent-child and peer interaction about human sexuality. This chapter will detail the methodology used in that design. The chapter begins with a discussion of the pilot study, its purposes, procedures, and results. This section includes a delineation of the variables of interest and how they were operationalized through the instrument. The five antecedent variables described are: 1) amount of sexual information received from one's parents, 2) degree of perceived religiosity of the parents, 3) similarity of sexual values between parents and children, 4) the sex of the respondent, and 5) the sex of the parents. The three consequent variables defined for this study are: 1) the amount of sexual information received from one's parents, 2) the communication climate between the subjects and their parents and between the subjects and their peers, and finally, 3) the sources of sexual information. Subjects responded to a ten-page descriptive questionnaire containing 74 Likert-type questions with a seven point response scale. The first 48 items operationalized Gibb's categories. The remaining items dealt with desire for more sex information, religiosity in the home, shared sexual values in the home, and amount of sex education received from nine different sources.

Following a discussion of the pilot study will be a descrip-

tion of the main study, including a description of subjects, procedures, factor analysis, the resulting formula for collapsing data into a single communication climate score, and a summary of the remaining data analysis. Chapter Four will detail the results of the main study.

The Pilot Study

The main study was preceded by a pilot study which served several purposes. 1) It served as a practice run to see if any of the questions were ambiguous and needed to be re-worded. 2) It allowed the researcher to run an analysis of variance from which the score for the total mean square was obtained and used to compute the cell size for the main study. 3) It provided data for a factor analysis to test the unidimensionality among the 12 categories presented by Jack Gibb. 4) It provided test-retest results which could be used to check the reliability of the instrument.

Antecedent Variables

The descriptive, quantitative study described in this chapter employed five antecedent variables: 1) amount of sexual information received from one's parents, 2) degree of perceived religiosity of the parents, 3) similarity of sexual values between parents and children, 4) the sex of the subjects, and 5) the sex of the parents. Each variable will be briefly described below.

The first variable, amount of sexual information received from one's parents was operationalized as items #66 and #67.² (See

Appendix A for copy of the instrument.) They read "I received my sex education from my mother," and "I received my sex education from my father." Subjects responded by means of a seven point Likert-type scale. A one-way analysis of variance was performed with three different levels of amount of sexual information received from parents to see if the three groups had significantly different communication climates.

The second variable was the degree of perceived religiosity of the parents. This variable was tapped through the use of several items. A subsequent factor analysis showed that three items loaded on this factor and thus parental religiosity is a combination of items #58, 59, and 61. The items are: "Religion and religious values and beliefs were important in my parents' home;" "Attending church was important in my parents' home (important to my parents);" and "My parents' sexual views are consistent with those of the church." Factor loadings were used to weight the three items and compute an overall score for degree of perceived religiosity of the parents. Perceived religiosity was then utilized as an antecedent variable with the communication climate of parents and the amount of sex information received from parents as the consequent variables.

The third antecedent variable of perceived similarity of sexual values was tapped by one question. Item 57 read "My parents and I share similar attitudes and values toward sexuality." A one-way analysis of variance was performed using three levels of attitude similarity with the amount of sex information received from parents as the consequent variable.

Sex of the respondents was the fourth variable. It was used

to explore whether climate scores in all four conditions (conversations with mother, father, closest same-sex friend, or closest opposite-sex friend) differed significantly between males and females.

The final variable was the sex of the parent. Sex of the parent was an antecedent variable used to test for significant differences between the amount of sexual information conveyed to the subjects.

Consequent Variables

In addition to the five antecedent variables there are three variables which function as consequent variables in this study. They are: 1) the amount of sexual information received from one's parents, 2) the communication climate between the subjects and their parents and between the subjects and their peers, and finally, 3) the sources of sexual information.

The first variable, amount of sexual information received from one's parents, functions as both an antecedent variable and as a consequent variable. The operationalization of this variable was explained in the previous section. The variable now functions as a consequent variable with the degree of parental religiosity and similarity of sexual values employed as the antecedent variables.

The second variable of communication climate was defined in terms of Jack Gibb's twelve categories. Since many of the subjects were enrolled in one of the Basic Communication Program courses entitled "Interpersonal Communication," the experimenter deemed it wise not to use the exact labels that Gibb uses for his categories,

test the subjects recognize that the questionnaire was trying to identify supportive and defensive climates. Therefore, I will illustrate how each of the 12 categories was defined on the questionnaire. The synonyms used for each category came directly from the original article Jack Gibb wrote on defensive communication. Every attempt was made to be consistent with his definition of the 12 terms.

The following questions illustrate how each category was operationalized. Each of these questions refers to the first situation of conversations about sexuality between the subject and his/her mother. The items were repeated for four conditions (conversations about sexuality with mother, father, closest same-sex friend, and closest opposite-sex friend).

- 1) Evaluation was operationalized as "She passed judgment on me by blaming, praising or by questioning my moral standards, values, or motives, (e.g. She made judgments that 'This is good or bad.' 'This is right or wrong.')."
- 2) Control was operationalized as "She tried to change my behavior or attitudes. She tried to impose her values, points of view, policies or solutions by giving advice (e.g. 'Don't do it.')."
- 3) Strategy was operationalized as "She planned her approach carefully and hoped to maneuver me and my decisions."
- 4) Neutrality was operationalized as "She was detached, neutral, showing lack of concern and little involvement."
- 5) Superiority was operationalized as "She acted as though she knew what was best for me and was older, wiser, superior and more experienced in dealing with life."

- 6) Certainty was operationalized as "She claimed to have the 'right' answers, wanted to win arguments and defended her ideas as the truth."
- 7) Description was operationalized as "She described behavior with-
out judging or accusing (e.g. 'There are different forms of birth control available.')."
- 8) Problem Orientation was operationalized as "She let me set my own goals and make my own decisions, (e.g. 'What do you think you should do? What are your options?')."
- 9) Spontaneity was operationalized as "She was straightforward, honest, giving open and unplanned, spontaneous responses."
- 10) Empathy was operationalized as "She tried to understand my feelings, put herself in my shoes, showed empathy, caring and acceptance."
- 11) Equality was operationalized as "She was willing to talk on an equal level, treating me with equal power, status, respect, and intelligence."
- 12) Provisionalism was operationalized as "She seemed willing to investigate options and issues, open and willing to explore alternatives."

Thus, communication climate was operationalized through twelve separate Likert-type items each referring to one of Gibb's twelve categories of supportive or defensive behavior. These items were later collapsed to form one composite communication climate score. The factor analysis which served as the basis for this decision will be explained later in the chapter. Communication climate functioned as a consequent variable in several ways. A

one-way analysis of variance was run to see if the communication climate of parents varies with the degree of perceived religiosity of parents. In addition, t-tests were employed to see if the sex of subjects significantly affected the communication climate with parents and with peers.

Finally, sources of sexual information served as a consequent variable with the sex of the parents operating as the antecedent variable. The sources of sex information were recorded in questions 66-74 and included the following nine sources: mother, father, same-sex peers, opposite-sex peers, books, school, church, personal experience and television/movies.

Thus, the study employed a total of six antecedent variables and three consequent variables. All variables were operationalized through items on a descriptive questionnaire with a seven point Likert scale.

Subjects

Students at the University of Kansas enrolled in basic communication courses during 1981 served as the subjects for the pilot study. A total of 11 males and 10 females participated in the study. Participation was voluntary, but did fulfill a research assignment required of all students in the basic program.

Pilot Procedures

Each subject participated in a test and after two intervening weeks, a retest on the same questionnaire. The test was administered

on April 2nd and 3rd in classrooms in Wescoe and Smith Halls. The retest was administered on April 16 and April 22. Each subject was given an Informed Consent Statement to read and sign. This statement is required by the Advisory Committee on Human Experimentation at the University of Kansas. After reading the statement, the 21 subjects agreed to participate in the study. Each subject then responded to a ten-page questionnaire packet. The average response time was approximately 20 minutes. Subjects were asked to report any unclear question or questions that were impossible to answer. Subjects were also queried to insure they understood the questions and were interpreting them in the intended manner. Following the retest, a debriefing statement was given to each subject (see Appendix B). Subjects were then thanked for their participation and the experimenter offered to answer any additional questions about the study, the expected findings, or any specific items on the questionnaire.

The Instrument

The descriptive questionnaire consisted of a ten-page instrument containing 74 items plus four demographic questions (see Appendix A). The 74 items were set up on a seven point Likert-type self report scale that gave respondents choices ranging from strongly agree to strongly disagree. The first 12 items consisted of questions which took Gibb's 12 categories of supportive and defensive communication behaviors and applied them to conversations about human sexuality that took place between the respondent and her/his mother. The next 36 items simply repeated these 12 questions but

each time they referred to a different communication exchange.

Thus, the respondent answered the same 12 questions, four different times, reflecting four different situations:

- a) conversations with their mother about sexuality
- b) conversations with their father about sexuality
- c) conversations with their closest same-sex friend about sexuality
- d) conversations with their closest opposite-sex friend about sexuality

The first seven pages of the questionnaire consisted of these 12 items repeated for each of the four conditions, totalling 48 items.

The second section of the questionnaire contained 17 items. These 17 items dealt with: a) the degree to which subjects wanted more information about sexuality from either parents or peers, b) the degree to which subjects wished it were easier to talk with parents or peers about sexuality, c) the degree to which parents and subjects shared similar values about sexuality, d) the degree to which the subject's home life was influenced by conservative forms of religion and, e) the degree to which the religious views of the parents prevented parent-child conversations about sexuality.

Finally, the last ten items surveyed where subjects received the majority of their sex education, whether from mother, father, same-sex peers, opposite-sex peers, books, schools, church, personal experience, or television. Demographic data was also collected regarding the subject's age, sex, degree of religious commitment, and the nature of their religious affiliation.

Pilot Analysis and Results

Based on respondent comments and suggestions, minor additions or changes were made in the instrument to maximize clarity. One significant change was made after several subjects reported never having talked about sexuality with their mother, father or peers. The pilot questionnaire read, "When my mother and I talked about sexuality:" Since the intent was to tap their feelings about climate, whether or not they actually ever talked about sexuality, this introductory line was changed to read: "When my mother and I talked about sexuality: (or, if you did not discuss sexuality, imagine what the conversation would have been like if you had discussed it)." This change allowed me to tap their perceptions of the communication climate between themselves and their parents and between themselves and their peers, even if sexuality was not openly discussed.

Data from subjects' responses to the pilot questionnaire were coded and then transferred to punched computer cards for analysis. The analyses described below were performed on the University of Kansas Honeywell 6000 Computer using the SPSS package programs. A factor analysis was run to see if the 12 items operationalizing Gibb's categories loaded unidimensionally on a factor that could be labelled communication climate. A principal factor analysis with iterations utilizing oblique rotations indicated that the extracted factors were highly interrelated. This factor analysis was repeated for all four conditions: communication climate with mother, father, closest same-sex friend, and closest opposite-sex friend.

A subsequent factor analysis limited to two factors was done

with a quartimax and an equimax orthogonal rotation. The interrelationships found between the two factors indicated there was unnecessary factor splitting. Finally, a factor analysis was run where the number of extracted factors was limited to one. The results of these factor analyses suggest that Gibb's 12 categories are highly interrelated and thus reducible to one factor which could be called "communication climate."

Jack Gibb provides a justification for the interrelatedness of these factors. He suggests that while each of the six supportive behaviors tends to elicit a supportive response and that each of the six defensive behaviors tends to elicit a defensive response, this is not always the case. He points out that other factors may inhibit a given behavior from eliciting a defensive response.

Thus, communication climate is not a pure score, but an interactive combination of the categories. A mother may provide sexual information with a tone of certainty, while still being descriptive and spontaneous. Composite communication climate scores can be placed on a continuum from highly supportive to highly defensive scores.

Since Gibb himself admits the interactive nature of the twelve items in his category system and given the evidence that they all load on one factor, a composite climate score was computed for each of the four conditions. This composite score was obtained by taking the factor loading for each of the eleven items, (as will be explained later, neutrality was omitted as a category), multiplying each loading times the individual's response to that item and summing across the eleven items, dividing the final sum by

eleven. Thus, factor loadings served to weight each of the items. In this manner, a collapsed communication climate score was obtained for each of the four conditions.

A Pearson correlation coefficient for the compute scores obtained from the test and retest of the pilot subjects showed the following results:

1) Fathers $r = 0.8722$

$n = 21$

$p < 0.001$

2) Mothers $r = 0.9077$

$n = 21$

$p < 0.001$

3) Same-Sex Friends $r = 0.6653$

$n = 21$

$p < 0.001$

4) Opposite-Sex Friends

$r = 0.3387$

$n = 21$

$p = 0.067$

The power of communication climate at the .05 level was: small effect (.10) = .07, medium effect (.30) = .27, and large effect (.50) = .66. Thus, it appears that the instrument is reliable for the items dealing with communication climate in the home with mother and father. Reliability is barely achieved with the items measuring communication climate with same-sex friends, and no reliability can be assumed with the items dealing with opposite-sex friends.

Pearson correlation coefficients were also computed between the test and retest results on an item by item basis for the entire questionnaire. These correlations showed a number of unreliable items, particularly in two areas: 1) There was low reliability among the items measuring communication climate with opposite-sex friends and 2) There was low reliability on the items measuring the degree of religiosity present in their parental home.

Several design flaws in the test-retest procedure may help to account for the unreliability of these items. First, the pretest was given two weeks before Easter Sunday and many undergraduates went home over Easter weekend. The retest was given the two days after Easter break. Since the subjects were not asked to list one person as their closest same-sex friends and respond both times to the questions keeping the target person in mind, it is possible that subjects shifted to a different friend when answering the retest questions. They may have seen an old girlfriend or boyfriend at home on the Easter break and used this friend as their target during the retest. Or they may have developed a new relationship during the intervening two weeks.

Second, subjects were not cautioned not to talk about the questionnaire with either their parents or their friends. Thus, subjects may have used the questionnaire as a stimulus to discuss sexuality with their friends. The resulting conversation could have changed the communication climate between the individuals regarding the subject of sexuality and therefore the retest answers were different.

Third, the items dealing with religiosity in the home may

have been affected by Easter Sunday. Students returning home for the weekend may have attended church with their parents on Easter. If church attendance is not a regular practice in the home, the presence of Easter Sunday may have changed their opinions on the degree of religiosity present in their parents' home.

Finally, it may be that even if this researcher had controlled for Easter weekend, subjects would still respond differently on the items related to opposite-sex friends. It may be that Jack Gibb's categories are a reliable measure of communication climate in the home with parents over a long term family relationship. However, the nature of opposite-sex relationships among college undergraduates, may be inherently unstable and rapidly changing. New friends are being made constantly and the relationships are shifting and developing rapidly. Thus, the constant unfolding of relationships may cause these items to be consistently unreliable.

Due to the above possibilities, the pilot was repeated in June of 1981 to see if indeed the above flaws can be controlled. Subjects will be asked to target a particular opposite-sex person and same-sex person and keep these persons in mind during both the test and retest responses. Also subjects will be asked not to discuss the questionnaire with their family and friends. Finally, Easter weekend will no longer be an intervening variable.

In summary, the first pilot served the following purposes:

- 1) It served as practice run to see if any of the questions were ambiguous and needed to be re-worded.
- 2) It allowed the researcher to run an analysis of variance from which the score for the total mean square was obtained and used

to compute the cell size for the main study. The computation indicated that $n = 194$ for the main study.

- 3) It provided data for a factor analysis which showed a unidimensionality among the 12 categories presented by Jack Gibb. The factor loadings could then be used as weights to compute an overall communication climate score for each condition.
- 4) It pointed out the problem of lack of reliability among the responses to items dealing with opposite-sex friends. Further exploration is needed to determine whether these unreliabilities are due to a design flaw or to the constantly changing nature of opposite-sex relationships.

Second Pilot Procedures and Results

Students at the University of Kansas enrolled in basic communication courses during Summer, 1981 served as the subjects for the second pilot study. A total of 11 females and 9 males participated in this pilot. Participation was voluntary, but did fulfill a research assignment required of all students in the basic program. Each subject participated in a test and after two intervening weeks, a retest on the same questionnaire. The test was administered on June 8th and 9th, while the retest was administered on June 22nd and 23rd. Following the retest, a debriefing statement was given to each subject.

The researcher was interested in seeing if the reliability levels for communication climate with opposite-sex friends would improve over the first pilot results. Thus, subjects were asked to target a particular opposite-sex friend and same-sex friend and

keep these persons in mind during both the test and retest responses. However, there was no significant improvement in the correlation coefficient. This lack of reliability in the communication climate score may be due to the inherently changing nature of opposite-sex relationships among college undergraduates. The specific test-retest correlation coefficients for each item of the instrument are listed in Appendix C.

The Main Study

The main study employed the five antecedent variables and three consequent variables previously described. It also utilized the 78-item instrument described under the section on the first pilot study. What follows is a description of the subjects, procedures, and initial data analysis from the main study.

Subjects

Students at the University of Kansas enrolled during Spring semester, 1981 served as subjects for the research study. A total of 97 men and 97 women ($n = 194$) participated in the study. All of the women and 77 of the men were students enrolled in sections of the Basic Communication Program at the University of Kansas. Participation in the experiment was voluntary, in response to a call for subjects announced by instructors in the Basic Program, but participation did fulfill a Research Evaluation Assignment required of all students in the program. The remaining 20 male subjects were undergraduates at the University of Kansas living in several

different scholarship halls. The students were contacted personally during a dinner meeting. Participation was voluntary. Persons who agreed to participate were given the questionnaire to fill out and return to the scholarship hall main office. Data concerning the demographic characteristics of the sample utilized in the experiment appear in Appendix D.

Procedures

Data was collected on April 27, 28, 29, 30, May 1, and May 4, 1981. The researcher was available in her office from 8:30 am to 4:30 pm on each of the days listed above. Students were directed by their instructors to come to 3107 Wescoe Hall if they wished to participate in the study. Each subject was given an Informed Consent Statement to read and sign. This statement is required by the Advisory Committee on Human Experimentation at the University of Kansas. After reading the statement, all 194 subjects agreed to participate in the study. Each subject then responded to a ten-page questionnaire packet. The average response time was approximately 20 minutes. The questionnaires were collected following their completion and a debriefing statement (see Appendix B) was given to each subject. Subjects were thanked for their participation and the experimenter offered to answer any additional questions about the study, the expected findings, or any specific items on the questionnaire.

Initial Data Analysis

After the data had been collected, a principal factor analysis with iterations (SPSS/PA2) was run to see if the responses in each of the four conditions, the questions about Gibb's categories, (items 1-12 for mother, items 13-24 for father, items 25-36 for closest same-sex friend, and items 37-48 for closest opposite-sex friend), all loaded on one factor. Consistent with the results of the pilot study, one primary factor emerged for each of the four conditions. A principal factor analysis performed with only one factor extracted resulted in the factor loadings reported in Table 1.

Table 1

Factor Loadings for Communication
Climate with Mother

Evaluation	0.53247
Control	0.65704
Strategy	0.42074
Neutrality	0.23433
Superiority	0.43728
Certainty	0.67238
Description	-0.63646
Problem Orientation	-0.66404
Spontaneity	-0.72746
Empathy	-0.73828
Equality	-0.77474
Provisionalism	-0.76450

Eigenvalue = 4.69545

Factor Loadings for Communication
Climate with Father

Evaluation	0.67170
Control	0.73824
Strategy	0.34061
Neutrality	0.02341
Superiority	0.54718
Certainty	0.68078

Factor Loadings for Communication
Climate with Father
(continued)

Description	-0.64856
Problem Orientation	-0.79149
Spontaneity	-0.57043
Empathy	-0.73731
Equality	-0.80203
Provisionalism	-0.73398

Eigenvalue = 4.97368

Factor Loadings for Communication Climate
with Closest Same-Sex Friend

Evaluation	0.62083
Control	0.62893
Strategy	0.61584
Neutrality	0.33449
Superiority	0.63200
Certainty	0.67802
Description	-0.64591
Problem Orientation	-0.77900
Spontaneity	-0.69557
Empathy	-0.69014
Equality	-0.67430
Provisionalism	-0.64596

Eigenvalue = 4.98736

Factor Loadings for Communication Climate
with Closest Opposite-Sex Friend

Evaluation	0.53716
Control	0.62687
Strategy	0.56280
Neutrality	0.32378
Superiority	0.65364
Certainty	0.76492
Description	-0.49685
Problem Orientation	-0.68038
Spontaneity	-0.62416
Empathy	-0.71172
Equality	-0.73140
Provisionalism	-0.67992

Eigenvalue = 4.71855

Given the high loadings of all the categories except for neutrality, it was decided to consider all the categories as one unitary concept--the construct of communication climate. It is interesting to note that neutrality was a category that did not load on the factor in any of the four conditions. Jack Gibb claims that the six categories of defensive behavior are behaviors that can create a defensive reaction. Indeed, in a business exchange, if the receiver acts uninvolved, detached, and unconcerned with the source's message, such neutral behavior may evoke a defensive response. However, within the parameters of this study, I am concerned with interactions between adolescents and their parents and interactions between adolescents and their closest same and opposite-sex friends. It is unlikely that subjects would see either their parents or their closest friends as being uninvolved, detached, or neutral parties in their conversations about sexuality. Thus, it is not surprising that neutrality did not load on the communication climate factor that emerged.

The factor loadings shown in Table 1 were used to compute four different communication climate scores. These composite scores were obtained by taking the factor loading for each of the 11 items (neutrality omitted), multiplying each loading by the individual's response to that item and summing across the 11 items, dividing the final sum by 11. These composite scores provided a range of one through seven for the composite communication climate score. E.g. Communication climate for interactions with mother = Evaluation score x .53 + control score x .66 + strategy score x .42 + superiority score x .44 + certainty score x .67 + description

score x .64 + problem orientation score x .66 + spontaneity score x .73 + empathy score x .74 + equality score x .77 + provisionalism score x .76 / 11. In like manner, a communication climate score was computed for interactions with fathers, closest same-sex friends, and closest opposite-sex friends.

A factor analysis of subsequent items in the questionnaire resulted in the computation of a score for the perceived religiosity of the parents. This score was computed in a similar manner by taking the factor loadings and using them as weights. The score is a combination of items 58, 59, and 61 which dealt with the importance of religious values at home, the importance of church attendance to the parents, and the degree to which parental sexual views were consistent with those of the church.

The factor analysis was useful in computing the four communication climate scores and the perceived parental religiosity score. These composite scores were used in subsequent data analysis.

Finally, initial data analysis revealed a correlation of .44 between two variables: 1) the communication climate between parents and children during discussions of sexuality and 2) the degree of similarity of sexual values between parents and children. As the literature review in Chapter Two suggests, communication climate and similarity of values should be interrelated variables. Both Hass and Gibb suggest that similarity of values enhances the probability of a supportive communication climate. The correlation between the communication climate of parents with their children during discussions of sexuality and the degree of value similarity indicates a degree of construct validity for the instrument. As

Smith explains, 'construct validity is achieved when the measure is related to other measures which theoretically should be interrelated (1981, p. 351). Thus, the .44 correlation between the two variables indicates a degree of construct validity for this instrument as a means of measuring general communication climate. In addition, both communication climate with parents and the degree of similarity of sexual values between parents and children were found to correlate with the amount of sexual information parents shared with their children. Communication climate with parents had a correlation of .28 with amount of information conveyed to children. Similarity of values had a correlation of .32 with amount of information conveyed to children.

Summary of Data Analysis of Main Study

To test the seven hypotheses and explore the research questions, several statistical analyses were performed using the SPSS computer programs available at the University of Kansas Computer Center. T-tests were used to test hypotheses one, two, three, and four. One-way analyses of variance were applied to test hypotheses five, six, and seven. Whenever a significant interaction was discovered, the Newman-Kuels procedure was used to determine the exact nature of the difference. Additional analyses were performed beyond the scope of the hypotheses to provide more information related to the research questions. The analyses used in this study included: factor analysis, frequency distributions, one-way analysis of variance, and t-tests. The subprograms used to perform

these analyses were: SPSS/FACTOR, SPSS/FREQUENCIES, SPSS/ONEWAY, and SPSS/T-TESTS. In the next chapter, I will discuss the results of the specific analyses in detail.

Chapter Summary

In order to test the hypotheses presented in Chapter One, undergraduate subjects ($n = 194$) at the University of Kansas were given a ten-page descriptive questionnaire. This chapter details both the pilot studies and main study, explaining the procedures, the antecedent and consequent variables, how they were operationalized, and the nature of the instrument.

Each subject responded to 48 Likert-type scale items regarding the communication climate during conversations about sexuality between the subject and his/her mother, father, closest same-sex friend and closest opposite-sex friend. The climate score was obtained by collapsing responses to questions adapted from Jack Gibb's 12 categories of supportive and defensive communication. The remaining items were also on a Likert scale and explored the degree to which subjects wanted more sexual information, wished it were easier to discuss sexuality, shared similar sexual values with their parents, were influenced by conservative forms of religion and felt this religion prevented conversations about sexuality. Subjects also reported on their perceived source of sex education. Reliability ratings were determined through a test-retest pilot study and a brief description of data analysis procedures was provided.

Chapter Four

Results

This study attempted to explore the question: Is defensive communication climate a barrier to sex education in the home? To answer this question, seven hypotheses were tested in this research study. The results of the data analyses are reported in this chapter. Extended discussion of these results are deferred until the next chapter. This chapter reports the effect of: 1) communication climate, 2) sex of the parent, 3) degree of perceived conservative religiosity of the parents, and 4) degree of sexual attitude similarity, on the amount of sex information conveyed by the parents to their adolescents. Additional issues reported on include: the sources of sex information and the degree of desire for more sex information from each source. Finally, gender differences are explored by means of a breakdown of results according to the sex of the respondent.

The data were analyzed by means of t-tests and analyses of variance. While the .05 level was adopted in advance as the criterion of minimum statistical significance, the results are presented in terms of the actual levels detected. Power levels were calculated for all of the statistical analyses. As Cohen explains, "the power of a statistical test of a null hypothesis is the probability that it will lead to the rejection of the null hypothesis" (1969, p. 4). When the results of an analysis of variance were significant, an omega square value is also reported. The omega square statistic

indicates the proportion of the variance in the consequent variable that is accounted for by the antecedent variable (Kirk, 1969, p. 198).

Climate Differences Between Parents and Peers

The first hypothesis stated that no difference existed in the degree of supportiveness perceived in the communication climate of conversations between peers and between parents and children. To test this hypothesis, a t-test was employed comparing the communication climate between subjects and their mothers, fathers, closest same-sex friends, and closest opposite-sex friends when discussing sexuality. Using the four climate scores: 1) climate with mother, 2) climate with father, 3) climate with closest same-sex friend, and 4) climate with closest opposite-sex friend, all possible pairs of these four scores were tested. The results are presented in Table 2. Significant differences were found between the communication climate scores for parents and for peers. In addition, the results showed that communication climate differed significantly between same and opposite-sex friends, with the climate between same-sex friends being significantly more supportive than the climate between opposite-sex friends.

Table 2

T-tests Comparing Communication Climate between Subjects and their Mothers, Fathers, Closest Same-Sex Friend and Closest Opposite-Sex Friend when discussing Sexuality.*†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Climate with Mother	2.9074	0.716			
Climate with Father	2.8463	0.735	0.95	193	0.343 n.s.

Climate with Mother	2.9074	0.716			
Climate with Same-Sex Friend	3.5893	0.650	-10.57	193	p<.001

Climate with Mother	2.9074	0.716			
Climate with Opposite-Sex Friend	3.2206	0.631	-4.81	193	p<.001

Climate with Father	2.8463	0.735			
Climate with Same-Sex Friend	3.5893	0.650	-9.96	193	p<.001

Climate with Father	2.8463	0.735			
Climate with Opposite-Sex Friend	3.2206	0.631	-5.52	193	p<.001

Climate with Same-Sex Friend	3.5893	0.650			
Climate with Opposite-Sex Friend	3.2206	0.631	6.90	193	p<.001

*The higher the mean, the more supportive the communication climate.
†The power of communication climate at the .05 level was: small

effect (.20) = .64, medium effect (.50) = .99, and large effect (.80) = .99.

Peer versus Parent-Child Conversations

The second hypothesis regarding comparative amounts of sexual information gained from peer versus parent-child conversations was tested by averaging the scores for the amount of information gained from mother and father and computing one score for information obtained from parents. Similarly, scores for amount of information gained from same and opposite-sex peers were averaged into one score for all peers. A t-test was then conducted comparing the relative amounts of information. As Table 3 indicates, this test supports the hypothesis that more information about sexuality will be gained from peer conversations than from parent-child conversations.

Table 3

T-test Comparing Amount of Sexual Information
Gained from Peers versus Parents *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Amount of Information From Parents	5.1778	0.986			
Amount of Information from Peers	4.3196	1.004	7.80	193	p < .001

*The lower the mean, the greater the amount of information conveyed.
†The power of sexual information at the .05 level was: small effect (.20) = .64, medium effect (.50) = .99, and large effect (.80) = .99.

Desire for Additional Sex Information

Hypothesis three explored the degree of desire for additional information about sexuality from parents and from peers. To test this hypothesis a series of t-tests were performed comparing all possible pairs of responses to items 49, 50, 51, and 52. These items asked the subject to indicate the degree to which subjects desired more information about sexuality from their mother, father, same-sex friends and opposite-sex friends. The results indicate a desire for more sex information from mothers, fathers and opposite-sex friends. The only condition under which subjects feel satisfied with the amount of sex information they are receiving is in conversations with same-sex friends. The data are presented in Table 4.

Table 4

T-tests Comparing Subjects Desire for More Sex Information from Mothers, Fathers, Same-Sex Friends, and Opposite-Sex Friends *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Desire Info from Mother	3.6649	1.720	0.74	193	0.457 n.s.
Desire Info from Father	3.5876	1.630			

Desire Info from Mother	3.6649	1.720	-6.77	193	p < .001
Desire Info from Same-Sex Friends	4.4021	1.476			

(Table 4 Continued)

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Desire Info from Mother	3.6649	1.720			
Desire Info from Opposite Sex Friends	3.5722	1.634	0.72	193	0.473 n.s.

Desire Info from Father	3.5876	1.630			
Desire Info from Same-Sex Friends	4.4021	1.476	-6.50	193	p < .001

Desire Info from Father	3.5876	1.630			
Desire Info from Opposite-Sex Friends	3.5722	1.634	0.12	193	0.906 n.s.

Desire Info from Same-Sex Friends	4.4021	1.476			
Desire Info from Opposite-Sex Friends	3.5722	1.634	6.88	193	p < .001

*The lower the mean the greater the desire for more information.

†The power of desire for more information at the .05 level was: small effect (.20) = .64, medium effect (.50) = .99, and large effect (.80) = .99.

Mother-Child versus Father-Child Conversations

To test the fourth hypothesis of the study, a t-test was run comparing the amount of sex information subjects reported receiving from their mothers versus the amount of sex information they reported receiving from their fathers (items 66 and 67). The results

shown in Table 5 indicate that subjects did indeed receive significantly more sex information from their mothers than their fathers.

Table 5

T-test Comparing Amount of Sex Information
Gained from Mothers versus Fathers *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Amount of Information From Mother	4.8247	1.304			
Amount of Information From Father	5.5309	1.272	-5.93	193	p < .001

*The lower the mean, the greater the amount of information received.

†The power of sexual information at the .05 level was: small effect (.20) = .64, medium effect (.50) = .99, and large effect (.80) = .99.

Religiosity and Amount of Information

The fifth hypothesis explored the difference in amount of sex information gained from parents depending on the degree of perceived conservative religiosity of the parents. A score symbolizing the degree of perceived conservative religiosity of parents was computed by using the factor loadings of items 58, 59, and 61. These items measured: a) how important religious values and beliefs were in the parental home, b) how important church attendance was in the parental home, and c) the degree to which parental views of sexuality were consistent with those of the church. The response each subject gave was multiplied times the loading that item showed on the factor analysis. Thus the factor loadings provided weights for each item. The three weighted items were then summed and divided by three to

obtain an overall score indicating the degree of conservative religiosity of the parents. The degree of conservative religiosity score was recoded to provide three different groups: first, a highly conservative group (response values 1-2), second a moderately conservative group (response values 3-5), and a third group low in conservative religiosity (response values 6-7).

The results of a one-way analysis of variance between the consequent variable, amount of sex information provided by the parents and the antecedent variable of three levels of conservative religiosity proved to be nonsignificant. The data are presented in Table 6.

Table 6

One-way Analysis of Variance for the Amount of
Sex Information Conveyed by Parents by the
Degree of Conservative Religiosity of Parents *

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Religiosity	1.5631	1	1.5361	1.585	0.2096 n.s.
Residual	186.0786	192	0.9629		
Total	187.6147	193			

*The power of religiosity at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Communication Climate and Religiosity

A one-way analysis of variance was performed to investigate hypothesis six regarding the relationship between the degree of perceived conservative religiosity of the parents and the communication climate existing between subjects and their parents when discussing

sexuality. The degree of conservative religiosity scores were again recoded to provide three groups: high, moderate and low. Two one-way analyses of variance were computed, one dealing with communication climate with mothers and the other with fathers. Both proved to be nonsignificant. No change can be detected in the degree of supportiveness present in the communication climate with parents (consequent variable) across differing levels of conservative religiosity. The results are provided in Table 7.

Table 7

One-way Analysis of Variance for Communication Climate with Parents by Degree of Conservative Religiosity of Parents *

Variable: Communication Climate with Father

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Religiosity	1.0202	1	1.0202	1.900	0.1697 n.s.
Residual	103.1167	192	0.5371		
Total	104.1369	193			

Variable: Communication Climate with Mother

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Religiosity	0.5278	1	0.5278	1.031	0.3112 n.s.
Residual	98.2970	192	0.5120		
Total	98.8248	193			

*The power of religiosity at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Thus, the researcher can safely conclude that religiosity was not a significant variable in this study. The nonsignificant main

effect sustains the null hypothesis presented as hypothesis six.

Similar Sexual Values and Amount of Information Conveyed

The last hypothesis was tested by a one-way analysis of variance using amount of sex information conveyed by parents as the consequent variable. The antecedent variable was the degree to which parents and children were perceived to share the same sexual values. Subject's responses to item 57 concerning the degree of similarity of sexual values of parents and children were recoded to form three different groups: 1) groups with highly similar values (responses 1-2), 2) groups with moderately similar values (responses 3-5), and 3) groups with little similarity of sexual values (responses 6-7).

The analysis proved to be significant and subsequent a posteriori comparisons using the Student Newman-Keuls procedure showed significant differences at the .05 level between the three groups. While the results are significant, it is important to note that the omega square value is only ten percent. Thus, similarity of sexual values does correlate with more sexual information being conveyed by the parents to the children, but it accounts for only 10% of the total variance. The results are presented in Table 8.

Table 8

One-way Analysis of Variance for Amount of Sexual Information Conveyed by Parents and Similarity of Sexual Values Among Parents and Children *

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Value Similarity	21.1961	2	10.5981	12.163	p < .001
Residual	166.4186	191	0.8713		
Total	187.6147	193			

$$\omega^2 = .1032$$

*The power of value similarity at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Newman-Keuls Test *

	Group 1	Group 2	Group 3
	Highly Shared Values	Moderately Shared Values	Minimal Value Similarity
Means	4.8000a	5.1739b	5.7262c

a,b,c = represent comparisons that are significant beyond the .05 level.

*The lower the mean, the greater the amount of information shared between the parents and their children.

The results presented thus far have related specifically to the hypotheses explained in Chapter One. In addition to these tests, further data analysis was done exploring related issues. These analyses and their results are presented in the remainder of this chapter.

Communication Climate and Amount of Information Conveyed

Several one-way analyses of variance were computed between the four communication climates and the amount of sexual information conveyed to the subjects. The four communication climates considered were: 1) climate between the subjects and their mothers, 2) climate between the subjects and their fathers, 3) climate between the subjects and their closest same-sex friend and 4) climate between the subjects and their closest opposite-sex friend. The amount of sexual information conveyed to the subjects by their mother, father, closest same-sex friend and closest opposite-sex friend was recoded to provide three different groups: 1) a group of individuals who conveyed a high level of sexual information (response values 1-2), 2) a group who conveyed a moderate level of sexual information (response values 3-5), and 3) a group who conveyed a low level of sexual information (response values 6-7). The results are mixed and show a significant relationship between communication climate and amount of sexual information conveyed for interactions with mothers and fathers. For mothers, the groups that conveyed the most sexual information also had the most supportive communication climate. The results are similar for fathers. The groups that conveyed the most sexual information had the most supportive communication climate between the fathers and the adolescents. The omega square statistic indicates that for mothers, communication climate accounts for 13% of the variance. For fathers, communication climate with their children accounts for only 4% of the total variance. Thus, there is a moderate relationship between the degree of supportiveness present in the communication climate between parents

and their children and the amount of sexual information that is conveyed to the children. The analyses with same-sex and opposite-sex friends, however, do not show a significant relationship between communication climate and the degree of sexual information conveyed. The results are presented in Tables 9-12.

Table 9

One-way Analysis of Variance for Communication
Climate with Mother by Amount of Sexual
Information Conveyed to the Subject *

Variable: Communication Climate with Mother

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Amount of Info From Mother	13.7794	2	6.8897	15.473	p < .001
Residual	85.0454	191	0.4453		
Total	98.8248	193			

$$\omega^2 = .1298$$

*The power of sexual information at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Newman-Keuls Test *

	Group 1	Group 2	Group 3
	High level of info	Moderate level of info	Low level of info
Means	3.1572a	3.0351b	2.5720c

a, b, c = represent comparisons that are significant
beyond the .05 level

*The higher the mean the more supportive the communication climate.

Table 10

One-way Analysis of Variance for Communication
Climate with Father by Amount of Sexual
Information Conveyed to the Subject *

Variable: Communication Climate with Father

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Amount of Info From Father	4.7666	2	2.3833	4.581	.01
Residual	99.3704	191	0.5203		
Total	104.1369	193			

$$\omega^2 = .0356$$

*The power of sexual information at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Newman-Keuls Test *

	Group 1	Group 2	Group 3
	High level of info	Moderate level of info	Low Level of info
Means	3.2066a	3.0156b	2.7210c

a,b,c = represent comparisons that are significant
beyond the .05 level.

*The higher the mean, the more supportive the communication climate.

Table 11

One-way Analysis of Variance for Communication Climate with Closest Same-Sex Friend by Amount of Sexual Information Conveyed to the Subject *

Variable: Communication Climate with Closest Same-Sex Friend

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Amount of Info From Same-Sex Friend	1.2240	2	0.6120	1.455	0.2360 n.s.
Residual	80.3327	191	0.4206		
Total	81.5567	193			

*The power of sexual information at .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Table 12

One-way Analysis of Variance for Communication Climate with Closest Opposite-Sex Friend by Amount of Sexual Information Conveyed to the Subject *

Variable: Communication Climate with Closest Opposite-Sex Friend

Source	S.S.	D.F.	M.S.	F	Prob. of F
Main Effect Amount of Info from Opposite- Sex Friend	1.1254	2	0.5627	1.418	0.2446 n.s.
Residual	75.7759	191	0.3967		
Total	76.9013	193			

*The power of sexual information at the .05 level was: small effect (.10) = .52, medium effect (.25) = .99, and large effect (.40) = .99.

Amount of Sexual Information Received from Parents
and from Peers Broken Down by Sex of the Respondent

As past research has shown and this study has confirmed, adolescents obtain significantly more information about sexuality from their peers than from their parents. Two t-tests were performed to see if the amount of sexual information obtained from parents and from peers differed according to the sex of the respondent. The results were nonsignificant and are reported in Tables 13-14.

Table 13

T-test Comparing Amount of Sexual Information
Gained from Parents by Males and by Females *+

Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Amount of Sex Info Males Received from Parents	5.2423	0.974			
Amount of Sex Info Females Received from Parents	5.1134	0.999	0.91	192	0.364 n.s.

*Lower means indicate a greater amount of sexual information conveyed.

+The power of sexual information at the .05 level was: small effect (.20) = .28, medium effect (.50) = .93, and large effect (.80) = .99.

Table 14

T-test Comparing Amount of Sexual Information
Gained from Peers by Males and by Females *†

Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Amount of Sex Info Males Received from Peers	4.3711	0.939			
Amount of Sex Info Females Received from Peers	4.2680	1.068	0.71	192	0.476 n.s.

*Lower means indicate a greater amount of sexual information conveyed.

†The power of sexual information at the .05 level was: small effect (.20) = .28, medium effect (.50) = .93, and large effect (.80) = .99.

Communication Climate with Parents and Friends
Broken Down by Sex of Respondent

Earlier results have shown that the communication climate between adolescents and parents is more defensive than the climate between peers when discussing sexuality. Four t-tests were used to see whether or not there was a significant difference in the four communication climates when the sex of the respondent is used as an antecedent variable. A comparison of the male and female respondents shows no significant difference in the communication climates with mothers or closest opposite-sex friends when discussing sexuality. The results do show a significant difference, however, for communication climates with fathers and with closest same-sex friends. Males have a more supportive communication climate when discussing sexuality with their fathers than do females. The reverse is true for communication climate with same-sex friends. Females have a

significantly more supportive communication climate with same-sex friends than do males during conversations about sexuality. The results appear in Table 15.

Table 15

T-test Comparing Communication Climate with Mother
by Males and by Females *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Males	2.8501	0.700	-1.12	192	0.266 n.s.
Females	2.9649	0.730			

T-test Comparing Communication Climate with Father
by Males and by Females *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Males	3.0419	0.606	3.84	192	p<.001
Females	2.6508	0.800			

T-test Comparing Communication Climate with
Same-Sex Friends by Males and by Females *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Males	3.3861	0.646	-4.57	192	p<.001
Females	3.7925	0.591			

T-test Comparing Communication Climate with
Opposite-Sex Friends by Males and by Females *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Males	3.1483	0.597	-1.60	192	0.111 n.s.
Females	3.2929	0.659			

*A higher mean indicates a more supportive communication climate.
†The power of communication climate at the .05 level was: small effect (.20) = .28, medium effect (.50) = .93, and large effect (.80) = .99.

Sources and Amount of Sexual Information Acquired
Broken Down by Sex of the Respondent

The questionnaire responses confirmed that more sexual information is acquired from peers than parents. However, the questionnaire explored a total of nine different sources of sexual information for adolescents. These nine sources were broken down by sex and the means were rank-ordered to see where males and females acquired their sex information. Subsequently a series of nine t-tests were run to investigate which sources provided more sexual information for males and which provided more information for females. The results of the rank-ordering of sources are presented in Table 16. Table 17 presents the results of the t-tests. There were significant differences among the males and females in terms of amount of sexual information received from mothers, fathers, and personal experience. Females received significantly more information about sex from their mothers. Males received more information from their fathers and from personal experience.

Table 16

A Rank Ordering of Sources of Sex
Information Broken Down by Sex *

<u>Males</u>	<u>Mean</u>	<u>S.D.</u>	<u>Females</u>	<u>Mean</u>	<u>S.D.</u>
Personal experience	4.0103	1.5309	Same-Sex Friends	3.7320	1.4399
Same-Sex Friends	4.0722	1.3712	Mother	4.2990	1.2923
Opposite- Sex Friends	4.6701	1.2887	Personal Experience	4.6082	1.5650
Books	5.0412	1.0889	Opposite-Sex Friends	4.8041	1.2961
Father	5.1340	1.2880	Books	5.1134	1.3219
School	5.2887	1.0700	School	5.4433	1.1296
Mother	5.3505	1.0901	Television and Movies	5.6082	0.9742
Television and Movies	5.4639	1.0613	Father	5.9278	1.1296
Church	6.5361	0.8787	Church	6.4742	0.9584

*A lower mean represents a greater amount of sexual information from that source.

Table 17

T-tests Comparing Amount of Sex Information Acquired
from Each Source by Males and by Females *†

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Info from Mother					
Males	5.3505	1.090	6.13	192	p < .001
Females	4.2990	1.292			

(Table 17 Continued)

Paired Variables	Mean	S.D.	T-value	D.F.	2-tail Prob.
Info from Father					
Males	5.1340	1.288	-4.56	192	p < .001
Females	5.9278	1.130			
Info from Same-Sex Friend					
Males	4.0722	1.371	1.69	192	0.094 n.s.
Females	3.7320	1.440			
Info from Opposite-Sex Friends					
Males	4.6701	1.289	-0.72	192	0.471 n.s.
Females	4.8041	1.296			
Info from Books					
Males	5.0412	1.089	-0.41	192	0.679 n.s.
Females	5.1134	1.322			
Info from School					
Males	5.2887	1.070	-0.98	192	0.328 n.s.
Females	5.4433	1.127			
Info from Church					
Males	6.5361	0.879	0.47	192	0.640 n.s.
Females	6.4742	0.958			
Info from Personal Experience					
Males	4.0103	1.531	-2.69	192	0.008
Females	4.6082	1.565			
Info from Television/Movies					
Males	5.4639	1.061	-0.99	192	0.325 n.s.
Females	5.6082	0.974			

*A lower mean represents a greater amount of sexual information received from that source.

†The power of sex information at the .05 level was: small effect (.20) = .28, medium effect (.50) = .93, and large effect (.80) = .99.

Summary

In summary, the data supported previous studies which showed that peers not parents provide the majority of sex information for teenagers ($p < .001$). Moreover, when parents do provide sex information, more information will be provided by mothers than by fathers ($p < .001$). Communication climates during discussions of sexuality were found to vary significantly between parents and peers. When adolescents discussed sexuality with their parents the climate was more defensive than when discussing it with peers ($p < .001$). Indeed, even the sex of the peer was a significant variable. Conversations between same-sex peers were significantly more supportive than those between opposite-sex peers which took place in a more defensive communication climate ($p < .001$). Comparable results were found when investigating the adolescents' desire for additional sex information. Adolescents want more sex information from their fathers, mothers, and opposite-sex peers, being satisfied only with the amount of information they acquired from same-sex friends ($p < .001$).

Religiosity did not prove to be a significant factor in this study. A one-way analysis of variance showed a non-significant relationship between the degree of conservative religiosity of parents and the amount of sex information they conveyed to their children. Similarly, a non-significant relationship was found between the degree of conservative religiosity of parents and the degree of

defensiveness present in the communication climate during conversations about sexuality.

Similarity of shared sexual values between parents and adolescents did prove to be a significant variable. A one-way analysis of variance demonstrated that parents who shared similar sexual values with their adolescents also shared more sexual information with them ($p < .001$).

An investigation into the relationship between communication climate and amount of sexual information shared by parents yielded mixed results. For mothers, the greater the amount of information shared with her children, the more supportive the communication climate during discussions of sexuality ($p < .001$). The same pattern is seen with fathers ($p = .01$).

The final antecedent variable investigated was the sex of the respondent. When communication climate scores were broken down by sex, two significant findings emerged. Males have a more supportive communication climate with their fathers than do females ($p < .001$). However, the situation is reversed for same-sex friends, where females have a more supportive communication climate than do males when discussing sexuality ($p < .001$). The t-tests which compared the amount of sex information males and females each received from nine different sources yielded significant differences from three sources. Females receive significantly more sex information from their mothers than do males ($p < .001$). Men, however, receive more sex information from their fathers ($p < .001$) and from personal experiences ($p = .008$) than do women. In terms of the hypotheses presented in Chapter One, the results are as follows:

Hypothesis One: The null hypothesis was rejected. There is a significant difference in the degree of supportiveness perceived in the communication climate of conversations about sexuality between peers and between parents and children ($p < .001$).

Hypothesis Two: Confirmed. More information about sexuality will be gained from peer conversations than from parent-child conversations ($p < .001$).

Hypothesis Three: The null hypothesis was rejected. There is a significant difference in the degree of desire for more sexual information from parents and from opposite-sex friends as compared with same-sex friends ($p < .001$).

Hypothesis Four: Confirmed. More information about sexuality will be gained from mother-child conversations than from father-child conversations ($p < .001$).

Hypothesis Five: Not confirmed. There is no difference in the amount of sex information gained from parents as the degree of perceived religiosity of the parents varies from high to moderate to low ($p = n.s.$).

Hypothesis Six: Not confirmed. There is no difference in the degree of supportiveness in the communication climate in parent-child interactions about sex education as the degree of perceived religiosity of the parents varies from high to moderate to low ($p = n.s.$).

Hypothesis Seven: The null hypothesis was rejected. There is a significant difference in the amount of sex information gained from parents with sexual values perceived to be

highly similar to the student's values versus parents with moderately similar sexual values versus parents with significantly different sexual values ($p < .001$). A posteriori comparisons using the Student Newman-Keuls procedure showed significant differences at the .05 level between the three groups.

Chapter Five

Discussion and Implications

A major thrust of this project was the exploration of variables that can inhibit open communication about sexuality between parents and their children. This chapter discusses the role of communication climate as a variable either inhibiting or encouraging open discussion of sexuality in the home. Young males have a major problem since they not only experience a defensive communication climate in the home, but also find themselves faced with a defensive communication climate during discussions of sexuality with male peers.

As presented in Chapter One, the major variables were incorporated into two basic research questions:

1. Is there a more defensive communication climate between parents and children regarding the topic of human sexuality than between children and their peers?
2. How do three variables (a. the sex of the parents, b. the degree of perceived conservative religiosity present in the family, and c. the degree of attitude similarity between parent and children about sexuality) affect the extent to which sexuality is talked about between parents and children?

This chapter attempts to answer those questions through analysis of the results of the study presented in Chapter Four. Limitations of the study, implications of the findings, and suggestions for

further research are also provided.

Communication Climate and Sex Education

The results of this study provide an affirmative answer to research question number one. The communication climate between parents and children is significantly more defensive than the communication climate between peers during discussions of sexuality. While the earlier study by Dubbe (1965) suggested that fear, evaluation and nagging were defensive barriers between parents and children, this study extends that suggestion into a specific comparison of the communication climates between parents and peers.

Two significant findings related to communication climate can be inferred from this investigation. The first finding is methodological in nature. The factor analysis of Gibb's twelve categories of supportive and defensive behavior indicated that (apart from neutrality) all the categories are interrelated and can be collapsed into one factor which can be labelled communication climate. The construct of communication climate was obtained by taking the factor loading for each of the eleven items from Gibb's categories, multiplying each loading times the individual's response to that item, summing across the eleven items and dividing the final sum by eleven. This new construct is a useful tool for research in sex education and in other arenas. It allows researchers to conceptualize a continuum of supportive and defensive communication climates and measure the degree to which a given interaction is or is not defensive.

The second finding that the communication climate between

parents and children is more defensive than the communication climate between peers suggests that communication climate may be a contributing barrier to sex education in the home. This inference is further supported by the finding that communication climate between parents and children varies with the amount of sexual information that mothers and fathers share with their children. For both mothers and fathers, the greater the amount of sex information they share with their children, the more supportive the communication climate is during discussions of sexuality. Conversely, the more defensive the communication climate is between parents and children, the less information they share during conversations about sexuality. Since communication climate with parents and amount of sex information conveyed to the children do appear related to each other, improving the communication climate seems a significant task for sex educators to consider.

Beyond the communication climate findings related to parent-child versus peer interactions about sexuality, additional distinctions were found. The communication climate between same-sex peers during discussions of sexuality is significantly more supportive than the communication climate with opposite-sex peers. Both males and females reported that they received more of their sex education from same-sex friends than from opposite-sex friends. It appears that it is safer or less threatening to discuss sexuality with a good friend of the same-sex than to discuss it with an opposite-sex friend who may be a current or prospective sexual partner. This is not an unexpected finding. Most individuals find it easier to discuss sexuality with a same-sex friend than with an opposite-sex

partner. Discussions of sexuality with an opposite-sex partner create a threat since they may result in embarrassment or in criticism of one's performance or expectations.

The final distinctions are based on the sex of the respondent. There is no statistically significant difference between males and females and the degree of defensiveness present in their communication climate with their mothers during discussions of sexuality. However, males have a significantly less defensive communication climate with their fathers than do females during discussions of sexuality. This response is not unusual. It is easier for adolescents to discuss sexuality with their same-sex parent than with their opposite-sex parent. Since they are going through many physical changes, it is less embarrassing to approach their same-sex parent. Fathers and sons are more likely to feel a commonality of sexual experience and to identify with each other, than are fathers and daughters. Moreover, fathers may not only feel embarrassed, but may feel ignorant and unprepared to discuss sexuality with their daughters. Fathers lack first-hand knowledge and experience with the nature of female sexuality.

The defensive communication climate between fathers and daughters may have several additional sources beyond the lack of information and embarrassment. It may be caused by: a) fathers' unrealistic expectations about their daughters' level of innocence, b) a sexual attraction between father and daughter that is denied because of the cultural incest taboo, or c) the lack of an acceptable sexual vocabulary.

Fathers may find it hard to acknowledge their daughters as

sexual beings. They may take a traditional stance of trying to protect their daughters. This stance may be perceived as more evaluative, strategic, and thus create a defensive climate. Hass illustrates this problem when he interviews a 16 year old female who declares:

I can't talk to my father at all, which is mostly due to the fact that I'm his only daughter. He thinks I'm the sweetest most virginal creature on earth and that I'm somehow sworn to eternal celibacy. (p. 197)

In the same series of interviews, a 17-year-old female complained: "I cannot even mention the word 'sex' to my father--he'd throw a fit. He thinks I'm the picture of innocence," (Hass, 1979, p. 197). Thus, Hass's interviews provide personal commentary consistent with my findings. Fathers and daughters do experience a more defensive communication climate when attempting to discuss sexuality.

To compound the problem, there is always the risk of sexual attraction between fathers and daughters, once each acknowledged the sexuality of the other. Hass comments that all parents at varying levels of consciousness or unconsciousness have experienced sexual feelings toward a child of the opposite sex. The most common way to deal with these feelings is denial. However, he points out that fathers' sexual feelings for daughters are more troublesome than mothers' sexual feelings for sons, (1979, p. 196). Fathers' feelings are closer to consciousness since "males receive greater social permission to be aware of sexual feelings in general" (Hass, 1979, p. 196). Brenton concurs that it may be difficult for parents and children to discuss sexuality because "the natural attraction that exists between parents and their children gets in the way," (1972,

p. 136). The speculations by Hass and Brenton about attraction causing discomfort between fathers and daughters seems plausible. Whether the fear of discomfort and embarrassment originates with the daughter or the father, the data clearly demonstrates that daughters do perceive a defensive communication climate between themselves and their fathers during conversations about sexuality. Further research is needed to probe the source of this defensiveness; whether fathers act from a need to protect daughters from sexual activity or whether both parties wish to deny that the other is a sexual being.

A final reason for avoiding father-daughter conversations may be the lack of a comfortable sexual vocabulary with which to carry out a discussion. Numerous sex educators have observed that no neutral language exists with which to discuss sexuality. Males frequently grow up using street language to discuss sexuality. Fathers, therefore, may find themselves not only embarrassed to discuss sexuality, but further handicapped by a struggle to find an acceptable vocabulary.

While males have a more supportive communication climate with their fathers, females have a more supportive climate with their same-sex friends. Males have a significantly more defensive communication climate during discussions of sexuality with other males. This defensiveness appears to relate to more traditional aspects of the male sex-role. According to personal observations by Herb Goldberg, women have a much easier time interacting with each other, "discussing intimate matters relating to their husbands, mutual friends, the children or themselves," (1976, p. 128). He reports that men inter-

act in a more tense, strained manner until women join them. At this point, they are free to relax. "Until then there had been no dynamism in their interaction, no spontaneity and no relaxed sharing" (Goldberg, 1976, p. 128). He continues:

From both ends of the continuum, men seem to be blocked when they try to relate to each other. That is, they are not comfortable when sharing their downsides--their failures, anxieties, and disappointments. Perhaps they fear being seen as weak complaining losers or crybabies, a perception that threatens their masculine images. Neither do they seem to feel comfortable sharing their ecstasies or successes for fear of inciting competitive jealousies or appearing boastful. Consequently, verbal social interactions between men focus on neutral, largely impersonal subject matters such as automobiles, sports, and politics. (Goldberg, 1976, p. 128)

If Goldberg's analysis is correct, then it is easy to see why the communication climate between males during discussions of an intimate topic like sexuality is more defensive than the communication climate between females.

Mothers' and Fathers' Role in Sex Education

Research question number two examined three variables (the sex of the parent, the perceived conservative religiosity of the parent, and the degree of perceived value similarity about sexuality between parent and child) and how they affected the extent to which sexuality is talked about between parents and children. The question yielded mixed results. Sex of the parent and value similarity do seem to have a relationship to the amount of sex information that is conveyed, whereas religiosity does not seem to be a significant variable.

The study confirmed the findings of previous research which clearly concludes that more sex education is obtained from mothers than from fathers. As Hass implies in his study, the responsibility for sex education seems to fall on the mother as part of her traditional role and duties. She is the caretaker of the children, the parent who supposedly spends more time with them and is more open about dealing with affective, emotional issues. Thus, she may be more accessible and more easily approachable than the father (1979, p. 195). Moreover, as previous studies have shown, females receive more sex education from mothers than males. Thus, the sex education she is providing is primarily in a mother-daughter dyad. There appears to be a more compelling need for mothers to sit down and explain to their daughters about menstruation and how to adapt to their changing bodies, than there is a comparable need for fathers to talk with their sons. Finally, the difference may relate back to the male sex-role expectations discussed earlier. Fathers are simply living up to the behaviors they were taught. As Goldberg points out, fathers are usually background figures, less involved in parenting, home for comparably short periods of time during the week, frequently preoccupied, and minimally involved when they are around (1976, p. 86). "The opportunity to be with and respond to the needs of their children does not present itself" (Uslander, 1977, p. 46).

Parental Religiosity and Sex Education

Based on the results of this study, no relationship was found between the degree of perceived conservative religiosity of the parents and the amount of sex information conveyed by the parents

to their children. Similarly, no significant relationship was found between the degree of perceived conservative religiosity of the parents and the degree of supportiveness in the communication climate between parents and children during discussions of sexuality.

The computation of power levels for these analyses of variance further supports the conclusion that religiosity is not a significant variable in this study. As Cohen explained, "the power of a statistical test of a null hypothesis is the probability that it will lead to the rejection of the null hypothesis" (1969, p. 4). Since the power levels reported in Chapter Four were acceptably high, they would have detected the occurrence of a significant effect.

The lack of statistical significance indicates that the conservative religiosity of parents does not affect either the communication climate or the amount of sex information conveyed. Conservatively religious families appear no more or less defensive in their communication climates during discussions of sexuality than non-religious families. Moreover, as the research findings indicate, parents play a small role in providing sexual information. Most of it comes from peers. Since parents and children have little overt communication about sexuality to begin with, the degree of conservative religiosity of the parents appears to be an irrelevant factor.

Value Similarity and Sex Education

The final variable in the second research question was the degree of perceived value similarity between parents and children

about sexuality. This investigation showed a significant relationship between the degree of perceived value similarity between parents and children about sexuality and the degree of sexuality information communicated to the children by the parents. The greater the degree of shared sexual values between parent and child, the greater the degree of sexual information conveyed by the parents to the child. Hass speculated that greater similarity of sexual values (either both liberal or both conservative), would correlate with greater communication about sexuality (1979, p. 195). Teenagers who perceived a value gap between themselves and their parents were more tense about communicating with their parents about sexuality and more likely to avoid such conversations. Consistent with my results are the sentiments of a 15 year old male who described his unsuccessful attempts to discuss sexuality with his parents.

When I tried to talk with them, they gave 'old' opinions and then they changed the subject. They tried to impress on me the importance of virginity. They became very uptight and after that experience I did not try again. (Hass, 1979, p. 199)

Thus it appears that Brooks was quite correct when he maintained that individuals will have an easier time communicating if they share similar background characteristics and values. A higher degree of shared value similarity about sexuality seems to correlate with a greater amount of sexual information being shared between parents and children. The value similarity lessens the chance of conflict. Parents can relax, discuss sexuality openly and spontaneously with a minimum of disagreement from their teenagers. However, the parents and teenagers who have highly dissimilar values

about sexuality are more likely to engage in mutual evaluation and attempt to change the attitudes and opinions of the other. These attempts can lead to a defensive communication climate. Given that value similarity reduces the chance of conflict and increases the probability of creating a supportive communication climate between parents and teenagers, it is understandable that value similarity correlates with more sexual information being shared between parents and children.

Desire for More Sex Information

In addition to providing answers to the research questions through investigation of the seven hypotheses, the questionnaire provided information about the degree to which subjects desired more information from parents and from peers. The subjects reported satisfaction with only one of the four sources investigated, same-sex friends. Adolescents desire more sex information from their fathers, mothers, and opposite-sex peers. Recall that conversations between same-sex peers about sexuality were significantly more supportive than conversations with mothers, fathers, or opposite-sex friends. Apparently these supportive conversations provide a level of sex information that is satisfactory. For the other three groups, however, subjects are left dissatisfied, wanting more sex information. It appears that interactions between subjects and their mothers, fathers, and opposite-sex friends constitute an area for further investigation with the aim of identifying communication barriers and developing strategies to reduce these barriers.

Different Sources for Different Genders

The final set of findings to be discussed examines the role of gender in sex education. An examination of the means presented in Table 16 of Chapter Four demonstrated that males rely first and foremost on personal experience for their sex education. Females do not rely on personal experience as a major source of sex information. Women acquire most of their sex education from same-sex peers. The results of this investigation show a significant difference in the sources of sex education depending on gender of the subject. Nine sources of sex education were investigated and significant differences were found for three sources: 1) mothers, 2) fathers, and 3) personal experience. Females gain significantly more sex information from their mothers than do males. The reverse is true for male subjects who receive significantly more sex information from their fathers than do females. As has been previously discussed, it is easier for parents to talk with their same-sex child, since natural attraction between parents and their opposite-sex child may interfere with open communication.

The third area of significant difference was personal experience. Males are encouraged by their culture to experiment with sexuality, whereas females are punished and negatively labelled for their experiences. Also, males may gain the majority of their sex information from personal experience because they are denied other sources. As has been previously discussed, females can talk about sexuality much more openly with same-sex friends than males can. And, females gain more sex information from their mothers than do

males. If males receive little sex information from their mothers, have fathers who are notably uninvolved in sex education, and have difficulty talking with same-sex friends, where else will they learn about sex except through personal experience?

Limitations of the Study

Several limitations of the present study should be noted. One is that the study was done with college students enrolled in basic courses at the University of Kansas which tended to restrict the population to a narrow age range of 18-22 year olds. While this is a limitation, numerous studies have been done with other age groups and the generalizations about major sources of sexual information have been consistent across generations. However, the findings related to communication climate with parents and the degree of shared sexual values with parents may be different with college students rather than high school students as subjects. High school students tend to represent a wider population including those females who have an early premarital pregnancy and decide to keep the child. High school students are still living at home and have immediate perceptions of the communication climate rather than recollections of what the climate was like. Thus, the results of this study may have limited generalizability.

The second major limitation is the methodology of self-report of the student's perceptions of the communication climate in conversations with their parents and peers. The issue of one-sided self-report is a critical one. Past studies, such as the one by

Dr. Robert Walsh at Illinois State University demonstrate that student perceptions often differ widely from parental perceptions of the same event. Many parents saw themselves as being more vocal and effective in sex education than their children saw them (Brenton, 1972, p. 135). Brenton reports the details of the Walsh study. Dr. Walsh surveyed 750 freshmen at Illinois State University and 1100 of their parents and found that three-fourths of the fathers and two-thirds of the mothers felt that they were the chief source of sexual information for their children. Unfortunately, the children did not share that perception. "Only 7% of the young men and 29% of the young women saw their parents in the same light. Most of these students evaluated their parents efforts as inadequate or worse," (Brenton, 1972, p. 135). This study deals only with the student perspective and fails to deal with possible or even probable inconsistencies that would result if the parent's perspective were also sought. Students may perceive parental behaviors or attitudes as creating a defensive climate when the defensiveness is probably a result of the interaction between the parent and the child. This study gives a static, one-sided perspective on the dynamic interaction process that occurs when parents and peers interact on the topic of human sexuality.

Finally, the present research presents only a single study. Theory building is a long, involved process. As this research indicates, one barrier to sex education in the home may be the defensive communication climate surrounding discussions of sexuality between parent and child. Another variable correlated with lack of communication about sexuality is the lack of shared sexual values

between parents and students. However, there are many more variables to be considered in building a model that would suggest ways to facilitate effective sex education and minimize blocking barriers. As Kelly suggests there may be plenty of other reasons that need to be explored and incorporated into an explanatory framework to account for the minimal amount of sex education that takes place in the home. Among the reasons suggested by Kelly (1976) are:

- 1) lack of accurate information on the part of parents,
- 2) discomfort and embarrassment with sexual language and vocabulary,
- 3) difficulty in recognizing their children as sexual beings, and
- 4) a fear that sex education will stimulate curiosity and experimentation (p. 160-161).

All of these reasons suggest many possibilities for further research in this area.

Implications

The implications of this study can be examined under three different headings: 1) theoretical, 2) research, and 3) pedagogical. The first type of implication is theoretical. Two significant theoretical implications that stem from this study are: a) the need to expand the theoretical, explanatory model by including additional variables, and b) the need to shift to larger units of analysis when studying sex education in the home.

The inclusion of additional variables is suggested by the

size of the omega square statistic. The research results indicate that both communication climate and similarity of sexual values are components that affect the amount of sexual information conveyed from parent to child. However, the omega square statistic indicates that only 13% of the variance is accounted for in the communication climate with mother, 4% in the communication climate with father, and 10% accounted for by the degree of shared similar values about sexuality. These percentages indicate that more variables need to be identified to complete the model and account for the remaining variance. Sufficiently high power levels indicated that religiosity is not a relevant variable in the model that attempts to account for the lack of communication between parents and children in the home about sexuality. Thus, the current model includes factors that account for approximately a quarter of the total variance. Expansion of the model is indicated to identify other relevant variables.

In seeking to identify additional factors in the model that might function as barriers to effective sex education in the home, the following possibilities might be explored: a) Parents avoid the topic initially, fearing the preschool or grade school child is too young. Later, they find it hard to break the norm of not talking about sexuality, or assume that the child has already acquired the information at school. b) Parents lack comfortable vocabulary with which to discuss sexuality. c) Parents fear that discussing sexuality will only arouse curiosity and encourage sexual experimentation. d) Parents feel inadequate, lacking specific detailed knowledge of sexuality. "They, too, were poorly taught about sex"

(Brenton, 1972, p. 136). e) Parents are confused about changing values and uncertain of what guidelines are appropriate for their children (Cory, 1979, p. 14). f) Parents and children have developed a history of defensive communication in general. If no past norms for open communication have been established, then certainly a sensitive topic like sexuality will be difficult to discuss in an open manner.

Equally significant as the factors that inhibit parents, are the factors that inhibit adolescents from responding positively when parents attempt to discuss sexuality with them. Adolescents often respond defensively or evasively, assuring parents they were taught about sexuality at school. When questioned about their evasion, adolescents report fearing that interaction with their parents would only result in parental teasing, denial of their sexual activity, punishment or lectures (Hass, 1979, p. 210). Thus, the first theoretical implication of this study is that we have only begun to identify components of the model that would account for the lack of communication at home between parents and children about sexuality.

Secondly, a larger unit of analysis may be more helpful in exploring parent-child interactions about sexuality. This study focused on intrapersonal, perceptual data. This psychological one-sided approach may be insufficient as a means of identifying the major factors involved. What may be needed is an interactional, interpersonal approach to the study of family communication about sexuality. A multi-sided approach that views the family as a unit or system would take into account multiple perspectives on communi-

cation climate. This approach would also consider individual family history and interaction patterns which might prove to be highly relevant variables.

As George H. Mead observed, the self is created and maintained through social interaction. Through the exchange of significant symbols, the self is modified and in turn modifies all future interactions (Mead, 1934, p. xxv). Interactions can therefore be best understood by examining the multiple perspectives of the participants, and the ways in which they create shared meanings. A one-sided psychological approach provides a limited perspective on the nature of sex education within the home. An interactional perspective would overcome these limitations and provide a clearer explanation of why conversations about sexuality are avoided in many homes.

Thus two theoretical implications can be seen. There is a need to focus on new factors in an attempt to identify other significant components of the model. Furthermore, these factors may be identified through the use of a more complex approach than studying one-sided intrapersonal perceptions.

In the process of trying to develop theory in this area, several research implications are apparent. The approach of this study was through the collection of intrapersonal self-report perceptual data. Multiple methodologies as well as multiple perspectives on the family as an interactional unit are needed. Interviews may provide much richer data than paper and pencil self-report items. Records of specific interactions through journal entries or critical incidents may be another source of useful data.

A second means of modifying the instrument may be to ask subjects to target one specific interaction with their parents about sexuality and then explore in detail the barriers present in that interaction. The moderate and sometimes low reliabilities (in the case of opposite-sex friends) indicate that subjects are shifting their perceptions. By asking subjects to report on their global impression of interactions about sexuality, they may vary their responses depending on which specific interaction they are recalling. Targeting a specific interaction between parent and child about sexuality would improve the reliability of the data. Subsequent interviews could then focus on concrete details rather than exploring global impressions.

The next section discusses pedagogical implications. Pedagogical research is needed to run pretests and posttests on participants in workshops to see if, indeed, components like communication climate can be improved through seminars.

The third type of implication is pedagogical in nature. While the majority of sex education is still being provided by peers, students reported a significant desire for more information from parents. Sex educator Wilson Grant agrees that home is the best place for sex education. Indeed,

the parents are the most ideal teachers and the best method is that of daily living. The home is the best place to convey sex information to children because it can be done individually and integrated naturally into all of life's experiences. (1973, p. 30)

How can we reduce the barriers that inhibit sex education in the home between parents and children? Uslander suggests that communication climate is a starting point:

First and foremost, as mentioned before, parents must create a climate within the home that lends itself to free and open discussion. Into that atmosphere one can then easily weave an appreciation and respect for the rights of the individual, a sense of responsibility of one person to another, and an understanding of the role that sex attitudes and feelings play in regard to interpersonal relationships both inside and outside the home. If this can be done, it will break down many of the barriers that now stand in the way of our going to our children and opening the discussion. (1977, p. 30-31)

The results of this investigation have shown that the communication climate with parents is notably more defensive than the communication climate with peers during discussions of sexuality. Uslander (1977) asserts that parents think of sexuality in moral terms and therefore tend to patronize, preach, or even condemn their children when questioned about human sexuality (p. 30). One approach to improving sex education would be to train parents in communication skills, helping find a more positive way to approach conversations about sexuality with their children.

As mentioned in Chapter Two, several churches are working on a small scale to reduce defensiveness between parents and children. They allow the students to meet in groups with their peers and a trained facilitator to discuss their sexual questions and concerns. Simultaneously, parents are meeting with other parents and a facilitator to discuss changing sexual values, their concerns, and ways to achieve effective communication with their teenagers about sexuality. Eventually, the two groups are brought together and the facilitators try to guide the interaction to minimize defensiveness and maximize an effective exchange of ideas and feelings. Several schools have attempted similar types of programs. Among them are the University

of Tennessee at Chattanooga and the University of Minnesota Medical School. The University of Tennessee's program is focused on helping parents feel comfortable with sex education vocabulary and providing strategies for helping parents and children deal with value-oriented issues and/or possible conflicts (Ezell, 1978, p. 268). As Ezell concludes, "Parents cannot choose whether to give sex instruction; they can only choose whether to be helpful or neglectful in this matter" (1978, p. 269).

The program at the University of Minnesota Medical School in Minneapolis follows more closely the format of bringing parents and students together to facilitate open communication about sexuality. Rosenberg and Rosenberg concluded that several differences were found when running family sex education seminars, as opposed to seminars for the students alone: 1) It took longer for an atmosphere of trust and communication to develop, but once gained, it seemed to be very effective. 2) The family seminars placed greater emphasis on values and their relationships to sexuality (Rosenberg, 1976, p. 239).

These programs seem to be effective in improving the communication climate between parents and children and thus facilitating open communication about sexuality. A related implication deals with the issues of sexual values. As seen in this study, it appears that greater similarity of sexual values correlates with more sexual information exchange between parents and children. Again, programs such as those explained above can be useful. The programs allow families with value differences to discuss these differences with other families and to benefit from a trained facilitator who

can guide the discussion and avert major conflicts and arguments.

Another implication from this study relates to the difficulty males have in communicating about sexuality. The study indicated that fathers play a minor role in sex education with both sons and daughters. In addition, the communication climate during discussions of sexuality between male peers is significantly more defensive than the climate between female peers. This defensive climate suggests a need for workshops for men to learn how to move toward more open discussions of sexuality, not only with their children, but with their peers. Men's consciousness-raising groups have advocated a more open expression of feelings among men. Unfortunately, the men's movement is much smaller than the women's movement and has had minimal impact in reducing the sex-role restrictions society places on men.

The final pedagogical implication is that sex education is not a dead issue. Adolescents do desire more sexual information from their parents as well as their opposite-sex friends. We have not yet reached the point when sufficient, accurate sexual information is being disseminated through the schools, through peers or other sources. The desire among college students for more sexual information indicates a need to encourage the development of more communication and more programs in this area. This need stands in sharp contrast to the voice of the "Moral Majority" calling for a discontinuation of school and community sex education programs. They wish to return sex education to the home without providing parents with the seminars necessary to facilitate this process. Effective sex education needs to be promoted and will be effective to the

extent that programs are available for families to attend to help reduce barriers between parents and children.

Suggestions for Future Research

As noted previously, this study only begins to identify elements of a model that would account for the lack of communication in the home about sexuality. While some of the possibilities for future research have been implied, it may be useful to outline several areas worthy of further exploration.

First, it would be useful to administer the same questionnaire with different populations, such as older generations and younger subjects in high school or junior high. The comparison of their perceptions would provide information about the role of communication climate across generations. In addition to administering the questionnaire across age groups, it would be informative to obtain parents' answers to the questionnaire. The differing perceptions found by Dr. Walsh might also appear as selective perception in this study. Do parents perceive themselves to be as defensive as the teens perceive the parents' style of interaction? Or do parents perceive the defensive climate arising in part out of the teenagers' behavior? The defensive communication climate is generated through mutual interaction and the optimal way to obtain data about that interaction is by coding and comparing the perceptions of both parties.

Further research might be undertaken using different methodologies. Paper and pencil questionnaires using Likert-type scales

provide relatively limited data. Richer data could be obtained using open-ended questions or personal interviews with parents and children. Particularly in the case of personal interviews, one cannot only ask follow-up questions, but has access to nonverbal as well as verbal responses.

Another approach to future research would be to examine specific variables in greater depth. The questionnaire for this study was very general in that communication climate was computed for any conversations about sexuality. Specific topics could be explored to see if parents and children have a more defensive communication climate when discussing birth control than when discussing menstruation, homosexuality, venereal disease, or many other topics. Similarly, the questionnaire provided general information about satisfaction and desire for more information. These areas could be explored in greater depth. On what topics do adolescents desire more information? How satisfied are they with each of their sources of information? Does satisfaction with sexual information equal accuracy of sexual knowledge? Is the information limited to certain topic areas? What other variables may be barriers to open and effective communication about human sexuality between parents and children and between peers? The possibilities for further research are rich, and the information provided by additional studies could be used in future sex education family seminars.

Finally, research studies could provide data on the effectiveness of family sex education seminars. A study could be conducted that pretested family members on the degree of supportiveness in their communication climate during sexuality discussions. Then,

following a workshop or seminar on family sex education, a posttest could be administered to ascertain whether or not the communication climate had significantly improved.

Conclusion

The data in this study indicate that dissimilarity of sexual values and a defensive communication climate inhibit communication in the home between parents and children about sexuality. This study contributes to the understanding of sex education avoidance in the home by identifying the significance of two variables: a) value dissimilarity and b) defensive communication climate. Of particular usefulness in this study and in further studies is the development of the construct, communication climate. Prior to this time, Gibb's categories have been used as separate, yet interactive components of communication climate. This research collapses these items into a new construct. The utility of this construct, communication climate, extends beyond sex education research, since the construct can be utilized in many varieties of interpersonal research.

While this research identifies two components of an explanatory model accounting for minimal parent-child interaction about sexuality in the home, the moderate amount of variance accounted for by these two factors suggests the presence of other, still unidentified barriers to effective family communication about sexuality. The resulting avoidance of family communication about sexuality simply promotes the continual spread of sexual misinformation among

peers. As documented in previous chapters, this misinformation leads to severe negative consequences for both individuals and society.

Most parents regret not having had more information from their own parents regarding human sexuality. They intend to break the pattern and communicate more openly with their own children. However, when they shift into the new role of parenting a teenager, they are often unsure of how to effectively fulfill this role and thus perpetuate the cycle of silence.

Changing norms in the culture make them even more unsure about providing sexual values. As Hass recommends:

Parents may, therefore, need to first clarify and become comfortable with their own sexuality before they can expect to communicate effectively with a child. It is my impression that, for the most part, teenagers would want to speak with their parents if they perceived them to be open, comfortable and nonjudgmental about their own sexuality and the sexuality of others....

Teenagers are grappling with a new, expanding sense of their sexuality. How they feel about their "sexual self" will greatly affect their general self-image and confidence. To the extent that we can help them become comfortable with their bodies and sexual expression, and clearer about their sexual values, the more effectively they will function in all other areas of their lives. (1979, pp. 213, 216)

Enhancing effective communication between parents and children about human sexuality is a meaningful goal. It may not be an easy goal to attain, but the rewards are significant, both for individuals and for society as a whole. This study suggests that reducing defensive behaviors and striving for a more supportive communication climate in the home may be one small step toward achieving that goal.

Notes

¹I am aware of only two churches who actually instituted this joint parent-child workshop, one in Springfield, Missouri and one in Oklahoma. Most churches hold sessions only for the students, to present them with information about sexuality and to instill religious values regarding sexual activities. Unfortunately, most parents are happy to delegate this task to the church and are unwilling to take the time and effort to get involved in a joint workshop.

²Note that "amount of sexual information received from parents" does not represent a quantitative amount of total sex information possessed. Rather it indicates the proportion of the subject's total sex information received from each parent, regardless of whether the subject's total amount of information is high or low.

REFERENCES

- Bennett, S. S., & Dickinson, W. B. Student-parent rapport and parent involvement in sex, birth control, and venereal-disease education. The Journal of Sex Research, 1980, 16, 114-130.
- Bernstein, A. The flight of the stork. New York: Delacorte Press, 1978.
- Breasted, M. Oh! Sex education. New York: Praeger Publishing Company, 1970.
- Brenton, M. Sex talk. Greenwich, Conn: Fawcett Crest Book, 1972.
- Brooks, W. D. Speech communication (4th ed.). Dubuque, Iowa: William C. Brown Company, 1981.
- Calderwood, D., & DenBeste L. Developing open communication about sex with youth. Journal of Marriage and the Family, 1966, 28, 524-526.
- Carswell, R. Historical analysis of religion and sex. Journal of School Health, 1969, 39, 673-684.
- Cohen, J. Statistical power analysis for the behavioral sciences. New York: Academic Press, 1969.
- Coombs, R. Sex attitudes of physicians and marriage counselors. The Family Coordinator, 1971, 2, 269-277.
- Cory, C. T. Parents' sexual silence. Psychology Today, 1979, 12, 14+.
- Doyle, D. But are the schools really the best places for sex education? The American School Board Journal, 1975, 162, 40-41.
- Dubbe, M. C. What parents are not told may hurt: a study of communication between teenagers and parents. The Family Life Coordinator, 1965, 14, 51-109.
- Elias, J., & Gebhard, P. Sex and sexual learning in childhood. In S. E. Fraser (Ed.), Sex, schools, and society: international perspectives. Nashville, Tenn: Aurora Publications, 1972.
- Ezell, G. Teaching parents in Chattanooga to teach children about sexuality. College Student Journal, 1978, 12, 267-269.
- Further conclusions of teen study data. Getting it Together..., New York: Planned Parenthood Federation of America, 1974, 4, 1.

- Gadpaille, W. Parent-school cooperation in sex education--how can the professional help? The Family Coordinator, 1970, 19, 301-307.
- Gibb, J. Defensive communication. The Journal of Communication, 1961, 11, 141-148.
- Goldberg, H. The hazards of being male. New York: New American Library, 1976.
- Gordon, S. A strong case for straightforward sex education in the home and the schools. American School Board Journal, 1975, 162, 37-41.
- Grant, W. W. From parent to child about sex. Grand Rapids, Michigan: Zondervan Publishing Company, 1973.
- Gunderson, M. P., & McCary, J. L. Sex guilt and religion. The Family Coordinator, 1979, 28, 353-357.
- Hass, A. Teenage sexuality. Los Angeles, California: Pinnacle Books, 1979.
- High school students have premarital sex: only 1 in 10 parents provides sex education. Family Planning Digest, 1975, 3, 12-13.
- Hunt, M. Sexual behavior in the 1970's. Chicago, Playboy Press, 1974.
- Inman, M. What teenagers want in sex education. American Journal of Nursing, 1974, 74, 1866-1867.
- Kelly, G. F. Learning about sex: the contemporary guide for young adults. Woodbury, New York: Barron's Educational Series, Inc., 1976.
- Kerckhoff, R., & The Family Coordinator Family Life Education Reaction Panel. Community experiences with the 1969 attack on sex education. The Family Coordinator, 1970, 19, 104-110.
- Kirk, R. E. Experimental design for the behavioral sciences. Belmont, California: Wadsworth Publishing Company, Inc., 1969.
- Libby, R., Acock, A., & Payne, D. Configurations of parental preferences concerning sources of sex education for adolescents. Adolescence, 1974, 9, 73-80.
- Mahoney, E. R. Religiosity and sex behavior among heterosexual college students. The Journal of Sex Research, 1980, 16, 97-113.
- McCary, J. L. A complete sex education for parents, teenagers, and young adults. New York: Van Nostrand Reinhold Company, 1973.

- McKendry, P. C., Walters, L. H., & Johnson, C. Adolescent pregnancy: a review of the literature. The Family Coordinator, 1979, 28, 17-28.
- Mead, G. H. Mind, self and society. Chicago: University of Chicago Press, 1934.
- Neubardt, S. Observations of a practicing gynecologist. In D. L. Grummon & A. M. Barclay (Eds.), Sexuality: a search for perspective. New York: D. Van Nostrand Company, 1971.
- New PPNYC teen program: 2 year, \$4 million program to help teenagers avert unwanted pregnancies. Family Planning Digest, 1974, 3, 8.
- Polling Americans: contraceptive education for all teens and services on request favored by most adults. Family Planning Digest, 1973, 2, 4-6.
- "Rap" session with teenagers improves knowledge of contraception, abortion, VD. Family Planning Digest, 1975, 3, 11-12.
- Rosenberg, P., & L. A group experience in sex education for the family. International Journal of Group Psychotherapy, 1976, 26, 235-241.
- Rubenstein, J. A comparison between student interest and book information in sex education for teenagers. (Doctoral Dissertation, Harvard University, 1974). Dissertation Abstracts International, 1975, 35A, 3941A-5579A (University Microfilms No. 75-4916).
- Scales, P. & Everly, K. A community sex education program for parents. The Family Coordinator, 1977, 26, 37-46.
- Schofield, M. The sexual behavior of young people. In R. S. Rogers (Ed.), Sex education: rationale and reaction. New York: Cambridge University Press, 1974.
- Shipman, G. The psychodynamics of sex education. The Family Coordinator, 1968, 17, 3-12.
- Smith, D. R., & Williamson, L. K. Interpersonal communication: roles, rules, strategies, and games. Dubuque, Iowa: William C. Brown Company, 1977.
- Smith, H. W. Strategies of social research (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1981.
- Szasz, T. Sex by prescription. Garden City, New York: Doubleday, 1980.

- Teens sexually active without birth control. Getting it together...
New York: Planned Parenthood Federation of America, 1974,
4, 3.
- 30% of Illinois clinic patients are teens; nearly half have already
been pregnant. Family Planning Digest, 1974, 3, 15.
- Thornburg, H. Educating the preadolescent about sex. The Family
Coordinator, 1974, 23, 35-39.
- Three-fourths of teenage first pregnancies are premaritally con-
ceived, study finds. Family Planning Digest, 1974, 3, 14-15.
- Uslander, A. S., Weiss, C., & Telman, J. Sex education for today's
child: a guide for modern parents. New York: Association
Press, 1977.
- Weichman, G. H., & Ellis, A. L. A study of the effects of sex
education on premarital petting and coital behavior. In
R. S. Rogers (Ed.), Sex education: rationale and reaction.
New York: Cambridge University Press, 1974, 265-270.
- Zelnik, M., & Kantner, J. F. Contraceptive patterns and premarital
pregnancy among women aged 15-19 in 1976. Family Planning
Perspectives, 1978, 10, 135-142.

APPENDIX A

Informed Consent Statement

The Department of Speech supports the practice of protecting human subjects participating in research. The following information is provided that you can decide whether or not you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time, without prejudice.

This questionnaire asks you to assess what it was like when you received messages or information from your parents and your peers about sexuality. You will be asked to indicate where you received the majority of your sex education (e.g. whether at home, at school, from peers, etc.). Finally, the questionnaire asks about your religious background and the attitudes of your church toward sexuality.

Your participation is solicited but is strictly voluntary. Do not hesitate to ask any questions about the study. Be assured that your name will not be associated with the research findings in any way. We appreciate your cooperation very much.

Student's signature if they agree to participate _____

Student number _____

The following is a questionnaire that asks you to assess what it was like when you received messages and/or information about sex education from your parents and your peers. You will be asked to answer the questions in four different series:

- 1) the messages that relate to your mother
- 2) the messages that relate to your father
- 3) the messages from your closest same-sex friend
- 4) the messages from your closest opposite-sex friend

You may think "Well, my mother or father never discussed sexuality with me." However, many messages are conveyed both verbally and nonverbally from the time you were a small child. You may have asked questions about the origins of babies. Your parents may nonverbally through their actions or lack of verbal communication clearly told you how they felt about sexuality, about nudity, about being comfortable with your body, etc. So, please try to realistically assess not just the verbal content of what they told you, but also the total picture of the nonverbal, subtle messages they conveyed about their attitudes and beliefs. Please circle the appropriate response for each question. Thank you for your time and consideration.

For questions 1-65 the response code is as follows:

- 1=strongly agree
- 2=agree
- 3=mildly agree
- 4=neutral
- 5=mildly disagree
- 6=disagree
- 7=strongly disagree

For questions 1-12, the focus is on the interaction between yourself and your mother.

WHEN MY MOTHER AND I TALKED ABOUT SEXUALITY: (or if you did not discuss sexuality imagine what the conversation would have been like if you had discussed it)

1. She passed judgment on me by blaming, praising, or by questioning my moral standards, values or motives. (e.g. She made judgments that "This is good or bad." "This is right and that is wrong.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

WHEN MY MOTHER AND I TALKED ABOUT SEXUALITY:

2. She tried to change my behavior or attitudes. She tried to impose her values, point of view, policies or solutions by giving advice (e.g. "Don't do it.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

3. She planned her approach carefully and hoped to maneuver me and my decisions.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

4. She was detached, neutral, showing lack of concern and little involvement.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

5. She acted as though she knew what was best for me and was older, wiser, superior, and more experienced in dealing with life.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

6. She claimed to have the "right" answers, wanted to win arguments and defended her ideas as the truth.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

7. She described behavior without judging or accusing. (e.g. "There are different forms of birth control available.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

WHEN MY MOTHER AND I TALKED ABOUT SEXUALITY:

8. She let me set my own goals and make my own decisions. (e.g. "What do you think you should do? What are your options?")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

9. She was straightforward, honest, giving open, unplanned, spontaneous responses.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

10. She tried to understand my feelings, put herself in my shoes, showed empathy, caring and acceptance.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

11. She was willing to talk on an equal level, treating me with equal power, status, respect and intelligence.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

12. She seemed willing to investigate options and issues, open and willing to explore alternatives.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

For questions 13-24, the focus is on the interaction between you and your father.

WHEN MY FATHER AND I TALKED ABOUT SEXUALITY: (or if you did not discuss sexuality, imagine what the conversation would have been like if you had discussed it)

13. He passed judgment on me by blaming, praising or by questioning my moral standards, values, or motives. (e.g. He made judgments

(13. continued)

that "This is good or bad." "This is right or wrong.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

14. He tried to change my behavior or attitudes. He tried to impose his values, point of view, policies or solutions by giving advice (e.g. "Don't do it").

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

15. He planned his approach carefully and hoped to maneuver me and my decisions.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

16. He was detached, neutral, showing lack of concern and little involvement.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

17. He acted as though he knew what was best for me and was older, wiser, superior, and more experienced in dealing with life.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

18. He claimed to have the "right" answers, wanted to win arguments and defended his ideas as the truth.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

WHEN MY FATHER AND I TALKED ABOUT SEXUALITY:

19. He described behavior without judging or accusing. (e.g. "There are different forms of birth control available.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

20. He let me set my own goals and make my own decisions. (e.g. "What do you think you should do? What are your options?")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

21. He was straightforward, honest, giving open, unplanned, spontaneous responses.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

22. He tried to understand my feelings, put himself in my shoes, showed empathy, caring and acceptance.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

23. He was willing to talk on an equal level, treating me with equal power, status, respect and intelligence.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

24. He seemed willing to investigate options and issues, open and willing to explore alternatives.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

For questions 25-36, the focus is on the interaction between you and your closest same-sex friend. First name _____

WHEN MY CLOSEST SAME-SEX FRIEND AND I TALKED ABOUT SEXUALITY:
(or if you did not discuss sexuality, imagine what the conversation would have been like if you had discussed it)

25. They passed judgment on me by blaming, praising, or by questioning my moral standards, values, or motives (e.g. They made judgments that "This is good or bad." "This is right or wrong.")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

26. They tried to change my behavior or attitudes. They tried to impose their values, point of view, policies or solutions by giving advice (e.g. Don't do it).

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

27. They planned their approach carefully and hoped to maneuver me and my decisions.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

28. They were detached, neutral, showing lack of concern and little involvement.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

29. They acted as though they knew what was best for me and were older, wiser, superior and more experienced in dealing with life.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

30. They claimed to have the "right" answers, wanted to win arguments and defended their ideas as the truth.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

WHEN MY CLOSEST SAME-SEX FRIEND AND I TALKED ABOUT SEXUALITY:

31. The described behavior without judging or accusing. (e.g. There are different forms of birth control available.)

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

32. They let me set my own goals and make my own decisions. (e.g. "What do you think you should do? What are your options?")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

33. They were straightforward, honest, giving open, unplanned, spontaneous responses.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

34. They tried to understand my feelings, put themselves in my shoes, showed empathy, caring, and acceptance.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

35. They were willing to talk on an equal level; treating me with equal power, status, respect and intelligence.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

36. They seemed willing to investigate options and issues, open and willing to explore alternatives.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

For questions 37-48, the focus is on the interaction between you and your closest opposite-sex friend. First name _____

WHEN MY CLOSEST OPPOSITE-SEX FRIEND AND I TALKED ABOUT SEXUALITY:
(or if you did not discuss sexuality, imagine what the conversation would have been like if you had discussed it)

37. They passed judgment on me by blaming, praising or by questioning my moral standards, values, or motives (e.g. They made judgments that "This is good or bad." "This is right or wrong.").

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

38. They tried to change my behavior or attitudes. They tried to impose their values, point of view, policies or solutions by giving advice (e.g. Don't do it).

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

39. They planned their approach carefully and hope to maneuver me and my decisions.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

40. They were detached, neutral, showing lack of concern and little involvement.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

41. They acted as though they knew what was best for me and were older, wiser, superior and more experienced in dealing with life.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

42. They claimed to have the "right" answers, wanted to win arguments and defended their ideas as the truth.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

WHEN MY CLOSEST OPPOSITE-SEX FRIEND AND I TALKED ABOUT SEXUALITY:

43. They described behavior without judging or accusing. (e.g. There are different forms of birth control available).

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

44. They let me set my own goals and make my own decisions. (e.g. "What do you think you should do? What are your options?")

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

45. They were straightforward, honest, giving open, unplanned, spontaneous responses.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

46. They tried to understand my feelings, put themselves in my shoes, showed empathy, caring and acceptance.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

47. They were willing to talk on an equal level, treating me with equal power, status, respect and intelligence.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

48. They seemed willing to investigate options and issues, open and willing to explore alternatives.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

49. I wish my mother had given me more information about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

50. I wish my father had given me more information about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

51. I wish my same-sex friends had given me more information about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

52. I wish my opposite-sex friends had given me more information about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

53. I wish it were easier to talk to my mother about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

54. I wish it were easier to talk to my father about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

55. I wish it were easier to talk to my same-sex friends about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

56. I wish it were easier to talk to opposite-sex friends about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

57. My parents and I share similar attitudes and values toward sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

58. Religion and religious values and beliefs were important in my parents' home.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

59. Attending church was important in my parents' home (important to my parents).

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

60. My church viewed sexuality outside of marriage as a major sin.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

61. My parent's views are consistent with those of the church.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

62. My church views sex within marriage as important only for the beginning of a family.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

63. My parents' religious views prevented us from talking about sex.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

64. My church recognized and addressed a number of different sexual lifestyles (e.g. living together, homosexuality). They recognized these as options.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

65. I am satisfied with my background knowledge about sexuality.

Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

For questions 66-74, the response code is as follows:

1=all of my information
 2=almost all of my information
 3=the majority of my information
 4=about half of my information
 5=some of my information
 6=a minimal amount of information
 7=no information at all

66. I received my sex education from my mother.

all of my info	almost all of my info	majority of my info	about half of my info	some of my info	a minimal amount	no info at all
1	2	3	4	5	6	7

67. I received my sex education from my father.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

68. I received my sex education from my same-sex peers (includes brothers or sisters).

1	2	3	4	5	6	7
---	---	---	---	---	---	---

69. I received my sex education from my opposite-sex peers. (includes brothers or sisters)

1	2	3	4	5	6	7
---	---	---	---	---	---	---

70. I received my sex education from books.

all of my info almost all of my info majority of my info about half of my info some of my info a minimal amount no info at all

1 2 3 4 5 6 7

71. I received my sex education from schools.

1 2 3 4 5 6 7

72. I received my sex education from a church program.

1 2 3 4 5 6 7

73. I received my sex education from personal experience.

1 2 3 4 5 6 7

74. I received my sex education from television or movies.

1 2 3 4 5 6 7

DEMOGRAPHIC DATA

_____ male
_____ female

age
_____ under 18
_____ 18-21
_____ 22-25
_____ 26-35
_____ 36-45
_____ 46-55
_____ 56-65
_____ over 65

Degree of religious commitment

_____ highly religious
_____ moderately religious
_____ slightly religious
_____ not religious at all

Religious Affiliation

_____ Protestant (includes
Baptist, Methodist,
Presbyterian, etc.)
_____ Roman Catholic
_____ Jewish
_____ Moslem
_____ Buddhist
_____ Hindu
_____ other (please specify)

APPENDIX B

Debriefing Statement

Thank you for participating in this study. You have filled out the same questionnaire twice. The reason for this was to test the reliability of the questions over time. If you gave the same answers two weeks later, then the questions can be considered consistent and reliable over time with the same person functioning as a subject.

The questionnaire was designed to test several hypotheses.

Jack Gibb developed 6 categories of defensive behavior and 6 categories of supportive behavior.

Defensive Climates

1. Evaluation
2. Control
3. Strategy
4. Neutrality
5. Superiority
6. Certainty

Supportive Behavior

1. Description
2. Problem Orientation
3. Spontaneity
4. Empathy
4. Equality
6. Provisionalism

Past studies have shown that most students received their sex information from their peers or friends rather than from their parents. Yet both parents and students alike wish they could be more open in their discussions of sexuality. The questionnaire attempted to see if the reason that sex is not talked about in the home is because there is a more defensive climate in the home, whereas, the climate with friends is more supportive.

Moreover, I also expect to find that more information was gained from peers than parents. And if parents did provide information, I expect that more information came from mothers than from fathers.

Religion is another variable that historically has had a negative influence on the degree of sexual openness and exploration. So, I am also investigating the amount of sex education that takes place in religious vs. non-religious homes and the degree of supportiveness and defensiveness toward sexuality in religious homes.

Finally, since communication tends to occur more easily among persons of similar values, I am interested to see if parents and children who share similar values have an easier time communicating about sexuality.

If defensive communication climates are a barrier, we can instruct parents through churches or community programs in approaches that will reduce defensive reactions and open the lines of communication in the home about sexuality.

If you have any other questions, I would be happy to answer them.
Thank you for your time and cooperation.

APPENDIX C

Pilot 1 Test - Retest

Reliability Correlation Coefficients

	r
1. Evaluation with Mother	.9495
2. Control with Mother	.7608
3. Strategy with Mother	.5848
4. Neutrality with Mother	-.0419
5. Superiority with Mother	.6816
6. Certainty with Mother	.6496
7. Description with Mother	.6957
8. Problem Orientation with Mother	.4636
9. Spontaneity with Mother	.6332
10. Empathy with Mother	.8567
11. Equality with Mother	.8388
12. Provisionalism with Mother	.8319
13. Evaluation with Father	.4902
14. Control with Father	.6541
15. Strategy with Father	.6767
16. Neutrality with Father	.6915
17. Superiority with Father	.6086
18. Certainty with Father	.6691
19. Description with Father	.9029
20. Problem Orientation with Father	.6869
21. Spontaneity with Father	.9248
22. Empathy with Father	.8560
23. Equality with Father	.8326
24. Provisionalism with Father	.6974
25. Evaluation with Same-Sex	.4854
26. Control with Same-Sex	.6977
27. Strategy with Same-Sex	.3190
28. Neutrality with Same-Sex	.6303
29. Superiority with Same-Sex	.2096
30. Certainty with Same-Sex	.5580
31. Description with Same-Sex	.4351
32. Problem Orientation with Same-Sex	.1820
33. Spontaneity with Same-Sex	.7012
34. Empathy with Same-Sex	.7281
35. Equality with Same-Sex	.6796
36. Provisionalism with Same-Sex	.5083
37. Evaluation with Opposite-Sex	.4104
38. Control with Opposite-Sex	.4618
39. Strategy with Opposite-Sex	.7682
40. Neutrality with Opposite-Sex	.6284
41. Superiority with Opposite-Sex	.5809
42. Certainty with Opposite-Sex	.7045
43. Description with Opposite-Sex	.5898
44. Problem-Orientation with Opposite-Sex	.5654
45. Spontaneity with Opposite-Sex	.4688
46. Empathy with Opposite-Sex	.5357
47. Equality with Opposite-Sex	.3841
48. Provisionalism with Opposite-Sex	.3101

49.	More from Mother	.8023
50.	More from Father	.4954
51.	More from Same-Sex	.3677
52.	More from Opposite-Sex	.3136
53.	Easier with Mother	.7792
54.	Easier with Father	.6947
55.	Easier with Same-Sex	.7964
56.	Easier with Opposite-Sex	.8060
57.	Similar Values about Sex	.7939
58.	Religion Important	.7518
59.	Church is Important	.8022
60.	Sex is sinful	.5634
61.	Parents value church	.3713
62.	Sex is for families	.6482
63.	Religion is barrier	.5786
64.	Church is open-minded	.6560
65.	Satisfied with information	.7525
66.	Sources: Mother	.8755
67.	Father	.8534
68.	Same-Sex	.3967
69.	Opposite-Sex	.6905
70.	Books	.5049
71.	School	.6674
72.	Church	.4836
73.	Personal experience	.8723
74.	Television	.4251

A Pearson correlation coefficient for the computed climate scores obtained from the test and retest of the pilot subjects showed the following results:

1) Fathers	r = 0.8722
	n = 21
	p < 0.001
2) Mothers	r = 0.9077
	n = 21
	p < 0.001
3) Same-Sex Friends	r = 0.6653
	n = 21
	p < 0.001
4) Opposite-Sex Friends	r = 0.3387
	n = 21
	p = 0.067

Pilot 2 Test - Retest

Reliability Correlation Coefficients

	r
1. Evaluation with Mother	-.1412
2. Control with Mother	.3021
3. Strategy with Mother	.5386
4. Neutrality with Mother	.5960
5. Superiority with Mother	.4780
6. Certainty with Mother	.3854
7. Description with Mother	.6623
8. Problem Orientation with Mother	.7592
9. Spontaneity with Mother	.5326
10. Empathy with Mother	.6449
11. Equality with Mother	.6864
12. Provisionalism with Mother	.7336
13. Evaluation with Father	.3961
14. Control with Father	.6770
15. Strategy with Father	.5772
16. Neutrality with Father	.7332
17. Superiority with Father	.6893
18. Certainty with Father	.6723
19. Description with Father	.6434
20. Problem Orientation with Father	.4847
21. Spontaneity with Father	.8008
22. Empathy with Father	.6771
23. Equality with Father	.8233
24. Provisionalism with Father	.8615
25. Evaluation with Same-Sex	.4322
26. Control with Same-Sex	.5637
27. Strategy with Same-Sex	.4694
28. Neutrality with Same-Sex	.5613
29. Superiority with Same-Sex	.3055
30. Certainty with Same-Sex	.2328
31. Description with Same-Sex	.8698
32. Problem Orientation with Same-Sex	.6564
33. Spontaneity with Same-Sex	.2627
34. Empathy with Same-Sex	.4466
35. Equality with Same-Sex	.8788
36. Provisionalism with Same-Sex	.9241
37. Evaluation with Opposite-Sex	.0810
38. Control with Opposite-Sex	.1076
39. Strategy with Opposite-Sex	.6737
40. Neutrality with Opposite-Sex	.5919
41. Superiority with Opposite-Sex	.0472
42. Certainty with Opposite-Sex	.4245
43. Description with Opposite-Sex	.6136
44. Problem Orientation with Opposite-Sex	.4909
45. Spontaneity with Opposite-Sex	.7235
46. Empathy with Opposite-Sex	.7498
47. Equality with Opposite-Sex	.6479
48. Provisionalism with Opposite-Sex	.9236

49.	More from Mother	.5294
50.	More from Father	.5535
51.	More from Same-Sex	.6283
52.	More from Opposite-Sex	.6924
53.	Easier with Mother	.9747
54.	Easier with Father	.9363
55.	Easier with Same-Sex	.4917
56.	Easier with Opposite-Sex	.5270
57.	Similar Values about Sex	.3824
58.	Religion Important	.8389
59.	Church is Important	.9127
60.	Sex is sinful	.8450
61.	Parents value church	.6577
62.	Sex is for families	.8450
63.	Religion is barrier	.7725
64.	Church is open-minded	.7514
65.	Satisfied with information	.5960
66.	Sources: Mother	.9541
67.	Father	.9403
68.	Same-Sex	.7838
69.	Opposite-Sex	.6196
70.	Books	.5460
71.	School	.4919
72.	Church	.7904
73.	Personal experience	.8435
74.	Television	.4579

A Pearson correlation coefficient for the computed climate scores obtained from the test and retest of the pilot subjects showed the following results:

1) Fathers	r = 0.7551
	n = 20
	p < 0.001
2) Mothers	r = 0.4095
	n = 20
	p = 0.037
3) Same-Sex Friends	r = 0.4462
	n = 20
	p = 0.024
4) Opposite-Sex Friends	r = 0.4689
	n = 20
	p = 0.019

APPENDIX D

Summary of Demographics

Age Group		Religious Affiliation	
18 and under	1 (.5%)	Protestant	117 (60.3%)
18-21	160 (82.5%)	Catholic	47 (24.2%)
22-25	24 (12.4%)	Jewish	6 (3.1%)
26-35	6 (3.1%)	Moslem	3 (1.5%)
36-45	3 (1.5%)	Buddhist	2 (1.0%)
46-55	0	Hindu	0
56-65	0	Other	8 (4.1%)
over 65	0	None	11 (5.7%)
	<hr/>		<hr/>
	194 (100%)		194 (100%)

Degrees of Religious Commitment

Highly Religious	21	(10.8%)
Moderately Religious	89	(45.9%)
Slightly Religious	52	(26.8%)
Not Religious at all	31	(16.0%)
Missing Data	1	(0.5%)
	<hr/>	
Total	194	(100%)