

1985

## A study of sexual attitudes, sexual behaviors, and religiosity of community college students

Robert John Abdo

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**Abdo, Robert John**

**A STUDY OF SEXUAL ATTITUDES, SEXUAL BEHAVIORS, AND RELIGIOSITY  
OF COMMUNITY COLLEGE STUDENTS**

*The College of William and Mary in Virginia*

Ed.D. 1985

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AND RELIGIOSITY OF COMMUNITY COLLEGE STUDENTS

---

A Dissertation  
Presented to  
The Faculty of the School of Education  
The College of William and Mary in Virginia

---

In Partial Fulfillment  
Of the Requirements for the Degree  
Doctor of Education

---

Submitted by  
Robert J. Abdo  
March 1985

A STUDY OF SEXUAL ATTITUDES, SEXUAL BEHAVIORS,  
AND RELIGIOSITY OF COMMUNITY COLLEGE STUDENTS

by

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Chairperson of Doctoral Committee

### DEDICATION

This work is dedicated to my parents:  
John and Betty Abdo.  
From them I learned more than from all  
of the books and courses combined.



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First and foremost, I would like to thank my family and friends for all of their encouragement and support throughout my entire doctoral program. Without them, I never would have been able to persist.

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most difficult. I wish to say thanks to these talented researchers who offered their support and suggestions when I first began: Sol Gordon, Janet Hyde, David Altopp, and Joseph Faulkner. Their encouragement and experience reinforced my belief in the need for this study. A special thanks for Joseph Faulkner for granting me permission to use his Faulkner-DeJong 5-D Scale of Religiosity.

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## CHAPTER I

### Introduction

The provocative and often controversial topic of human sexuality has progressed from the shadow to the limelight of society's focus during the past 35 years. Until the publication of Sexual Behavior in the Human Male (Kinsey, Pomeroy, & Martin, 1948) and Sexual Behavior in the Human Female (Kinsey, Pomeroy, Martin, & Gebhard, 1953), public discussions of sexuality were considered taboo. In many cases, these types of discussions were even a rarity in the privacy of one's own home.

Since that time, the topic has become ubiquitous. Research studies have traced the liberalizing trend from the conservative period of the 1950s through the sexual revolution of the 1960s and into the rapidly changing period of the 1970s and 1980s.

In today's society, sexuality is not only a popular subject of professional literature, but also a common topic throughout the media and in everyday conversation.

For the purposes of this study, it is important to understand the full meaning of the word "sexuality," as compared to "sex" or any other colloquial term. Authors from the United Church of Christ stated:

One's sexuality involves the total sense of self as male and female, man and woman, as well as perceptions of what it is for others to be female and male. It includes attitudes about one's body and others' bodies. It expresses one's definition of gender identity. Sexuality is emotional, physical, cognitive, value-laden, and spiritual. Its dimensions are both personal and social (p. 12).

#### Purpose of the Study

The purpose of this study was to examine the specific relationship which exists between selected sociodemographic characteristics and the religiosity of a group of incoming community college students and their sexual attitudes and sexual behaviors.

#### Statement of the Problem

The relationship described above is one which has not been determined from the existing literature. Religiosity has been incorporated into a number of sexuality studies, but the existence of a clear and consistent connection has not been demonstrated with any population. In addition, this or any type of sexuality study of community college students has not yet been published.



This study initiated the collection of data on the sexuality of community college students. Also, an attempt was made to develop a reliable and valid instrument which would accurately assess the sexual attitudes and sexual behaviors of this population. These two aspects appeared to be missing from the literature which was reviewed.

#### Need for the Study

There exists a definite need for information on community college students. In a search of the related literature, no studies surveying sexual attitudes and sexual behaviors of this specific population were found. One study (McBride & Ender, 1977) included a few junior college students in the sample. None of the studies, however, focused exclusively on community college students.

The works of Hunt (1974) and Kinsey et al. (1948, 1953) included men and women who were similar in age to the average community college student. However, from their data gathering criteria, there is no way to extract accurate information on this unique subset of people.

There are approximately five million students enrolled in credit-bearing courses in America's community colleges (Watkins, 1983). For the most part, they are older than the average four-year college or university

student (Cross, 1971, 1976) and they hold many different values (Monroe, 1972; O'Banion & Thurston, 1972; Doherty, 1979; Watkins, 1983). Many of them are married, maintain full-time employment, and raise families along with attending classes. Their needs, desires, and goals are different from the general population, as well. Therefore, this group added a unique and valuable contribution to the existing literature.

Many students seek the assistance of counselors and teaching faculty for problems and concerns in the area of human sexuality. Credit-bearing courses in this field, along with group and individual counseling sessions, lead these students toward developing a sense of comfort about themselves and a healthy view of their sexuality. These professionals need accurate and current information in order to assist students in these types of courses and counseling experiences.

In addition, counselors, administrators, and teaching faculty members are in need of accurate information on all of the students enrolled in community colleges. These data are necessary in order to understand this population more fully and in order to make more appropriate decisions concerning curricula, personal needs and educational needs of these students. Until this study, an important part of those data was unavailable.

Since the rate of premarital intercourse has been increasing steadily since the late 1960s, it is important for researchers to continually monitor the changes in the sexual behaviors and attitudes of all persons. In a rapidly changing society, these types of studies are necessary in order for current and accurate data to be available.

Finally, the research has shown a continual disagreement concerning the relationship of religiosity to the sexual attitudes and sexual behaviors of adolescents and adults. Some studies report a definite connection (Kinsey et al., 1948, 1953; Dedman, 1959; Lindenfeld, 1960; Reiss, 1960, 1965, 1967; Jurich & Jurich, 1974; Mahoney, 1980; Altopp, 1981; and others). Other studies report no connection, a questionable connection, or a connection only for one gender (Bell, 1966; Heltsley & Broderick, 1969; Clayton, 1969, 1972; Thomas, 1973; King, Abernathy, Robinson, & Balwick, 1976; Zuckerman, Tushup, & Finner, 1976; and others). Researchers such as Barrett (1980) claimed that religiosity affects sexuality, but not as powerfully as it did in the past.

In addition, some researchers claim that religiosity has a greater influence on sexual attitudes than on sexual behaviors. The hypotheses in this study were designed to show evidence that this is true. The Review of the

Literature section discusses the major studies which led to this decision. Also, this decision is based on the fact that, when compared to four-year college students, more community college students are married. It is more difficult to discern what would be considered "conservative sexual behavior" within a marriage as compared to outside of a marriage.

With the preceding problems yet unsolved, there exists a strong need for this type of study. Therefore, this project was designed both to specifically describe a community college population and to update the available information on sexual attitudes, sexual behaviors, and religiosity.

#### Theoretical Rationale

Modern theories in the area of human sexual development began with the innovative work of Sigmund Freud (1924, 1924/1962, 1931). In emphasizing the unconscious, Freud (1924/1962) theorized that every person is born with a type of "sexual instinct." This innate sexual need is analogous to the need to take nourishment when one is hungry. It is strong, natural, and, for the most part, unconscious.

Freud (1931) expanded his theory by claiming that people need to release their sexual urges by means of

natural gratification. However, there are times when both men and women attempt to check or control these urges. These attempts have a tendency to consume a considerable amount of energy; thus, having a significant impact on their lives. This led Freud to theorize that the majority of human beings are unable to successfully cope with sexual abstinence; they need to guide their sexual urges toward a positive, healthy release. According to Rieff (1959), Freud claimed that this sexual drive was also able to be sublimated or directed toward a sense of love expressed through tenderness and affection.

Much of his focus was on the sexual development in the child. Ruitenbeek (1962) explained how Freud believed that the main difference between a normal and a neurotic person is whether or not he was able to pass through the phases of infantile sexuality and leave most of those aspects behind. The neurotic person "preserves infantile sex attitudes and behaviors in many disguises, as it were, and often eventually reverts to some infantile form of sex expression" (Ruitenbeek, 1962, p. vi). This explains why he concentrated so heavily on the first few years of a child's life.

Freud purported that, from birth, people have a sexual urge which progresses from autoeroticism to love for a specific object. This urge continues to progress

toward the autonomy of the erogenous zones and then to a type of submission to the genitals. Procreation of the race is assured by the final step in this progression. This development describes the basis of his theory of the unconscious stages of development: oral, anal, and phallic (Freud, 1931).

Freud was one of the first theorists to emphasize the pervasiveness of sexual attitudes. He emphatically stated that the sexual attitudes of men and women have a definite molding influence on attitudes toward other matters within their lives; thus, they should no longer be ignored in the theoretical framework of human behavior. This belief explains his continual focus on the sexual development of people throughout their life spans.

Also most noteworthy are the monumental studies of Alfred Kinsey and his associates (1948, 1953). Kinsey claimed that differences in sexual behavior and attitudes were dependent on three major variables: hereditary morphology and the effects of the environment on that anatomy, psychological conditioning of the individual, and social pressures encountered by the individual.

Age, he theorized, was the one physical factor which presented the strongest influence on a person's sex life. Earlier theories had claimed that sex hormones and the thyroid gland were responsible for variations in human

sexual behavior (Hamilton, 1937; Moore, 1942; Pratt, 1942). Kinsey theorized that this gland does have a significant effect on the general metabolism level of the body. However, it is probable that the thyroid is related to sexual behavior because it has a major effect on the metabolism of the body, not because it produces a sexual or any other hormone. The pituitary, which regulates both the thyroid and the sexual glands does affect the sexual activity of individuals. However, Kinsey's major physiological theory was that chronological age accounted for the sexual differences he discovered between populations.

Secondly, Kinsey theorized that psychological conditioning has a profound effect on a person's sexual attitudes and behaviors. A combination of the impact of both physiology and psychological conditioning was evident in his discussion of aging. Kinsey noted a marked decrease in the physiological sexual response of erections as men grew older. This progressed from almost indiscriminant erections of pre-adolescents to a need for both physical stimulation and the appropriate psychological atmosphere in order for older men to achieve an erection. Thus, he theorized that this basic physiological response became more of a psychological response as an adult gained experience and became

conditioned by society.

Kinsey added that the conditioning of early experiences also resulted in a major effect on a person's sexual behaviors and attitudes. Previous conditioning was a paramount factor in deciphering human sexual variations. This prior learning determines the degree of incentive to either choose to repeat or to avoid certain activities in future situations. "Whether an individual depends upon masturbation or heterosexual intercourse for his pre-marital outlets depends in part upon the early experience he happens to have had" (Kinsey, 1948, p. 204). So, Kinsey emphasized the importance of early, as well as later experiences.

As he explained, no one needs to learn to become tumescent or to build neuromuscular tensions leading to rhythmic pelvic thrusts. However, humans do need to learn how to masturbate, how to use certain techniques in petting; in essence, how to act sexual (Kinsey, 1953). Both learning and conditioning, he theorized, have a profound effect on the sexual attitudes and behaviors of human beings.

In their descriptions of the Kinsey reports, a number of authors have emphasized that the most significant determinant of sexual behavior found in these studies is his third factor, the pressures of social class.



(Hiltner, 1973; Deutsch, 1948; Gadde, 1954). This proved to be especially true in men and more subtly true in women.

In Kinsey's words, "The mores are the prime forces which produce variations in the sources of sexual outlet in different groups. Patterns of sexual behavior are, in an astonishingly high percentage of cases, merely reflections of the patterns of the particular social level to which an individual belongs" (Kinsey, 1948, p. 204).

One's family, close friends, neighbors, business associates, and even acquaintances affect sexual behavior. In addition, Kinsey theorized that the thousands of other people whose attitudes, habits, expressed opinions, and activities constitute the culture are just as effective in shaping sexual behavior. He believed that these social forces both restrained and facilitated sexual behavior as they operated to psychologically influence each member.

Kinsey professed that, although most people rationalize that their patterns of sexual behavior are logically chosen from the most satisfactory, socially profitable, and morally right course, these decisions are actually based on mores which are hundreds of years old. Human sexual behavior and attitudes are based on decision making systems which are subtly, as well as directly ingrained into every member of society--according to his

or her social class.

Although heavily criticized, the theories of both Freud and Kinsey have withstood the test of time. Their names are synonymous with the words "sexuality research" and they are probably the two most often quoted theorists.

Most sexuality research appears to validate Kinsey's claim that there are three major variables affecting sexual attitudes and behaviors (physical, psychological, social). Although his sample was neither technically random nor representative of the entire society, the results do provide an accurate basis on which additional research has relied (Cochran, 1954; Gedde, 1954).

These two basic theories provided the foundation for this study. It focused on how sexual behaviors were practiced and what the present attitudes tended to represent. A major purpose of this report was to compare the sexual behaviors and attitudes of community college students to their degree of religiosity. This will test the belief which Kinsey proposed by referring to our social systems of mores and stating that "...there is nothing in the English-American social structure which has had more influence upon present-day patterns of sexual behavior than the religious backgrounds of the culture" (Kinsey, 1948, p. 465).

### Sample and Data Gathering Procedures

The sample consisted of a group of incoming students from North Country Community College (NCCC) in Saranac Lake, New York who attended the annual orientation session.

This group represented the majority of the incoming student population. In a large group session, students were asked to complete a questionnaire aimed at assessing their sexual attitudes, sexual behaviors, and religiosity.

### General Hypotheses

This study was expected to result in evidence which supported the following hypotheses:

1. There is a significant relationship between the religiosity of a group of incoming community college students and their sexual attitudes, when the following sociodemographic characteristics are controlled: gender, race, age, religious preference, student status, marital status, and demographic background.

2. There is no significant relationship between the religiosity of a group of incoming community college students and their sexual behaviors, when the previously stated sociodemographic characteristics are controlled.

In the statistical analyses, the preceding hypotheses were both stated in the null. This provided a more accurate result from the statistical tests used in this study.

#### Limitations and Assumptions

The following limitations should be considered when interpreting the data:

1. All students in the original sample had the option to choose not to participate in the study or to omit any responses.
2. All responses were from self-reports. It is assumed that all students understood every question and responded truthfully and accurately.
3. The sample represented only one community college and one region of the country. External validity may be questionable.
4. The students completed the questionnaires in a large group setting. It is assumed that there were no conscious or subconscious interferences.

5. The majority of the students used in the study were first semester freshmen. Therefore, they are more specifically described as "pre-community college students," since they are free of most of the influences which this type of experience will offer.
6. The sexual attitudes and sexual behaviors sections of the instrument used in this study were new scales developed by this researcher, based on a number of previously published instruments. It is assumed that the reliability and validity testing provided adequate evidence for their appropriateness. Also, it is assumed that the weighting technique used to evaluate the self-reported behaviors section provided an accurate measurement of the level of sexual experiences of the students.
7. All data gathered through the questionnaire were of a concurrent correlational nature. Therefore, inferences about causality must be made with caution.

Definitions

**Sexual attitudes** -- Personal attitudes regarding regarding any aspect of human sexuality, as measured by self-reports.

**Sexual behaviors** -- Heterosexual, homosexual, and autoerotic activities leading to sexual excitement or orgasm, as measured by self-reports.

**Religiosity** -- The degree of importance religion has in one's life, as measured by the self-reporting of five dimensions (experiential, ritualistic, ideological, intellectual, and consequential).

**Oral-genital sex** -- Sexual activity where one partner puts his or her mouth on the penis of a male or the vagina of a female.

**Sexual intercourse** -- Sexual activity where a male places his penis into the vagina of a female. Both partners do so willingly.

**Masturbation** -- Sexual activity where a person touches his or her own genitals in a manner which leads to orgasm.

**Homosexual** -- A person who prefers to have sexual activity with someone of the same sex.

Summary

Chapter I provided a basis for this research by stating the problem, the need for the study, the theoretical rationale, and other introductory material. Chapter II presents a review of the related literature and Chapter III explains the specific methodology used in this research. The results of the survey are described in Chapter IV. A further analysis of the data and other conclusions are presented in Chapter V.

## CHAPTER II

### Review of the Literature

Research in the area of human sexuality was relatively rare until the publication of Sexual Behavior in the Human Male (Kinsey et al., 1948) and Sexual Behavior in the Human Female (Kinsey et al., 1953). Since that time, numerous studies have concentrated on the description of human sexual attitudes, behaviors, and values. The majority of these works have surveyed adolescents and college undergraduates. This review is divided into three parts. The first part will present many of the major studies which dealt with sexual attitudes and behaviors. The second part will focus on research which incorporated the dimension of religiosity into the study of sexual attitudes and behaviors. In the third part, the uniqueness of a community college population will be discussed.

In order to give the clearest picture of the development of this set of theories and information, the material will be presented in chronological order. This review will show that the question of the impact of religiosity on sexual attitudes and sexual behavior is unanswered. In addition, the studies discussed in this section used adolescents, four-year college



undergraduates, and adults as subjects. No research exclusively studying the sexual attitudes or sexual behaviors of community college students was found.

### Sexual Attitudes and Behaviors

This section will describe the development of studies beginning with Kinsey and progressing through the present. It will focus on research incorporating adolescents, college students, and adults.

The works of Alfred Kinsey and his associates (1948, 1953) provided the first comprehensive description of the sexual behaviors and attitudes of American males and females. Kinsey et al. (1948) defined "total sexual outlet" as orgasm derived from masturbation, nocturnal emission, heterosexual petting, heterosexual intercourse, homosexual relations, and intercourse with animals. Over 95% of the male adolescents were sexually active on a regular basis by the age of 15. In the 30 year period from age 16 through 45, he found that only between 1% and 2% of males were without regular and frequent sexual outlets. The teenage years showed the highest level of sexual activity. The single males reported an average of 3.4 sexual experiences per week, while the average married males were at their highest point with 4.8 experiences per week. Among unmarried females (Kinsey et al., 1953),

there was a considerable difference. Only about 64% of them had ever achieved orgasm before marriage. The mean number of orgasms prior to marriage was 223 for the females and 1523 for the males. At this point, there was no question about which gender was the more experienced or the more sexually active.

In the 16 to 25 age group, approximately 88% of both the male and female samples reported premarital petting experiences. The incidence of premarital sexual intercourse varied extensively within this age group. Among the 21 to 25 age group, approximately 80% of the males reported at least one experience, while only 35% of the females ever engaged in this activity.

The major criticisms of the Kinsey works are that the sample was not representative of the entire population and that the interviewing techniques were not as standardized as they could have been (Cochran, 1954; Gedde, 1954; Hiltner, 1973).

Lindenfeld (1960) studied 225 single college students to find the relationship of gender, social mobility, and religiosity to both sexual attitudes and behaviors. He found that all three of these variables were significantly related to the students' attitudes toward premarital sexual intercourse and to the incidents of their heterosexual experiences. In general, the women appeared

to be more restrictive than the men in both attitudes and behaviors. Statistically, he found that 43% of the men and 15% of the women had previously engaged in premarital sexual intercourse. There was no information about the instrument Lindenfeld used and his statistical data were calculated only with percentages and number of incidents of behaviors.

Reiss began extensive research in the 1960s to articulate the premarital sexual standards held by Americans. In his first major publication on these ideas (Reiss, 1960), he suggested that all people adhere to one of four basic standards:

Abstinence--premarital sexual intercourse is wrong for both men and women, regardless of circumstance or relationship.

Double Standard--premarital sexual intercourse is acceptable for men but not for women, under any circumstance.

Permissiveness With Affection--premarital sexual intercourse is acceptable between two people who have a strong feeling of romantic love for each other and are sharing a stable relationship with a long-term commitment, such as engagement.

Permissiveness Without Affection--premarital sexual intercourse is acceptable between any man

and woman, simply on the basis of a physical attraction, regardless of their feelings toward each other.

After studying these standards, he concluded that there appeared to be an increasing acceptance of the concept of premarital sexual intercourse and not necessarily an increase in the actual performance of this behavior. Until this time, sexual attitudes were considered to be relatively conservative, as compared to sexual behaviors. However, Reiss predicted that there would soon be an increase in many forms of these activities, since reported attitudes had "caught up" to behavior. He believed that this would stimulate an upward cycle of increasing sexual behaviors and that they would be more readily accepted by society (Reiss, 1966).

Around that same time, Bell (1966) voiced similar beliefs and reflected on the past: "On the basis of available evidence, it appears that the greatest changes in premarital coitus for the American female occurred in the period around World War I and during the 1920s. There is no evidence that the rates since that period have undergone any significant change" (p. 57).

Similar work was being conducted by Freedman (1965). He interviewed only a small sample, 49 women, but he followed them throughout their four years in college. He

found that approximately 16% had engaged in premarital sexual intercourse within the confines of a serious relationship. Freedman stated that conservatism, inhibition of impulse, cautiousness, and a willingness to defer sexual gratification were dominant characteristics of college women. Like Bell (1966), he also added that the non-virginity rate among college women had, at least, doubled following World War I and had stabilized until that period in the mid-1960s. Freedman added that, when college women did engage in sex, it was usually with men with whom they were emotionally involved.

Schofield (1965) conducted a study of almost 2000 adolescents between the ages of 15 and 19. Concerning attitudes, he found that 35% of the males and 61% of the females felt that sexual intercourse before marriage was wrong. Concerning experience, 20% of the males and 12% of the females had engaged in sexual intercourse at least once. Of this group, only 48% of the males and 30% of the females reported that they enjoyed their first experience with intercourse. In the total sample, 3% of the males and 1% of the females reported that they had been involved in sexual intercourse before the age of 15.

Discussing the "new code of sexual morality" among college women, Hoyman (1967) predicted that changes were near. He said that the new liberal and sophisticated

attitudes (i.e., less guilt and shame, an increase in heavy petting, tolerance for the behavior of others) would lead to an increase in sexual behavior. But, he believed that the typical American college woman was still self-restricting and had a deep-seated yearning to be respected as a human being. The birth control pill, he projected, would make a major difference in future sexual morals.

During this period, many authors were reporting that behavior was similar to the past 35 years, but they were hinting that there appeared to be a type of liberalizing revolution brewing, especially in the nation's colleges.

Although they found only slight changes in premarital sexual intercourse and petting behavior, Robinson, King, Dudley, and Clune (1968) noticed a change of attitude in the sample. Affectionate relationships, which they believed were congruent with love and sex, were now being expressed more openly. Also, Robinson's college group believed that sexual behavior should not be considered a community or religious question. The locus of responsibility should be within the individual. The sample was taken from intact college level classes, which were reported as being representative of the college population in terms of class standing and fraternity/sorority membership. Also, the questionnaire

was developed from two other sources and there was no validity or reliability information presented.

The predictions of Reiss (1966) and Hoyman (1967) were again discussed by Kaat and Davis (1970) when they studied 400 college students. Focusing on the reported differences between attitudes and behaviors, they hypothesized that this conflict would soon be resolved by a change of one or the other. There was a general feeling that behaviors had been more liberal than attitudes. So, it would follow that, since the reported attitudes were showing more liberalization, sexual behaviors were likely to be increasing, also. These beliefs were based on their findings of an increase of both "precoital" behavior (heavy petting) and accessibility to the birth control pill. Additionally, they found more liberal attitudes on the part of both men and women, but also noted that a strong double standard was still present.

The development, distribution, and general acceptance of the birth control pill, along with the legitimization of sexual candor were cited as the reasons for a change in the sexual behavior of college students (Bell & Chaskes, 1970). The rate of females reporting premarital coitus increased from 10% in the 1958 sample to 23% in 1968. Bell and Chaskes believed that this study presented the first evidence of a significant change in premarital

sexual behavior patterns since the 1920s. They believed that engagement and feelings of guilt were becoming less important conditions for choosing to become sexually active. Although there was no specific information on the instrument used, their samples were from the same university and similar in age, class standing, social class background, and distribution of religious backgrounds.

DeCoster (1970) summarized that three major points were being demonstrated in the current studies about college students and their sexuality. These studies showed that college students in the late 1960s were more open and honest about their behavior, they considered moral judgments a personal matter, and they were more tolerant of behavior exhibited by others. DeCoster also claimed that premarital sexual standards were "catching up" to behaviors. He predicted that the frequency of premarital intercourse would increase when professed moral standards "legitimized" current levels of behavior.

The Pennsylvania State University purchased an entire housing complex and converted it into a type of "student community" for its undergraduates. Baker and Lefkowitz (1971) studied what effect living in this type of housing had on the sexual standards of students. Before moving into the area, 66% of the males and 44% of the females



reported that they had engaged in premarital coitus. The 225 males and 68 females appeared to develop a greater sense of sexual permissiveness while residing in this complex, as evidenced by more casual sleeping arrangements, more extensive petting and foreplay, and more relaxed sexual attitudes. However, Baker and Lefkowitz did not believe that there was widespread promiscuity. The liberalization of attitudes and behaviors was more pronounced for the females. When considering this result, the size of the female sample must be taken into consideration. Only 68 of them returned the questionnaire. Also, the entire sample was a highly select group.

Robinson, King, and Balswick (1972) reiterated that the trend toward viewing sexual behavior as one's personal business was continuing to gain acceptance. Females, they restated, were becoming more liberalized in their sexual attitudes. Besides a major relaxing of the attitude against petting, their five-year study of college students also demonstrated that there was a dramatic increase in the frequency of heavy petting behavior (defined by oral or manual manipulation of the genitals). The number of males engaging in this behavior increased from 71% in 1965 to 79% in 1970. For females, it increased from 34% to 59% during that same period. They also reported one of the

first major increases in sexual intercourse of females: 29% in 1965 to 37% in 1970. Again, their sample was selected from intact academic classes and there was very little reported information on the instrument used and the data gathering procedures.

In response to this trend, Jurich and Jurich (1974) restudied Reiss's four standards for premarital sex and decided that a fifth step needed to be considered. They added: Nonexploitive Permissiveness Standard. This allows for sexual intercourse between two unmarried partners who are operating from a mutually shared understanding, which may or may not include romantic love.

After interviewing over 200 teenagers, Sorensen (1973) developed a questionnaire incorporating the jargon and language style he observed. His survey of 393 adolescents showed that 59% of the males and 45% of the females had experienced sexual intercourse. Also, he found that the males attached more significance to their first act of sexual intercourse than the females. The women felt guilty, somewhat disappointed, and sorrowful. The men expressed more positive feelings, such as excitement and joy. Among the sexually active, Sorensen discovered that the couples were committed to being faithful, but there was no specific duration planned for the relationship. About one-half of the teens reported

that they were having sexual intercourse with only one partner at that time and one-half of them had been in their current relationship for at least one year. Sorensen also stated that only 58% of the males and 39% of the females reported ever masturbating. This was a considerably lower rate as compared to other reports by males of this age group. Additionally, concerning masturbation, the group felt relatively defensive and embarrassed, but few reported any feeling of guilt. In a review of this study, Wagner (1980) recalled that the difficulty of students' reporting of masturbatory activity led Sorensen to question the validity of his own findings. Wagner adds that admitting to masturbation was probably especially threatening to adolescents, since their acceptance of their own sexuality at that age is tenuous. This type of pleasure also conflicted with the attitudes many people professed.

A study involving students from five different colleges was conducted by Macklin (1974). She found that between 9% and 36% of these subjects had or presently were cohabitating. Macklin claimed that the practice of cohabitating developed out of a desire to get to know the whole person, along with a desire to be with and share as openly and completely as possible with that person. One case offered a particularly good example of this concept.

Although nearly all of the cohabitators were having full sexual relations, 10% of one group reported that they had lived together for three months or more before having sexual intercourse. This led her to conclude that "free love and sex" was not the reason why all college students chose to share living quarters.

Hampe and Ruppel (1974) studied two different scales of premarital sexual permissiveness: Carpenter and Christensen's Intimacy Permissiveness Scale (IPS) and Ira Reiss's Premarital Sexual Permissiveness Scale (PSP). They concluded that the PSP more accurately measured attitudes concerning premarital sex, mainly because of its emphasis on the affectional quality of a person's attitudes. Also, the PSP was shown to have greater reliability and validity. Hampe and Ruppel believed that studies using the PSP could provide more accurate tests of hypotheses, based on this fact. Concerning sex differences, they reported that males and females in the same sample tended to disagree on items in the IPS, but agreed on items in the PSP. While they were cautious not to totally devaluate the IPS, they strongly suggested that the PSP was clearly the better instrument. That is one of the reasons why this study incorporated questions from Reiss's PSP.

Hunt (1974) conducted a major study to update the

work of Kinsey, especially in the area of adult behavior. The project consisted of administering a questionnaire to over 2000 people and interviewing about 200 of the them. He found that the number of women in their late teens and mid-twenties who had experienced premarital coitus had doubled since Kinsey's research. Among males, Hunt also found an increase, but it was proportionately smaller. Single men and women reported masturbating more frequently and at an earlier age. The married couples reported spending a longer time making love, engaging in more oral-genital sex, and using a greater variety of positions during intercourse. Hunt generalized that the sample reported more permissive and more liberalized attitudes than those of a generation ago. However, he disagreed with the contention that a major sexual revolution had conquered America. The changes were not a major break from fundamental Western tradition, which connected sexual activity with love. The difference was that, now, nearly everyone could talk and read about sex much more freely than before.

In a review of the sexual state of affairs, Godenna (1974) argued that all available data indicated that adolescent sexual behavior had changed very little in the past decade. However, there was a trend toward adolescents having their first sexual experience at an

earlier age. Godenne believed that sex was being talked about more openly and without a sense of guilt, shame, or fear. These feelings, Godenne proposed, had been reduced by the abundance of both licit and illicit books and movies available to the general public.

In 1975, Reiss et al. formulated a theory of aspects relating to contraceptive use among college women. He found that three areas held a positively significant influence on the adoption of a birth control method. A person acted more responsibly toward the use of effective contraceptives when she endorsed the right to choose her own individual sexual life style, when she felt a high level of self assurance, and when she possessed a high degree of determination to keep her heterosexual relationship intact.

King and Sobel (1975) questioned 558 college students and found that 83% of the males and 72% of the females had experienced premarital coitus. Although these percentages were high, the authors contended that the sexual activity occurred in a socio-emotional context which was not much different from the previous generation. The portion of the sample engaging in intercourse weekly or more had a median number of partners of one. Those engaging less frequently reported a median of two partners. Thus, they concluded that the setting for most of the premarital sex

of their sample was within a stable, affectionate relationship. The difference was that, in the previous generation, this meant a formal engagement. In that current generation, a stable, affectionate relationship was described as going together or living together. Although intact college classes were used for the sample, King and Sobel incorporated a factor analysis of the questionnaire into their analysis of the data in order to add validity to the study.

A sample of 405 randomly selected adolescents responded to a number of questions concerning their sexual behaviors and attitudes in a study conducted by Elias and Elias (1975). Approximately 77% of the males and 33% of the females reported masturbatory behavior. The range was from at least daily to once a month. Of this group reporting that they had masturbated, 55% of the males and 52% of the females admitted that they experienced guilt feelings about this behavior. Major differences were found concerning sexual intercourse. Elias and Elias said that the females felt a strong emotional commitment to their sexual partners, while the males felt much less or even no commitment. Concerning their first experience with sexual intercourse, the females said that it was with a male they intended to marry or with whom they were deeply in love. The males said that their first sexual

intercourse was with a female with whom they felt little or no emotional attachment. Statistically, 31% of the males and 11% of the females reported having sexual intercourse at least once. Overall, the authors concluded that the personal value systems of these adolescents was the major factor in their decision regarding sexual activity. In addition, there were 163 interviews conducted, which were also based on a random selection. Elias and Elias did not report any specific information about their instrument or interviewing techniques and their statistical discussion consisted of percentages only.

Jessor and Jessor (1975) divided their sample of college and high school students into groups of "virgins" and "nonvirgins." At the conclusion of their four-year study, they found that the nonvirgins valued independence, relied more on friends than family, and had engaged in more nonconventional behaviors than the virgins. Their reported rates of premarital intercourse were fairly different from most of the other studies conducted during this period. Approximately 27% of the high school males and 38% of the high school females had engaged in premarital coitus. Among the college students, the reported rates were 82% for the males and 85% for the females. Jessor and Jessor maintained that the unusual



higher rate for females may have been due to the opportunity for high school women to date college men in the same community, the exposure to a redefinition of sex roles, or ready access to contraception. They summarized that their data suggested that the traditional male-female asymmetry in rates of premarital sexual activity may be disappearing.

The results of a thirty-year study (Finger, 1975) revealed some enlightening data on the progressing trends of college males. In terms of those having premarital heterosexual experiences, there was a dramatic rise: 1943-44 = 45%, 1967-68 = 62%, and 1969-73 = 75%. Although the mean number of sexual episodes increased, there was a continuing reduction in the number of sexual partners each man encountered. Also, in the final sample (1969-1973 group), almost 96% reported having masturbated to orgasm at least once in their lives, with a range of 1 to 100 incidents per month. Premarital sexual intercourse was condoned by 51%, 68%, and 74% in the three different samples. In the final sample, 91% stated that premarital sex was acceptable if the partners were engaged. Additionally, Finger developed some conclusions about the attitudes he found: "The prevalence of a particular pattern of sexual activity in the general population is estimated to be higher by those who themselves have

experienced that activity than by the inexperienced. This may illustrate the defense mechanism of projection, or reflect the controlling influence of perceived norms" (p. 316). Although his samples were taken from intact college classes, Finger did report some reliability and validity data on the 50-item questionnaire he used in both studies (Finger, 1947).

Claiming to be the most important survey since Kinsey, Redbook (Levin, 1975; Levin & Levin, 1975) published the results of a survey to which 100,000 women responded. While Kinsey had reported that 33% of 25 year-old women had engaged in premarital intercourse, Levin (1975) found that 90% of the women in this age category had done so. The entire sample was asked if they would object to their children engaging in premarital sex. Approximately 12% objected to their sons being involved, while 24% did not want their daughters to have intercourse before marriage. Since the survey appeared in the magazine itself, the sample was probably not highly representative of American women in general.

Lance (1976) studied 235 college students in sex-integrated and sex-segregated dormitories. His work supported what Reiss (1967) had claimed. Where the sociocultural environment is the same, differences in courtship autonomy will lead to differences in courtship

permissiveness. There was no significant difference in the sexual permissiveness of the integrated or segregated dorm residents early in the school year. However, at the end of the year, the sex-integrated residents were more permissive.

Using the Sex Knowledge and Attitude Test, a sample of high school students, college undergraduates, and college graduate students was studied by Miller and Lief (1976). Of these 556 students, 63% were between the ages of 22 and 25 years of age. Focusing on masturbation attitudes, knowledge, and experience, they found that 76% felt that masturbation was healthy. They also compared their results to the findings of both Kinsey (1948, 1953) and Hunt (1974). Kinsey reported that 92% of the males in his study masturbated. Hunt reported 94% and Miller and Lief found that 97% masturbated. Concerning the females, Kinsey reported 62%, Hunt reported 63%, and Miller and Lief found that 78% masturbated. Two other results proved interesting. While high school and college males had more liberal attitudes toward masturbation than high school and college females, the female graduate students were more liberal than their male counterparts. Also, they discovered that 16% of the medical students believed that masturbation was a cause of emotional and mental illness.

Chess, Thomas, and Cameron (1976) conducted a

longitudinal study of 82 families having at least one adolescent in the house. A high degree of congruence was found between the reports of both the adolescents and the parents concerning the types of friendships that were held by the adolescents and their sexual behavior. Throughout these interviews, moral conflicts and guilt about sex were less than previously reported in the research. Also, sexual affairs were not seen as casual encounters. There was a clear drive in almost all of the adolescents toward a sense of physical and emotional intimacy in their relationships. These progressed from close friendships to pairing off. Then, they continued toward steady relationships and on to sexual relationships with emotional intimacy as a base. There was no evidence of sexual promiscuity reported in this study.

In reviewing the research available at that time, Cannon and Long (1976) summarized that there was a substantial increase in the proportion of females who reported having premarital sexual intercourse. Also, there was a substantial increase in the number of women who approved of premarital sex.

A combination of junior college, private four-year college, and university students was surveyed by McBride and Ender (1977). A significant difference was found between the attitudes of males and females toward

premarital coitus. Of the males, 90% felt that it was acceptable if the couple was engaged. Only 70% of the females agreed. Sexual permissiveness without affection was rated acceptable by 86% of the males and 56% of the females. A total of 80% of the males and 57% of the females had engaged in premarital sexual intercourse. Although the sample was very small, it did include some junior college students. A few reportable differences were found. Women at junior colleges showed a more favorable attitude toward petting without affection than women at the private four-year colleges. But, they showed a lower percentage of agreement that premarital intercourse was acceptable. The junior college males reported a lower favorable attitude toward petting without affection than the university men. All of the subjects were volunteers and no reliability or validity information was reported on the 25 questions used.

Wagner (1978) believed that the increase in the sexual behavior of adolescents was based on a variety of reasons. He claimed that natural biological urges, social encouragements, steady dating, and the absence of parental supervision were the highest contributing aspects. On the opposite side, he stated that three issues were most often cited by those who chose to abstain from premarital intercourse: the fear of pregnancy, the possibility of

contracting sexually transmitted diseases, and the resulting emotional pangs experienced by those who were unprepared for this type of sexual experience.

Two studies using the Sex Knowledge and Attitude Test added to the information concerning graduate students. While this population is quite different from community college students, the studies are worth mentioning. Leonard (1978) concluded that formal course work in human sexuality did not alter sexual knowledge or attitudes. The more knowledge a person had, the more positive was his or her attitude toward sexuality. As compared to social work and counseling students, psychology students were more liberal in attitudes and experiences, according to Manes (1978). They possessed more sexual knowledge and rejected more of the common myths.

Murstein and Holden (1979) measured a number of variables in an attempt to discover how they correlated with sexual behavior among college students. They found a positive correlation between the philosophy of sex and sexual behaviors. Their measure of philosophy differed from the typical measures of attitudes used by most other researchers. A high correlation was also found between those students who had taken illegal drugs and the likelihood that they would engage in sex. Also, for women, the closer the relationship to their parents, the

less likely they were to engage in premarital sex. Murstein and Holden reported one of the highest rates of students engaging in premarital sex. They found that about 75% of the women and 83% of the men had been sexually active at least once. Their sample was randomly selected and the questionnaire return rate was 81%. The report included a detailed description of the instrument, but no information on its reliability or validity.

Continuing his work on premarital sexual standards, Jurich (1979) attempted to discern which variables influence the choices made by college students. He found a highly complex interrelationship among many variables, with none of them providing an overriding importance. Depending on which of the five standards was chosen by the student, there was sometimes a relationship with demographic characteristics, sometimes with personality variables, and sometimes with environmental characteristics. From these results, he suggested that the socialization theory may be oversimplified and that researchers need to consider a general systems theory which would delineate the complex relationships of many different variables.

Abernathy, Robinson, and Balswick (1979) also considered some of the variables affecting sexual permissiveness. They focused on the degree of

urbanization and found that a direct relationship existed. While permissiveness was not found to be a simple function of urbanization, those from rural backgrounds were more conservative and those from cities were more liberal in both sexual attitudes and behaviors. Abarathy concluded that those who grew up in a city experienced greater autonomy and individualism, thus causing them to become more permissive. There was one interesting twist: both men and women from rural backgrounds were more willing to grant women the same level of sexual freedom as men. Also recognizing that permissiveness was not unidimensional, the authors stated that sexual behavior in a population was a consequence of both the way its members define it and the meaning they attach to it.

In a book describing the multi-faceted science of sex research, Elias (1979) stated that the sexual behaviors of adolescents had not changed radically from that of their parents. He believed that the so-called "sexual revolution" should be attributed to the media and not to research data. However, adolescents had become more permissive in their attitudes and were discussing sexuality more openly. This attitudinal change was an interesting one, he concluded. The previous generation had professed attitudes which were actually more conservative than their behaviors. The present generation



was professing attitudes which were more liberal than their behaviors.

In a review of their continuing studies, Katz and Cronin (1980) discussed the liberalization of both sexual attitudes and behaviors during the 1970s. The number of college students agreeing that full sexual relations were permissible before marriage increased from about 50% in 1970 to 90% in 1975. Concerning premarital sexual intercourse, about one-half of the 1970 sample reported experiencing this activity. In 1977, those figures rose to 78% of the men and 72% of the women. Katz and Cronin noted how dramatic these changes were, especially when compared to pre-1950 survey results. During that period, reported premarital sexual intercourse ranged from 52% to 58% for college men and 13% to 33% for college women. They concluded with a suggestion for more formal sexuality education in the colleges and encouraged faculty to become more sensitive to what the students were experiencing.

In 1980, Newsweek published a cover story describing the state of teenage sexuality in America (Gelman et al., 1980). According to Gelman, research showed that 50% of America's 10.3 million young women (aged 15 to 19) had engaged in premarital sexual intercourse. He also pointed out that experts estimated that approximately 80% of sexually active teenagers failed to use effective means of

contraception. This had resulted in over one million teenagers becoming pregnant every year. Gelman emphasized that society's mixed messages about sexuality had left these teens with mixed blessings: teens had more choices than their elders used to have, but there was no guarantee that they would make wise choices.

Ironically, two weeks later, Newsweek published an article reviewing a new book entitled, "The New Celibacy" (Langway, 1980). It described why more men and women were abstaining from sex and how the so called "sexual revolution" had backfired.

Zelnik and Kantner (1980) focused on a relatively specific population. They studied the sexual activity, contraceptive use, and pregnancy among teenagers (aged 15-19) who were living in metropolitan areas. Teenage women showed a major increase in the reported rates of premarital sexual intercourse: 30% in 1971, 43% in 1976, and 50% in 1979. Of this last group, only 34% reported always practicing contraception. They concluded that, although the nonuse of contraception was declining, it was still not a sufficient enough reduction to overcome the forces which were working to increase the pregnancy rates among unmarried teens. "The forces which were working" were described as behavioral areas, yet to be identified. So, although they expressed the problem, there were no

suggestions for eliminating it.

A summation of the common findings among college students was expressed by Vincent, Faulkenberry, and Murray (1981). They found that, when compared to females, males engaged in intercourse at an earlier age, used contraception less frequently, and were sexually active with more partners.

In a philosophical essay, Taylor (1981) described some of the changes which had taken place on the campuses, themselves. He noted how Brown University captured the attention of the media in 1966 when it announced that the student health center had supplied birth control to an unmarried female student. This progressed to relatively unrestricted dispensing of contraceptives on many campuses across the country. The single most important change, according to Taylor, was the establishment of coeducational dormitories. But, he contended that this and other changes had not promoted promiscuity, as often claimed by the more conservative factions. Instead, Taylor believed that these changes led to a carefully cultivated attitude of mutual respect between men and women. The sexual revolution, he believed, had been completed in the late 1970s and this society was returning to some of the more conservative values professed by the previous generation.

Durham and Grossnickle (1982) asked 105 college males and 123 college females to view four photographs of different women. Two of the photos had previously been rated as highly attractive and two had been rated as low in physical attractiveness. The students rated the one they perceived as most attractive, the one they thought was a virgin, and the one most likely to masturbate. All of the subjects selected one of the two previously rated as highly attractive as their own choice for most attractive. The two photos rated as low in attractiveness were most often selected as the woman most likely to be a virgin and most likely to masturbate. Based on these results, Durham and Grossnickle suggested that virginity and masturbation were viewed as negative sexual concepts by college students.

Using a combination of interviews and questionnaires, Taylor (1982) studied 115 undergraduate and graduate students who were enrolled in a human sexuality course. A post-course evaluation revealed that students held somewhat liberal and more tolerant attitudes at the conclusion of the semester. There were changes in attitudes toward homosexuality, masturbation, cohabitation, and swinging. However, more conservative views about such topics as abortion, natural childbirth, and group sex were actually reinforced by taking the

course.

Statistically, at this time, Spreadbury (1982) found that 81% of the college males and 73% of the college females reported having premarital sex. She concluded that Reiss's permissiveness with affection standard had replaced the double standard of the 1950s as the common attitude among college students. In asking the students to evaluate their sexual behavior, she found that the majority of the sexually active group did not view themselves as "promiscuous." Spreadbury used 167 students who were enrolled in sections of Marriage and Family Living classes. Beside her lack of random sampling technique, the questionnaire was highly sexist. It asked for evaluating the promiscuity of women only, if they chose to have sex in certain circumstances.

Larsen, Cate, and Reed (1983) also agreed that males engaged in intercourse at an earlier age and that they reported more frequent sexual experiences. They added that more females than males disapproved of extramarital sex. Also, the females reported more satisfaction with their relationships, while the males reported a higher level of satisfaction with their sexual behavior. Although they included useful information about the instrument used, the students responding to both the pretest and posttest comprised only 43% of the males and

57% of the females in the originally selected group.

In a developmental study of adolescence, Chilman (1983) focused on a number of variables ranging from biological development to specific topics, such as voyeurism. She concluded that the reference group attitudes, beliefs, and norms of adolescents varied according to a number of characteristics. Some of them were social class, racial, ethnic, religious, and regional factors.

Although her focus was somewhat different from the other studies quoted in this review, Turner (1983) offered some insightful data regarding current attitudes. In a study of 866 adults, she found that over 80% approved of sex education in the public school. Her random sample from a population, labeled "ultraconservative," showed that age was the major predictive factor in terms of favoring or not favoring sex education in the public schools. Also, those who favored women's issues, believed that all premarital sex was not immoral, and believed that sex education did not promote premarital sexual activity were far more likely to favor sex education in the public schools.

Strahle (1983) presented a major review of the literature and showed inconsistencies among the factors used to explain both the prevalence and the frequency of

premarital intercourse and use of contraception. He attempted to focus on a two-stage model to estimate the impact of a number of variables on the premarital coital behavior and the subsequent use of contraceptives among teenage women. The twelve variables were: parental socio-economic status, religiosity, sexual socialization history, situational perception, history of sexual activity, accurate anatomical and physiological knowledge, degree of independence from parents, age, physical attractiveness, goal orientation, educational and occupational aspirations, and sex role norms. From these variables, Strahle developed 40 hypotheses about sexual behavior.

Significant increases in sexual activity among women during the period of 1973 through 1978 were discussed by Gerrard in a state of affairs article published by Time (Leo, 1984). However, she predicted that sexual activity among college women has currently reached its peak at the 50% to 60% level, which she found in her most recent studies. Leo also cites studies from the University of California, which support a leveling off of the rapid increases in sexual activity reported among college students during the early and middle 1970s.

Whelean and Moynihan (1984) combined Reiss's Scale of Premarital Sexual Permissiveness with items from

Koestenbaum and the Masculinity-Femininity Scale of the Minnesota Multiphasic Personality Inventory when they surveyed college undergraduates from human sexuality classes. They found that 85% of the males and 73% of the females had experienced sexual intercourse by the age of 20. More than half of the 377 students were either 20 or 21 years of age when they completed the questionnaire. Reiss's "Permissiveness with Affection" norm was supported and there were no significant differences between male and female responses to aspects of sensuality, such as massages, discussing sex, and monogamy. Whelean and Moynihan also reported that the most preferred sexual activity was penile-vaginal intercourse for males, but non-genital kissing and caressing for females. There was no reliability or validity information reported on the instrument and the sample was a highly select, rather than random group.

Lawrance, Rubinson, and O'Rourke (1984) added more support to the belief that sexual attitudes and behaviors of college students were no longer becoming more liberal. In a ten-year study, they found that college males were more likely than college females to be in favor of premarital sexual intercourse and to engage in this behavior. However, the double standard appeared to persist among these 700 students and attitudes toward



abortion and extramarital intercourse became less tolerant over the years. Lawrence et al. surveyed only upperclass students who were enrolled in a human sexuality course and they did not report much information about their self-developed instrument.

### Summary

Although many components of sexuality were studied, a major focus of this literature review section was to trace the progression of the rate of premarital sexual intercourse among adolescents and adults. Historically, authors reported that the rate of premarital intercourse had doubled after World War I, but remained steady until the mid-1960s (Freedman, 1965; Bell, 1966). This disproved the prediction of Terman (1938), who claimed that, if liberalization continued at that current rate, virginity at the time of marriage would disappear for males born after 1930 and females born after 1940!

From the conservative period of the 1940s through the "revolution" of the late 1960s and into the complex studies of the 1970s and 1980s, researchers have been seeking to discover patterns and appropriate descriptions for the causes of those patterns. Kinsey (1948, 1953) set the stage for research and, since then, studies have abounded. The data show continually progressive increases

in sexual behavior and liberalization of sexual attitudes. However, there are often discrepancies between what the subjects profess and how they actually perform. Since sexuality is still a sensitive topic, survey responses must be carefully scrutinized. Do they represent an honest evaluation of the true self or an idealized self? Since people do not "keep records" of their sexual experiences, how accurate are responses to questions requesting information from a earlier time in one's life? These concerns will never be completely answered, but they must be considered when reviewing sexuality data. As Chilman (1983) states, there is no simple explanation for the expression of sexuality. Further research needs to be conducted in order to provide accurate information about both the percentages of people who are engaging in various types of sexual activities and the changing attitudes toward a variety of aspects of sexuality.

#### Religiosity and Sexual Attitudes and Behaviors

This section will present a number of studies which have employed religiosity as one of the variables when researching sexual attitudes and behaviors. A variety of methods and results will be discussed, along with demonstrating why further study is needed in this area.

Again, Kinsey et al. were the innovators in the

development of the connections between religiosity and sexual attitudes and behaviors. In the early research, Kinsey et al. (1948) divided a sample into three major religious groups: Protestants, Catholics, and Jewish. Then, they further divided each subgroup into less active or less devout and more active or more devout. Active or devout men were those who regularly attended church and/or participated in organized church activities. Also, attendance at the Catholic confessional and the Jewish synagogue were considered.

Concerning total sexual outlet, the least sexually active group was the Orthodox Jewish, followed by the devout Catholic and the active Protestant. The most sexually active group was the non-church-going Catholic, followed by the inactive Protestant, and the inactive Jewish male. Although the data were consistent across age levels, the college males were the only ones who offered information adequate enough to be classified into the full six groupings.

In terms of individual behaviors, masturbation was found to be less frequent among devout members of every religious group. Even in cases where the only minor differences were shown in devoutness, the religiously active men reported masturbating fewer times than those who were less active religiously. It is important to

remember that, at this time, most religions strongly condemned masturbation. Thus, religious influences succeeded in suppressing the incidence and frequency of masturbation among the more devout members.

Premarital petting to climax showed less of a connection to religiosity. The college males seemed to accept this activity with little distinction as to devoutness. The only slight association was seen in college males recalling earlier adolescent behavior. The devout Catholics were more likely to have avoided petting at that previous time.

Although the differences were greater in the social groupings, religiosity also showed a definite effect on the incidence of premarital sexual intercourse. In every educational level, the religiously devout group reported the lowest frequency of premarital sex. Religiously devout upper class men reported a rejection of premarital sex based on moral grounds, while the lower class devout rejected it as a matter of decency. Regardless of the reasoning behind their decisions, the devout men consistently reported fewer experiences with premarital sex.

Overall, this sample demonstrated the first major associations between the religious devoutness of a man and his choices of sexual behavior.

Kinsey et al. (1953) furthered their investigation with the study of females. Concerning masturbation, religious devoutness showed an even greater effect on the females than the males. Highly devout women reported extremely low levels of masturbatory activity, while the non-religious groups reported much higher levels. In fact, the religiously inactive Catholic and Jewish groups showed active incidences of masturbating which were two to three times greater than the devout groups.

The religious tradition against premarital petting appeared to be the chief restraint against women allowing themselves to reach orgasm in this manner, also. The sample showed that less devout females petted to orgasm more often than the highly devout. Kinsey believed that the level of religious devotion did not prevent women from engaging in some petting, but it did limit the degree to which they would allow themselves to progress.

In this sample, total sexual outlet was, once again, highly correlated with religious devoutness for Protestant, Catholic, and Jewish women, alike.

These works established a basis for studying the connections between religiosity and sexual attitudes and behaviors.

Hiltner (1948) noted that Kinsey found little relationship between sexual behavior and formal ethical

codes. This suggested that a number of people were experiencing a conflict between their physical impulses and the established social conventions. He added that there was a risk of stunting the development of creative potentials if people failed to accept the inherent purposes of sexuality. Hiltner also contended that, to the institution of religion, Kinsey's most important finding was that sexual behavior patterns tended to follow the mores of a particular group. Along with this concept, he noted Kinsey's discovery that the age when many people begin doubting religion and turning away from the church is in their late teens and early twenties. This fact may prove to be relevant for the community college students studied in this research project.

Dedman (1959) studied the attitudes of over 1000 college males toward religion and premarital sex relations. She found that there was a significant relationship between the importance these men attached to religious matters and their attitude toward premarital sex. The higher the religious interest and church attendance, the more anti-premarital sex were the responses. Dedman suggested that this association might be due to guilt factors and the fear of sin taught by the churches.

The first modern-day study to compare religiosity to

both sexual attitudes and sexual behaviors was conducted by Lindenfeld (1960). He found that higher religiosity was related to more restrictive sexual attitudes toward premarital sexual relationships among the college males and females. Opposition to premarital sexual intercourse was reported by 29% of the highly religious males and 64% of the highly religious females. The percentages of males and females opposing premarital sexual intercourse and reporting a lower sense of religiosity were 12% and 42%, respectively.

Reiss (1960) began focusing on the liberalization of religious attitudes concerning sex. He recalled that early Christian attitudes regarded all sexual behavior as sinful. This was modified to an acceptance of sexual intercourse in marriage. However, even to this day, no organized religious group in America permits coitus outside of marriage. Thus, he stated that all three of his permissiveness standards (discussed earlier) were at odds with organized religious codes of abstinence. He reported that religious beliefs did not seem to have a definite effect on sexual standards and behaviors. But, the more devout people tended to be more conservative sexually. Also, he pointed to signs of a liberalizing of the religious attitudes regarding sex.

A major scale of religiosity was developed by Putney

and Middleton (1961). This instrument assesses religious ideology in four dimensions: orthodoxy, fanaticism, importance, and ambivalence. Although it has undergone a variety of testing, the scale is less sophisticated than other measures of religiosity and it does not include a behavioral component. Therefore, it was not selected for use in this study.

In his book discussing the sexual behaviors of adolescents, Schofield (1965) noted that church attendance was strongly associated with not having had coital experience. This was true for both males and females. Also, he found that there was no relationship between the church attendance patterns of parents and the coital experiences of their children.

In a national sample of approximately 2500 high school, college, and adult subjects, Reiss (1965) found that social factors (mainly religion) were more likely to affect attitudes toward sexual permissiveness among groups who reported a low level of permissiveness. Among the students who were high church attenders and of lower status, he found that they were more likely to be permissive. Those who attended church less often showed a weaker, but still positive relationship between social class and permissiveness. Further studies (Reiss, 1967) revealed that females who were high church-attenders



showed a positive relationship of romantic love to permissiveness, while females who were low church-attenders showed a negative relationship. Men showed no significant relationship between church attendance and permissiveness. Reiss hypothesized that the traditionally high acceptance of permissiveness for men may have been a sufficient motivation for sexual acceptance. They may not have needed a "stimulant" such as romantic love to allow them to voice more permissiveness.

These works led to the major publication of a series of seven propositions concerning sexuality and society. The first proposition was that: The lower the traditional level of sexual permissiveness in a group, the greater the likelihood that social forces will alter individual levels of sexual permissiveness (Reiss, 1967).

Heltsley and Broderick (1969) disagreed. They studied whether the negative correlation between an individual's religiosity and the permissiveness of his sexual values was greater in the conservative than the permissive group. No significant differences were found. In fact, half of the difference were in the opposite direction. They suggested that white churches were more likely to include more emphasis on the teaching of premarital sexual abstinence than black churches. So, a

more generalized conclusion would be that when sexual abstinence is emphasized by a church, religiosity will be related to sexual permissiveness. But, when it is not stressed, the two will be unrelated. Reiss (1969) responded by stating that they had inaccurately interpreted Proposition One and that the sample of 854 females, who were mostly white, low permissive, high in religiosity, and drawn from college family relations classes was hardly representative.

Rupple (1970) responded to the debate with a study which will be mentioned later.

In his book on premarital sex, mentioned earlier, Bell (1966) suggested that religious intensity appeared to be especially important in the lives of females. Although society was beginning to liberalize, women still appeared to adhere to a strong religious taboo against premarital intercourse. Some of the developing conflict was poignantly presented:

It is quite possible that in the United States today the strong religious positions on sexual morality are given lip service in the abstract but have less and less influence as significant determinants of behavior. This is not to suggest that traditional religious values are unimportant, for many individuals have

incorporated the moral values into their personality structures, and often do have feelings of shame or guilt when their behavior is contrary (Ball, 1966, p. 45).

Until this time, most studies measured religiosity by the frequency of church attendance, the claim to church affiliation, or the affirmation of belief in a God. As Faulkner (1972) discussed, the majority of research had concentrated on what people believed rather than the meaning of that belief. Although specific details of religions vary, Faulkner argued that there was considerable consensus concerning the general areas in which true religiosity should be manifested. He was lending support to the work of Glock and Stark (1965). They also believed that these factors were too limited and gave a distorted image of how religious a person actually was. So, they developed a five-dimensional framework to assess religiosity:

Experiential--subjective experience of religious feelings and emotions.

Ritualistic--objective ratings of religious activities, such as worship and prayer.

Ideological--adherence to beliefs of a particular religion.

Intellectual--information and knowledge about an

individual's chosen religion and its scriptures. Consequential--secular effects of religious beliefs, practices, experiences, and knowledge on an individual.

Faulkner and DeJong (1966) conducted research to develop and empirically test the interrelationships among these five dimensions. They found a strong interdependency among these measures of religious involvement. Using a college student population, Ruppel (1969) employed this scale to study the relationship between religiosity and sexual permissiveness. He found the relationship to be significant when employing the five dimensions.

As a follow-up to the Reiss vs. Heltsley and Broderick debate, Ruppel (1970) used the Faulkner-DeJong Scale again to study Proposition One. This time, he concluded that there was not a strong association between religiosity and sexual permissiveness in groups with a tradition of high sexual permissiveness. This was consistent with the findings of Heltsley and Broderick (1969), mentioned earlier, and failed to support Reiss. However, Ruppel contended that this failure to support Proposition One was probably due to differences used to measure religiosity. Reiss had used only a ritualistic measure, while Ruppel had considered all five dimensions.

Thus, he increased the support for the five-dimension approach.

Using a scale developed by Putney and Middleton, Clayton (1969) employed 887 college fraternity and sorority members in his study of religiosity. Overall, 42% of the males and 22% of the females had been sexually active. This was an unusually low rate for males and a somewhat high rate for females. Among the fraternity and sorority members, he found that religious orthodoxy did not operate as a restraining force in terms of premarital sexual intercourse. This may have been due to the lack of religiously orthodox beliefs professed by these groups or the status group pressures of these organizations. In the non-fraternity group, greater sexual activity was reported by the less orthodox. This phenomenon was not the same in non-sorority women. Clayton hypothesized that, perhaps, since fraternity men had a reputation for being sexually active on campus, non-sorority women may have been using sex to gain status with these men. His sample was obtained by distributing questionnaires to all 1400 students who resided in campus dormitories. The responses were collected one hour later. This, along with the fact that the sample was 30% Southern Baptist, makes randomness and external validity questionable. Also, the religiosity scale used in this study does not assess behavior, only

attitudes. Yet, Clayton focuses his report on the sexual behaviors of the sample.

In a comparative study of women in 1958 and 1968, Bell and Chaskes (1970) divided their college sample by religious affiliation into groups of Protestants, Jewish, and Catholics. They reported that the Protestant and Jewish women showed consistent increases in the rate of premarital coitus when they were dating, going steady, or engaged. However, all three groups had the same rates for sexual behavior. Of all the variables they employed, the only one demonstrating a significant impact was religion. Women who reported the highest rate of religious attendance showed the lowest rate of premarital coitus and the greatest feelings of guilt when they did have coitus. Although they did not employ a multi-dimensional approach to religiosity, their findings were relatively consistent with others.

Using a private Florida university sample, Clayton (1972) used the Faulkner-DeJong Scale to study the relationship of religiosity to sexual behavior. He found that most of the dimensions had a much greater impact on male sexual behavior than female behavior. He refuted the suggestions of Bell (1966), who stated that religious intensity was especially important in the lives of females. Clayton found that religiosity served as a

significantly higher consideration for the males. This added support to his earlier study of fraternity and sorority behaviors (Clayton, 1969).

A significant relationship between sexual activity and religiosity of females was found by Thomas (1973) in her study of 504 undergraduate college students. However, this relationship was not significant for the males. Thomas reported that 65% of the males and 50% of the females had engaged in sexual intercourse in the past year, while 24% of the males and 22% of the females were having sex once a week. Only 2% of the sample reported both attending church once a week and having sex in the past year. There were 15% who stated that they attended church once a week and had not experienced sexual relations in the past year.

In the addition of the fifth standard of premarital sexual permissiveness (mentioned earlier), Jurich and Jurich (1974) found high religiosity associated with the traditional standard (sexual abstinence before marriage) and low religiosity associated with the nonexploitive standard (mutually agreed upon understanding). This demonstrated further support for both the religious impact and their own fifth standard.

In a review of the current state of the research, Udry (1974) summarized that studies had shown that

religion was a much more powerful determinant for the rate of premarital sexual permissiveness among women, while class level more profoundly affected the males. However, he noted that most studies measured religiosity by church attendance. When a more complete measure was used, religiosity was shown to have a greater effect on the males.

Levin (1975) and Levin and Levin (1975) found that intercourse leading to orgasm in marriage differed among the self-reported levels of religiosity in their sample of 100,000 women. Kinsey (1953) had found no significant difference. Those claiming to be strongly religious reported reaching orgasm almost all of the time when having intercourse, while the moderately religious achieved orgasm 68% of the time and the nonreligious only 61% of the time. Also, 96% of the nonreligious group had experienced premarital intercourse, while only 75% of the strongly religious had. The strongly religious were more likely to be satisfied with their sex lives and more responsive to sexual feelings than the fairly, moderately, and nonreligious. In this sample, however, it must be noted that religiosity was measured by one self-reported evaluation and 78% of the sample was married. The authors did not claim that this sample was completely representative of all American women.



Claiming to be only the second study to measure the relationship of religiosity to both sexual attitudes and behaviors, King et al. (1976) reported results different from many previous authors. While they demonstrated a strong relationship between religiosity and sexual attitudes in males, there existed a much weaker connection with females. Also, there was no significant relationship between religiosity and behavior for either gender. There are three criticisms to note. First, King et al. measured current religious and sexual attitudes, but their measure of sexual behaviors requested a complete history. Secondly, the sample was composed of 295 white, single, Protestant college students. This makes external validity questionable. Also, their measure of religiosity assesses attitudes only.

Zuckerman et al. (1976) added to the research by surveying 555 college students, using a combination of the Faulkner-DeJong Scale and their own questions. They found a strong relationship between the ideology and ritual aspects of religiosity and also between the sexual attitudes and experiences of men. The ritual aspect was minimally correlated with attitudes of females, but did not correlate at all with experience. They concluded that, possibly, church attendance was more of a social formality for females and carried fewer implications for

their general attitudes and beliefs. As the research becomes less consistent and questions abound, this statement may offer one of the insightful reasons for the puzzling results which show discrepancies between religiosity, sexual behaviors, and attitudes.

Demonstrating the commonly held belief, Kelley (1978) reported that religiosity was strongly related to sexual attitudes, but had a weaker effect on behavior. His population could be considered a fairly radical group: University of California at Berkeley students in the early 1970s.

Using the Faulkner-DeJong Scale, Salcido (1978) compared the responses of 258 college students with the Sexual Fear Inventory. There existed a strong relationship between sexual fears and religiosity. Salcido was definitive in pointing out that this correlation was comparative data and did not imply causation. He also noted that the responses were not different between the single and married subjects he tested.

Also using the Faulkner-DeJong Scale, Hornick (1978) surveyed 221 male and 425 female undergraduates, along with 87 male and 67 female high school students. He found a negative association between religiosity and sexual behavior. There was a significant inverse relationship

between high religiosity and sexual permissiveness.

Murstein and Holden (1979) summarized that religious beliefs had been shown to be negatively correlated with premarital sexual behavior and that this relationship appeared to be more pronounced for women than for men. The purpose of their study was to see if this pattern still existed with a group of middle-class college students at a time when the theological influence in society appeared to be constantly ebbing. One of their hypotheses was that the more religious people tend to be, the less likely they are to engage in premarital sexual intercourse. From their sample of approximately 350 college students, this hypothesis was rejected for men and partially supported for women. The support was with respect to religion experienced in the home, but not for the present attitudes reported by these women. Part of this result may have been due to the unusually large percentage of students who reported engaging in premarital sex--approximately 75% of the women and 83% of the men, as reported earlier in this review. However, it does add support for Zuckerman's (1976) conclusion that present religious behaviors may be poor predictors of actual sexual behavior.

In a study of single parents, Patton and Wallace (1979) found that single adults engaged in intercourse

after their marriages ended, regardless of religious feelings. Approximately 47% of their sample indicated strong religious feelings, but still participated in intercourse. However, their attitudes were more conservative than those reporting weaker religious feelings. The authors stated that earlier studies had shown that strongly religious females were more likely to remain virgins. They concluded that this attitude seemed to remain, at least in some context, after a marriage failed. Again this demonstrated the inconsistency between sexual attitudes and behavior, when considering religiosity.

In a study with the University of Toronto undergraduates, Barrett (1980) compared highly religious students to self-reported agnostics and atheists. He found that the latter group was more likely to be sexually active. However, the present religious position reported by these students was a less reliable predictor of coital experience in 1978 than it was in 1968. This suggested that religiosity may not be as powerful of a deterrent as it had been in the past. The rate of return from Barrett's mailed surveys ranged from only 44% to 59%. Of those not responding to the 1968 portion of the study, approximately 67% claimed that they never received the document. He used only 40 questions and did not report

any specific data about this instrument.

Mahoney (1980) found some relatively consistent patterns of sexual behavior when he measured religiosity with 441 college students. He stated:

While previous research dealing with the relationship between religiosity and unmarried adolescent sexual behavior has yielded inconsistent findings, the present data suggest a clear relationship. First, the greater the religiosity, the less likely the experience with a wide variety of sexual behaviors. This negative relationship encompasses such diverse aspects of sexual behaviors as cognition, desires, frequency, extensiveness of experience, and (for males) enjoyment. This relationship is also present for sexual behaviors other than coitus.

Second, this general relationship is equally apparent for males and females. Third, religiosity is related to the sequence in which sexual behaviors are experienced, at least for males (p. 109).

More specifically, Mahoney found that highly religious males were more likely to reverse the usual pattern of engaging coitus and then oral-genital sex.

Although he defends both of these criticisms, Mahoney's sample was not randomly selected and he assessed religiosity with one self-report question.

As a secondary portion of their study, Madora and Burton (1981) found a negative relationship between extramarital sexual permissive attitudes and religiosity. However, their variable of religiosity was measured simply by reported church attendance.

Altopp (1981) studied high school students in Free Methodist Church youth groups and found that the degree of religiosity showed a stronger relationship to sexual attitudes than sexual behaviors. As could be expected, his sample scored very high in religiosity and was relatively conservative in sexual attitudes. For example, 77% of the students agreed that sexual intercourse should occur only between married partners and only about 8% felt that masturbation was a healthy practice. Comparatively, the males held somewhat more liberal attitudes than the females. In Altopp's sample, only 31% of the males and 12% of the females had ever engaged in sexual intercourse. The instruments used in this study were a self-developed questionnaire on behaviors, the Sex Knowledge and Attitude Test, and the Faulkner-DeJong Scale of Religiosity. One of his concluding recommendations was that a similar study be conducted with college-age subjects who attend the Free

Methodist Church.

Using the Faulkner-DeJong Scale with female college freshmen, Young (1982) found that the "more religious" students were more likely to abstain from intercourse. He divided his sample into three groups: those who did not participate in intercourse during the past year, those who participated with one partner, and those who participated with more than one partner. Also, among the sexually active, he distinguished between those using effective contraception, those using ineffective methods, and those using no method at all. Young reported that aspects other than church attendance were important indicators of contraceptive use. Different religiosity items were able to significantly discriminate among the three contraception groups. Those scoring highest on the experiential scale were also the most responsible users of effective contraception.

Religiosity was negatively related to premarital sexual permissiveness according to Medora and Woodward (1982). They found that both non-religious males and females were far more liberal and sexually permissive. Between these two groups, the males were more permissive. This replicated Medora's previous findings (Medora & Burton, 1979).

In his attempt to develop a model for studying female

sexuality, Strahle (1983) included a few hypotheses on religiosity in his list of 40. He believed that there was an inverse relationship between a young woman's religiosity and the likelihood that she had engaged in a variety of sexual behaviors. Also, Strahle stated that there was an inverse relationship between a young woman's religiosity and her engagement in premarital intercourse.

The sample of 560 Australian college students reported that church attendance was negatively related to liberal sexual attitudes in a study by Hong (1983). Regular and occasional church attenders reported less permissive attitudes toward both premarital and extramarital sexual relations. However, regular attenders showed only a slight disapproval of premarital intercourse and occasional attenders reported a high level of approval. Hong concluded that church attendance did not necessarily indicate a total acceptance of Christian morality. Males and females were almost equal in their attitudes toward sexual permissiveness. It must be noted that the author used a questionnaire consisting of only six questions and developed his inferences based on church attendance alone, not a complete measure of religiosity.

Also in Australia, McCabe and Collins (1983) recruited over 2000 volunteer university and younger students to participate in their study of sexual and



affectional attitudes and experiences. They reported that nonregular church attenders were more sexually permissive and had a strong affectional orientation. The regular church attenders also reported a strong affectional orientation, but they desired and actually had experienced fewer sexual behaviors. While the data show differences between these two groups, the sample was not randomly selected and church attendance was measured with only one question, which asked if students attended church at least once a month. Very little information was written about their instruments. In fact, only the name of the author and an acronym was reported.

A random selection of 1100 men and women responded to a survey of sexual styles developed by Ubell (1984). They ranged in age from 18 to 60 years old and represented a cross section of the population of the entire United States. His categories of life satisfaction, sensuality, and eroticism led to the development of eight different styles: pansexual, satisfied erotic, unsatisfied erotic, lonely erotic, satisfied sensualist, unsatisfied sensualist, sexually conservative, and nonsexual. Differences in religious devotion were most prominent in the sensualist styles. Approximately 74% of those who claimed to be satisfied sensualists (high in life satisfaction and sensuality, low in eroticism) also

claimed to be very devout, while only 26% reported that they were satisfied sensualists and not very devout. Also, 69% of the unsatisfied sensualists (high in sensuality, low in life satisfaction and eroticism) said that they were very devout, while only 31% claimed to be both unsatisfied sensualists and not very devout. This appears to indicate that there are major conflicts among those who perceive themselves as religiously very devout. Religiosity has a strong influence on sexual self image, but it seems to lead to either a positive or a negative sense of satisfaction. This religious influence seems to dictate a major portion of how people rate themselves in terms of their satisfaction with other aspects of life. In other words, much of the variance of human sensuality can be explained by one's level of religious devotion. While Ubell seems to have used a representative sample of people, he did not report much information on the instrument or its reliability and validity.

### Summary

As seen in this review, the connections between religiosity and sexual attitudes and behaviors have shown inconsistent results. Many of the differences can be traced to the variety of measures of religiosity, ranging from one question of church attendance to a major

questionnaire accounting for five dimensions. As Mahoney (1980) states, the connections are complex and need further investigation. His study of a multi-dimensional approach to both religiosity and sexual attitudes and behaviors appears to guide current research. Concentration on a few dimensions would probably show incomplete results. This study incorporated a variety of sexual attitudes and behaviors, along with a multi-dimensional approach to religiosity.

#### Community College Students

As seen in the previous review, there are numerous studies of adolescents and undergraduate students in four-year colleges and universities. However, there is a specific segment of the population which has been neglected in sexuality research. That is the community college student. This section will demonstrate how this group differs from other college students and from the population in general.

Much of the community college population is comprised of "non-traditional" learners. Cross (1976) says that these are the students who were previously underrepresented in higher education. They are adults, students from lower socioeconomic levels, ethnic minorities, and women. In many cases, they are the first

generation of their own families to attend college (Cross, 1981). These students are the ones Astin, Panos, and Creager (1966) described as having fathers whose education, incomes, and occupations are much lower than the fathers of most four-year college students. They are basically the new students who are receiving an opportunity to attend college under the "open door" principle. Monroe (1972) defines this principle as admitting any high school graduate or adult (over age 18), regardless of intelligence, previous grades, religion, race, background, or economic circumstance. Cross (1971) said that, only in the age of open admissions would these students be considered "college material." They score in the lower one-third of all high school graduates on traditional tests of academic achievement. Addressing his colleagues, Doherty (1979) emphasized that "open admissions students are seldom like your old (college) classmates" (p. 1).

As compared to four-year college students, O'Banion and Thurston (1972) describe the typical community college student as more practically oriented and less likely to value humanitarian pursuits. These students seem to be more cautious and controlled. They seem to lack self confidence; thus, they do not venture into untried fields. Basically, they are less autonomous than the typical

four-year college student.

Gibson (1979) says that many community college students are poor test takers and do not read very much. A generation ago, they would not have found themselves in an institution called a "college." Monroe (1972) added that community college students also tend to manifest authoritarian traits in the way they accept traditional values of the society.

Obviously, not all of the students in this study would fit into the categories described by the preceding authors. However, it is likely that the majority of them would.

According to the American Association of Community and Junior Colleges (Watkins, 1983), two-year colleges in America currently enroll close to five million students in credit-bearing courses. McGrath (cited in Watkins, 1983) added that many of these students arrive not fully understanding what college is all about. Their major problem is not always their academic skills, but more of how they conceive of themselves as learners. He continues by claiming that the background of these students did not emphasize academics. Therefore, many of them do not take academic work very seriously.

Although no studies were found in which community college students, exclusively, completed sexuality

surveys, the following examples discuss a few recent projects where similar students were requested to complete some style of questionnaire as part of the research format. These studies were chosen because of the sensitive nature of the topics involved and the usual difficulty in receiving adequate responses.

Friedlander (1981) studied community college students who were considered to be poorly prepared for college level work. He received an 82% return rate on the survey. Attinasi, Stahl, and Okun (1982) looked at the motivation level of students. They reported that recruiting students for the personal interviews was "relatively easy." In a survey mailed to 800 randomly selected community college students, Governanti and Clowes (1982) received 545 responses.

### Summary

As seen by the preceding examples, community college students are valuable subjects for research which incorporates the survey method. They are willing to respond to studies which request personalized information and which require some degree of cooperation.

It may be argued that community college students represent simply a cross section of adults in general. However, they possess a number of qualities which

distinguish them from the average person in that age group. For the most part, they are people who have chosen to attend college "against the odds." Many of them were unsuccessful, frustrated learners in high school. Many of them are married, some leave jobs, and others work during the day and commute to class at night. They hold a unique blend of values and goals, along with a drive to succeed. Also, they presented a valuable contribution to the literature by reporting their sexual attitudes, behaviors, and religiosity in this study.

## CHAPTER III

### Methodology

#### Population and Sample

Incoming students at North Country Community College (NCCC) in Saranac Lake, New York were the population for this study. NCCC regularly conducts an orientation program at the beginning of each semester of academic work, which all new students are required to attend. General information about the college is discussed at the large group information session. The sample was comprised of all students who attended this orientation session.

This method of selection was chosen because it incorporated the majority of incoming students at NCCC and produced a high expected rate of return of the questionnaires. Also, recent studies have criticized the use of specific classes of students (e.g., Introduction to Psychology and Human Sexuality).

#### Procedures

During the Fall of 1983, the appropriate administrators were contacted to discuss the feasibility of this study. All of the parties agreed to support the project, assuming that final plans did not deviate from the general directions discussed at these meetings. Close



contact was maintained throughout the year. Progress on the proposal and specific plans were shared whenever they became consolidated.

The collection of data took place during the Fall 1984 orientation session. During the middle of the scheduled evening information session, the students were requested to participate in this study. A letter was read which described the purposes and procedures of the project. Questionnaires were distributed to all students in attendance. Then, further information was read. This stated that anyone who wished to not participate in the study was welcome to submit an uncompleted questionnaire. Also, the information described that all participants were free to omit any questions they so desired.

Specific directions for completing the background information were discussed. Then, those who chose to participate began completing the questionnaire. All students were free to leave the room whenever they chose.

As they left the room, the students deposited the questionnaires into a box and they were reminded that they could complete an additional form if they cared to receive a copy of the results of the study.

### Ethical Considerations

Since the questionnaire requested a relatively personal set of responses, students were seated in a manner which assured a reasonable amount of privacy (e.g., sitting in every other seat, relocating to various sections of the room). All students had the opportunity to choose not to participate in the study or to omit any responses they so desired. No names were requested; thus, complete anonymity was guaranteed.

The study included no deceit, since the participants were told the specific purposes and procedures of the study. Also, following the questionnaire session, all students had the opportunity to receive the results of the study by placing their names and addresses on a separate form.

### Instrumentation

While reviewing the literature, no appropriate and acceptable instrument was found. Therefore, the instrument used in this study was developed by this researcher from a combination of sources.

The background information was assessed from a simple checklist of the student's gender, college, race, age, religious preference, student status, marital status, attendance in college, and demographic background.

Students were asked to write in their age in number of years. The categories were developed from a number of previously published studies and from the statistical reports prepared by NCCC. The demographic classifications were based on those designated by the U.S. Department of Commerce (1980).

The attitude portion of the questionnaire requested information about attitudes concerning nudity, petting, extramarital sexual activity, masturbation, homosexuality, premarital sexual intercourse, oral-genital sex, sex education, contraception, and abortion. It included four questions taken verbatim from the Sex Knowledge and Attitude Test (SKAT) (Lief & Ried, 1972) and eleven questions reworded from the SKAT. The rewording was an attempt to clarify the intent of the questions and to adjust the reading difficulty to a more appropriate level for the average community college student. Six items were reworded from Reiss (1964) and twelve items were developed by this researcher. These questions were an attempt to balance the instrument so that it reflected a wider variety of sexual attitudes (e.g., items on nudity and oral-genital sex).

A five-point, forced choice, Likert-type scale (strongly agree, agree, unsure, disagree, strongly disagree) was used to score this section of the survey.

The items were either forward or reverse scored, according to the type of response elicited. For example, items such as number 20, "Masturbation is generally unhealthy," were scored: strongly agree = 1, agree = 2, unsure = 3, disagree = 4, strongly disagree = 5. In this method, the lower the score, the more conservative the response. The items scored in this manner were numbers 4, 5, 7, 8, 15, 17, 20, 21, 22, 27, 29, 31, and 33. Likewise, question number 19, "Birth control should be available for any person who wants it," was scored in the opposite manner: strongly agree = 5, agree = 4, unsure = 3, disagree = 2, strongly disagree = 1. Thus, the higher the score, the higher the level of liberalness. Items scored in this direction were numbers 1, 2, 3, 6, 9, 10, 11, 12, 13, 14, 16, 18, 19, 23, 24, 25, 26, 28, 30, and 32. The order of the preceding questions was established through a random selection procedure. The potential scoring range was from 33 (highly conservative) to 165 (highly liberal).

The self-reported behaviors section was also a compilation of questions from a variety of sources. Three items were paraphrased from the SKAT and six questions were reworded from Zuckerman (1974). Again, the rewording was an attempt to clarify the intent of the items and adjust the reading level. An additional five items, developed by this researcher, were incorporated into the

instrument to balance the types of behaviors being surveyed (e.g., kissing and homosexual activity).

Participants were asked to respond to the same set of 13 questions in two ways: first, how many times they had engaged in each type of behavior and, secondly, with how many people they had engaged in these same behaviors. In order to establish a consistency between the attitudes, religiosity, and the behavior sections, subjects were asked to report their sexual behaviors only within the past 12 months. Otherwise, the study would be a comparison of current attitudes and religiosity with past sexual behaviors.

The section inquiring about the number of times a person had experienced certain sexual behaviors was scored on a four-point, forced choice, Likert-type scale (never = 0, one time = 1, two - five times = 2, and more than five times = 3). The section requesting a report on the number of partners was scored in a similar fashion (none = 0, one person = 1, two - five people = 2, and more than five people = 3). There was an additional question concerning the number of times the respondent masturbated in the past 12 months. This item was a separate and distinct category, unrelated to the scoring system stated above. These responses were simply scored as follows: did not masturbate once during this time = 0, less than one time

per week = 1, one - three times per week = 2, four - five times per week = 3, and six or more times per week = 4. This score was also analyzed separately.

The items in the behaviors section were listed according to the scales developed by Brady and Levitt (1965) and Bentler (1968a, 1968b). These researchers attempted to produce an ordinal scale of sexual behaviors. While no one has been able to attain perfect scalability, these researchers did produce hierarchies of sexual behaviors which earned coefficients of reproducibility of .937, .987, and .990, respectively, in their three research studies. Therefore, the items selected for use in this study followed these suggested hierarchies.

In addition, a weighting system was used to score the responses. In order to determine perfectly exact weights for each of the sexual behaviors, specific frequencies would have to be used. Unfortunately, those data are not available for either this population or any population. As seen in the previous review, the literature reports an inconsistent variety of percentages of people who engage in certain types of sexual behaviors. The inconsistencies probably stem from differences in instruments used in the studies, honesty of the participants, abilities to estimate or remember experiences, and general variance of the populations studied. Therefore, in order to determine

as accurate an estimate as possible, the items in this section were weighted on type of Thurstone scale, according to the following pattern: kissing and heterosexual touching behaviors (items 1 - 5) were multiplied by one, heterosexual sexual intercourse and oral-genital sex behaviors (items 6 - 9) were multiplied by two, and homosexual touching and oral-genital sex behaviors (items 10 - 13) were multiplied by three. The same pattern was used for the sexual behavior items which requested a report on the number of partners.

Specific examples are:

- |   |     |     |     |     |
|---|-----|-----|-----|-----|
| 1.) Kissed and hugged a person while feeling sexual (more than just a friendly greeting). | A=0 | B=1 | C=2 | D=3 |
| 6.) Had sexual intercourse in the missionary position (male on top, female on bottom).    | A=0 | B=2 | C=3 | D=6 |
| 12.) Gave oral-genital sex to a person of your same sex.                                  | A=0 | B=3 | C=6 | D=9 |

The same system was used for both segments of the sexual behaviors section and it was devised in a manner so that higher scores reflected more sexual experience in both number of times and number of partners. The possible range was 0 - 150.

The religiosity section was a verbatim use of the

Faulkner-DeJong 5-D Scale of Religiosity (Faulkner & DeJong, 1966). It measured five dimensions: experiential (feeling and emotion), ritualistic (behavior), ideological (beliefs), intellectual (knowledge), and consequential (effects in the secular world of the prior four dimensions).

In the initial development of this instrument, Faulkner and DeJong used a Guttman scale procedure to eliminate and revise those items which did not meet the criteria of unidimensionality. This added to the validity of the scale.

From their testing of 362 college students, coefficients of reproducibility ranged from .90 to .94 for each of the five dimensions (Faulkner & DeJong, 1966). Additional reliability data were gathered by Altopp (1981). He reported a composite score of test-retest reliability as .89 and all questions but one were significantly reliable at the .05 level or better.

This scale measured traditional Judeo-Christian knowledge and behavior. For example, one of the items asks, "Do you believe that it is necessary for a person to repent before God will forgive his sins?" Faulkner and DeJong stated that the typical traditionally religious response was, "Yes, God's forgiveness comes only from repentance." Therefore, this response received a score of



2 points. The less religious response was, "No, God does not demand repentance;" and the least religious choice was, "I am not in need of repentance." These last two choices received a score of 1 and 0, respectively. The scale is arranged so that the first choice is always the traditional Judeo-Christian response. Therefore, this choice received the highest score. The furthest deviation from the traditional response was always scored 0. With this method of scoring, the higher the score, the higher the religiosity of the subject. The potential ranges for each of the dimensions were: 0 - 11 for experiential, 0 - 13 for ritualistic, 0 - 14 for ideological, and 0 - 11 for intellectual. The total range of scores for the religiosity dimension was 0 - 49.

The consequential dimension was not added to the scoring for two reasons. First, this dimension measures the effects in the secular world of the other four dimensions and not religiosity itself. This type of secular response was previously measured by the attitudinal and self-reported behaviors sections of the instrument. Secondly, the lengthy questions used to measure the actual consequential dimension were deemed unattractive and cumbersome for this population in this particular type of study.

This method of scoring the religiosity component was

borrowed from Altopp (1981).

A number of steps were taken to determine the appropriateness and readability of the instrument for the community college population. A computer readability study was conducted with a software program developed by Irving and Arnold (1980). According to this program, the survey had a readability index below a fifth grade level. However, this only measures the length of words and sentences. Therefore, two community college reading instructors were asked to review the instrument. They suggested changes in the wording of some of questions. Based on these suggestions, definitions were added to the beginning of the survey and clarifications were added in parentheses next to some of the words. For example: "Which of the following statements most clearly describes your idea about the Deity (God)?" After these revisions, it was assumed that the final instrument used in this study reflected a clear, concise, readable set of items, appropriate for use with the community college population.

As stated in the statistical analysis section of this chapter, factor analyses were also conducted to provide additional information on the construct validity of both the sexual attitudes and sexual behaviors portions of this instrument.

### Reliability Study

Since this instrument had never been used in the form constructed for this study, a test-retest reliability study was conducted with 23 community college students in an Introduction to Psychology class during the summer of 1984. All students were told that a study was being conducted on the sexual attitudes, sexual behaviors, and religiosity of community college students and that they had been selected to participate in a two-part study involving paper and pencil questionnaires. They were told that the first portion would be administered that evening and the second portion would be given two weeks later. The students were asked to write any four numbers on a piece of paper, along with their name and to write those same four numbers on the top of the questionnaire, excluding their name. The slips of paper were placed into a sealed envelope and two students signed their names to the sealed portion. The envelope was given to the course instructor who kept it until the posttest was administered, two weeks later. Then, the Letter of Introduction (Appendix A) was read aloud. This included three references to the fact that no one was required to participate in the study. All students who were present voluntarily chose to complete the instrument at that time.

Two weeks later, these same students were requested

to participate in the second part of the study. The envelope was opened in front of the class and the students took their original numbers and placed them on the second copy of the survey. An abbreviated version of the instructions was read aloud and the students voluntarily completed the same instrument a second time.

Following the completion of the surveys, the administrator led a discussion and answered questions on both the specific purposes of the study and the concept of instrument reliability testing, especially the test-retest style.

Responses from the pretest and the posttest were calculated using a Pearson product moment correlation procedure. The total results are listed in Tables C-1, C-2, and C-3 (Appendix C). The reliability coefficients of the self-reported sexual attitudes scale ranged from .391 to .977. All items but one were significant at the .01 level of confidence. That one item was significant at the .05 level. The attitude score totals were significantly reliable at the .01 level, with a coefficient of .969. The average or composite reliability coefficient was .829. Thus, these scores appeared to be highly reliable.

The self-reported sexual behaviors scale showed an even higher degree of reliability. Coefficients ranged

from a low of .951 to a high of 1.000. All but eight items were significant at the .01 level. These eight responses were unable to be calculated due to the extreme homogeneity of the responses. All 23 subjects responded with a score of 0 on each of the items relating to homosexual behavior. Thus, the Pearson correlation method was unable to calculate a reliability coefficient for these responses. Since this scale was dealing with objective behaviors instead of attitudes, the overall reliability scores were very high. The coefficient of the behaviors score totals was .995 and the composite was .986. Again, this scale appeared to be highly reliable.

The final section of the instrument surveyed the degree of religiosity. Reliability coefficients ranged from .424 to 1.000. Similar to the attitudes section, one item was significant at the .05 level and all others were significant at the .01 level. The total scores for this section showed a coefficient of .983 and the composite was .840. This section of the instrument, also, was shown to be reliable.

As additional evidence, a Spearman-Brown split-half reliability coefficient was calculated using the pretest scores of all 23 subjects. The resulting coefficients were .957 for the attitudes section, .833 for the behaviors section, and .905 for the religiosity section.

Again, strong support was demonstrated for the reliability of this questionnaire.

In summation, it appears that the instrument developed for this study is highly reliable. Based on the test-retest statistics, all but two of the 91 items were significantly reliable at the .01 level, and those two were reliable at the .05 level. Only five items resulted in a coefficient less than .700. The split-half data resulted in equally reliable results. Therefore, based on the preceding information, it appears to be safe to claim that this survey passed the test of statistical reliability.

### Design

The methods and procedures used in this study were based on those described by Leedy (1980) in his discussion of the descriptive and analytical survey methods. Leedy's suggestions for defining the problem, selecting the population and sample, developing the instrument, administering the survey, and analyzing the data were all used as the basis for this study. Specific details are stated throughout this report. Basically, a three-part questionnaire survey method was used for gathering the data and a stepwise multiple regression analysis was used to process the data. The specific description of the

multiple regression analysis of the data is presented below.

### Statistical Analysis

The independent variables were religiosity, gender, race, age, religious preference, student status, marital status, and demographic background. The dependent variables were sexual attitudes and sexual behaviors.

Basic descriptive statistics were computed on all of the questionnaire items. Percentages and general trends were reported for each of the three major categories--attitudes, behaviors, and religiosity. Also, gender differences were reported, based on discriminant analyses.

From the scoring system stated above, each participant received a separate score for the attitudes, the behaviors, and the religiosity sections of the survey. A stepwise multiple regression test was calculated, with the sexual attitudes scores and the scores from the eight independent variables. Then, the same test was performed with the sexual behaviors score and the same eight independent variables.

Statistical Package for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) was used to calculate the statistics.

As suggested by Zeller and Carmines (1978), a multiple regression analysis is appropriate for use with one criterion variable and many independent variables. In the stepwise method, the independent variables are selected for entry into the analysis on the basis of their discriminating power (Nia et al., 1975). The specific formula is:

$$y = b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + \\ b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8 + c$$

WHERE,

y = sexual attitudes or sexual behaviors

x1 = religiosity

x5 = religious preference

x2 = gender

x6 = student status

x3 = race

x7 = marital status

x4 = age

x8 = demographic background

b = slope of predicting y from the specific variable

when the other variables are controlled

c = the constant

In the stepwise procedure, each partial correlation takes into account the x value after it is adjusted for all other variables. Therefore, the preceding variables will be added to the equation only if they offer a unique and different explanation of the variance.

As stated earlier, a secondary purpose of this study was to develop a reliable and valid instrument, which



accurately measures sexual attitudes, sexual behaviors, and religiosity. In order to further evaluate the instrument described above, factor analyses were performed on the attitudes and behaviors sections. This was an attempt to discover which factors had the heaviest loading and how accurately the instrument measured these factors. This test provided additional information on the construct validity of this survey.

### Hypotheses

The following null hypotheses were tested:

1. There is no significant relationship between the religiosity of a group of incoming community college students and their sexual attitudes, when the following sociodemographic characteristics are controlled:
  - a. gender
  - b. race
  - c. age
  - d. religious preference
  - e. student status
  - f. marital status
  - g. demographic background

2. There is no significant relationship between the religiosity of a group of incoming community college students and their sexual behaviors, when the previously stated sociodemographic characteristics are controlled.

### Summary

While Chapters I and II presented a basic background for this study, Chapter III explained the specific methods used. A sample of entering students at a community college completed a survey aimed at measuring their sexual attitudes, sexual behaviors, and religiosity. The instrument was developed by this researcher and a stepwise multiple regression was used to analyze the data. The following two chapters present the specific results obtained in this study, along with an analysis of these data and conclusions which may be drawn.

## CHAPTER IV

### Results

Chapter I introduced the problem, the theoretical rationale, and the basis of this study. Chapter II presented a review of the related literature in which sexual attitudes, sexual behaviors, and religiosity have been studied. In Chapter III, the survey methods employed in this project, the instrument used, and the plan for analyzing the data were described. Chapter IV will examine the specific results, including sociodemographic data of the sample and a detailed description of the responses to the survey. Also, the results of the hypotheses and the factor analyses are reported. Further analyses of the results and a discussion of their implications will be presented in Chapter V. In addition to the conclusions, Chapter V also lists a number of recommendations for future studies in this area.

#### The Sample

All students who attended NCCC's orientation program were requested to participate in this study by completing the survey described in Chapter III. Almost all of the students who were present volunteered to be a part of this research project. This resulted in 204 usable

questionnaires.

In general, the sample was comprised of almost as many males as females. However, the students were almost all white and the majority of them were Catholic. There was a relatively high percentage of married students and almost one-half of them spent the majority of their lives in a small town. The ages of the subjects were close to those of the national norms for community college students.

The specific composition of the sample is presented in Table 4-1. The responses to seven variables are listed according to percentages and the age of the sample is described in terms of the range and mean.

Table 4-1  
Composition of the Sample  
 (n = 204)

Gender: <u>46%</u> Male	Race: <u>97%</u> White
<u>54%</u> Female	<u>3%</u> Other

Religious Preference: <u>61%</u> Catholic	Student Status: <u>70%</u> 1st Sem. Freshman
<u>26%</u> Protestant	<u>24%</u> Returning Student
<u>13%</u> Other or none	<u>6%</u> Transfer Student

Marital Status: <u>69%</u> Never Married	Attending School: <u>85%</u> Full Time
<u>20%</u> Married	<u>15%</u> Part Time
<u>11%</u> Div., Sep., Widow	

Place Where You Have Spent The Majority Of Your Life:

<u>24%</u> Rural Area (Less Than 2500 People)
<u>47%</u> Small Town (2500 - 10,000 People)
<u>20%</u> Small City (10,000 - 25,000 People)
<u>5%</u> City (25,000 - 50,000 People)
<u>3%</u> Large City (50,000 People or More)

Age Statistics:

Range	= 18 - 51 years old
Mean	= 24 years old

### Results of the Survey

In the attitudes portion of the survey, students expressed their ideas about ten aspects of sexuality: nudity, petting, extramarital sexual activity, masturbation, homosexuality, premarital sexual intercourse, oral-genital sex, sex education, contraception, and abortion.

Concerning nudity, there was no overwhelming generalization. Responses were mixed and the only majority opinion expressed was a belief that seeing family members naked was not unhealthy for children.

Responses to questions on petting were more definitive. Most students believed that touching each others' genitals should be acceptable by persons other than those who were married, no matter whether the persons are in love or simply two consenting adults who do not possess any special feeling for each other. Only a few responses indicated that these behaviors should not be acceptable.

The questions concerning extramarital sexual activity brought a relatively conservative response. Only about 24% believed that this behavior would not harm a marriage and even fewer students said that it could strengthen a marriage. These responses tended to follow a more conservative, but probably more ethical pattern. They are

of interest especially because approximately 31% of the respondents stated that they were currently married or had been married at some time in the past.

Approximately one-half of the respondents stated that masturbation was an acceptable behavior for both males and females and that it was not a cause for sexual problems. Almost the same percentage believed that masturbation was not generally unhealthy and that it was not important for parents to stop their children from engaging in this behavior. However, the same number of students did not agree that males should be encouraged to masturbate. Only about 14% felt that this should occur. There was an almost even split among the responses to the questions asking about relieving tensions through masturbation and using this behavior for the purpose of simply feeling good. Both of these questions resulted in approximately one-third of students agreeing, one-third disagreeing, and the other one-third stating that they were unsure about their beliefs in these areas. This general topic also produced the highest percentage of indefinite choices from the sample. Almost one-third of the respondents selected the "unsure" response on all seven of these questions. It appears as though many of the students were unable to voice a definite opinion when confronted with questions about the acceptability of masturbatory behavior.

Homosexuality responses were comparable to this aspect of the masturbation questions. Many of the respondents were unsure about their true feelings in this area. The only tendency toward agreement was that slightly more than one-half of the students disagreed that there was nothing wrong with homosexual activity between two consenting adults. However, this same percentage stated that legal measures should not be taken against these people.

Another one of the most liberal opinion areas was that of premarital intercourse. Almost 80% stated that it was acceptable for both males and females to have premarital intercourse if they are either in love or engaged. Very few believed that intercourse should be reserved entirely for married partners. However, following Reiss's permissiveness with affection standard, only about one-third believed that premarital intercourse should be acceptable, regardless of the feelings the partners have for each other. Therefore, as stated in the literature review, this sample appears to agree that "free love" and indiscriminant sex is not the standard by which they prefer to be labeled.

A third highly liberal area was that of oral-genital sex. There was a consistently high agreement that this type of activity should be acceptable between any two



individuals, regardless of their relationship with each other. Although fewer students believed that this behavior was acceptable between any two consenting adults, as compared to those who were married, the general percentage of agreement was still very high. This topic, along with petting, produced some of the most liberal and the most consistent responses.

An overwhelming majority believed that sex education should be available to all children. However, only about one-half of respondents disagreed that it causes promiscuity. In fact, approximately 17% agreed that sex education does indeed cause young people to be promiscuous.

A similar response was found among the questions dealing with contraception. While about one-third believed that the availability of contraceptive information caused promiscuity, an overwhelming majority believed that it should be available to anyone who wanted it. Again, there appears to be a split between part of the sample who believe that this aspect of sexuality is positive and another who believe that it encourages people to engage in sex more often and with more partners.

The final area, abortion, resulted in somewhat of a split response. While a strong majority believed that abortion should be available, only about one-third said

that it should be allowed whenever desired by a pregnant woman. Therefore, while many believe that abortion is not wrong in all cases, over one-half of them stated that it should be acceptable only in restricted cases.

In summation, the sample proved to be relatively liberal in their reactions to this segment of the questionnaire. While there were no responses showing a highly conservative trend, a number of the students hold relatively liberal attitudes in the areas of petting, premarital intercourse, oral-genital sex, sex education, and contraception.

Table 4-3 lists the questions which received the highest percentages of agreement, uncertainty, and disagreement.

The total scores in this attitudinal analysis ranged from a minimum of 51 to a maximum of 153, out of a possible range of 33 to 165. Table 4-2 lists the means and standard deviations for each of the 33 questions. Additional descriptive statistics are reported in Table 4-6.

Table 4-2  
Results of Sexual Attitudes Scale  
 (n = 204)

<u>Item</u>	<u>Mean*</u>	<u>Std. Dev.</u>	<u>Item</u>	<u>Mean*</u>	<u>Std. Dev.</u>
1.	3.1	1.16	18.	2.5	.07
2.	4.2	1.02	19.	4.3	1.10
3.	2.1	1.16	20.	3.8	1.03
4.	3.7	1.18	21.	3.8	1.39
5.	3.5	1.25	22.	4.0	1.18
6.	2.5	1.41	23.	2.7	1.38
7.	3.5	1.11	24.	4.4	.83
8.	2.5	1.23	25.	3.2	1.21
9.	3.8	1.20	26.	2.8	1.29
10.	3.9	1.13	27.	3.5	1.28
11.	3.9	1.14	28.	2.9	1.23
12.	4.0	1.09	29.	3.1	1.10
13.	4.4	.81	30.	3.0	1.08
14.	4.1	1.17	31.	3.3	1.20
15.	3.4	1.15	32.	4.0	1.11
16.	3.9	1.16	33.	3.9	1.21
17.	3.9	.93			

\* Means were calculated so that 1 = a highly conservative response and 5 = a highly liberal response.

Table 4-3  
Highest Response Percentages  
 (n = 204)

<u>Item</u>	<u>Question</u>	<u>Agree</u>
13.	Sex education taught by trained professionals should be available to all children.	87%
19.	Birth control should be available for any person who wants it.	85%
24.	Oral-genital sex between two married people should be acceptable.	89%

<u>Item</u>	<u>Question</u>	<u>Unsure</u>
17.	Masturbation among females is a frequent cause of sexual problems.	39%
18.	Males should be encouraged to masturbate.	37%
30.	Relieving tension by masturbation is a healthy practice.	39%

<u>Item</u>	<u>Question</u>	<u>Disagree</u>
21.	Abortion should not be allowed under any circumstance.	70%
33.	Touching each others' genitals should be acceptable only between married partners.	75%

The sexual behaviors portion of the survey solicited information about both the number of times the students engaged in specific sexual activities and the number of partners with which they engaged in these activities during the past twelve months.

As expected, the percentage of students engaging in specific sexual behaviors declined as the behaviors became more advanced. For example, according to the hierarchy established for this scale, more people were expected to have kissed and petted than have participated in sexual intercourse. There were major decreases along this hierarchical scale at the points between touching and sexual intercourse in the missionary position, as well as between sexual intercourse in the missionary position and oral-genital sex. Also as expected, there was a tremendous decrease in the progression from heterosexual to homosexual behaviors. While the lowest percentage of those having engaged in a heterosexual behavior was 69% (giving oral-genital sex), only 4% reported engaging in any homosexual behavior at all. Scores at the three levels described above showed a quicker reduction than those at any other point in the scale.

More than 6% reported experiencing no sexual behaviors during the past 12 months. Also, almost 11% of this sample claimed to have engaged in sexual intercourse

with more than five people during this same period.

Better than 70% of the sample reported engaging in the kissing and petting behaviors more than five times. Over 65% stated that they had engaged in sexual intercourse more than five times and approximately 45% had been involved in oral-genital sex just as often during the past 12 month period.

As discussed in the previous chapter, the question concerning masturbation was scored separately. Approximately 48% reported not masturbating at all during the past year, while 27% claimed to have engaged in this behavior less than one time per week. Of the surveys incorporated into this study, this question received the greatest number of blank responses. Almost 8% failed to report their masturbatory behavior by not selecting any of the choices listed in this question.

From the design of the questionnaire, there was no way to determine the total number of persons who have engaged in premarital sexual intercourse. However, of the 141 students who were never married, a total of 74% of them reported experiencing this behavior at least once during the past 12 months. Approximately 83% of the males who were never married had sexual intercourse--46% with more than one partner during the stated time period. Only 61% of the females reported premarital intercourse and 27%

had multiple partners.

Total scores on the self-reported sexual behaviors portion of the survey ranged from 0 to 111 out of a possible range of 0 to 150. Percentages of those engaging in the specific behaviors and information on the number of partners are contained in Table 4-4. Further descriptive statistics are reported in Table 4-6.

Table 4-4  
Results of Sexual Behavior Scale  
 (n = 204)

<u>Sexual Behavior</u>	<u>Total Engaging*</u>	<u>More Than One Partner**</u>
Kissing and Hugging	94%	59%
French Kissing	94%	55%
Breast Petting	94%	52%
Gave Genital Petting	90%	48%
Received Genital Petting	91%	44%
Intercourse--Missionary Position	81%	34%
Gave Oral-Genital Sex	69%	26%
Received Oral-Genital Sex	73%	26%
Intercourse--Other Positions	75%	28%
Gave Homosexual Petting	4%	2%
Received Homosexual Petting	4%	2%
Gave Homosexual Oral-Genital Sex	3%	2%
Received Homosexual Oral-Genital Sex	3%	2%

\* Total percentage of students engaging in the behavior during the past 12 months.

\*\* Total percentage of students engaging in the behavior with more than one partner during the past 12 months.



In the religiosity section of the survey, students responded to questions which were aimed at assessing four dimensions of their religiosity: ideological, intellectual, ritualistic, and experiential.

The strongest sense of religiosity was in the ideological dimension. There were consistently high responses to these theological beliefs, especially concerning God's acting in history. The experiential questions received the second highest level of responses, especially when considering the security which religion offers in the face of death.

The lowest scores came from the ritualistic dimension. As compared to those considered highly religious, many of these students do not spend as much time reading religious literature, attending worship services, or praying.

In general, the total scores ranged from a low of 7 to a high of 49, out of a possible 0 to 49. The means and amount of deviation from the highest possible religiosity score for each of the 19 questions are reported in Table 4-5. Additional descriptive statistics are listed in Table 4-6.

Table 4-5  
Results of Religiosity Scale  
 (n = 204)

<u>Item</u>	<u>Mean</u>	<u>Deviation*</u>	<u>Item</u>	<u>Mean</u>	<u>Deviation*</u>
1.	1.3	.7	11.	.4	1.6
2.	4.3	.7	12.	1.1	1.9
3.	1.6	.4	13.	2.6	1.4
4.	1.7	.3	14.	1.7	.3
5.	2.2	.8	15.	1.1	.9
6.	1.3	.7	16.	1.7	1.3
7.	1.3	.7	17.	1.7	.3
8.	2.0	1.0	18.	1.0	1.0
9.	1.6	2.4	19.	1.6	.4
10.	.7	1.3			

\* "Deviation" denotes the number of points in which each score deviates from the highest possible score for that question.

Table 4-6  
Summary of Composite Scores  
 (n = 204)

<u>Section</u>	<u>Mean</u>	<u>Median</u>	<u>Mode</u>	<u>Std. Dev.</u>
Attitudes	115.4	116.5	115	20.23
Behaviors	46.7	51.5	52	22.02
Religiosity	30.6	31.0	29	8.62

#### Gender Differences

Additional statistics were computed with the attitudes and behaviors scales to determine if any gender differences existed.

In the attitudes portion, six questions showed significant differences ( $p < .01$ ) between male and female responses when a direct method discriminant analysis was used to analyze the data. In the direct method, all independent variables are entered in the analysis concurrently (Nie et al., 1975). However, in order to demonstrate a more sophisticated statistical test, a discriminant analysis was also calculated using a stepwise selection method. In this method, the variables are selected for entry into the analysis on the basis of their discriminating power (Nie et al., 1975). This produced significant differences ( $p < .01$ ) between males and

females on four of the same questions and on one question which the earlier test did not show as being significant. The stepwise method found significantly discriminating power in question number 32, which solicited information concerning whether or not premarital sexual intercourse should be acceptable for people who are engaged. Males were more likely to agree.

In general, the stepwise test revealed that males and females disagreed on whether or not there was anything wrong with homosexual activity. More males were reticent to agree that homosexual activity should be acceptable.

Two questions on premarital sexual intercourse also showed significant differences. More females believed that premarital intercourse should not be acceptable for males, while more males "strongly agreed" that it should be acceptable. There were no significant differences between male and female responses concerning the acceptability of premarital intercourse for females. In addition, as stated above, males were more likely than the females to be accepting of premarital intercourse between engaged couples.

There was also a controversy over whether or not masturbation is a healthy practice. Many more females disagreed with the statement that masturbation is unhealthy. The two questions eliminated by the stepwise

analysis also involved masturbation. Therefore, there may be a major variance between the genders on this topic, much of which is described in the one question which emerged as being significant.

One question on nudity produced a significant difference. Many more females stated that nudity in magazines is harmful. Fewer males believed that this is so.

Although there were some differences in the individual questions, as stated above, the means for the total scores of the attitudes portion were almost equal: males = 115.2 and female = 115.5. Additional statistics are listed in Table 4-7.

In the self-reported behaviors analysis, the same statistical tests were performed. The direct discriminant analysis produced six questions which showed significant differences between males and females ( $p < .01$ ) and the stepwise analysis produced three; only one of those questions being similar.

All of the questions showing a significant difference from the direct method were in the second portion of this scale, which dealt with the number of partners. Males were significantly different from females on six of the nine heterosexual behaviors. The major difference was that more males reported having more partners during the

past 12 months, especially the choice labeled "more than five people."

The stepwise discriminant analysis produced differences in the questions concerning the number of times which the students reported kissing and hugging, the number of times they had their genital touched by someone else, and the number of partners from which they received oral-genital sex. While more males reported kissing and hugging behaviors, more females claimed to have had their genitals touched by a member of the opposite sex. Males received oral-genital sex from a significantly greater number of partners.

In general, males consistently reported having a greater number of sexual partners, but much of that variance may be explained by the three questions described above. The types of analytic approaches used by the two statistical tests are responsible for this difference.

A t test was performed on the question concerning masturbation. There was a significant difference between the genders ( $p < .01$ ), with males reporting more frequent episodes. A few more females reported not masturbating at all during this period and none of the others reported masturbating more than three times per week. Approximately 12% of the males reported masturbating four or more times per week during the past year.

Table 4-7

Results of Stepwise Discriminant Analyses

(n = 204)

<u>Item</u>	<u>Description</u>	<u>Wilks' Lambda*</u>	<u>Sig.**</u>
<u>Attitudes Scale</u>			
6.	Nothing Wrong with Homosexual Activity	.846	.000
11.	Premarital Sex Acceptable for Males	.822	.000
20.	Masturbation is Unhealthy	.923	.000
29.	Nudity in Magazines Harmful to Children	.880	.000
32.	Premarital Sex Acceptable for Engaged	.795	.000
<u>Behaviors Scale</u>			
1.	Kissing (Number of Times)	.810	.000
5.	Had Genitals Touched (Number of Times)	.906	.000
21.	Received Oral Sex (Number of Partners)	.857	.000

\* The Wilks test takes into consideration all of the centroids and the cohesion or homogeneity within the group (Nie et al., 1975).

\*\* Level of significant difference between male and female scores.

### Hypothesis 1

The first null hypothesis claimed that there is no significant relationship between the religiosity of a group of incoming community college students and their sexual attitudes, when the following sociodemographic characteristics are controlled: gender, race, age, religious preference, student status, marital status, and demographic background.

A stepwise multiple regression was calculated and the results are listed in Table 4-8. As predicted, this hypothesis was rejected.

Three variables emerged as significant at better than the .05 level. First, the total religiosity score was the strongest predictor. The multiple R score (multiple correlation coefficient) of .386 explains almost 15% of the variance in attitude scores. The correlation was a  $-.386$ . This implies that there is a negative relationship between the religiosity of community college students and their sexual attitudes. The higher one's level of religiosity, the more conservative (less liberal) are his or her attitudes about sexuality.

The students' status in college (first semester freshman, returning student, or transfer student) resulted in a multiple R of .409. This added 2% to the explanation of the variance. It is correlated with sexual attitudes



at the level of .109 and in a positive direction. This means that returning students and transfers possess somewhat more liberal sexual attitudes when compared to first semester freshmen.

The third and final independent variable providing a significant contribution to the equation was the students' time status (full-time or part-time). This variable resulted in a multiple R of .437 and was able to add another 1% to the explanation of the variance. Like religiosity, its correlation was also negative. This means that full-time students hold slightly more liberal attitudes about sexuality.

The total sexual attitudes scores, of course, varied from student to student. The major purpose of employing a stepwise multiple regression formula is to attempt to discern how much of that variance is explained by the independent variables. Almost 18% of the variance in attitudes was explained by the combination of the three independent variables mentioned above.

### Hypothesis 2

The second null hypothesis claimed that there is no significant relationship between the religiosity of a group of incoming community college students and their sexual behaviors, when the previously stated

sociodemographic characteristics are controlled.

Another stepwise multiple regression was calculated with these statistics and the results are reported in Table 4-9. This hypothesis was also rejected.

Only one independent variable emerged as being significant in this case. The total religiosity score resulted in a multiple R of .276, which explains approximately 7% of the variance of the self-reported sexual behaviors scores. This also resulted in a negative correlation:  $-.276$ . Thus, the higher one's level of religiosity, the less likely it is that he or she is involved in as much sexual activity. This score was the only independent variable which was significant at the .05 level or better.

In summation, both null hypotheses were rejected. As stated in Chapter I, it was expected that there would be a significant relationship between the religiosity of incoming community college students and their sexual attitudes. However, the general hypotheses also predicted that there would be a weaker, nonsignificant relationship between their religiosity and their sexual behaviors. The stepwise multiple regressions, discussed above, provided evidence that there is a significant relationship between the religiosity of these students and both their sexual attitudes and sexual behaviors. Therefore, one prediction

was accurate and the other was inaccurate. However, the expected power of religiosity as a stronger predictor of sexual attitudes than sexual behaviors was demonstrated. A further analysis of this finding and its implications will be discussed in Chapter V.

Table 4-8

Results of Attitudes Scale Stepwise Multiple Regression

<u>Variable</u>	<u>Mul. R</u>	<u>Ad. R Sq.</u>	<u>Sig.</u>	<u>Corr.</u>
Total Religiosity Score	.386	.145	.000	-.386
Student Status	.409	.159	.000	.109
Attending School	.437	.173	.000	-.197

Table 4-9

Results of Behaviors Scale Stepwise Multiple Regression

<u>Variable</u>	<u>Mul. R</u>	<u>Ad. R Sq.</u>	<u>Sig.</u>	<u>Corr.</u>
Total Religiosity Score	.276	.072	.000	-.276

\*\*\* Mul. R = Multiple Correlation Coefficient.

Ad. R Sq. = R Square statistic adjusted for the  
number of independent variables in the  
equation and the number of cases.

Sig. = Level of Significance.

Corr. = Correlation.

### Additional Regression Data

In order to further explain the significance levels of all nine independent variables, a direct or forced entry multiple regression was calculated on both the sexual attitudes and sexual behaviors scales. In this procedure, all of the independent variables are entered into the analysis, regardless of their levels of significance. These data provide more complete explanations of the significance of every variable and allow the reader to view an overall picture of the individual power of each independent variable, instead of simply the overall power of the equation.

Table 4-10 lists the t values, their significance levels, and the correlations for each of the nine independent variables, when measured against the total sexual attitudes scores. Consistent with the stepwise regression, total religiosity scores, student class status, and student time status provided the most significant data. All three are significant at the .05 level or better. Religious preference is the only one of the other six independent variables which is close to being significant. Like the total religiosity score, its correlation to sexual attitudes is negative. According to the construct of this survey, this means that the more liberal the sexual attitudes, the more likely that the

student has reported a religious preference other than Catholic (Protestant, Jewish, Other or None). The variables having the lowest relationship to attitudes are age, gender, and demographic background.

Table 4-11 provides this same information when the nine independent variables are compared to the total sexual behaviors score. Again consistent with the stepwise regression, the total religiosity score provides the only significant data. Gender, however, is very close to being significant. Its t score produced a level of .057. This shows evidence that one's gender has some effect on the level of sexual behavior in which one engages. The males were somewhat, though not significantly, more sexually active. None of the remaining seven independent variables provided a high enough correlation to the self-reported sexual behaviors scores to be significant. The lowest relationship with sexual behaviors was the demographic background of the students.

Once again, the purpose of performing this additional multiple regression was to present a more detailed explanation of the individual power of all nine independent variables when forced into a regression equation with the sexual attitudes and sexual behaviors scores resulting from this study.

Table 4-10

Results of Attitudes Scale Direct Multiple Regression

<u>Item</u>	<u>T Value</u>	<u>Sig.</u>	<u>Corr.</u>
Total Religiosity Score	-5.235	.000	-.386
Religious Preference	-1.868	.063	-.135
Demographic Background	-0.023	.934	.012
Student Class Status	1.994	.048	.109
Marital Status	1.239	.217	.096
Race	0.728	.468	.106
Student Time Status	-2.136	.034	.197
Gender	0.471	.638	.008
Age	-0.495	.621	.037

\*\*\* T Value = Value of T Score.

Sig. = Significance Value of T Score.

Corr. = Correlation.

Table 4-11

Results of Behaviors Scale Direct Multiple Regression

<u>Item</u>	<u>T Value</u>	<u>Sig.</u>	<u>Corr.</u>
Total Religiosity Score	-3.900	.000	-.276
Religious Preference	1.466	.144	.076
Demographic Background	0.465	.643	.064
Student Class Status	0.834	.405	.016
Marital Status	0.802	.424	.074
Race	-1.199	.232	.010
Student Time Status	-1.114	.267	.119
Gender	-1.916	.057	.107
Age	1.086	.279	.059

\*\*\* T Value = Value of T Score.

Sig. = Significance Value of T Score.

Corr. = Correlation.



One final pair of multiple regressions were calculated. In these equations, the other dependent variable was included as an independent variable in order to examine its influence on the individual dependent variable being tested. For example, a stepwise multiple regression was calculated with the sexual attitudes score as the dependent variable and ten variables as independents--the nine original ones, plus the sexual behaviors score. This revealed that the total behaviors score actually predicted 18% of the variance. The combination of this score, the total religiosity score, the religious preference score, and the student status score was able to explain 29% of the variance in the total sexual attitudes scores.

When the same test was conducted with the sexual behaviors score as the dependent variable, the combination of the sexual attitudes score, the religious preference score, and the gender score was able to explain 21% of the variance. These tests demonstrated that, in this study, both dependent variables accounted for approximately 18% of the explanation of each others' score variance.

### Results of the Factor Analyses

As stated in Chapter III, factor analyses were conducted with the sexual attitudes and sexual behaviors

portions of the instrument developed for this study. This was an attempt to discern more information about its construct validity.

A principal factoring without iteration method was used. In this procedure, the main diagonal of the correlation matrix is not altered. There are no assumptions about the general structure of the variables and the main diagonal is not replaced by estimates of communality (Nie et al., 1975). This direct method was selected because it offers a specific calculation on the exact variables and not the estimates of communality. The sample size was relatively small and the major intention was to define data about the specific responses received.

The following analysis is based on a varimax orthogonal rotation matrix. This procedure was selected because it centers on simplifying the columns of the matrix (the factors themselves) instead of the rows (the individual variables). In this manner, more definitive information is gained about the factors developed from the data.

When the sexual attitudes portion of the questionnaire was developed, ten topics were incorporated. There were items on nudity, petting, extramarital sexual activity, masturbation, homosexuality, premarital sexual intercourse, oral-genital sex, sex education,

contraception, and abortion.

The results of the factor analysis revealed that there were eight factors with eigenvalues above 1. Eigenvalues measure the relative importance of the function. They describe a measure of the total variance which exists in the discriminating variables (Nie et al., 1975). The first six of these factors produced information supporting seven of the original ten topics.

In factor 1, a total of 12 items achieved correlations above .45. These 12 items included all three questions concerning petting, all three questions about oral-genital sex, and all six questions relating to premarital sexual intercourse. This was the strongest factor produced in the analysis.

Factor 2 appears to cover the topic of masturbation. It extracted seven items with correlations greater than .29. These were all seven of the questions on masturbation which the survey contained. Also, with the exception of one question, all of these correlations were above .60.

Only three items produced correlations greater than .75 in factor 3. Those three items were all of the questions in the survey concerning homosexuality. Again, this analysis demonstrated a planned topic which was able to produce strong factor loadings.

Factor 4 was the least powerful of the six factors extracted. Three questions resulted in correlations greater than .57, but they covered three separate topics. One of the three items on nudity, one of the two items on sex education, and one of the two items on contraception received the highest loadings. This evidence does not seem to add as much construct validity to the instrument as the previous three and the next two factors.

Both of the questions on the topic of extramarital sexual intercourse were the highest loaders on factor 5. They were the only items with correlations above .83.

The final factor used in this analysis contained high scores on both abortion and nudity. The two questions on abortion were the major factor, but the item on nudity was actually higher than one of the abortion questions.

In summation, the preceding information presents strong evidence that the sexual attitudes portion of the instrument developed for this study has a high degree of construct validity. Four of the six factors extracted seven of the topics exactly, while the other factor extracted portions of the remaining three topics which were incorporated into the original development of the questionnaire.

Specific correlations and eigenvalues are reported in Table 4-12.

Table 4-12

Results of Sexual Attitudes Scale Factor Analysis

<u>Item</u>	<u>Topic</u>	<u>Corr.</u>	<u>Item</u>	<u>Topic</u>	<u>Corr.</u>
<u>Factor 1--Eigenvalue = 10.330</u>			<u>Factor 3--Eigenvalue = 1.758</u>		
2.	Petting	.733	6.	Homosexuality	.755
12.	Petting	.860	27.	Homosexuality	.812
33.	Petting	.645	28.	Homosexuality	.745
10.	Oral-Genital Sex	.781			
16.	Oral-Genital Sex	.847	<u>Factor 4--Eigenvalue = 1.606</u>		
24.	Oral-Genital Sex	.545	7.	Nudity	.625
9.	Premarital Sex	.798	15.	Sex Education	.571
11.	Premarital Sex	.874	31.	Contraception	.680
14.	Premarital Sex	.880			
22.	Premarital Sex	.758	<u>Factor 5--Eigenvalue = 1.530</u>		
26.	Premarital Sex	.450	3.	Extramarital Sex	.874
32.	Premarital Sex	.807	8.	Extramarital Sex	.833
<u>Factor 2--Eigenvalue = 3.542</u>			<u>Factor 6--Eigenvalue = 1.223</u>		
4.	Masturbation	.607	21.	Abortion	.630
5.	Masturbation	.700	23.	Abortion	.407
17.	Masturbation	.284	1.	Nudity	.668
18.	Masturbation	.711			
20.	Masturbation	.665			
25.	Masturbation	.814			
30.	Masturbation	.751			

In the development of the self-reported sexual behaviors portion of the instrument, six separate categories were established. The first category included behaviors such as kissing and hugging, French kissing, breast petting, and genital petting. The next category incorporated more advanced sexual behaviors such as sexual intercourse and oral-genital sex. The final category was homosexual activity. All three of these categories requested information concerning both the number of times students had engaged in the behavior and the number of partners with whom they had been involved during the past 12 months. This brings the total to six separate categories.

The same factor analysis procedures discussed previously were conducted on this scale. The result was four factors with eigenvalues greater than 2.2. These four factors perfectly equated the expected categories.

Factor 1 extracted eight variables. They were all four of the homosexual activities in both the number of times and number of partners categories. These eight variables were the only ones with a correlation greater than .95.

Likewise, in factor 2, all eight of the advanced sexual behaviors were extracted. These four behaviors in the number of times category and in the number of partners

category were the only question achieving a correlation greater than .72.

The five kissing and petting behaviors in the number of partners category comprised all of the items exceeding a .76 correlation in factor 3.

The final factor extracted all five of these behaviors in the number of times category.

From these data, it appears safe to assume that the sexual behaviors portion of this survey contains an extremely high level of construct validity. Additional statistics on this factor analysis are reported in Table 4-13.

Table 4-13

Results of Sexual Behaviors Scale Factor Analysis

<u>Item</u>	<u>Topic</u>	<u>Corr.</u>	<u>Item</u>	<u>Topic</u>	<u>Corr.</u>
<u>Factor 1--Eigenvalue = 9.655</u>			<u>Factor 2--Eigenvalue = 7.450</u>		
10.	Homosexual Petting	.949	6.	Sexual Intercourse	.766
11.	Homosexual Petting	.949	7.	Oral-Genital Sex	.814
12.	Homosexual Oral Sex	.969	8.	Oral-Genital Sex	.787
13.	Homosexual Oral Sex	.958	9.	Sexual Intercourse	.850
23.	Homosexual Petting	.974	19.	Sexual Intercourse	.728
24.	Homosexual Petting	.956	20.	Oral-Genital Sex	.812
25.	Homosexual Oral Sex	.969	21.	Oral-Genital Sex	.794
26.	Homosexual Oral Sex	.969	22.	Sexual Intercourse	.807
<u>Factor 3--Eigenvalue = 2.758</u>			<u>Factor 4--Eigenvalue = 2.243</u>		
14.	Kissing	.814	1.	Kissing	.902
15.	French Kissing	.876	2.	French Kissing	.816
16.	Breast Petting	.885	3.	Breast Petting	.834
17.	Genital Petting	.783	4.	Genital Petting	.685
18.	Genital Petting	.762	5.	Genital Petting	.711



### Additional Correlations

The statistics discussed in this chapter offer more sophisticated descriptions of the data than simple correlations. They take into account the variance which may be described by more than one question and offer a more indepth view of what actually occurs within the total set of responses, as compared to simply one question or one variable. However, it may be of interest to view some direct Pearson correlations for the sake of understanding simple differences between scores and variables. In Appendix D, Table 5-1 lists a variety of simple correlations for the interest of the reader. Please note that they are only for general interest and provide additional, not better, information about the results of this study.

### Summary

A sample of community college students completed a questionnaire aimed at measuring their sexual attitudes, sexual behaviors, and religiosity. The results showed that many of them hold liberal views about a number of areas of sexuality. Their level of religiosity was shown to be related to both their sexual attitudes and sexual behaviors. Subjects who scored lower on the religiosity scale hold more liberal attitudes about various aspects of

human sexuality and they tend to engage in sexual behaviors more often and with more partners. The results of the survey showed major discriminations between males and females on a few of the items. In addition, the construct validity of both the attitudes and behaviors sections was supported.

## CHAPTER V

### Summary and Conclusions

This final chapter summarizes the study and the results obtained from the statistical analyses of the data. A series of conclusions are drawn from this information and there is a list of recommendations for future research.

#### Summary

The purpose of this study was to examine the specific relationship which exists between selected sociodemographic characteristics and the religiosity of a group of incoming community college students and their sexual attitudes and sexual behaviors.

In the current literature, there is very little information about the sexuality of community college students. As a group, many of them hold different values and goals; thus, they comprise a unique subset of the general population. Since a number of them have demonstrated an interest in both taking academic courses in human sexuality and receiving counseling in this area, teaching faculty, counselors, and administrators are in need of descriptive information about the sexuality of these students. This will equip them with the necessary

material to make better and more informed decisions concerning academic courses and related student services. In addition, some of the very recent literature in this area (as reported in Chapter III) claims that there is a trend toward reverting back to more conservative sexual attitudes and sexual behaviors in this country. Therefore, with this base, the preceding study was designed both to describe a community college population and to update the recent information on sexual attitudes, sexual behaviors, and religiosity.

A sample of 204 community college students completed a survey aimed at assessing their sexual attitudes, sexual behaviors, and religiosity. The instrument was designed from a number of previously printed surveys and its reliability was tested with a sample of 23 community college students.

The reliability study demonstrated conclusive evidence that this instrument is highly reliable. All items on all three portions of the survey, with the exception of two, were reliable at the .01 level of significance. Those two remaining items were reliable at the .05 level. Coefficients ranged from .391 to 1.000 and all but five items resulted in coefficients greater than .700.

In addition, factor analyses demonstrated that both

the attitudes and behaviors sections of this instrument contain a high degree of construct validity. The validity of the religiosity scale had been established through previous testing by the authors of this scale, as well as other researchers.

The survey demonstrated that this sample holds relatively liberal attitudes, especially concerning the topics of petting, premarital sexual intercourse, oral-genital sex, sex education, and contraception. There were no responses which demonstrated a trend toward conservatism.

In the self-reported sexual behaviors segment, the majority of students reported that they had been engaging in a variety of heterosexual behaviors during the past 12 months. The percentages decreased as the solicited behaviors became more advanced, just as expected by the established hierarchy. Very few reported experiencing homosexual behaviors.

A stepwise discriminant analysis revealed that there were major distinctions between male and female responses to five of the attitude questions and three of the behavior questions.

Stepwise multiple regressions showed that religiosity was highly correlated with both sexual attitudes and sexual behaviors, when selected sociodemographic variables

were controlled. Total religiosity score was the strongest predictor of sexual attitudes and the only significant predictor of sexual behaviors in this sample.

Additional regressions and correlations were calculated to demonstrate the relative strength of other variables and to offer a more comprehensive view of the results.

### Hypotheses

The first null hypothesis claimed that there is no significant relationship between the religiosity of a group of incoming community college students and their sexual attitudes, when the following sociodemographic characteristics are controlled: gender, race, age, religious preference, student status, marital status, and demographic background. This hypothesis was rejected.

The second null hypothesis claimed that there is no significant relationship between the religiosity of a group of incoming community college students and their sexual behaviors, when the previously stated sociodemographic characteristics are controlled. This hypothesis was also rejected.

### Conclusions

The following conclusions are drawn from the

information presented in Chapter IV. They are derived from this researcher's interpretation of the results obtained in the statistical analyses of the data.

1. From the sociodemographic data, this sample appears to be representative of many community college populations, especially in gender, marital status, and age. Many of the other community college populations across the country probably differ in race, religious preference, and demographics. Almost all of the students in this sample were white, the majority of them were Catholic, and approximately one-half of them were from a small town. Therefore, the results are descriptive of a limited number of community college students, at least as far as sociodemographic data are concerned.

2. Community college students hold a number of liberal attitudes toward various aspects of human sexuality. They believe that genital petting and oral-genital sex should be acceptable among both married and unmarried persons. There was a higher sense of agreement for these behaviors to be acceptable when the partners are married or in love. This shows a traditional sense of maturity and respect. These students do not appear to condone indiscriminant sexual behaviors. They believe that consenting adults should be allowed a certain degree of sexual freedom when they possess such feelings

as love and caring for another person.

3. Following this belief, the majority stated that premarital sexual intercourse should also be acceptable, especially when the partners are engaged or in love. Again, they demonstrated a traditional sense of maturity and morality by rejecting intercourse between two people who do not possess any special feelings for each other.

4. Many of the respondents are confused about their feelings toward homosexuality and masturbation. These two areas often make people uncomfortable and this sample demonstrated their lack of certainty when approximately one-third of them stated that they were unsure of their attitudes toward questions in these areas. This population appears to be similar to the majority of Americans who have difficulty discussing masturbation and also find it difficult to divorce their emotions from the objective categorization of the appropriateness of homosexual activity.

5. Like many other Americans, this population also believes that sex education, contraception, and abortion should be available, but with certain restrictions. Only one-half of them were willing to state that sex education and contraception do not cause promiscuity and two-thirds were willing to endorse abortion only in restricted cases.

6. Some of the very recent literature claims that



Americans are reverting back to a more conservative sense of sexual attitudes, values, and behaviors. However, since there are no available data on the sexuality of community college students from the past, this prediction is unable to be verified by this study. The only conservative trend comparable to the general population is the belief stated above: that abortion should be available only in restricted cases. However, there is no available information which would discern whether or not this belief reflects a change in attitudes or whether community college students have always felt this way.

7. The literature claims that community college students tend to follow more traditional values. This may not be far from the truth in terms of these results. While much of the response leans toward a more liberal direction, it must be remembered that, on the average, students in this group are almost 10 years older than the average entering freshman at a four-year college. The 1960s and 1970s were a period when much of society professed highly liberal views toward sexuality. Therefore, it may be argued that these students are actually professing what are "the traditional" societal views of their generation toward sexuality. The "modern" attitude of conservatism in both sexuality and politics may not have affected this population as of yet. Thus,

the literature would be correct in stating that community college students tend to follow more traditional values.

8. Community college students are highly sexually active, except in homosexual types of behaviors. Almost all of them had kissed and petted during the past 12 months and a majority of them had engaged in intercourse and oral-genital sex. Also, there seems to be a consistency between their attitudes and their behaviors in most categories. A strong majority stated that premarital intercourse and oral-genital sex should be acceptable and their self-reports indicate that they do engage in those behaviors. While it does not necessarily indicate a conflict, approximately one-third of the students believe that homosexual behavior should be acceptable, but only about 4% reported actually engaging in that behavior.

Another example of their high level of sexual activity is that approximately 22% of the married students reported kissing and petting behaviors with more than one partner during the past 12 months. In addition, about 15% of them reported having intercourse and oral-genital sex with more than one partner. This information assumes that very few, if any, of the students were unmarried one year ago. Otherwise, these data would not be as pertinent.

9. The double standard is operative, at least in the behaviors of these students. More than 83% of the

unmarried males had engaged in intercourse during the previous 12 months, as compared to only 61% of the females. Again, these statistics appear to be close to national norms for the four-year college students in this day and age.

10. The one area which may be questionable, or at least is far different from most other studies, is the topic of masturbatory behavior. While other studies reported percentages as high as 97%, only 44% of this sample admitted to masturbating at least once during the past year. The only major difference is that the percentages in most of the other studies are based on questions which ask if the subjects ever masturbated at any time during their lives. Despite that fact, this still appears to be an unusually low percentage. A great deal of the difference may be due to the high percentage of students who experienced difficulty even stating an attitude toward masturbation. Since it is usually a highly personal matter, subjects often find themselves influenced by prior learning that masturbation is wrong, sinful, or even sick behavior. Thus, they may find it difficult to report this behavior, especially in the large group setting used in this study.

11. There may be somewhat of an inconsistency in the religiosity of these students. Many of them profess a

relatively high level of ideological belief, yet they fail to report being active in areas such as reading religious literature, attending worship services, and praying. The only possible explanation for this inconsistency would be that the survey did not include the religious activities which demonstrate the level of commitment of these students.

12. Male and female community college students are highly similar in terms of their attitudes toward various sexual topics and their actual behaviors. Although the stepwise discriminant analysis was able to show significant distinctions between the genders on five questions, males were more liberal on three of those questions and females were more liberal on two. In a similar manner, males were more active in two behavioral areas and females were more active in the other. These trends were reported in Table 4-7. The only major difference is that men tended to report activity with more partners. This difference is also noticeable in a conclusion described later in this chapter concerning the consistency between attitudes and behaviors.

13. In terms of the major purpose of this study, religiosity showed a significant relationship to both sexual attitudes and sexual behaviors. As predicted, the religiosity of community college students has a strong

inverse relationship to their sexual attitudes. The more religious a person claims to be, the more conservative are his or her sexual attitudes. However, the combination of religiosity and the rest of the sociodemographic variables was only able to explain approximately 18% of the variance. This indicates that there are other variables which have a major influence on the attitudes of these students.

Likewise, religiosity is significantly related to the sexual behaviors of these students in an inverse direction. It was predicted that religiosity would have a weaker, nonsignificant relationship. That prediction was somewhat maintained. While religiosity did show a significant relationship, it was only able to predict about 7% of the variance of sexual behaviors (as compared to predicting 15% of the sexual attitudes variance). As stated earlier, much of this lack of prediction is probably due to the fact that almost 20% of the sample is married. Liberal sexual behavior is much more difficult to define within a marriage, as compared to outside of marriage.

14. While the information stated above demonstrates that there are significant relationships between religiosity and both sexual attitudes and sexual behaviors, causality is not assumed. There is no evidence

to justify that a high level of religiosity causes a person to be more conservative sexually.

15. The instrument developed for this study is highly reliable and contains a high degree of construct validity. These conclusions are drawn from the results of the test-retest study described in Chapter III and the factor analyses described in Chapter IV.

16. Community college students are relatively consistent in their attitudes and behaviors in the area of human sexuality. This conclusion was drawn from those students who reported engaging in intercourse and oral-genital sex with more than five partners as compared to those who reported no partners in these two areas. Descriptive statistics on their responses to the nine attitudinal questions dealing with intercourse and oral-genital sex are listed in Table 5-1. Two-thirds of those reporting no partners for intercourse and oral-genital sex were female, while two-thirds of those reporting more than five partners for these behaviors during the past 12 months were male. The double standard is stronger among those who reported more than five partners and this group also showed extremely liberal attitudes. For example, while 22% of them felt that premarital intercourse should not be acceptable for females, none of them stated that it should not be

acceptable for males. The only tendency toward inconsistency was that they reported intercourse with more than five partners during the past year, yet only 55% believe that intercourse should be acceptable between any two consenting adults, regardless of their feelings for each other. It is questionable whether or not a person can honestly "love" that many partners. What these students may be saying is that intercourse should be acceptable if there is even a friendly sense of liking between two people. Also, it adds support to the contention of Jurich and Jurich (1974) that the "Nonexploitive Permissiveness Standard" needs to be added to Reiss's other four standards of premarital sexual permissiveness.

Table 5-1  
Attitude and Behavior Consistency

<u>Item</u>	<u>Description</u>	<u>No Partners</u>		<u>More Than Five Partners</u>	
		(n = 31)		(n = 9)	
		<u>Consv.</u>	<u>Libr.</u>	<u>Consv.</u>	<u>Libr.</u>
9.	Intercourse (Females)	42%	35%	22%	78%
10.	Oral-Genital (Any Two)	45%	35%	0%	78%
11.	Intercourse (Males)	32%	38%	0%	79%
14.	Intercourse (In Love)	35%	48%	0%	78%
16.	Oral-Genital (In Love)	46%	29%	0%	78%
22.	Intercourse (Married)	48%	35%	0%	78%
24.	Oral-Genital (Married)	10%	68%	0%	100%
26.	Intercourse (Any Two)	74%	3%	11%	55%
32.	Intercourse (Engaged)	35%	52%	0%	89%

\*\* Consv. = Conservative response.

Libr. = Liberal response.



17. Total Religiosity score is a better predictor of sexual attitudes and sexual behaviors than simply using attendance at church. An identical stepwise multiple regression analysis was conducted with the same sociodemographic variables, with the exception of substituting church attendance in place of the total religiosity score. The regressions described in Chapter IV were able to explain 18% of the attitudes scores and 7% of the behaviors scores. When church attendance was substituted for the total religiosity score, the regressions were only able to explain 10% of the attitudes scores and 0% of the behaviors scores. Therefore, it is suggested that studies which include only a church attendance score are not as informative as those which include a more total religiosity score.

#### Recommendations for Future Studies

Studies in the area of human sexuality have drawn considerable criticism from researchers in a variety of fields. Some claim that research has no business investigating the personal aspects of one's life, such as sexuality. Others claim that attitude and self-reported behavioral scales do not provide science with accurate data.

There will always be limitations in this field.

There are often discrepancies between what the subjects profess and how they actually behave. Since sexuality is still a sensitive topic, survey responses must be carefully scrutinized. Do they represent an honest evaluation of the true self or an idealized self? Since people do not "keep records" of their sexual experiences, how accurate are responses to questions requesting information from an earlier time in one's life? These concerns will never be completely answered, but they must be considered when reviewing sexuality data.

It is most likely that sexuality research will continue to be conducted. There are enough scientists who believe that these data provide relatively accurate and useful information which have the potential to improve peoples' lives. With this in mind, the following recommendations are offered:

1. More research needs to concentrate on developing a reliable and valid instrument which assesses different aspects of sexuality. The questionnaire used in this study needs to be tested with other populations and revised as necessary. In addition, other possible means of assessment should be pursued.

2. Large groups are difficult to manage in this type of survey study. A series of small groups may decrease some of the large group interference which may have

occurred during the administration of the questionnaire.

3. The original plan for the population of this study included one community college from New York and one from Virginia. The first two community colleges contacted in New York agreed to cooperate. However, after four community colleges in Virginia rejected the idea, the study was designed to survey only one New York school. Staff members at one of the Virginia institutions worked cooperatively with this researcher until two weeks before the actual administration of the questionnaire. Then, the chief executive officer rejected the study. Many of the Virginia administrators were uncomfortable with the questionnaire, feeling that it was "too sensitive" for their students. This makes external validity questionable. It is recommended that future studies attempt to survey more than one school. However, based on this experience, it is also suggested that a "contingency plan" be developed in case of last-minute rejections.

4. This study attempted to survey the majority of incoming students in a large group session. It did provide an extremely high rate of return and much more control over the administration of the instrument. Also, the sociodemographic data suggest that the sample is fairly representative of the general population at this school. However, a more strict random sampling technique

may be able to provide an even more representative sample, despite the probably lower rate of return of the questionnaires.

5. This study only included incoming students. Future studies should be done with entire community college populations and with a special focus on part-time students.

6. This study analyzed one segment of the community college population. Comparisons may be done with other community colleges in different geographic and demographic locations, with four-year college students, with high school students, with adults from the general population, and with recent community college graduates.

7. Finally, as stated throughout this paper, current and accurate data are vital to the success of an academic and counseling program. Therefore, it is suggested that this study, at the very least, be replicated on a continuing basis every few years to update the information on sexual attitudes and sexual behaviors of community college students.

**APPENDIX A**  
**LETTER OF INTRODUCTION**

## LETTER OF INTRODUCTION

Good evening. My name is Bob Abdo and I am a counselor and a psychology instructor at North Country Community College in Saranac Lake, New York. Currently, I am working toward my doctorate in counseling at the College of William and Mary in Williamsburg, Virginia. As a part of this degree, I am conducting research in the area of human sexuality and I need your help.

Oftentimes, community college students seek the assistance of counselors and teaching faculty with concerns about their sexuality. In order to serve these students in the best way possible, it is important for us to know more about the population, in general. Therefore, I am interested in learning about attitudes of community college students toward various aspects of human sexuality, the actual behaviors in which they are involved, and their feelings about religion.

All I am asking is for about one-half hour of your time to complete a brief questionnaire.

My original plan was to pay each of you \$1000 to complete this questionnaire. Unfortunately, I did not win the lottery and will be unable to pay you. However, there are a few benefits for you. First of all, if you choose to complete this survey, you will learn some things about

yourself and what you really believe--especially in the area of human sexuality and religion. Secondly, you will be indirectly helping your fellow students by providing counselors and teachers with a better understanding of community college students. In addition, if things go as planned, you will become a part of the first study published in this country on the sexuality of community college students. It is believed that no other research has ever been published on this aspect of community college students.

I want to emphasize that your participation in this study is totally voluntary. No one is required to participate. If you choose, you may simply look over the questionnaire and return it completely unanswered. As a researcher, of course I prefer that you answer all of the questions. However, you may choose to omit any responses which you so desire. Above all, my only request is that you answer the questions honestly. I prefer that you leave a question blank, rather than answer it falsely. Otherwise, the results which I report will be inaccurate.

This is not a test, so there are no right or wrong answers. The only right answer is the one which is an honest response for you, personally.

Please do not put your name at any place on this survey. I do not want to know who completed which survey.

Due to legal and ethical restrictions, only those students who are 18 years old or older may participate in this study. Therefore, if you are not at least 18 years old, please tell me when I am distributing the surveys.

In order to attain accurate and worthwhile results, sexuality surveys must contain sexually explicit language and descriptions. If you believe that you may be offended by reading any of these items, please feel free to either look through the religiosity section only or write any comments on the survey itself.

Again, please do not put your name at any place on the survey. After I have distributed all of the surveys, I will give you further instructions about completing them.

(Surveys are distributed)

Please follow along with my directions. The survey is divided into four parts. The first page requests some basic information about your background. If you are willing, please take a moment to write in the name of your college. Please check whether you are male or female. Is anyone unsure if they are male or female? Now, please check your race and write in your age. Please check your marital status, your student status, and so forth.

At the bottom of this page are some definitions which may be helpful as you complete this survey. Please take a



moment to read them, if you are willing. Do not begin completing the survey until I give you the signal.

On the next two pages, please circle the letter which best describes your personal opinion or belief. Here is an example. (Question #1 is read, along with the possible responses)

On the two pages following the attitudes section, is the sexual behaviors section. Please take a careful note that I want you to answer these questions based only on the past 12 months--not for your whole life.

The final three pages ask questions about your religious beliefs and practices.

Whenever you are finished, please drop the survey into this box and feel free to leave. Let me emphasize once again that your participation in this study is totally voluntary. If you choose not to participate, simply place the unanswered questionnaire into the box as you leave.

If you care to receive a copy of the results of this survey, please complete the form next to this box.

Thank you very much for your assistance in this project. I hope that you learn something about yourself, because, at the same time, you are helping your fellow students. Feel free to write any comments on the survey. Now, please go ahead, at your own pace, and answer as many

of the questions on all three sections as you are willing. If you have any questions, just raise your hand and I will come to you. Again, thanks for your time.

**APPENDIX B**  
**SURVEY OF SEXUAL ATTITUDES, SEXUAL BEHAVIORS,**  
**AND RELIGIOSITY**

## BACKGROUND INFORMATION

DO NOT WRITE YOUR NAME AT ANY PLACE ON THIS SURVEYGender:  Male  
 FemaleCollege: \_\_\_\_\_  
(Please write in)Race:  White  
 Black  
 Oriental  
 OtherAge: \_\_\_\_\_  
(Please write your age  
in number of years)Religious Preference:  Catholic  
 Protestant  
 Jewish  
 Other or noneStudent Status:  1st Semester Freshm.  
 Returning Student  
 Transfer StudentMarital Status:  Never Married  
 Married  
 Divorced, Separated,  
or WidowedAttending School:  Full Time  
 Part Time

Place Where You Have Spent The Majority Of Your Life:

 Rural Area (Less Than 2500 People)  
 Small Town (2500 - 10,000 People)  
 Small City (10,000 - 25,000 People)  
 City (25,000 - 50,000 People)  
 Large City (50,000 People or More)

## DEFINITIONS

Genitals -- Male penis or female vagina.Oral-Genital Sex -- Sexual activity where one partner puts his or her mouth on the penis of a male or the vagina of a female.Sexual Intercourse -- Sexual activity where a male places his penis into the vagina of a female. Both partners to so willingly.Masturbation -- Sexual activity where a person touches his or her own genitals in a manner which leads to orgasm.Homosexual -- A person who prefers to have sexual activity with someone of the same sex (man to man, woman to woman).

## SEXUAL ATTITUDES

Please read each of the following statements and circle the letter which best reflects your opinion, according to this scale:

- A. STRONGLY AGREE
- B. AGREE
- C. UNSURE
- D. DISAGREE
- E. STRONGLY DISAGREE

- A B C D E 1. Being naked in restricted public areas (such as nude beaches) should be acceptable.
- A B C D E 2. Touching each others' genitals should be acceptable between two unmarried people if they are in love.
- A B C D E 3. Sexual activity with someone other than a spouse may result in a strengthening of the marriage relationships of the persons involved.
- A B C D E 4. Females should not engage in sexual self-stimulation.
- A B C D E 5. Parents should stop their children from masturbating.
- A B C D E 6. There is nothing wrong with homosexual activity between any two consenting people.
- A B C D E 7. Seeing family members naked is not healthy for children.
- A B C D E 8. Sexual activity with someone other than a spouse is almost always harmful to a marriage.
- A B C D E 9. It should be acceptable for females to have sexual intercourse before they are married.
- A B C D E 10. Oral-genital sex between any two consenting people should be acceptable.
- A B C D E 11. It should be acceptable for males to have sexual intercourse before they are married.
- A B C D E 12. Touching each others' genitals should be acceptable between any two unmarried consenting people.
- A B C D E 13. Sex education taught by trained professionals should be available to all children.
- A B C D E 14. Sexual intercourse before marriage between two people who are in love should be acceptable.

- A B C D E 15. The spread of sex education is causing a rise in the number of people who have intercourse before marriage.
- A B C D E 16. Oral-genital sex between two unmarried people who are in love should be acceptable.
- A B C D E 17. Masturbation among females is a frequent cause of sexual problems.
- A B C D E 18. Males should be encouraged to masturbate.
- A B C D E 19. Birth control should be available for any person who wants it.
- A B C D E 20. Masturbation is generally unhealthy.
- A B C D E 21. Abortion should not be allowed under any circumstance.
- A B C D E 22. Sexual intercourse should occur only between married partners.
- A B C D E 23. Abortion should be permitted whenever desired by a pregnant woman.
- A B C D E 24. Oral-genital sex between two married people should be acceptable.
- A B C D E 25. There is nothing wrong with masturbating if the purpose is just to feel good.
- A B C D E 26. Sexual intercourse should be acceptable before marriage between any consenting people, regardless of their feelings for each other.
- A B C D E 27. Strong legal measures should be taken against homosexuals.
- A B C D E 28. It is okay for a person to favor a homosexual lifestyle.
- A B C D E 29. Magazines with pictures of naked people can be harmful if viewed by children.
- A B C D E 30. Relieving tension by masturbation is a healthy practice.
- A B C D E 31. Information about birth control often encourages unmarried people to perform sexual activity more often and with more partners.
- A B C D E 32. Sexual intercourse before marriage between two people who are engaged should be acceptable.
- A B C D E 33. Touching each others' genitals should be acceptable only between married people.

## SEXUAL BEHAVIORS

In this survey, you will be asked to respond to the same questions in two ways. First, you will be asked how many times you have engaged in certain sexual behaviors. Then, you will be asked with how many different people you have engaged in these same behaviors.

For questions 1-13, please indicate HOW MANY TIMES you have had the following experiences DURING THE PAST 12 MONTHS, according to this scale:

- A. NEVER
- B. 1 TIME
- C. 2 - 5 TIMES
- D. MORE THAN 5 TIMES

- A B C D 1. Kissed and hugged a person while feeling "sexual" (more than just a friendly greeting).
- A B C D 2. Kissed a person using mouth-to-tongue or tongue-to-tongue (French kissing).
- A B C D 3. (MALES ONLY) Touched or felt a female's bare breast. (FEMALES ONLY) Had your bare breast touched or felt.
- A B C D 4. Touched or felt the genitals of a person of the opposite sex.
- A B C D 5. Had your genitals touched or felt by a person of the opposite sex.
- A B C D 6. Had sexual intercourse in the missionary position (male on top, female on bottom).
- A B C D 7. Gave oral-genital sex to a person of the opposite sex.
- A B C D 8. Received oral-genital sex from a person of the opposite sex.
- A B C D 9. Had sexual intercourse in any position other than the missionary position.
- A B C D 10. Touched or felt the genitals of a person of your same sex.
- A B C D 11. Had your genitals touched or felt by a person of your same sex.
- A B C D 12. Gave oral-genital sex to a person of your same sex.
- A B C D 13. Received oral-genital sex from a person of your same sex.

For questions 14-26, please indicate the NUMBER OF PEOPLE with whom you have engaged in the following activities DURING THE PAST 12 MONTHS, according to this scale:

- A. NONE
- B. 1 PERSON
- C. 2 - 5 PEOPLE
- D. MORE THAN 5 PEOPLE

- A B C D 14. Kissed and hugged a person while feeling "sexual" (more than just a friendly greeting).
- A B C D 15. Kissed a person using mouth-to-tongue or tongue-to-tongue (French kissing).
- A B C D 16. (MALES ONLY) Touched or felt a female's bare breast. (FEMALES ONLY) Had your bare breast touched or felt.
- A B C D 17. Touched or felt the genitals of a person of the opposite sex.
- A B C D 18. Had your genitals touched or felt by a person of the opposite sex.
- A B C D 19. Had sexual intercourse in the missionary position (male on top, female on bottom).
- A B C D 20. Gave oral-genital sex to a person of the opposite sex.
- A B C D 21. Received oral-genital sex from a person of the opposite sex.
- A B C D 22. Had sexual intercourse in any position other than the missionary position.
- A B C D 23. Touched or felt the genitals of a person of your same sex.
- A B C D 24. Had your genitals touched or felt by a person of your same sex.
- A B C D 25. Gave oral-genital sex to a person of your same sex.
- A B C D 26. Received oral-genital sex from a person of your same sex.
- 27. Please circle the number of times you have masturbated during the past 12 months:
  - A. Did not masturbate once during this time.
  - B. Less than 1 time per week.
  - C. 1 - 3 times per week.
  - D. 4 - 5 times per week.
  - E. 6 or more times per week.



## RELIGIOSITY

Please read each of the following statements and circle the letter which best describes your reaction.

1. Do you believe that the world will come to an end according to the will of God?
  - A. Yes, I believe this.
  - B. I am uncertain about this.
  - C. No, I do not believe this.
  
2. Which of the following statements most clearly describes your idea about the Deity (God)?
  - A. I believe in a Divine God, creator of the Universe, who knows my innermost thoughts and feelings, and to whom one day I shall be accountable.
  - B. I believe in a power greater than myself which some people call God and some people call Nature.
  - C. I believe in the worth of humanity but not in a God or a Supreme Being.
  - D. The so-called universal mysteries are ultimately knowable according to the scientific method based on natural laws.
  - E. I am not quite sure what I believe.
  - F. I am an atheist (do not believe that God exists).
  
3. Do you believe that it is necessary for a person to repent (feel sorry) before God will forgive his or her sins?
  - A. Yes, God's forgiveness comes only after repentance.
  - B. No, God does not demand repentance.
  - C. I am not in need of repentance.
  
4. Which one of the following best expresses your opinion of God acting in history?
  - A. God has and continues to act in the history of mankind.
  - B. God acted in previous periods but is not active at the present time.
  - C. God does not act in human history.
  
5. Which of the following best expresses your view of the Bible?
  - A. The Bible is God's Word and all it says is true.
  - B. The Bible was written by men inspired by God, and its basic moral and religious teachings are true, but because writers were men, it contains some human errors.
  - C. The Bible is a valuable book because it was written by wise and good men, but God had nothing to do with it.
  - D. The Bible was written by men who lived so long ago that it is of little value today.

6. How do you personally view the story of creation as recorded in Genesis?
- Literally true history.
  - A symbolic account which is no better or worse than any other account of the beginning.
  - Not a valid account of creation.
7. Which of the following best expresses your opinion concerning miracles?
- I believe the report of the miracles in the Bible; that is, they occurred through a setting aside of natural laws by a higher power.
  - I do not believe in the so-called miracles of the Bible. Either such events did not occur at all or, if they did, the report is inaccurate, and they could be explained upon scientific ground if we had the actual facts.
  - I neither believe nor disbelieve the so-called miracles of the Bible. No evidence which I have considered seems to prove conclusively (for sure) that they did or did not happen as recorded.
8. What is your view of the following statement:  
Religious truth is higher than any other form of truth.
- Strongly agree.
  - Agree.
  - Disagree.
  - Strongly disagree.
9. (NON JEWISH PEOPLE ONLY) Please write the names of the four Gospels below.  
(JEWISH PEOPLE ONLY) Please write the names of the first five books of the Old Testament below.
- 1:  
2:  
3:  
4:  
(5):
10. Do you feel it is possible for an individual to develop a well-rounded religious life apart from the institutional church?
- No.
  - Uncertain.
  - Yes.
11. How much time during a week would you say you spend reading the Bible and other religious literature?
- One hour or more.
  - One-half hour.
  - None.

12. How many of the past four Sabbath (Saturday or Sunday) worships services have you attended?
  - A. Three or more.
  - B. Two.
  - C. One.
  - D. None.
  
13. Which of the following best describes your participation in the act of prayer?
  - A. Prayer is a regular part of my behavior.
  - B. I pray primarily in times of stress and/or need, but not otherwise.
  - C. Prayer is restricted pretty much to formal worship services.
  - D. Prayer is incidental to (not a regular part of) my life.
  - E. I never pray.
  
14. Do you believe that for your marriage the ceremony should be performed by:
  - A. A religious official (priest, minister, rabbi).
  - B. Either a religious official or a civil authority.
  - C. A civil authority (judge, justice of the peace).
  
15. Would you say that one's religious commitment (devotion) gives life a certain purpose which it could not otherwise have?
  - A. Strongly agree.
  - B. Agree.
  - C. Disagree.
  
16. All religions stress that belief normally includes some experience of "union" with the Divine. Are there particular moments when you feel "close" to the Divine?
  - A. Frequently.
  - B. Occasionally.
  - C. Rarely.
  - D. Never.
  
17. Would you say that religion offers a sense of security in the face of death which is not otherwise possible?
  - A. Agree.
  - B. Uncertain.
  - C. Disagree.
  
18. How would you respond to the statement: "Religion provides the individual with an interpretation of his or her existence which could not be discovered by reason alone."
  - A. Strongly agree.
  - B. Agree.
  - C. Disagree.

19. Faith, meaning putting full confidence in the things we hope for and being certain of things we cannot see, is essential to one's religious life.
- A. Agree.
  - B. Uncertain.
  - C. Disagree.
20. What is your feeling about the operation of nonessential businesses on the Sabbath?
- A. They should not be open.
  - B. I am uncertain about this.
  - C. They have a legitimate right to be open.
21. A boy and a girl, both of whom attend church frequently regularly date one another and have entered into sexual relations with each other. Do you feel that people who give at least partial support to the church by attending its worship services should behave in this manner? Which of the following statements expresses your opinion concerning this matter?
- A. People who identify themselves with the church to the extent that they participate in its worship services should uphold its moral teachings as well.
  - B. Sexual intercourse prior to marriage is a matter of individual responsibility.
22. Two candidates are seeking the same political office. One is a member and a strong participant in a church. The other candidate is indifferent, but not hostile, to religious organizations. Other factors being equal, do you think the candidate identified with the church would be a better public servant than the one who has no interest in religion?
- A. He definitely would.
  - B. He probably would.
  - C. Uncertain.
  - D. He probably would not.
  - E. He definitely would not.
23. Suppose you are living next door to a person who confides in you that each year he puts down on his income tax a \$50.00 contribution to the church in "loose change," even though he knows that while he does contribute some money to the church in "loose change" each year, the total sum is far below that amount. Do you feel that a person's religious orientation should be reflected in all phases of his life so that such behavior is morally wrong--that it is a form of lying?
- A. Yes.
  - B. Uncertain.
  - C. No.

**APPENDIX C**  
**TABLES C-1, C-2, C-3**  
**RESULTS OF RELIABILITY STUDY**

Table C-1

**SEXUAL ATTITUDES SCALE**  
Results of Reliability Study  
 (n = 23)

<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
1.	3.0	1.31	2.9	1.41	.907
2.	4.0	1.11	4.0	1.22	.871
3.	1.8	.96	2.0	.95	.852
4.	3.5	1.28	3.2	1.24	.851
5.	3.5	1.28	3.4	1.20	.945
6.	2.6	1.44	2.7	1.34	.840
7.	3.4	1.27	3.4	1.15	.928
8.	2.4	1.27	2.4	1.23	.971
9.	3.6	1.47	3.7	1.33	.867
10.	3.7	1.25	3.9	1.20	.800
11.	3.9	1.29	3.9	1.29	.918
12.	3.9	1.22	3.9	1.46	.954
13.	4.4	.73	4.2	1.00	.490
14.	3.8	1.35	4.0	1.22	.876
15.	3.6	.99	3.6	.90	.391*
16.	3.7	1.27	3.7	1.37	.977
17.	3.8	.98	3.7	.98	.734

<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
18.	2.8	1.13	3.0	1.17	.726
19.	4.4	1.04	4.2	.85	.506
20.	3.8	.89	3.9	.87	.854
21.	3.5	1.59	3.3	1.43	.913
22.	3.7	1.46	3.9	1.33	.872
23.	2.7	1.58	2.4	1.27	.765
24.	4.6	.51	4.7	.69	.600
25.	3.4	1.15	3.4	1.27	.942
26.	2.7	1.40	3.0	1.21	.834
27.	3.3	1.30	3.4	1.27	.848
28.	2.7	1.15	2.7	1.13	.760
29.	3.4	1.16	3.5	1.12	.920
30.	3.0	1.11	2.9	1.04	.865
31.	3.0	1.22	3.0	1.33	.950
32.	3.8	1.30	3.9	1.10	.904
33.	3.7	1.39	3.7	1.30	.915
Total	112.8	23.77	112.7	22.71	.969
COMPOSITE SCORES	3.4	1.21	3.4	1.18	.829

\* Significant at the .05 level.

All other items significant at the .01 level.

Table C-2

SEXUAL BEHAVIORS SCALE  
Results of Reliability Study  
 (n = 23)

<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
1.	2.7	.94	2.7	.94	1.000
2.	2.7	.77	2.7	.77	1.000
3.	2.8	.74	2.7	.75	.961
4.	2.5	.99	2.5	.99	1.000
5.	2.6	.90	2.6	.90	1.000
6.	4.5	2.35	4.5	2.35	1.000
7.	3.0	2.62	2.8	2.68	.951
8.	3.3	2.60	3.1	2.69	.951
9.	3.8	2.33	3.9	2.37	.984
10.	0	0	0	0	*
11.	0	0	0	0	*
12.	0	0	0	0	*
13.	0	0	0	0	*
14.	1.7	.83	1.7	.83	1.000
15.	1.7	.86	1.7	.86	1.000
16.	1.7	.77	1.7	.77	1.000
17.	1.5	.73	1.5	.73	1.000



<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
18.	1.4	1.78	1.4	.78	.964
19.	2.7	1.87	2.7	1.87	1.000
20.	1.9	1.86	1.8	1.90	.976
21.	2.2	1.90	2.1	1.95	.977
22.	2.6	1.75	2.6	1.75	1.000
23.	0	0	0	0	*
24.	0	0	0	0	*
25.	0	0	0	0	*
26.	0	0	0	0	*
27.	1.2	1.13	1.3	1.14	.983
Total	45.3	19.43	44.9	19.36	.995
COMPOSITE SCORES	1.7	1.02	1.7	1.00	.986

\* Reliability Coefficient unable to be calculated due to extreme homogeneity of responses.

All other items significant at .01 level.

Table C-3

RELIGIOSITY SCALE  
Results of Reliability Study  
 (n = 23)

<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
1.	1.4	.59	1.5	.59	.751
2.	4.5	1.31	4.3	1.30	.956
3.	1.6	.66	1.4	.73	.881
4.	1.7	.54	1.8	.38	.424*
5.	2.3	.69	2.3	.75	.828
6.	1.3	.69	1.3	.64	.746
7.	1.0	.93	1.1	1.00	.930
8.	2.1	.67	2.1	.69	.856
9.	2.2	2.00	2.2	1.97	.995
10.	1.0	.93	.8	.90	.857
11.	.4	.58	.4	.66	.770
12.	1.7	1.37	1.7	1.37	1.000
13.	2.3	1.43	2.5	1.38	.824
14.	1.7	.64	1.7	.64	1.000
15.	1.3	.70	1.2	.67	.817
16.	1.8	.90	1.7	.92	.864
17.	1.8	.39	1.8	.42	.871

<u>Item</u>	<u>Pretest</u>		<u>Posttest</u>		<u>Reliability Coefficient</u>
	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>	
18.	1.1	.54	1.0	.71	.807
19.	1.7	.57	1.7	.56	.790
Total	32.8	9.50	32.4	9.51	.983
COMPOSITE SCORES	1.7	.85	1.7	.86	.840

\* Significant at the .05 level.

All other items significant at the .01 level.

**APPENDIX D**  
**TABLE D-1**  
**ADDITIONAL CORRELATIONS**

Table D-1  
Additional Correlations

<u>Variables Correlated</u>	<u>Corr.*</u>
Total Attitudes Score With Total Religiosity Score	-.39
Total Behaviors Score With Total Religiosity Score	-.29
Total Attitudes Score With Total Behaviors Score	.43
Total Religiosity Score With Church Attendance Score	.57
Total Attitudes Score With Church Attendance Score	-.25
Total Behaviors Score With Church Attendance Score	-.12

\* Pearson Correlation Coefficient

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## ABSTRACT

### A STUDY OF SEXUAL ATTITUDES, SEXUAL BEHAVIORS, AND RELIGIOSITY OF COMMUNITY COLLEGE STUDENTS

Robert J. Abdo, EdD

The College of William and Mary in Virginia, March 1985.

Chairperson: Charles O. Matthews, PhD

The purpose of this study was to examine the specific relationship which exists between selected sociodemographic characteristics and the religiosity of a group of incoming community college students and their sexual attitudes and sexual behaviors.

A sample of 204 community college students completed a survey aimed at assessing their sexual attitudes, sexual behaviors, and religiosity. The instrument was based on a number of previously printed surveys and its reliability was tested with a sample of 23 community college students.

The reliability study demonstrated conclusive evidence that this instrument is highly reliable. All items except two were reliable at the .01 level of significance. Those two remaining items were reliable at the .05 level.

In addition, factor analyses demonstrated that both the attitudes and behaviors sections of this instrument contain a high degree of construct validity. The validity of the religiosity scale had been established previously.

The survey demonstrated that this sample holds relatively liberal attitudes in the areas of petting, premarital sexual intercourse, oral-genital sex, sex education, and contraception. There were no responses which demonstrated a trend toward conservatism.

In the self-reported sexual behaviors segment, the majority of students reported that they had been engaging in a variety of heterosexual behaviors during the past 12 months. The percentages decreased as the solicited behaviors became more advanced, just as expected by the established hierarchy. Very few reported homosexual behaviors.

A stepwise discriminant analysis revealed that there were major distinctions between male and female responses to five of the attitude questions and three of the behavior questions.

Stepwise multiple regressions showed that religiosity was highly correlated with both sexual attitudes and sexual behaviors, when selected sociodemographic variables were controlled. Total religiosity score was the strongest predictor of sexual attitudes and the only significant predictor of sexual behaviors in this sample.

Additional regressions and correlations were calculated to demonstrate the relative strength of other variables and to offer a more comprehensive view of the results.