

SEXUAL AGGRESSION IN A MALE SEX OFFENDER  
POPULATION AS A FUNCTION OF HOSTILITY,  
ATTITUDES TOWARD WOMEN, LEVELS  
OF EMPATHY, AND ALCOHOLISM

By

RANDALL DOUGLAS FELLER

Bachelor of Music Education  
Oral Roberts University  
Tulsa, Oklahoma  
1981

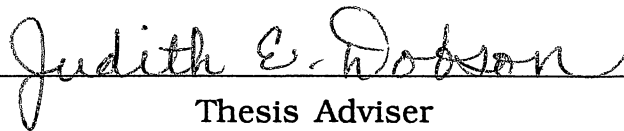
Master of Science  
Oklahoma State University  
Stillwater, Oklahoma  
1987

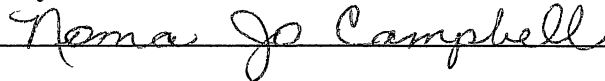
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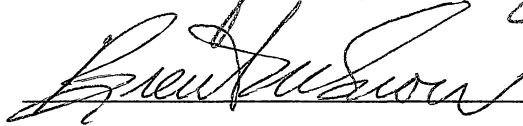
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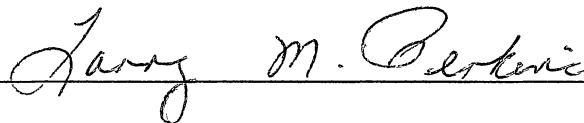
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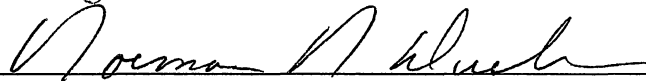
  
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Thesis Adviser

  
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Dean of the Graduate College

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## CHAPTER I

### INTRODUCTION

Over the course of the last decade there has been an increasing amount of research related to the causes of male sexual aggression. This research has been primarily focused on attempts to identify individual factors that might predict such aggression (Malamuth, 1986). "The most popular approach in research has been to investigate the personality of the violent offender, but the results of this research are inconsistent and often contradictory" (Romney & Syverson, 1984, p. 55).

The assessment of personality utilizing scales such as the Minnesota Multiphasic Personality Inventory (MMPI) (a structured inventory-type test consisting of 550 true/false items designed to produce a personality profile consisting of four validity scales and ten basic clinical scales) yields contradictory results when attempting to identify specific profiles unique to offender populations. Some studies indicate that a model psychiatric diagnosis for rapists is antisocial personality disorder (e.g., Armentrout & Hauer, 1978; Erickson, Luxenberg, Walbek, & Seely, 1987). Although many studies do show elevations on the antisocial scales within the sex offender population, there is evidence that sexual offenders do not typically differ from other criminal populations on these scales (Rader, 1977).

Projective testing has limitations as well since offenders can be found with many different personality types. The single personality

type that appears to be found more frequently in child sex offenders is the antisocial personality (Abel, Mittelman, & Becker, 1985).

With that exception, most psychiatric and personality characteristics appear to be causally unrelated to the process of offending (Salter, 1988). And again in projective testing, similar to the findings with MMPI testing, there is evidence that sexual offenders do not typically differ from other criminal populations on the Rorschach (Perdue & Lester, 1972).

Although intelligence, as measured by the Wechsler Adult Intelligence Scale - Revised (WAIS-R) (1975), does seem to have some correlation with the level of aggression in general, it does not appear to be so with sexual aggression specifically (Hays, Solway, & Schreiner, 1978; Syverson & Romney, 1985). What is so striking then about the standard battery of psychological tests, including measures of intelligence and personality (determined both through objective and projective methods), is that they are unlikely to address necessary issues in offender assessment. As a result there has been increasing awareness of the need for specific instruments which address issues that are relevant to understanding and treating sexual offenders.

As an outgrowth of that awareness there have been a number of useful instruments designed to meet the need. They include measures of dominance (Nelson, 1978), hostility toward women (Buss & Durkee, 1957; Check & Malamuth, 1983), attitudes toward women (Spence & Helmreich, 1972), cognitions (Abel, Becker, Cunningham-Rathner, Rouleau, Kaplan, & Reich, 1984), acceptance of rape myths (Burt, 1980), empathy (Davis, 1980), sexual aggression

(Koss & Oros, 1982; Nichols & Molinder, 1984), and social avoidance and distress (Watson & Friend, 1969). With the development of these instruments, the focus of research over the past decade has been upon establishing their reliability and validity and in turn assessing their individual contributions to the study of sexual aggression. More recently however, there has been a growing recognition of the need for multifactorial models. Researchers (Lisak & Roth, 1988; Malamuth, 1986) have begun to address this issue and have reported much better prediction rates through a combination of the factors and their interactions than by any one individually.

#### THEORETICAL FOUNDATION OF THE STUDY

The concept of a multifactorial interactional model of sexual aggression derives its origins primarily from the pioneering work of Bandura (1969) related to social learning theory. Bandura's social learning theory suggests that there are situational determiners of behavior as well as personal determiners and that to understand the actions of an individual, one must address both.

In his more recent applications of social learning theory specifically to the study of aggression, Bandura (1973, 1978) argues against the traditional assumption that aggressive behavior is activated by an innate aggressive stimulus-response as in biological theories (Adler, 1927; Freud, 1925; Hinde, 1970) or by an aggressive drive (Berkowitz, 1962; Feshbach, 1964, 1970). Instead, he suggests that a complete theory of aggression must explain how aggressive patterns are developed, what provokes people to behave aggressively, and what sustains such actions after they have been initiated. These three aspects of aggression are conceptualized, by Bandura (1978), as

the origins, instigators, and regulators of aggressive behavior. By various applications of these ideas to research in the area of sexual aggression it has been shown that personality factors which motivate an offender are only one part of the equation. Situational variables which inhibit or enhance the possibility of sexually aggressive behaviors occurring also are important (Earls, 1983; Malamuth, 1983; Marshall & Barbaree, 1984).

Also providing theoretical guidance is a recent model of the causes of child sexual abuse (Finkelhor, 1984; Finkelhor & Araji, 1983). This Four Factor Model suggests that there are preconditions that need to be met before child sexual abuse can occur. These preconditions are (a) the motivation to sexually abuse a child, (b) overcoming internal inhibitions, (c) overcoming external inhibitions, and (d) undermining or overcoming the child's possible resistance to the sexual abuse. More recently, Russell (1984) has extended the model to sexual aggression towards adults as well as children.

According to Malamuth (1986), both the four factor model and the social learning theory of aggression have several features in common. They emphasize that to understand the causes of sexual aggression it is essential to consider the role of multiple factors. The factors to be considered include those creating the motivation to commit the act, those reducing internal and external inhibitions that might prevent it from being carried out, and those providing the opportunity for the act to occur.

Although these theories suggest that multiple factors should be assessed in order to effectively identify sexual offenders, they do not indicate how the factors should be combined. Earls (1983)

combined the various factors in an additive manner with results indicating a multiple factor model was indeed a better predictor of sexual aggression than a single factor model. More recently, Malamuth (1986) proposed an interactive model asserting that multiple factors (i.e., motivation, disinhibitory, and opportunity) interact to produce sexual aggression. In testing this idea with a sample of 155 non-incarcerated males, he found that predictor variables from all three areas were significantly related to sexual aggression. In addition, there were significant interactions among predictor variables and by including those interactions in a regression equation, he was able to account for a greater percent of variance in sexual aggression scores than either the additive model or the single factor model. Lisak and Roth (1988) also have examined the motivational factors and disinhibitory factors related to sexual aggression and have achieved similar results. Although these results are encouraging, most of the studies involving interactive models of sexual aggression have utilized non-offender populations. Additionally, Hall (1990) indicates that prediction of sexual aggression using multifactorial models is still in the early stages of development.

#### Statement of the Problem

Interactive models of sexual aggression propose that both motivational and disinhibitory factors interact to account for changes in the level of sexual aggression. Given that both motivational and disinhibitory factors have been found to interact to produce sexual aggression in males who have not yet been identified as offenders, this study is designed to answer the following question: Is the

multifactorial interactional model of sexual aggression an appropriate model for identified sex offenders? Furthermore, if it is an appropriate model of sexual aggression, what percent of the variance in sexual aggression can be accounted for by each of the predictor variables?

### Significance of the Study

Traditionally, it has been assumed that rapists are psychologically maladjusted individuals even though psychological tests have provided inconclusive support for this position (Koss, Leonard, Beezley, & Oros, 1985). As a result, most rape research has been based on a typological approach. A subject was either a rapist, a rape victim, or a control subject (Koss & Oros, 1982). With the recent shift to a more dimensional view of sexual aggression (Medea & Thompson, 1974; Weis & Borges, 1973), rape represents an extreme behavior on a continuum with the norms of sexual and social behavior within this culture. Through the development of instruments such as the Sexual Experiences Survey (Koss & Oros, 1982), researchers have begun to study a wider range of sexually aggressive behaviors from intercourse achieved through verbal coercion and threatened force to intercourse achieved against consent through the use of physical force.

While the development of a dimensional view of sexual aggression has facilitated new research into the area of identification of sexually aggressive males and the factors which predict such aggression (Koss et al., 1985; Lisak & Roth, 1988; Malamuth, 1986), it has done so primarily with the population of undetected sexual aggressors consisting primarily of college males. Consequently, the

resulting studies of multifactorial interactional models of sexual aggression have not yet been applied to identified sex offender populations.

With the recent publication of sex offender treatment manuals (Salter, 1988), many correctional facilities and community treatment programs have begun to incorporate suggested batteries of assessment instruments to measure various aspects of motivation and disinhibition to commit sexual offenses. Although addressing the same general factors, the suggested instruments are not the same in all cases as those utilized in the assessment of non-offender populations in the previously mentioned studies.

The results of this proposed study may offer insight into the applicability of multifactorial interactive models of sexual aggression to offender populations. In addition, the results may establish the appropriateness of certain widely utilized instruments to the understanding of male sexual aggression.

#### Definition of Terms

The following are definitions of terms used in this study.

##### Offender Populations

Offender populations consist of males, 18 years of age and older, who have been identified by the Department of Corrections as having committed a sexual offense and who are either involved in a community based treatment facility or are incarcerated in a prison facility.

##### Sexual Aggression

Sexual aggression includes a wide range of sexually abusive behaviors, from fondling to intercourse, which are achieved without

mutual consent through use of verbal coercion and threatened force to the use of physical force (Koss & Oros, 1982). For this study, level of sexual aggression was measured by the combined scores of the Paraphilias (Sexual Deviation) Subtests of the Multiphasic Sex Inventory (Nichols & Molinder, 1984). High scores indicate a greater magnitude and/or duration of sexually aggressive behaviors while low scores indicate less frequent and/or prolonged aggressive behaviors.

#### Interactive Model of Sexual Aggression

The interactive model of sexual aggression asserts that multiple factors interact to produce sexual aggression. This model consists of motivational factors, disinhibitory factors, and opportunity factors (Malamuth, 1986).

#### Motivational Factors

Motivational factors consist of those factors which create the motivation to commit acts of sexual aggression (e.g., hostility).

Hostility. Hostility is an individual's overall levels of irritability, negativism, resentment, and/or suspicion which may motivate acts of verbal or physical aggression towards another individual. The Total Hostility score of the Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957), was used to assess hostility levels. High scores indicate a high level of self-reported hostility while low scores indicate either low levels of self-reported hostility or high levels of denial.

#### Disinhibitory Factors

Disinhibitory factors consist of those factors reducing internal and external inhibitions that might prevent the acts of sexual



aggression from being carried out (e.g., alcoholism, attitudes toward women, & empathy).

Alcoholism. Alcoholism has been defined as a chronic, progressive, relapsing disease often ending in death, characterized by tolerance to the effects of alcohol, the presence of a withdrawal syndrome and/or the presence of physical complications of alcohol (National Council on Alcoholism, 1972). For the purposes of this study, a somewhat less narrow definition was utilized which included the tendency to move toward the type of syndrome mentioned above as well as having the syndrome itself. Thus alcoholism is viewed as falling on a continuum of drinking behavior rather than being a dichotomy between normal and abnormal drinkers. For this study, the Michigan Alcoholism Screening Test (MAST) was used as a measure of alcoholism. In scoring the instrument, three or less points indicate nonalcoholism, four points suggest alcoholism, and five or more points indicate alcoholism (Selzer, 1971).

Attitudes toward women. The Attitudes Toward Women Scale - Simplified Version measures normative conceptions of sex role behavior for women ranging from traditional, conservative attitudes to liberal, profeminist attitudes (Spence & Helmreich, 1978). High scores indicate a more egalitarian attitude toward women while low scores indicate more rigid, conservative attitudes towards women.

Empathic concern. Empathic concern, a subscale of the Interpersonal Reactivity Index (IRI) (Davis, 1980), measures "other-oriented" feelings of sympathy and concern for unfortunate others. High scores indicate an affective ability to feel compassion and concern for others having negative experiences while low scores

indicate an inability to connect emotionally with others.

Perspective taking. Perspective taking, a subscale of the IRI (Davis, 1980), measures the tendency to spontaneously adopt the psychological point of view of others and is a cognitive, intellectual reaction. High scores indicate an ability to cognitively appreciate another person's point of view while low score indicate an inability to do so.

### Limitations

The following limitations are inherent in this study.

1. This study includes male offender populations from selected community treatment programs and inhouse prison programs in the South-Central United States who have been identified as offenders by the Department of Corrections (DOC). Therefore, the results will not be generalizable to all sexually aggressive males. An assumption is made that the DOC correctly identifies offenders.
2. Both the dependent and independent variables were assessed through the use of self-report measures. Although self-report measures tend to have less validity and reliability due to response styles and levels of denial, there is only one objective non-self-report measure in the field of sexual offender treatment, the penile plethysmograph. Due to the highly intrusive nature of the instrument it is not being widely used. Therefore, the self-report measures are perhaps the best, most widely utilized measures at this time (Salter, 1988).
3. Although the Buss-Durkee Hostility Inventory is the most widely used measure of hostility (Selby, 1984), it is a self-report instrument which utilizes obvious items, and as a result has only low

to moderate reliability. This is due in part to the fact that low scores may indicate denial rather than a lack of hostility. Thus the results of the motivational aspect of hostility in sexual aggression may be marginal or hard to detect when denial is present (Posey & Hess, 1984).

4. Although the interactional model of sexual aggression suggests that there are three different types of factors (motivational, disinhibitory, and opportunity) which contribute to sexual aggression, this study did not address the third factor; opportunity. An assumption was made that because all subjects are identified offenders, that opportunities to commit acts of sexual aggression had to have been present. Because this study limited the number of factors discussed, it does not address whether frequency of opportunity is related to frequency or severity of sexual aggression.

5. Because of the intrusive nature of the questionnaires, particularly the MSI, the instruments were administered in an order from least intrusive to most intrusive. This helped to insure that a greater number of subjects completed all of the instruments. However, this procedure limits the possibility of discovering any effects which may be due to the order of testing.

#### Hypotheses

The following null hypotheses were tested at the .05 level of significance:

1. The variance in overall levels of sexual aggression cannot be accounted for by a linear combination of hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism.

In addition to the primary hypothesis, five additional hypotheses

were tested. These secondary hypotheses examined the statistical significance of the unique contribution of each of the independent variables in relation to the dependent variable.

2. There is no significant relationship between hostility and sexual aggression when the effects of attitudes toward women, perspective taking, empathic concern, and alcoholism are controlled.

3. There is no significant relationship between attitudes toward women and sexual aggression when the effects of hostility, perspective taking, empathic concern, and alcoholism are controlled.

4. There is no significant relationship between perspective taking and sexual aggression when the effects of hostility, attitudes toward women, empathic concern, and alcoholism are controlled.

5. There is no significant relationship between empathic concern and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and alcoholism are controlled.

6. There is no significant relationship between alcoholism and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and empathic concern are controlled.

#### Organization of the Study

In this chapter the reader was presented with an introduction to the topic under study. The theoretical foundation of the study, statement of the problem, significance of the study, definition of terms, limitations of the study, and null hypothesis were discussed. A review of the literature associated with sexual aggression, hostility, attitudes toward women, empathy, alcohol consumption, and multimethod assessment of sexual aggression is presented in Chapter II. The procedures and instrumentation proposed for conducting

this study are discussed in Chapter III. Chapter IV includes the results of the statistical analysis and the interpretation of the data collected. Chapter V consists of a summary, conclusions, and recommendations for future research and interventions with sexual offenders.

## CHAPTER II

### REVIEW OF THE LITERATURE

A review of the literature relevant to this study includes a discussion of hostility, attitudes toward women, empathy, and alcoholism as they relate to sexual aggression. In addition, issues relevant to the multifactorial interactional model of sexual aggression assessment are reviewed.

#### Sexual Aggression

As Bandura (1973, p.2) points out, addressing the problem of aggression is to enter a "semantic jungle". There are a large number of definitions of aggression and volumes of research related to the different theories of aggression (Bandura, 1973; Berkowitz, 1962; Edmunds & Kendrick, 1980; Geen, 1976). Edmunds and Kendrick (1980) indicate that the most frequent definitions in the literature involve the attributes of the behavior, assumptions about the instigator, emotional aspects, and intent to injure. Despite the diversity of definitions, Geen (1976) argues that most psychologists now accept a definition including Buss's (1961, p. 1) notion that ". . . aggression is a response that delivers noxious stimuli to another organism".

In his definition, Buss chooses to omit the question of intent. Theorists have been divided on this issue because intent is a concept that defies rigorous analysis (Edmunds & Kendrick, 1980). While it is obvious that some noxious stimuli are administered without intent to

harm, such as in the case of medical or dental treatment, it is difficult to include intent in the definition of aggression and then be able to reliably measure aggression. It is much easier to measure levels of aggression by focusing on the outcome of an event rather than its motivation. Perhaps a more appropriate and measurable definition for aggression might be the delivery of a noxious stimuli to another organism without an accompanying socially accepted benefit to the organism. The phrase "socially accepted benefit" (Buss, 1961, p. 3) is included to address situations such as child sexual abuse where a child may perceive the extra attention received from a sexually abusive parent as positive. Even though the child might enjoy the extra attention, this behavior is noxious to society as a whole (Finkelhor, 1984).

When applied specifically to sexual aggression, there are further complications in how aggression is defined. Traditionally, sexual aggression has been narrowly defined as sexual assault such as rape with the use of violence and force. As a result most research divided subjects into groups of rapists, victims, and control subjects (Koss & Oros, 1982). However, a shift to a more dimensional view of sexual aggression (Medea & Thompson, 1974; Weis & Borges, 1973) has allowed rape to be categorized as only one type of extreme behavior on a continuum with the norms of sexual and social behavior within this society. As such, noxious stimuli can be defined as a much broader range of behaviors, including situations that might not necessarily be aversive except that they were achieved through some form of coercion; be it verbal, threatened force, or actual use of force.

Just as there are numerous definitions of aggression, there are a

variety of theoretical positions on the nature of aggression. A majority of the theories fall into three categories revolving around the nature versus nurture controversy. Biological theories range from the psychoanalytic theories of Adler (1927) and Freud (1925) to the ethological theories of Hinde (1970). Drive theories began with frustration-aggression (Dollard, Miller, Doob, Mower, & Sears, 1939) and were elaborated by Berkowitz (1962) and Feshbach (1964, 1970). More recently theorists have proposed a social learning theory of aggression (Bandura, 1973; Geen, 1976). According to Edmunds and Kendrick (1980)

Distilled to basic principles, these three types of theory lead to very different mechanisms in the instigation and sequelae of aggressive stimuli. The main biological theories emphasize the innateness of the aggressive stimulus-response sequence, and therefore difficulties in the control of aggression. The drive theories assume that frustration arouses an aggressive drive that is reduced only by some form of aggressive response. Social learning theories emphasize observational learning, reinforcement of aggression, and generalization of aggression (p. 16).

If either the biological or drive theories of aggression are to be believed there should be some evidence of psychopathology or characterological disorders in violent or aggressive individuals. However, there continues to be a lack of ability to discriminate between sexual offenders and non-offenders on the basis of the standard battery of psychological tests which include measures of intelligence and personality (Salter, 1988).



Although intelligence does seem to have some correlation with the level of aggression in general, it does not appear to be so with sexual aggression specifically. In a study involving 25 juvenile murderers and 29 juvenile status offenders, Hays, Solway, & Schreiner (1978) found that the Full Scale IQ scores on the Weschsler Intelligence Scale for Children (WISC) by the murderers (IQ = 80.0, SD = 12.5) and by the status offenders (IQ = 87.1, SD = 13.9) were below average when compared with the population norms reported by Weschsler (1974). In addition the murderers' scores were significantly lower ( $t = 2.09$ ,  $p < .05$ ) than the status offenders' scores.

These results indicate that level of intelligence is somehow related to the level of violence and aggression. However, in a comparison of convicted rapists ( $n = 15$ ) and men convicted of aggressive non-sexual crimes ( $n = 15$ ), Perdue and Lester (1972) found no significant differences in IQ. As discussed by Rada (1978), this and other studies failed to provide reliable differences between rapists and nonrapists on the basis of intelligence.

Research related to the personality profiles of sexual offenders, as assessed by the Minnesota Multiphasic Personality Inventory (MMPI), provide conflicting results as well. In analyzing MMPI profiles of rapist of adults ( $n = 13$ ), rapists of children ( $n = 21$ ), and non-rapist sex offenders ( $n = 17$ ); Armentrout and Hauer (1978) found elevations on scales indicative of antisocial personality types with all three groups of sexual offenders. However, Rader (1977) in comparing expositors ( $n = 36$ ), rapists ( $n = 47$ ), and assaulters ( $n = 46$ ); found that although sexual offenders do have higher elevations

on these scales they do not typically differ from other criminal populations. As discussed by Salter (1988), many of the inconsistent findings in studies of MMPI profiles of sex offenders result from the problems in methods of data analysis. Salter (1988) cites as an example a study by Hall, Maiuro, Vitaliano, and Procter (1986) involving 406 incarcerated offenders, where the highest mean elevations were on the antisocial scales. However, this was true even though only 7.1% of the offenders had these elevations. In addition most of the offenders had multiple scale elevations, with 67% having three or more scales elevated. And even though the antisocial scales had the highest mean elevations no subject had these scales elevated exclusively. Salter's (1988) concludes that while the MMPI can be used validly to determine the psychological profile of a given sex offender, there is no evidence at present that the MMPI can be validly used to determine if an individual is an offender.

Similar to intelligence testing and objective personality profiles, the use of projective testing has been unable to identify sexual offenders. Perdue and Lester (1972) found no significant differences between rapists (n = 15) and men convicted of aggressive non-sexual crimes (n = 15) when using the Rorschach (Beck, 1949-1952). As a result of the inability of standard psychological test batteries to reliably identify sexual offenders, there has been a shift in sexual aggression research, away from the biological and drive theories of aggression and toward the social learning theories.

Support for the shift away from these theories also has come from several recent studies. The drive theory in particular emphasizes sexual frustration as a motivating factor in sexual

aggression (Dollard, et al, 1939). However, in a study comparing male college date rapists (n = 71) and a male college control group (n = 227), Kanin (1983) found that rapists engaged in more sexual activity (M = 1.5 times per week) than the control group (M = .8 times per month). If one group could be labeled as frustrated it would seem more appropriate to do so for the nonrapists with lower levels of sexual activity. Yet a greater percentage of the rapists (71%) reported dissatisfaction than did the control subjects (38%). These results indicate that sexual frustration is relative and that factors other than just opportunity for sexual involvement are involved.

With the general lack of support for a psychopathological view of sexual aggression, there has been a shift to a more dimensional view (Medea & Thompson, 1974; Weis & Borges, 1973). This view defines forced rape as one extreme behavior on a continuum with the norms of sexual and cultural behavior. Koss and Oros (1982) developed the Sexual Experiences Survey to document a dimensional view of sexual aggression. They administered their instrument to 3,862 university students (1,846 males and 2,016 females) and found that many different levels of sexual aggression/victimization were reported and that there was strong support for a dimensional view.

Further evidence for this view of sexual aggression is provided by Briere and Malamuth (1983). In a study involving male, introductory psychology students (n = 350), they compared the relative effects of sexuality variables versus attitudes hypothesized to be rape supportive in the prediction of self-reported "likelihood to rape" (LR) (p.316) and "likelihood to use sexual force (LF) (p.316). The subjects were categorized into three groups; those indicating some likelihood of

using both force and rape (LF+/LR+), those indicating likelihood of force but not rape (LF+/LR-), and those indicating no likelihood of either rape or force (LF-/LR-). The results were inconsistent with viewing rape as primarily caused by sexual frustration or sexual maladjustment, since sexuality variables (sex life rating, importance of sex, relationships with women, use of pornography, sexual inhibitions) were generally not predictive of LR or LF.

Briere and Malamuth's (1983) findings did indicate that a large number of college males expressed some willingness to rape or sexually aggress against a woman (LF+/LR+ = 2%, LF+/LR- = 30%) given the absence of penalty. Additionally, attitudes and beliefs hypothesized to be rape supportive were found to predict likelihood to rape or use sexual force. A discriminate function analysis predicted membership in the three groups on the basis of rape supportive attitudes ( $R_c = .313$ , chi square (18) = 44.44,  $p < .0005$ ). These results support the idea of a continuum of sexual aggression with regard to attitudinal variables. In addition they support the ideas of Bandura (1973) and Geen (1976) which suggest that sexual aggression is related to learned behaviors and attitudes.

Bandura's conceptualization of social learning theory suggests that a complete theory of aggression must explain the origins, instigators and regulators of aggression. He further suggests that learned behaviors and attitudes take a great part in all three of the processes just mentioned. In applying Bandura's (1978) theories specifically to sexual aggression, Malamuth (1986) indicates that,

. . . to understand the causes of sexual aggression it is essential to consider the role of multiple factors, such as those creating

the motivation to commit the act, those reducing internal and external inhibitions that might prevent it from being carried out, and those providing the opportunity for the act to occur (p. 953).

Malamuth's (1986) study, as well as those of other researchers (Hall, 1990; Lisak & Roth, 1988), lend a growing body of support for multiple factor models of sexual aggression. In particular, Hall (1990) indicates that multivariate models hold some promise for the prediction of sexual aggression. Still, he warns that prediction of sexual aggression is in the early stages of development.

### Hostility

#### Overview and Definitions

One of the identified motivational factors in predicting sexual aggression is hostility (Groth, 1979; Malamuth, 1986). Since Webster's Ninth New Collegiate Dictionary (1987) defines hostility both as a feeling of ill will and as a hostile act, some authors focusing on the second definition tend to use the terms aggression and hostility interchangeably. Therefore, it is necessary to make a distinction between hostility and aggression. For the purposes of this study, hostility is defined as feelings of enmity or ill will for another individual. These feelings affect an individual's overall levels of irritability, negativism, resentment, and/or suspicion. Aggression on the other hand, is defined as "a response that delivers a noxious stimuli to another organism" (Buss, 1961, p. 1) without an accompanying socially accepted benefit.

Buss (1961) describes hostility as an attitudinal response that endures, involving negative feelings and negative evaluations of

people and events. Although hostility may coincide with aggression, ". . . hostility is usually not verbalized openly as part of an aggressive response. Typically it is implicit, consisting of the mulling over of past attacks on oneself, rejections, and deprivations" (Buss, 1961, p. 12). As a result Buss (1961) concludes that ". . . while hostility and aggression may coincide, the hostile person is not necessarily aggressive and the aggressive person is not necessarily hostile" (p. 204).

The social learning theories of aggression identify hostility as one of several possible motivating factors of aggression. However, measurement of levels of hostility has not been easy. The earliest hostility inventories developed during the 1950s often failed to make distinctions between aggression and hostility and provided only moderate correlations with whatever the construct was that they were measuring. Many of the inventories were intuitively derived from the MMPI. Moldawasky (1953) developed the Iowa Hostility Inventory, a 45-item aggression/hostility inventory, by submitting 100 MMPI items to psychologists who were able to agree on 45 items as representing that construct. In comparing this inventory to client self-ratings of the level of hostility ( $r = .67$ ) and to psychotherapists ratings of the level of hostility ( $r = .59$ ), there was a moderate correlation in both cases (Dinwiddie, 1954). This significant relationship is not unexpected because of the similarity between self-report on the inventory and self-ratings of hostility. Overall, attempts to validate the instrument have yielded conflicting results (Edmunds & Kendrick, 1980). Several other intuitively derived hostility scales include; the Cook-Medley inventory (Cook &

Medley, 1954), the Manifest Hostility Scale (Siegal, 1956), The Hostility Scale of Sarason's Autobiographical Survey (Sarason, 1958), and the Green and Stacey Aggression and Hostility Questionnaire (Green & Stacey, 1967). According to Edmunds and Kendrick (1980), ". . . studies relating intuitively developed scales to ratings of hostility/aggressiveness have generally yielded negative results. Only the Iowa Inventory has shown any relationship with these criteria, and even for this instrument the evidence is inconclusive" (p. 45).

Empirically developed scales of hostility such as Schultz's Hostility and Aggression Scales (Schultz, 1954) and the Overcontrolled-Hostility Scale (Megargee & Mendelsohn, 1962) also yield conflicting results on attempts to validate the instruments. Again, according to Edmunds and Kendrick (1980) ". . . the empirical scales of aggression have received little support from validation studies" (p. 50).

Of the theoretically developed scales of hostility, two instruments, the Hostility and Direction of Hostility Questionnaire (HDHQ) (Caine, Foulds, & Hope, 1967) and the Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957) stand out as having a moderate level of validity in most studies. These theoretically derived scales suffer from many of the same drawbacks as intuitively derived instruments, since they rely on the subject's knowledge of self and the subject's truthfulness. "Because of their theoretical orientation, however, the content validity of the theoretical scales is more clearly defined, and it is easier to determine what the devices are supposed to measure" (Edmunds & Kendrick, 1980, p. 53).

One of the factors that lends validity to the HDHQ and the BDHI

is that they attempt to control for social desirability factors. Crowne and Marlowe (1964) have theorized that approval-motivated persons have difficulty in the recognition and expression of hostility. Since then a number of studies (Biaggio, 1980; Heyman, 1977) have examined the relationship between social desirability and hostility. These studies have reported negative relationships ranging from  $-.29$  to  $-.68$  indicating that a subject's desire to put him/herself in a favorable light will limit his/her willingness to respond openly about hostile behaviors which are seen as socially undesirable. Although it is plagued with some of the same assessment problems as other hostility inventories, the BDHI (Buss & Durkee, 1957) is probably superior in construction to most other measures of hostility (Biaggio, Supplee, & Curtis, 1981). This is due in part to a more clearly defined construct of hostility and to careful construction of items to deal with the effects of social desirability.

Much of the research related to the BDHI has focused on discriminating violent subjects from nonviolent subjects. In a study (Lothstein & Jones, 1978) involving 61 male adolescent prisoners, analysis of the subjects' BDHI scores suggested that the highly assaultive group had significantly larger total scores ( $t = 3.35, p < .001$ ) than the low assaultive group. In another study (Selby, 1984) involving 100 adult male felons, the BDHI scores of the 50 violent felons ( $M = 40.04$ ) and the 50 nonviolent felons ( $M = 29.44$ ) were significantly different ( $t = 5.32, p < .01$ ). This result supported the conclusion of Lothstein and Jones (1978) that the overall level of general hostility is a good discriminator of violent behavior.



### Hostility and Sexual Aggression

Although aggression and hostility have been examined for a number of years, studies of the relationship of hostility to sexual aggression have only recently begun to take place. This is due in part to the lack of reliable instruments for measuring sexual aggression. With the development of the Sexual Experiences Survey (SES) (Koss & Oros, 1982), a number of researchers began to address the relationship.

In a study involving 1,846 males in university classes, Koss et al. (1985) found that total scores on the BDHI were positively correlated with level of sexual aggression as measured by the SES ( $r = .17$ ). However, total scores on the BDHI did not significantly contribute to the prediction of group membership where the group members were defined as sexually nonaggressive, sexually coercive, sexually abusive, and sexually assaultive.

Hall (1989) examined the results of the BDHI in a sample of 239 sexual offenders. He found that sexual offenders who molested adolescents and adults ( $n = 44$ ) had higher BDHI scores ( $M = 34.25$ ,  $SD = 10.67$ ) than did sexual offenders who molested children ( $n = 195$ ), ( $M = 28.62$ ,  $SD = 11.75$ ). His results indicated that victim maturity might be a mediating factor in level of sexual aggression as related to self-reported hostility. However, multiple regression equations revealed that the MMPI Defensiveness scale ( $L+K-F$ ) (partial  $r = -.421$ ,  $t = 7.11$ ,  $p < .0001$ ) accounted for more of the shared variance in self-reported hostility than did the maturity of the victim (partial  $r = .133$ ,  $t = 2.05$ ,  $p < .042$ ). These results confirm the findings of other previously mentioned researchers (Biaggio,

1980; Posey & Hess, 1984) who have examined the effects of social desirability, defensiveness, and denial on self-report measures of hostility.

Even with the strong influence of social desirability factors on response style, researchers are able to find a small positive correlation between hostility and sexual aggression. Malamuth (1986) recruited 155 males from ads placed at college campuses, a summer city employment center, and via newspaper ads. In the resulting study he found a correlation coefficient of .30 between hostility, as measured by the hostility Towards Women scale (Check & Malamuth, 1983), and sexual aggression as measured by the SES. Although this is not a strong relationship, it is consistent with a majority of the research associated with sexual aggression indicating that there is a positive relationship between hostility and sexual aggression.

### Attitudes Toward Women

#### Overview and Definitions

The Attitudes toward Women Scale (AWS) was developed by Spence and Helmreich (1972) as a means of surveying the attitudes which members of both sexes have about women, the privileges women ought or ought not to have, and the roles women should play in our society, particularly in relationship to men. During the development and testing of the initial instrument, it was hypothesized that attitudes would range from extremely conservative to egalitarian and that sex and generational differences would be found. During the spring semester of 1972, 420 men and 529 women in several introductory psychology classes were given the

AWS. The men ( $M = 89.261$ ) in this study had more conservative attitudes ( $t = 12.95$ ,  $p < .001$ ) as measured by the AWS than the women did ( $M = 98.211$ ). In addition the questionnaire was completed by 292 mothers and 232 fathers of introductory psychology students. Although the statistical data are not presented in their work, Spence and Helmreich (1972) indicate that there were significant generational differences such that parents responded with less egalitarian responses than did their children.

In a study designed to replicate the findings of Spence and Helmreich (1972), McKinney (1987) found that age was indeed negatively associated with more egalitarian attitudes toward women ( $r = .11$ ,  $p < .02$ ) and that females ( $M = 63.83$ ) had more egalitarian attitudes ( $t = 10.35$ ,  $p < .001$ ) overall than men ( $M = 53.08$ ). In McKinney's study, the AWS scale was administered to 382 college students ranging in age from 18 to 39 with a mean age of 20.2. Nelson (1988) not only confirmed these findings, but also noted attitudinal differences among social classes as determined by the respondents occupation. In a sample of 278 American adults, an analysis of variance indicated that subjects of higher socioeconomic status ( $M = 82.6$ ) shared more liberal and egalitarian attitudes toward women ( $F = 9.982$ ,  $p < .002$ ) than did the subjects of lower socioeconomic status ( $M = 78.4$ ).

#### Attitudes Toward Women and Sexual Aggression

Attitudes toward women play a significant role in the study of sexual aggression. Burt (1978, 1980) theorized that certain attitudes which are widely held in Western culture play an important part in causing rape. She focuses on belief in rape myths which may act as

". . . psychological releases or neutralizers, allowing potential rapists to turn off social prohibitions against injuring or using others" (1978, p. 282). She suggests that ". . . other attitudes and beliefs are also part of a pervasive ideology that effectively supports or excuses sexual assault" (1980, p. 218).

In a study involving 99 men from Alfred University, there were significant relationships (Peterson & Franzese, 1987) between most of the items in the AWS and scores on the Abuser index (summed index of nine of the items on the Sexual Experiences Survey). The results indicate that men with higher scores on the Abuser index were more likely to endorse less egalitarian, rigid attitudes Towards women. In another study, Scott and Tetreault (1987) conducted a one way analysis of variance on the overall test scores for rapists ( $n = 20$ ), nonsex related offenders ( $n = 20$ ), and noncriminal controls ( $n = 20$ ). They found a significant difference ( $F(3,56) = 8.61, p < .001$ ). A Duncan post-hoc test indicated that rapists ( $M = 57.2$ ) were significantly different from violent nonsex related offenders ( $M = 66.0$ ) and the noncriminal controls ( $M = 73.9$ ).

## Empathy

### Overview and Definitions

"Empathy in the broadest sense refers to the reactions of one individual to the observed experiences of another" (Davis, 1983, p. 113). There are of course any number of such possible reactions. As pointed out by Davis (1980,1983), even though Smith (1759) and Spencer (1870) lived centuries ago and almost a century apart, their writings drew nearly identical distinctions between two main classes of response. They discussed a cognitive, intellectual ability to

understand the other person's perspective, and a more empathic emotional responsiveness which involves feelings of warmth and compassion for others. Davis (1980) argues that research efforts over the last century have tended to focus almost exclusively on one or the other aspect of the empathic process.

For those theorists who focus on empathy as a cognitive process, much of the resulting research (Kerr & Speroff, 1954; Mahoney, 1960; Rogers, 1957) followed Dymond's (1949) cognitive role taking approach in which an individual can cognitively take the role of another and try to understand and predict their thoughts feelings and actions. Other researchers (Stotland, 1969; Mehrabian & Epstein, 1972) have used a definition of empathy which stresses the emotional response to others. Even recently there have been fairly heated debates over the need for the more emotionally oriented side of the issue (Kohut, 1984) and the importance of cognitively being able to analyze, at an objective distance, the experience of others (Buie, 1984; Shapiro, 1984).

Despite the differences, Davis (1980) indicates that recent years have seen increased movement towards an integration of these two research traditions. However, on the few occasions when research instruments have been developed to assess both affective and cognitive domains, all items have typically been summed into one global empathy score thus obscuring the individual influences these empathic constructs may have. Davis (1980) commends Hogan (1969) for his careful construction of an empathy measure (Hogan's Empathy Scale) including both cognitive and emotional items. Yet when the items are scored, they are all combined into a single

empathy score. Similarly, the Mehrabian and Epstein Scale (1972), although supposedly a measure of emotional empathy only, contains some items which only can be described as cognitive responses.

As a result of a growing belief in empathy as a multidimensional construct, Davis (1980) developed an individual difference measure of empathy, the Interpersonal Reactivity Index (IRI). The IRI has four 7-item subscales, two of which assess the cognitive reactions and two of which assess the emotional reactions. Factor analysis of the IRI has consistently indicated four main factors which correspond to Davis's (1980) assignment of items to the Perspective Taking, Fantasy, Empathic Concern, and Personal Distress scales (Cary, Fox, & Spraggins, 1988; Davis, 1983). According to Williams (1990), there is a growing tendency to view the empathy construct as multidimensional with both cognitive and emotional aspects holding an important role in developing research.

#### Empathy and Sexual Aggression

The relationship of empathy to sexual aggression is a complex one that is difficult to sort through because of a small number of studies in the area (Salter, 1988). This is due in part to the previously mentioned problem of not distinguishing between different types of empathy in past research. Until recently most research related to empathy has focused on the prevention and control of human aggression through studies on reactions to pain and suffering of others. When aggressors attack other persons face to face, they are often exposed to signs of pain and suffering on the part of their victims. The findings of some researchers suggest that these stimuli sharply reduce the strength or frequency of further attacks

(Geen, 1970; Rule & Leger, 1976). Other studies indicate that in some individuals these pain cues fail to reduce aggressive attacks and in some instances may actually serve as reinforcement and encourage further assaults (Baron 1974; Feshbach, Stiles, & Bitter, 1967).

Recently, there has been an attempt to sort out the factors which allow some individuals to be relatively unaffected by pain cues. As the structure of empathy has been broken down into several components, the dilemma of pain cue response is beginning to be understood. Feshbach (1978) proposed a three-component model of empathy which was in part a precursor to Davis's (1980) four factor model.

According to Feshbach (1984), in order to have an affective empathic experience of another person's emotional reactions, three abilities are essential. First a capacity to recognize an emotional state in another individual is necessary. Secondly, a cognitive ability to assume the perspective of another individual is required. And finally the ability to affectively respond to an individual is needed.

Feshbach (1984) proposed that it is this third ability that is lacking in aggressive individuals. In a study designed to test the validity of this proposal, 30 boys and 30 girls in an elementary school were selected for participation on the basis of teachers ratings of aggression. Subjects were assigned at random to treatment groups where one group received empathy training and the other group was a control. According to Feshbach (1984), the results of the study indicate that the ability to affectively empathize was the significant factor since the level of reported aggression was significantly reduced following that portion of the treatment. While these results

seem encouraging, the lack of statistical information as to how the results were derived, and at what level the results were significant, is disturbing.

Based on Davis's (1980) IRI, Salter (1988) suggests a similar concept. She proposes that sexually assaultive males are able to score high on the Perspective Taking subscale of the empathy measure, but that they would score low on the Empathic Concern subscale. In child abuse, it is hypothesized that the ability to cognitively understand the child's point of view helps the sex offender to be able to manipulate the child. However, because of the inability to emotionally empathize with the child, offenders do not perceive the resulting trauma to which the child is subjected. Salter (1988) has initiated a study of the empathic responses of child abusers on the IRI. Preliminary results strongly support the distinction in levels of empathy among child abusers (personal communication, February 27, 1990).

## Alcoholism

### Overview and Definitions

To attempt to address the issues related to alcoholism is a herculean task. In the preface to their 1230 page Encyclopedic Handbook on Alcoholism, Pattison and Kaufman (1982, p. v) state that ". . . the field is so unwieldy that this volume is less comprehensive than representative". It follows then, that complete coverage of the topic of alcoholism is outside the scope of this research (see Davies, 1979; Jellinek, 1960; Pattison & Kaufman, 1982 for more extensive reviews). A brief highlight of the definitions and models of alcoholism is presented.



"The use, misuse, and abuse of alcohol is one of the major health problems in the United States" (Pattison & Kaufman, 1982, p. 3). However, the problems associated with alcohol lead to familial, social, vocational, and legal problems as well. As a result, the goals of diagnosis take on many perspectives such as the legal-political perspective (with its emphasis on control of deviant behavior), the social perspective (with its emphasis on how society uses certain rules and classification to distinguish alcoholism from other drinking behaviors), the treatment perspective (with a pragmatic emphasis seeking precise details about the alcoholic to gain precision in treatment), and the research perspective (which attempts to differentiate diagnostic criteria that will clarify etiology, prognosis, treatment prescription, and prediction of response to various treatment methods).

Because of the diversity of concerns and issues related to alcoholism, it is also difficult to clearly and uniformly define alcoholism. Some of the major definitions include Jellinek's (1952) attempt to provide five provisional diagnostic categories of alcoholism, Jellinek's (1960) disease model of alcoholism, the World Health Organization's (1952) attempt at a universally and cross-culturally valid definition of alcoholism, the National Council on Alcoholism Diagnostic Criteria (1972) attempt to present a definitional set of criteria that would represent a consensus of medical opinion, and the Revised Diagnostic and Statistical Manual of the American Psychiatric Association (1987) which presents an atheoretical model based primarily on the description of clinical features.

How one defines alcoholism and the goals of treatment determines the type of treatment considered most effective. As a result of the multitude of definitions and models of alcoholism there are varied treatment programs. Treatment programs include but are not limited to; self support groups such as Al-Anon, group psychotherapy, individual psychotherapy, family and network therapy, behavior therapies, disulfiram and other deterrent drugs, medical detoxification programs, and nonmedical detoxification programs (Moos, Finney, & Cronkite, 1990; Pattison & Kaufman, 1982).

The effects of alcoholism are many and varied as well. For the purposes of this study, however, the discussion of those effects are limited to areas of interaction between individuals, with particular emphasis on levels of hostility and aggression. In a study involving 18 male-female couples (Smith, Parker, & Noble, 1975), all subjects participated in an alcohol (1.0 ml/kg) and placebo session, and a smaller number took part in a third higher dosage (1.5 ml/kg). Based on quantitative and qualitative ratings made from the recorded interactions, it was determined that alcohol produced significant increases ( $F(1/16) = 10.11$ ,  $p = .01$ ) in total emotional expression. Although the quantity of hostile/aggressive behavior did not increase, the qualitative measure showed significant increase in the low dosage sessions. This indicates that individuals who drink become more hostile up to a point. Since alcohol consumption and hostility showed a curvilinear relationship it was hypothesized that the alcohol had a tranquilizing effect at high dosages.

Renson, Adams, and Tinklenberg (1978) assessed 26 chronic

alcohol abusers with a reported daily intake of ethanol of 227 ml + 89 ml over the previous five years. In comparing the chronic alcohol abusers to a control group (n = 25), they found that the drinkers (M = 36.58) scored significantly higher ( $t = 3.07$ ,  $p < .01$ ) than the control subjects (M = 28.64) on the BDHI.

Two competing theories have been proposed to explain the correlation between drinking and aggression. The first of these is founded on the belief that alcohol affects aggression-related behaviors through some physiologically based mechanism. Theorists have stressed the "energizing" (Lang, Goeckner, Adesso & Marlatt, 1975, p. 508) effects on general activity level, on aggressive fantasies and on needs for power and dominance over others. "For the most part, however, research so far has produced only indirect evidence of any stimulating effect of alcohol on aggression" (Lang et al., 1975, p. 508).

The other explanation of the drinking-aggression relation calls attention to the mediation of psychological expectancy set regarding the effects of alcohol consumption and/or a tendency on the part of many people to attribute their antisocial acts to the intoxicated state rather than to themselves (Sobel & Sobel, 1973).

#### Alcoholism and Sexual Aggression

Whether the drinking-aggression relationship is physiologically or psychologically mediated, there is evidence that alcohol consumption serves as a disinhibiting factor related to sexual aggression (Salter, 1988). According to the social learning theory of aggression, a disinhibitory factor would be anything that lowered individual or social inhibition against involvement in aggressive acts

(Bandura, 1978).

Rada (1978) suggests that alcoholism plays an important part in the early life of the rapist. He reports that in a series of several studies he consistently has found that at least 50 percent of the sexual offenders were drinking at the time of the offense. While this does not imply a causal relationship, and while there are many heavy drinkers who do not become sexual offenders, it does indicate that sexual abuse treatment programs should not overlook the treatment of alcoholism in conjunction with the sex offender treatment program. In addition, he suggests that more research needs to be initiated which examines the problem of alcoholism as one of the disinhibitors contributing to levels of sexual aggression in our society.

#### Multimethod Assessment of Sexual Aggression

According to Malamuth (1986), both Social Learning Theory (Bandura, 1978) and the Four-Factor Model (Finkelhor, 1984) have several features in common. They emphasize that to understand the causes of sexual aggression it is essential to consider the role of multiple factors, including those creating the motivation to commit the act, those reducing internal and external inhibitions that might prevent the act from occurring, and those providing the opportunity for the act to occur. Malamuth (1986) proposed that not only do all these factors need to be considered, but that they interact to produce sexual aggression.

To test his hypothesis, Malamuth (1986) utilized a sample of 155 non-incarcerated males from a college setting and administered multiple questionnaires including measures of motivation (arousal, dominance, and hostility toward women), disinhibition (attitudes

facilitating violence, antisocial characteristics), and opportunity (sexual experience). The results indicate that predictor variables from all three areas relate significantly to sexual aggression. In addition it was found that there were significant interactions among the predictor variables and that by including those interactions in a regression equation he was able to account for a greater percentage of variance in sexual aggression scores. This strongly supports the concept of a multifactorial interactional model of sexual aggression.

Lisak and Roth (1988) also have examined the motivational and disinhibitory factors related to sexual aggression and have achieved similar results. In a sample of 184 male undergraduate psychology students, Lisak and Roth found that both disinhibitory factors and underlying motivational factors were significantly related to sexual aggression and that interactional effects help to account for a greater percent of variance in sexual aggression scores.

#### Summary

A review of the literature on issues of hostility, attitudes toward women, empathy, and alcoholism as they relate to sexual aggression was presented in this chapter. The multifactorial interactional model of sexual aggression also was examined.

The hostility construct was reviewed primarily as a motivational factor in the development of sexual aggression, and distinctions were made between the constructs of hostility and aggression as they relate to the social learning theory of aggression (Bandura, 1978). Additionally as the problems in developing adequate measures of hostility were discussed, one instrument, the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957) was found as most reliable and valid

even though support for the instrument is moderate to weak. A review of the hostility literature and sexual aggression indicates some support for hostility being related to sexual aggression. A number of studies show a positive correlation between hostility and sexual aggression.

The attitudes toward women construct was reviewed primarily from Spence and Helmreich's (1978) perspective. Their instrument, the Attitudes toward Women Scale was examined and several studies supporting its efficacy were reviewed. The basic construction of the instrument was examined in terms of its ability to differentiate individuals on the basis of sex, generational, and socioeconomic status. In addition, a number of studies showed a positive relationship between conservative attitudes toward women and sexual aggression.

A review of the empathy literature indicates that there have been two primary foci of research. These correspond to the emotional and cognitive aspects of empathy. Davis's (1980) Interpersonal Reactivity Index was discussed as an instrument which effectively measures both aspects of empathy. A relationship was hypothesized between the emotional and cognitive aspects of empathy and sexual aggression. Limited research to support this idea was offered. It was then proposed that future research be conducted to support or disconfirm the hypothesis.

The alcoholism construct was reviewed primarily from Selzer's (1971) perspective. His instrument, the Michigan Alcoholism Screening Tests is discussed and support is given from numerous studies that confirm a relationship between alcoholism and sexual

aggression.

Empirical evidence was found to support the contention that sexual aggression can be viewed as a multifactorial interactional process. Sexual offenders were shown to score high on both motivational factors and disinhibitory factors. In addition, the interaction effects of the various factors help to account for a greater percent of the variance in levels of sexual aggression.

## CHAPTER III

### PROCEDURES

This chapter includes a discussion of subjects, instrumentation and procedures which were used in this study. The research design and statistical analysis of the data also are described.

#### Subjects

Subjects for this study were selected from among the population of male sexual offenders who had been identified as offenders by one South-Central state's Department of Corrections. The sexual offenders consist of 86 men who volunteered for a sexual abuse treatment program in a medium security correctional facility and 83 men who were involved in community outpatient treatment programs. Authorization to include male subject's testing results in this study was obtained by personal interviews with the director of programs at the correctional facility and in the community agencies.

An initial analysis of power for this study indicated that by setting the alpha level at .05, to achieve the desired power of at least .80 assuming an effect size for the multiple regression of .20 and an effect size for the partials of .04 or greater, a sample size of at least 163 subjects was necessary to insure that any significant effects could be identified (Cohen & Cohen, 1983). A total of 169 subject's testing results were solicited from the correctional facility and the community treatment programs. There was no attempt to match subjects from the two groups since the focus of research was not to



distinguish between incarcerated and non-incarcerated offenders.

The sample for this study was comprised of 169 males ranging in age from 18 to 80 years. The demographic variables of (a) age, (b) marital status, (c) race, (d) treatment program, (e) education, (f) adjudication, (g) age of victim, (h) number of prior sexual convictions and (i) type of prior sexual aggression were tabulated and are presented in Table 1 as a summary of demographic data.

The mean age of the sample was 37.5 years. Most (82.8%) were classified as Caucasian, while 14.2% were classified as Black, with the remaining 3% classified as Asian, Hispanic, Native American, and other. Of the 169 males tested, 23.7% were single, 1.2% were engaged, 31.4% were married, 10.6% were separated, 31.3% were divorced, and 1.8% were widowed.

The mean level of education of the sample was grade 12, with level of education ranging from fourth grade to five years of college. The subjects consisted of adjudicated child molesters (75.1%), rapists (16%), and exhibitionists (8.9%). The mean age of the victims of the child molesters was 9.3 years, of the rapists was 22.7 years, and of the exhibitionists was 23.4 years. Of the 169 subjects, only 36.1% had any type of prior sexual conviction.

#### Instrumentation

There were five instruments used in this study, as well as a short demographic questionnaire (see Appendix A). The Paraphilias (Sexual Deviance) Subtest of the Multiphasic Sex Inventory (Nichols & Molinder, 1984) was administered to determine offender's level of sexual aggression. The Buss-Durkee Hostility Inventory (Buss & Durkee, 1957) was given to assess the degree of offender hostility.

Table 1

Summary Of Frequency And Percent For Demographic Variables

n = 169		
Variables	Frequency	Percent
<u>Age of Offender</u>		
18 - 20	8	4.7
21 - 30	39	23.1
31 - 40	63	37.3
41 - 50	43	25.4
51 - 60	7	4.2
61 - 70	8	4.7
71 - 80	1	.6
<u>Marital Status</u>		
Single	40	23.7
Engaged	2	1.2
Married	53	31.4
Separated	18	10.6
Divorced	53	31.3
Widowed	3	1.8
<u>Race</u>		
Asian	2	1.2
Caucasian	140	82.8
Black	24	14.2
Hispanic	2	1.2
Native American	1	.6
Other	0	0.0
<u>Treatment Program</u>		
Family Agency	30	17.7
Domestic Violence	53	31.4
Prison Program	86	50.9

Table 1 (Continued)

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Educational Level

Elementary	5	2.9
Jr. High	15	8.9
Began HS	39	23.1
Completed HS	68	40.2
Began College	33	19.5
Completed College	7	4.2
Graduate Work	2	1.2

Adjudication

Child Molestation	127	75.1
Exhibitionism	15	8.9
Rape	27	16.0

Victim Age

Child	10	5.9
Latency (5-7)	26	15.4
Preteen (8-12)	69	40.8
Adolescent (13-18)	34	20.1
Young Adult (19-35)	29	17.2
Midlife (36-50)	1	.6

Prior Convictions

Prior	61	36.1
No Prior	108	63.9

Type of Prior Offense

Child Molest	34	55.7
Exhibitionism	7	11.5
Rape	20	32.8

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The Interpersonal Reactivity Index (Davis, 1980) was used to indicate levels of perspective taking and empathic concern. The Attitudes Toward Women Scale-Simplified Version (Spence & Helmreich, 1978) was administered to assess cognitive attitudes toward women while the Michigan Alcoholism Screening Test (Selzer, 1971) was used to indicate alcohol usage. In addition, a short demographic questionnaire (see Appendix A) was included to provide background information on the general characteristics of the sample population.

#### Multiphasic Sex Inventory

The Paraphilias (Sexual Deviance) Subtest (SD) of the Multiphasic Sex Inventory (MSI) (Nichols & Molinder, 1984) was used as a measure of sexual aggression. The MSI consists of 300 items and takes approximately 30 to 45 minutes to administer. The SD is comprised of three scales including; the Child Molest Scale (CM), the Rape Scale (R), and the Exhibitionism Scale (Ex).

One of the principle problems of most other measures of sexual aggression has been their inability to distinguish between various levels of sexual aggression. The Sexual Experiences Survey (Davis, 1980), while able to discriminate between sexually aggressive and sexually nonaggressive individuals, was not able to make distinctions between levels of sexual aggression (Lisak & Roth, 1988). Since the SD scales are for use with previously identified sex offenders, they have been designed with the assumption that sexual aggression is present and as such are able to focus on assessing the style, magnitude, and duration of sexually deviant behavior (Nichols & Molinder, 1984).

Instrument construction. The MSI was designed as a measure of the psychosexual characteristics of the sexual offender. The MSI was originally developed in 1977, as a 200-item inventory by Nichols and Molinder (1984), with the items reflecting cognitive and behavioral progressions common to all sex offenders. The instrument was then expanded to a 222-item inventory in 1983 and later to the present test of 300 items in 1984 (Nichols & Molinder, 1984). The SD subtest items were empirically sorted and matched with three types of sex offenders; pedophiles, rapists, and expositors. Next, criticism and critique of the items in the pilot study were solicited from sexual offenders and the staff of the sexual offender treatment program. Ineffectual and double bind items were then removed. Research in 1984 was directed at development and refinement of several new validity scales including the Parallel Items Scale (PI), the Social Sexual Desirability Scale (SSD), the Lie Scale (L), the Cognitive Distortion and Immaturity Scale (CDI), and the Justifications Scale (Ju).

Reliability. Reliability of the MSI is reported as test-retest reliability (Nichols & Molinder, 1984). Product moment correlations of stability over time were run on all subtests and scales of the MSI. With an average of 21 days between testing times, sexual offenders' scores ( $n = 32$ ) indicated a coefficient of stability of .91 for Child Molest, .91 for Rape, and .92 for Exhibitionism. The total test-retest reliability for all SD items is .89.

Validity. Construct validity of the SD scales has been shown through studies using both convergent and divergent methods (Nichols & Molinder, 1984). The original developmental strategy of

the MSI aimed for clear and direct items that were well matched to the behavior of the various criterion groups; rapists, child molesters, and exposers. A large pool of items was then reviewed by both sexual offenders and treatment providers. Items that were redundant or ineffective were dropped. As part of their 1983 research study, Nichols and Molinder (1984) asked eleven experts in the treatment of sexual deviance to sort the items into 14 categories, 13 of which corresponded to the various subtests and scales and the fourteenth which was for items they could not logically assign to any of the other scales. The results show that at least 9 of the 11 experts agreed on at least 92% of the items (Nichols & Molinder, 1984).

In a validation study designed by Nichols and Molinder (1984) the MSI was administered to 322 subjects. In comparing total scores on the Paraphilias (SD) Subtest, untreated child molesters ( $n = 140$ ,  $M = 13.793$ ,  $SD = 8.022$ ) scored significantly higher ( $t = 16.655$ ,  $p < .001$ ) than the college control group ( $n = 56$ ,  $M = 1.768$ ,  $SD = 1.803$ ). In the same study, rapists ( $n = 30$ ,  $M = 10.517$ ,  $SD = 7.655$ ) scored significantly higher ( $t = 6.105$ ,  $p < .001$ ) than the college control group ( $n = 56$ ,  $M = 1.768$ ,  $SD = 1.803$ ).

#### Buss-Durkee Hostility Inventory

The Total Hostility score of the Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957) was administered as a measure of hostility. The BDHI is a 66-item true-false questionnaire that includes seven subscales; negativism, resentment, indirect hostility, assault, suspicion, irritability, and verbal hostility. Scoring is accomplished by assigning one point for every answer that matches the scoring key provided. Since the subscales in the BDHI do not

have adequate factorial and discriminate ability (Ramanaiah, Conn, & Schill, 1987), the Total Hostility score was utilized. The Total Hostility score is calculated by combining the seven subscale scores.

Instrument construction. The BDHI was designed to assess different forms of aggression and hostility and consists of the following subscales, Assault, Indirect Aggression, Irritability, Negativism, Resentment, Suspicion, and Verbal Aggression. In developing the instrument, Buss and Durkee, (1957) constructed a pool of items and supplemented the pool with items borrowed from previous hostility inventories. Most of the borrowed items underwent modification based on logically derived principles for hostility item construction (Buss & Durkee, 1957). The initial version of the inventory consisted of 105 items. Later, item analysis reduced the pool to its final form of 66 items. The item analysis was concerned with the frequency of certain behaviors in the population and how well a particular item correlated with the overall score of the scale with which it was associated. There was also an attempt made to control for the effects of social desirability through item construction. This was done by assuming that anger was present and inquiring only how it is expressed, by providing justification for admitting aggressive acts, and by including cliches and idioms that would find ready acceptance. In assessing the success of this procedure, it was determined that at the .05 level of confidence there was a small but significant effect ( $r = .27$ ) of social desirability on the direction of responding (Buss & Durkee, 1957).

Reliability. Reliability of the BDHI is reported as test-retest reliability. Buss (1961) reports a test-retest reliability of .78 over a

five week period. More recently, Biaggio, Supplee, and Curtis (1981) have indicated a test-retest correlation for the total score as .82. Ramanaiah, Conn, and Schill (1987), support these findings and state that although the BDHI subscales have low reliability, the Total score gives a highly reliable measure of global hostility.

Validity. Construct validity of the BDHI rests primarily in the author's attempts to control item selection through retaining only those items answered in one direction by 15-85% of the sample, and through internal consistency correlation of items in each subscale with the overall score of that subscale of at least .40 (Buss & Durkee, 1957). Even though the subscales do not have good discriminate validity (Biaggio et al., 1981; Holland, Levi, & Beckett, 1983), the combination of their scores into the BDHI Total Hostility score has been shown to distinguish between violent and nonviolent sex offenders (Lothstein & Jones, 1978; Renson, Adams, & Tinklenberg, 1978; Selby, 1984). However, other studies (Gunn & Gristwood, 1975; Syverson & Romney, 1985) report negative findings for the ability of the BDHI Total Hostility score to distinguish between violent and non-violent sex offenders. Selby (1984) suggests that this may be due in part to the complex nature of violent or dangerous behavior and that to adequately assess or predict violent behavior one must look at motivation (hostility) in conjunction with internal inhibitions and habit strength. In addition, Gunn and Gristwood (1975) indicate that the content of the BDHI suggests that it measures aggressive attitudes rather than violent behavior.

Still, even though the BDHI does not possess high discriminant validity between the various hostility subscales, the Total Hostility



score does provide an adequate global measure of hostile feelings and tendency to act out anger, and it is probably superior in construction to most other measures of hostility (Biaggio et al., 1981).

#### Attitudes Toward Women Scale

The Attitudes Toward Women Scale - Simplified Version (AWS-S) (Spence & Helmreich, 1978) was used as a measure of attitudes towards the rights and roles of women. The scale is a 15 item version of the original 55-item scale. The instrument asks subjects to respond to each item on a four point scale from "agree strongly" to "disagree strongly" (Spence, Helmreich, & Stapp, 1973, p. 219).

The AWS-S instrument is suitable for subjects age 18 or older. No formal training is required to administer the test since it is a self-report measure which is largely self-explanatory. Items are scored from 0 to 3 with a score of 3 indicating a more egalitarian attitude toward women. Half of the items are scored using a value of three when the response is "strongly agree" and the other half are scored in reverse with the response "strongly disagree" receiving a three (Salter, 1988).

Instrument construction. The Attitude Towards Women Scale (AWS) has gone through several revisions since its inception. In the initial form, a number of items were adapted from the Kirkpatrick Belief-Pattern Scale for Measuring Attitudes toward Feminism (Kirkpatrick, 1936). Most of the items were revised and a number of new items were added. An attempt was made to include items describing roles and patterns of conduct in major areas of activity in which women and men were, in principle, capable of being granted equal rights. Subsequent versions were further revised after

statistical analysis. The form that was the immediate predecessor of the final scale consisted of 78 items. In 1970-71 this form was given to over 1,000 men and women in introductory psychology at the University of Texas at Austin. After inspection of the results, 23 of the items were dropped because they failed to discriminate among the subgroups in the item analysis or because of redundancy of information. Thus the AWS contains 55 items (Spence & Helmreich, 1972).

The AWS has recently been shortened for ease of administration. The shorter versions consist of a 25-item scale and a 15-item scale. Both shorter versions have been shown to have Pearson correlations coefficients greater than .95 when compared to the longer form (Smith & Bradley, 1980; Spence et. al., 1973).

Reliability. Reliability of the AWS-S is reported as test-retest, alpha and split-half reliabilities (Daugherty & Dambrot, 1986; Nelson, 1988). In a study involving men and women living throughout the United States (N=278) ranging in age from 20 to 80 years (Nelson, 1988), the AWS-S was shown to have strong internal consistency (Cronbach's alpha = .84). In another study (Daugherty & Dambrot, 1986), involving males and females from an introductory psychology class at a midwestern state university (N=511), the internal consistency of the instrument also was shown (Cronbach alpha = .84; Spearman-Brown split half = .87). In addition, that same study reported a test-retest reliability over a period of three weeks as .86 .

Validity. Construct validity has been examined in terms of the scales ability to discriminate among subgroups expected to have significantly different sex role attitudes (Daugherty & Dambrot, 1986;

Nelson, 1988). Women ( $M = 32.72$ ) were found to have more liberal attitudes than men ( $M = 26.98$ ), and grandmothers ( $M = 22.13$ ) were found to have more conservative attitudes than female students ( $M = 31.68$ ) or the students' mothers ( $M = 29.05$ ) (Daugherty & Dambrot, 1986). These sex and generational differences have been confirmed in other studies (Fischer, 1987; McKinney, 1987; Nelson, 1988). In addition, subjects of higher social status (as determined by occupation of the subject) have more liberal attitudes than those of lower social status (Fischer, 1987; Nelson, 1988).

#### Interpersonal Reactivity Index

The Perspective Taking and Empathic Concern subscales of the Interpersonal Reactivity Index (IRI) (Davis, 1980) were used to measure the tendency to think about and anticipate the view of others and the tendency to experience warm compassionate feelings towards people in distress. The IRI is an individual difference measure of empathy based on a multidimensional approach which categorizes empathy into four different constructs which are related in that they all concern responsiveness to others but also are clearly discernable from each other. The 28-item IRI is a self-report measure consisting of four 7-item scales which tap different aspects of the global concept of empathy (Davis, 1983). The Perspective Taking subscale (PT) was designed to assess a more cognitive, intellectual reaction based on the tendency to anticipate another's point of view. On the other hand, the Empathic Concern subscale (EC) was designed to assess a more visceral, emotional reaction related to experiencing warm compassionate feelings towards people in distress.

Instrument construction. The IRI (Davis, 1980) was designed to assess both the cognitive, perspective taking tendencies of an individual as well as differences in the types of emotional reactions typically experienced. In developing the instrument, a pool of 50 items was originally amassed. Some items were borrowed from other previously existent measures of empathy. However, a majority of the items were created specifically for the new instrument. After administering the instrument to 201 male and 251 female introductory psychology students, the results were factor analyzed which resulted in four groupings of items. These included fantasy items (indicating a tendency to identify with fictitious characters in books, movies, or plays), perspective-taking items (indicating a tendency to adopt the perspective or point of view of other people), empathic concern items (indicating a tendency to experience feelings of compassion and concern for others undergoing negative experiences), and personal distress items (indicating a tendency to feel discomfort and anxiety when witnessing the negative experiences of others).

A 45-item version of the instrument then was constructed utilizing items from the first questionnaire with new items added to confirm the four factors previously mentioned. This second instrument was administered to 221 male and 206 female introductory psychology students. Another factor analysis was calculated which confirmed the results of the first.

For the final version of the instrument, the seven items, from each of the four subscales, which loaded highest on a factor for both males and females were utilized. The end result of the instrument

construction process was a 28-item questionnaire consisting of four separate seven-item subscales.

Reliability. Reliability of the PT and EC subscales of the IRI are reported as internal consistency and test-retest reliability (Davis, 1980; Davis, 1983). Internal consistency reliabilities for these two scales range from .71 to .77 and test-retest reliabilities, over a three week time period, range from .62 to .71 (Davis, 1980).

Validity. Construct validity of the PT and EC subscales has been shown through studies using convergent and divergent methods. Factor analysis of the IRI has consistently indicated four main factors which correspond to Davis's (1980) assignment of items to scales (Carey, Fox, & Spraggins, 1988; Davis, 1983). Davis (1983) also illustrated the discriminant validity of the IRI subscales by comparing the relations between each of the subscales and measures of social competence, self-esteem, emotionality, and sensitivity to others. Perspective Taking was found to be consistently related to social competence and was positively related to extroversion and negatively related to measures of social dysfunction. Corrected for the positive extroversion correlation, the mean correlation of PT scores was a modest but consistent  $-.15$  (Davis, 1983). Perspective Taking also was positively correlated with self-esteem with a mean correlation of  $.23$  (Davis, 1983). Empathic Concern, on the other hand, was shown to have little or no correlation with measures of interpersonal functioning but to have a moderate correlation with measures of selflessness and concern for others (mean  $r = .57$ ) (Davis, 1983).

In addition to the establishment of construct validity, concurrent validity of the two subscales has been indicated (Davis, 1983).

Consistent with expectations, the cognitive Hogan Empathy Scale (Hogan, 1969) was most highly correlated (mean  $r = .40$ ) with the cognitive PT scale and less correlated (mean  $r = .18$ ) with EC (Davis, 1983). Scores on the Mehrabian and Epstein Emotional Empathy Scale (Mehrabian & Epstein, 1972) correlated moderately (mean  $r = .60$ ) with the EC subscale and only slightly correlated (mean  $r = .20$ ) with the PT subscale.

#### Michigan Alcoholism Screening Test

The Michigan Alcoholism Screening Test (MAST) (Selzer, 1971) was used as a measure of alcoholism. The MAST is a self-report instrument, consisting of 25 yes/no items, which takes approximately 15 minutes to complete. The scale provides a gross classification of drinking severity. In scoring, the items are weighed differently with positive answers indicating alcoholic responses except where indicated otherwise. Three or less points indicate nonalcoholism, four points suggest alcoholism, and five or more points indicate alcoholism (Salter, 1988).

Instrument construction. The MAST (Selzer, 1971) was devised to provide a consistent, quantifiable, structured interview instrument for the detection of alcoholism that could be rapidly administered by nonprofessionals as well as professionals. The MAST consists of 25 items, many of which were used by other investigators in surveys of alcoholism. Questions related to amounts of alcohol consumed were not used because of the vague responses they elicited. In addition, some of the items were made neutral so as to reveal alcoholism in subjects who are reluctant to see themselves as problem drinkers. The wording for the items was changed slightly to allow the

instrument to be self-administered rather than completed during a structured interview. Thus the final version of the Mast is a 25-item self-administered, self-report measure of alcoholism (Mischke & Venneri, 1987).

Reliability. Reliability of the MAST is reported as test-retest and internal consistency (Selzer, 1971). One study involving 501 male drivers over the age of 21 reported an internal consistency alpha of .95 (Selzer, Vinokur, & Rooijen, 1975). More recently, with a randomly selected sample of individuals with alcohol related problems ( $n = 83$ ) between the ages of 16 and 56, an internal consistency alpha of .88 was found. In the same study, the MAST was found to have a test-retest reliability of .84 over a 4 month time period (Skinner & Sheu, 1982). Another study (Mischke & Venneri, 1987) involving subjects convicted of driving while under the influence ( $n = 90$ ) found an internal consistency reliability coefficient of .84.

Validity. Construct validity of the MAST has been shown through studies utilizing identified alcoholic and non-alcoholic subjects. Correlations between alcoholism and high scores on the MAST yielded a validity correlation of .79 (Selzer et al., 1975). Since the MAST is a self-report instrument and there is a tendency for alcoholics to deny their behavior (Moore & Murphy, 1961), a correlation was computed between the Deny-Bad subscale on the Crown-Marlowe Social Desirability Scale (Crowne & Marlow, 1964) and Scores on the MAST. The resulting correlation ( $r = -.11$ ) was low enough to indicate that the effect of denial on the MAST is negligible (Selzer et al., 1975). In another study, concurrent validity

was examined by computing a product moment correlation coefficient ( $r = .65$ ) between MAST scores and alcoholic or non-alcoholic group membership scores (Mischke & Venneri, 1987).

#### Procedure

All subjects were requested to complete a demographic data questionnaire (see Appendix A) and a battery of self-report tests including the, Interpersonal Reactivity Index (Davis, 1980), the Attitudes Toward Women Scale (Spence & Helmreich, 1978), the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), the Michigan Alcoholism Screening Test (Selzer, 1971), and the Multiphasic Sex Inventory (Nichols & Molinder, 1984). These instruments were presented to subjects, in the preceding stated order, in a self-administered test situation during the initial orientation phase of their treatment programs and prior to formalized treatment interventions. The subjects completed the instruments during two separate two hour sessions within a two-week period of time.

Authorization to examine the results from the testing of male subjects was obtained by personal interviews with the director of programs both at the correctional facility and in the community agencies. A copy of this dissertation proposal was submitted to the governing board of the correctional facility for final approval. Additionally, each subject involved gave informed consent for participation in testing.

#### Statistical Analysis

A standard multiple regression equation was calculated employing an alpha level of .05 and utilizing the combined scores of



the Paraphilias (Sexual Deviancy) Subtests of the MSI, a measure of the style, magnitude and duration of sexual aggression, as the dependent variable. The independent variables are hostility as measured by the Buss-Durkee Hostility Inventory, attitudes toward women as measured by the Attitudes Toward Women Scale, ability to cognitively adopt the view point of others as measured by the Perspective Taking subscale of the Interpersonal Reactivity Index, ability to have feelings of concern for unfortunate others as measured by the Empathic Concern subscale of the Interpersonal Reactivity Index, and alcoholism as measured by the Michigan Alcoholism Screening Test. After the various instruments were scored, the data were tested to determine if the assumptions of normality, linearity, and homoscedasticity had been violated. Normality of the distributions was determined by calculating whether or not the value of skewness differed significantly from zero. To determine gross departures from linearity among pairs of variables, bivariate scattergrams were examined. Bivariate scattergrams of the residuals also were examined to identify any homoscedasticity that might be occurring. A Pearson correlation matrix was calculated to identify the levels of correlation between each of the predictor variables and to identify any possible suppressors that might be present. Next a standard regression analysis was performed. Then the unique contributions to the dependent variable were assessed by the squared partial correlations (Cohen & Cohen, 1983).

#### Summary

A review of the subjects, instrumentation, and procedures used in this study were presented in this chapter. The research design

and statistical analysis of the data also were examined.

The review of subjects included descriptive data about the sample of identified male sex offenders. The review indicated that there were 169 subject from three treatment programs. The descriptive data included information on the age, marital status, race, and education of the sex offenders. Additionally, the data addressed issues of sex offender adjudications, number and type of prior offenses, and the age of the victims.

The review of the instrumentation used in this study addressed information about each of five instruments, their construction, and their reliability and validity. The five instruments included the Multiphasic Sex Inventory (Nichols & Molinder, 1984), the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), the Attitudes Toward Women Scale (Spence & Helmreich, 1978), the Interpersonal Reactivity Index (Davis, 1980), and the Michigan Alcoholism Screening Test (Selzer, 1971).

The review of the procedures included a list of the tests to be administered as well as a demographic questionnaire, a discussion of testing administration issues, and the average length of testing sessions. In addition, issues of authorization and informed consent were discussed.

The review of the statistical analyses to be used presented a standard multiple regression as the analysis of choice. This was accompanied by analyses focusing on the verification of the assumptions of normality, linearity, and homoscedasticity. Pearson correlation matrices also were discussed as a method of identifying any suppressors that might be present.

## CHAPTER IV

### RESULTS OF THE STUDY

The statistical analysis of the hypothesis formulated, as well as supplemental unhypothesized results, are presented in this chapter. The major purpose of this study was to determine if an interactive model of sexual aggression was an appropriate model for identified sexual offenders. Specifically, the study was designed to determine if measures of hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism were significant predictors of sexual aggression in male offenders. The results provided information regarding the joint and unique contributions of the independent variables in relationship to the dependent variable, sexual aggression.

A standard multiple regression analysis was used to determine the relationship among the independent variables (hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism) and the criterion variable (sexual aggression). The unique contributions of the independent variables were tested by examining the standardized partial regression coefficients for statistical significance at an alpha level of .05.

#### Statistical Analysis of the Data

By examining skewness, bivariate scattergrams (see APPENDIX B), and scattergrams of the residuals (see APPENDIX C), the assumptions of normality, linearity, and homoscedasticity were

determined to have been met. A summary of the mean scores and standard deviations on the Multiphasic Sex Inventory Paraphilias (Sexual Deviance) Subtests (MSI-SD), Buss-Durkee Hostility Inventory (BDHI), Attitudes Toward Women Scale - Simplified Version (AWS-S), Perspective Taking Subscale of the Interpersonal Reactivity Index (IRI-PT), Empathic Concern Subscale of the Interpersonal Reactivity Index (IRI-EC), and Michigan Alcoholism Screening Test (MAST) is shown in Table 2. In addition, Table 3 shows the Pearson correlation coefficients calculated between the pairs of dependent and independent variables. The measures of hostility ( $r = .345$ ,  $p < .001$ ), attitudes toward women ( $r = -.241$ ,  $p < .01$ ), and alcoholism ( $r = .29$ ,  $p < .01$ ) all had small, but significant correlations with sexual aggression. Perspective taking and empathic concern were not significantly correlated with sexual aggression. However, their near zero correlation with sexual aggression and their moderate correlation with each other is indicative of suppression. In addition, there were several intercorrelations between predictor variables, including small correlations between hostility and alcoholism ( $r = .283$ ,  $p < .01$ ), between hostility and perspective taking ( $r = -.277$ ,  $p < .01$ ), and between attitudes toward women and perspective taking ( $r = .157$ ,  $p < .05$ ). In addition, a moderate correlation was found between perspective taking and empathic concern ( $r = .455$ ,  $p < .001$ ).

### Hypothesis 1

Hypothesis 1 stated that the variance in overall levels of sexual aggression cannot be accounted for by a linear combination of hostility, attitudes toward women, perspective taking, empathic

Table 2

Mean Scores And Standard Deviations For Sexual Aggression,  
Hostility, Attitudes Toward Women, Perspective Taking, Empathic  
Concern, And Alcoholism

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n = 169

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Variables	<u>M</u>	<u>SD</u>
MSI-SD <sup>a</sup>	21.51	15.80
BDHI <sup>b</sup>	28.30	12.99
AWS-S <sup>c</sup>	27.50	7.47
IRI-PT <sup>d</sup>	17.27	5.00
IRI-EC <sup>e</sup>	19.78	5.04
MAST <sup>f</sup>	12.29	14.31

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<sup>a</sup> (MSI-SD) Sexual Deviance Subtest of the Multiphasic Sex Inventory

<sup>b</sup> (BDHI) Buss-Durkee Hostility Inventory

<sup>c</sup> (AWS-S) Simplified Version of the Attitudes Toward Women Scale

<sup>d</sup> (IRI-PT) Perspective Taking Subtest of the Interpersonal Reactivity Index

<sup>e</sup> (IRI-EC) Empathic Concern Subtest of the Interpersonal Reactivity Index

<sup>f</sup> (MAST) Michigan Alcoholism Screening Test

Table 3  
Pearson Correlation Coefficients Calculated Between Sexual  
 Aggression, Hostility, Attitudes Toward Women, Perspective Taking,  
 Empathic Concern, And Alcoholism

	MSI-SD	BDHI	AWS-S	IRI-PT	IRI-EC	MAST
MSI-SD <sup>a</sup>	1.000					
BDHI <sup>b</sup>	.345***	1.000				
AWS-S <sup>c</sup>	-.241**	-.084	1.000			
IRI-PT <sup>d</sup>	-.14	-.277**	.157*	1.000		
IRI-EC <sup>e</sup>	.081	.059	.061	.455***	1.000	
MAST <sup>f</sup>	.29**	.283**	-.121	-.067	.003	1.000

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

<sup>a</sup> (MSI-SD) Sexual Deviance Subtest of the Multiphasic Sex Inventory

<sup>b</sup> (BDHI) Buss-Durkee Hostility Inventory

<sup>c</sup> (AWS-S) Simplified Version of the Attitudes Toward Women Scale

<sup>d</sup> (IRI-PT) Perspective Taking Subtest of the Interpersonal Reactivity Index

<sup>e</sup> (IRI-EC) Empathic Concern Subtest of the Interpersonal Reactivity Index

<sup>f</sup> (MAST) Michigan Alcoholism Screening Test

concern, and alcoholism. Since a significant multiple regression coefficient was calculated, the null hypothesis was rejected.

A summary of the multiple regression analysis of the scores from the BDHS, AWS-S, IRI (PT & EC), and MAST on MSI-(SD) scores is shown in Table 4. The analysis yielded a significant multiple correlation,  $F(5,163) = 8.508$ ,  $p < .05$ . In addition, the analysis indicated that there was a small to medium effect size ( $R^2 = .207$ ).

### Hypothesis 2

Hypothesis 2 stated that there is no significant relationship between hostility and sexual aggression when the effects of attitudes toward women, perspective taking, empathic concern, and alcoholism are controlled. A statistical analysis of the partial regression coefficient measuring the relative importance of the BDHI scores in relation to the MSI-SD scores is presented in Table 4. The portion of variance accounted for by the independent variable, hostility, over and above the portion of variance accounted for by all the other independent variables was significant,  $F(5,163) = 10.076$ ,  $p < .05$ . Therefore hypothesis two was rejected. There is a significant relationship between hostility and sexual aggression when the effects of attitudes toward women, perspective taking, empathic concern, and alcoholism are controlled. In this analysis, scores on the BDHI account for 6% of the variance in the MSI-SD scores.

### Hypothesis 3

Hypothesis 3 stated that there is no significant relationship between attitudes toward women and sexual aggression when

Table 4

Summary Of Multiple Regression Of Analysis Of Sexual Aggression On  
The Independent Variables For 169 Subjects

Dependent Variable: MSI-SD <sup>a</sup>				
			Multiple R	.455
			R-Square	.207
Analysis of Variance				
	DF	Sum of Squares	F	p
Regression	5	8685.441	8.508	.0001
Residual	163	33280.796		
Variables in the Equation				
	DF	Sum of Squares	F	p
BDHI <sup>b</sup>	1	163711.000	10.08	.0018
AWS-S <sup>c</sup>	1	137153.000	7.22	.0079
IRI-PT <sup>d</sup>	1	54621.000	0.93	.3358
IRI-EC <sup>e</sup>	1	70401.000	2.03	.1564
MAST <sup>f</sup>	1	59958.000	6.87	.0096

<sup>a</sup> (MSI-SD) Sexual Deviance Subtest of the Multiphasic Sex Inventory

<sup>b</sup> (BDHI) Buss-Durkee Hostility Inventory

<sup>c</sup> (AWS-S) Simplified Version of the Attitudes Toward Women Scale

<sup>d</sup> (IRI-PT) Perspective Taking Subtest of the Interpersonal Reactivity Index

<sup>e</sup> (IRI-EC) Empathic Concern Subtest of the Interpersonal Reactivity Index

<sup>f</sup> (MAST) Michigan Alcoholism Screening Test



the effects of hostility, perspective taking, empathic concern, and alcoholism are controlled. A statistical analysis of the partial regression coefficient measuring the relative importance of the AWS-S scores in relation to the MSI-SD scores is presented in Table 4. The portion of variance accounted for by the independent variable, attitudes toward women, over and above the portion of variance accounted for by all the other independent variables was significant,  $F(5,163) = 7.224$ ,  $p < .05$ . These results indicate that hypothesis three should be rejected. There is a significant negative relationship between attitudes toward women and sexual aggression when the effects of hostility, perspective taking, empathic concern, and alcoholism are controlled. In this analysis, scores on the AWS-S account for 3.65% of the variance in scores on the MSI-SD. Since the sample size for this analysis was based on an assumed effect size for the partials of .04 or greater, the actual power of this specific analysis, with an effect size of .0365 and a sample size of 169 subjects, was .775 (Cohen & Cohen, 1983, p.153).

#### Hypothesis 4

Hypothesis 4 stated that there is no significant relationship between perspective taking and sexual aggression when the effects of hostility, attitudes toward women, empathic concern, and alcoholism are controlled. A statistical analysis of the partial regression coefficient measuring the relative importance of the IRI-PT scores in relation to the MSI-SD scores is presented in Table 4. The proportion of variance accounted for by the independent variable, perspective taking, over and above the proportion of variance accounted for by all the other independent variables was not

significant,  $F(5,163) = .932$ ,  $p > .05$ . These results indicate that hypothesis four should not be rejected.

#### Hypothesis 5

Hypothesis 5 stated that there is no significant relationship between empathic concern and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and alcoholism are controlled. A statistical analysis of the partial regression coefficient measuring the relative importance of the IRI-EC scores in relation to the MSI-SD scores is presented in Table 4. The proportion of variance accounted for by the independent variable, empathic concern, over and above the proportion of variance accounted for by all the other independent variables was not significant,  $F(5,163) = 2.027$ ,  $p > .05$ . These results indicate that hypothesis five should not be rejected.

#### Hypothesis 6

Hypothesis 6 stated that there is no significant relationship between alcoholism and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and empathic concern are controlled. A statistical analysis of the partial regression coefficient measuring the relative importance of the MAST scores in relation to the MSI-SD scores is presented in Table 4. The portion of variance accounted for by the independent variable, alcoholism, over and above the portion of variance accounted for by all the other independent variables was significant,  $F(5,163) = 6.868$ ,  $p < .05$ . These results indicate that hypothesis six should be rejected. There is a significant relationship between alcoholism and sexual aggression when the effects of hostility, attitudes toward women, perspective

taking, and empathic concern are controlled. In this analysis, scores on the MAST account for 3.9% of the variance in scores on the MSI-SD. Although once again the effect size is less than the assumed .04, with 169 subjects, the power of this analysis was greater than .80.

#### Supplemental Statistical Analysis

In this study, supplemental unhypothesized results were obtained regarding correlations between subject characteristics and dependent and independent variables. Pearson correlation coefficients calculated between the demographic variables of age of sex offender, level of education, age of victim, and number of prior offenses and the dependent and independent variables are presented in Table 5. The correlation analysis revealed significant negative relationships between age of the sex offender and attitudes toward women ( $r = -.19, p < .05$ ), between age of the sex offender and hostility ( $r = -.205, p < .01$ ), and between level of education and hostility ( $r = -.154, p < .05$ ). In addition, the correlation analysis revealed significant positive relationships between level of education and perspective taking ( $r = .158, p < .05$ ), between the number of prior offenses and alcoholism ( $r = .309, p < .001$ ), between the number of prior offenses and hostility ( $r = .184, p < .05$ ), and between the number of prior offenses and levels of sexual aggression ( $r = .404, p < .001$ ).

Analysis of variance procedures were performed on the subject variables of program involvement (ie. prison inmate treatment program, domestic violence outpatient treatment program, or family outpatient treatment program), and type of sexual aggression (ie. rape, child abuse, or exhibitionism), as they relate to the

Table 5

Pearson Correlation Coefficients Calculated Between Age Of Offender, Level Of Education, Age Of Victim, Number Of Prior Offenses, Sexual Aggression, Hostility, Attitudes Toward Women, Perspective Taking, Empathic Concern, And Alcoholism

	AGE	EDUCATION	VICTIM AGE	PRIORS
AGE	1.000			
EDUCATION	.019	1.000		
VICTIM AGE	-.078	-.038	1.000	
PRIORS	-.028	.014	.004	1.000
MSI-SD <sup>a</sup>	-.001	.024	-.135	.404***
BDHI <sup>b</sup>	-.205**	-.154*	.106	.184*
AWS-S <sup>c</sup>	-.19*	-.063	.095	-.093
IRI-PT <sup>d</sup>	.047	.158*	.005	-.123
IRI-EC <sup>e</sup>	-.043	.142	-.132	-.03
MAST <sup>f</sup>	.001	-.034	.128	.309***

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

<sup>a</sup> (MSI-SD) Sexual Deviance Subtest of the Multiphasic Sex Inventory

<sup>b</sup> (BDHI) Buss-Durkee Hostility Inventory

<sup>c</sup> (AWS-S) Simplified Version of the Attitudes Toward Women Scale

<sup>d</sup> (IRI-PT) Perspective Taking Subtest of the Interpersonal Reactivity Index

<sup>e</sup> (IRI-EC) Empathic Concern Subtest of the Interpersonal Reactivity Index

<sup>f</sup> (MAST) Michigan Alcoholism Screening Test

dependent variables of sexual aggression, hostility, attitudes toward women, and alcoholism. Since the purpose and design of this research was not to differentiate between incarcerated and non incarcerated sex offenders or the type of offense, these analysis of variance results should be viewed as descriptive of this specific sample only. This is due in part to the fact that confounding variables related to program involvement and type of offense were not controlled. For example, while outpatient community programs included subjects who were court mandated to attend the program, the prison inmate treatment program included only the sex offenders from the larger prison population who had volunteered to be in the new treatment program. Therefore, while these analyses may be suggestive for future research, they should not be generalized to the general sex offender population.

A one way analysis of variance was performed on program involvement in relation to AWS-S scores. The analysis of variance of attitudes toward women for the three levels of program involvement [family treatment program ( $M = 24.27$ ), domestic violence treatment program ( $M = 27.41$ ), and prison inmate treatment program ( $M = 28.67$ )], indicated that there were significant differences among the means,  $F(2,166) = 4.016$ ,  $p < .05$ . Scheffe's specific comparison test indicated that the AWS-S mean score for subjects in the family treatment program was significantly different from the mean score of prison inmates (Scheffe F-test = 4.011,  $p < .05$ ).

A one way analysis of variance was performed on program involvement in relation to MAST scores. The analysis of variance of alcoholism for the three levels of program involvement [family

treatment program ( $M = 5.8$ ), domestic violence treatment program ( $M = 13.09$ ), and prison inmate treatment program ( $M = 14.07$ )), indicated that there were significant differences among the means,  $F(2,166) = 3.969$ ,  $p < .05$ . Scheffe's specific comparison test indicated that the MAST mean score for subjects in the family treatment program was significantly different from the mean score of prison inmates (Scheffe F-test = 3.845,  $p < .05$ ).

A one way analysis of variance was performed on program involvement in relation to BDHI scores. The analysis of variance of hostility for the three levels of program involvement [family treatment program ( $M = 21.07$ ), domestic violence treatment program ( $M = 26.47$ ), and prison inmate treatment program ( $M = 31.95$ )], indicated that there were significant differences among the means,  $F(2,166) = 9.441$ ,  $p < .05$ . Scheffe's specific comparison test indicated that the BDHI mean score for subjects in the family treatment program was significantly different from the mean score of prison inmates (Scheffe F-test = 8.598,  $p < .05$ ). In addition, the BDHI mean score for subjects in the domestic violence treatment program also was significantly different from the mean score of prison inmates (Scheffe F-test = 3.214,  $p < .05$ ).

A one way analysis of variance was performed on program involvement in relation to MSI-SD scores. The analysis of variance on sexual aggression for the three levels of program involvement [family treatment program ( $M = 14.73$ ), domestic violence treatment program ( $M = 12.06$ ), and prison inmate treatment program ( $M = 29.70$ )], indicated that there were significant differences among the means,  $F(2,166) = 32.771$ ,  $p < .05$ . Scheffe's specific comparison

test indicated that the MSI-SD mean score for subjects in the family treatment program was significantly different from the mean score of prison inmates (Scheffe F-test = 13.74,  $p < .05$ ). In addition, the MSI-SD mean score for subjects in the domestic violence treatment program also was significantly different from the mean score of prison inmates (Scheffe F-test = 28.152,  $p < .05$ ).

### Summary

Results discussed in this chapter consisted of information from the Multiphasic Sex Inventory's Sexual Deviancy Subtests (MSI-SD), the Buss-Durkee Hostility Inventory (BDHI), the Attitudes Toward Women Scale - Simplified Version (AWS-S), both the Perspective Taking (IRI-PT) and Empathic Concern (IRI-EC) subscales of the Interpersonal Reactivity Index, and the Michigan Alcohol Screening Test (MAST). Additional information was obtained from a demographic questionnaire designed specifically for the purposes of this study (see APPENDIX A). Six hypothesis were tested using multiple regression analysis and examination of the partial regression coefficients of each of the independent variable's relationship to the dependent variable. By examining skewness, bivariate scattergrams (see APPENDIX B), and scattergrams of the residuals (see APPENDIX C), the assumptions of normality, linearity, and homoscedasticity were determined to have been met.

The first hypothesis stated that the variance in overall levels of sexual aggression could not be accounted for by a linear combination of hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism. A standard multiple regression analysis of the data yielded a significant multiple correlation. The null

hypothesis was rejected and the independent variables were found to account for 21% of the variance in scores on the MSI-SD.

Hypothesis two stated that there was no significant relationship between hostility and sexual aggression when the effects of attitudes toward women, perspective taking, empathic concern, and alcoholism were controlled. This null hypothesis was rejected and the relationship was determined to be statistically significant at the .05 level. The unique proportion of variance in the dependent variable accounted for by the independent variable of hostility was 6%.

Hypothesis three stated that there was no significant relationship between attitudes toward women and sexual aggression when the effects of hostility, perspective taking, empathic concern, and alcoholism were controlled. The null hypothesis was rejected. The relationship was determined to be statistically significant at the .05 level. The unique proportion of variance accounted for by the independent variable of attitudes toward women was 3.65%.

Hypothesis four stated that there was no significant relationship between perspective taking and sexual aggression when the effects of hostility, attitudes toward women, empathic concern, and alcoholism were controlled. The partial regression coefficient obtained from the data supported this statement. The results were not significant.

Hypothesis five stated that there was no significant relationship between empathic concern and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and alcoholism were controlled. Based on the results of the statistical analysis,



hypothesis five was not rejected.

Hypothesis six stated that there was no significant relationship between alcoholism and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and empathic concern were controlled. The null hypothesis was rejected and the relationship was determined to be statistically significant at the .05 level. The unique proportion of variance accounted for by the independent variable of alcoholism was 3.9%.

Further examination of the data revealed several unhypothesized results. A statistically significant relationship was established between type of treatment program and hostility, between type of treatment program and attitudes toward women, between type of treatment program and alcoholism, and between type of treatment program and sexual aggression. These data indicated that subjects in the prison treatment program were generally more hostile, had less egalitarian attitudes toward women, endorsed more alcoholic items, and had higher levels of sexual aggression than did the subjects involved in community outpatient treatment programs.

CHAPTER V  
SUMMARY, CONCLUSIONS, AND  
RECOMMENDATIONS

Summary

This study was based on the premise that sexual aggression is a multifaceted, multi-determined phenomena influenced by both motivational and disinhibitory factors. The purpose of the study was to examine the appropriateness of applying a multifactorial interactional model of sexual aggression to a group of identified sexual offenders. The variables were hostility, attitudes toward women, perspective taking, empathic concern, alcoholism, and sexual aggression.

In addition to the hypothesized variables, demographic variables were examined for possible linkages to the dependent variable, sexual aggression, as well as to the independent variables of hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism. In particular, age of offender, level of education, age of victim, number of prior offenses, type of treatment program and type of sexual aggression were examined.

Subjects for this study were 169 sexual offenders identified by one South-Central state's Department of Corrections. Of the 169 subjects ranging in age from 18 to 80 years, 86 were involved in a sexual abuse treatment program at a medium security correctional

facility and 83 were involved in one of two community based outpatient treatment programs, a family treatment program and a domestic violence intervention program.

Data analyzed in this study consisted of scores from the Multiphasic Sex Inventory's Sexual Deviancy Subtests (MSI-SD), the Buss-Durkee Hostility Inventory (BDHI), the Attitudes Toward Women Scale - Simplified Version (AWS-S), both the Perspective Taking (IRI-PT) and Empathic Concern (IRI-EC) subscales of the Interpersonal Reactivity Index, and the Michigan Alcohol Screening Test (MAST). Additional information was obtained from a demographic questionnaire designed specifically for the purposes of this study (see APPENDIX A). Six hypothesis were tested using multiple regression analysis and examination of the partial regression coefficients of each of the independent variable's relationship to the dependent variable.

The first hypothesis stated that the variance in overall levels of sexual aggression could not be accounted for by a linear combination of hostility, attitudes toward women, perspective taking, empathic concern, and alcoholism. A standard multiple regression analysis of the data yielded a significant multiple correlation. The null hypothesis was rejected and the independent variables were found to account for 21% of the variance in scores on the MSI-SD.

Hypothesis two stated that there was no significant relationship between hostility and sexual aggression when the effects of attitudes toward women, perspective taking, empathic concern, and alcoholism were controlled. This null hypothesis was rejected and the relationship was determined to be statistically significant at the

.05 level. The unique proportion of variance in the dependent variable accounted for by the independent variable of hostility was 6%.

Hypothesis three stated that there was no significant relationship between attitudes toward women and sexual aggression when the effects of hostility, perspective taking, empathic concern, and alcoholism were controlled. The null hypothesis was rejected. The relationship was determined to be statistically significant at the .05 level. The unique proportion of variance accounted for by the independent variable of attitudes toward women was 3.65%.

Hypothesis four stated that there was no significant relationship between perspective taking and sexual aggression when the effects of hostility, attitudes toward women, empathic concern, and alcoholism were controlled. The partial regression coefficient obtained from the data supported this statement. The results were not significant.

Hypothesis five stated that there was no significant relationship between empathic concern and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and alcoholism were controlled. Based on the results of the statistical analysis, hypothesis five was not rejected.

Hypothesis six stated that there was no significant relationship between alcoholism and sexual aggression when the effects of hostility, attitudes toward women, perspective taking, and empathic concern were controlled. The null hypothesis was rejected and the relationship was determined to be statistically significant at the .05 level. The unique proportion of variance accounted for by the independent variable of alcoholism was 3.9%.

Further examination of the data revealed several unhypothesized results. A statistically significant relationship was established between type of treatment program and hostility, between type of treatment program and attitudes toward women, between type of treatment program and alcoholism, and between type of treatment program and sexual aggression. These data indicated that subjects in the prison treatment program were generally more hostile, had less egalitarian attitudes toward women, endorsed more alcoholic items, and had higher levels of sexual aggression than did the subjects involved in community outpatient treatment programs.

#### Conclusions

The following conclusions are presented based on the results of this study.

1. The results of this study support the use of multifactorial interactional models of sexual aggression with male sex offender populations. This provides additional support for the theoretical conceptualization of sexual aggression from a social learning framework.

Both Bandura (1969) and Finkelhor (1984) discuss aggression from this framework. Bandura (1969) suggests that a complete theory of aggression must address how aggressive patterns are developed, what factors provoke aggressive behavior, and what factors sustain the behavior once it has been initiated. Finkelhor (1984) in applying these concepts to child sexual abuse indicates that four preconditions must be met before the abuse will occur. These include (a) the motivation to sexually abuse a child, (b) overcoming internal inhibitions, (c) overcoming external inhibitions,

and (d) undermining or overcoming the child's possible resistance.

Malamuth (1986) has applied these principles to non-offender populations suggesting that it is essential to consider the role of multiple factors in sexual aggression. The factors to be considered include those creating the motivation to commit the act, those reducing internal and external inhibitions, and those providing the opportunity for the act to occur. This study supports Malamuth's (1986) work and allows his concepts to be generalized to sex offender populations. Specifically the results of this study indicate that both a motivation factor of hostility, and several disinhibitory factors of attitudes toward women, and alcoholism are important in understanding the determiners of sexual aggression in a male sex offender population.

2. The results of this study indicate that there is a relationship between hostility and sexual aggression. Both Koss, Leonard, Beezley, and Oros (1985), and Malamuth (1986), have found significant relationships between the motivational factor of hostility and sexual aggression. This study corroborates their findings. Additionally, it broadens the generalizability of their conclusions, which were based primarily on college males, to include sex offender populations. These findings suggest that sexually aggressive acts need to be viewed in a social and cultural context with an increased awareness of the nonsexual needs served by the aggressive acts. Specifically, hostility toward women as well as hostility in general are seen as significant motivators in sexual aggression by identified sex offenders.

3. Additionally, the results of this study show a negative relationship between attitudes toward women and sexual aggression

indicating that male sex offenders who have less egalitarian attitudes toward women are more likely to be sexually aggressive. These results support the work of Burt (1978, 1980), Peterson & Franzese (1987), and Scott & Tetreault (1987) which indicates that males with less egalitarian attitudes toward women are more likely to be sexually aggressive. This study corroborates those findings and extends them to identified sex offenders. The implications are that individuals who have more rigid, narrowly defined, and less egalitarian expectations for the rights and roles of women and children in our society are more likely to view the violation of those rights as acceptable.

4. Additional results of this study failed to support the influence of differing levels of empathy on overall level of sexual aggression. Because researchers have only recently begun to distinguish between different types of empathy (Davis, 1980), there are few studies which address perspective taking and empathic concern as they relate to sexual aggression. Feshbach (1984) has proposed that the ability to affectively respond to another individual is what is lacking in aggressive individuals. As an outgrowth of this concept, Salter (1988) proposes that sexually assaultive males would score high on the Perspective Taking subscale of the Interpersonal Reactivity Index, but that they would score low on the Empathic Concern subscale. Although preliminary results in her study were encouraging and seemed to support this distinction (personal communication, February 27, 1990), her study is still incomplete and has yet to be published (personal communication, March 26, 1991). The results of this study failed to support the distinction between perspective

taking and empathic concern as they relate to sexual aggression. This may be due in part to suppression within the multiple regression equation that occurred between the variables of perspective taking and empathic concern due to their level of correlation with each other. Since the suppression that occurred may have obscured any significant relationship that does exist, the distinction of these two levels of empathy is an area of research that bears further investigation.

5. The results of this study did support the relationship between the disinhibitory factor of alcoholism and sexual aggression. Rada (1978) suggests that alcoholism plays an important part in the early life of a rapist. Salter (1988) indicates that there is evidence that alcohol consumption serves as a disinhibiting factor related to sexual aggression. This study corroborates those findings. The implications are that alcohol and intoxication may serve as an aid to overcoming inhibitions in those already predisposed to commit acts of sexual aggression.

6. Other results of this study indicate that the older a subject, the more likely they are to have less egalitarian attitudes toward women and the more likely they are to have lower levels of hostility. In addition this study indicated that higher levels of education correlated with lower levels of hostility. These findings are consistent with the generational differences found in attitudes toward women (Spence & Helmreich, 1972; McKinney 1987) and with age and educational differences related to levels of hostility (Hall, 1989). These results indicate that educational programs are helpful in fostering more egalitarian attitudes toward women and



children in our society. In addition, they are suggestive of a shift in sociocultural values and norms such that younger males and females are developing more egalitarian ideas about the rights and roles of women and children in our society.

7. This study also revealed that individuals with the greatest number of prior offenses were more likely to have elevations in hostility, alcoholism and sexual aggression. This finding lends intuitive support to the idea that both motivational and disinhibitory factors contribute to overall levels of sexual aggression. In addition, it seems likely that the greater the elevations on each of these factors, the more often an individual will offend.

8. The results of this study also indicated that prison inmates admit higher levels of hostility and sexual aggression than either domestic violence offenders or family incest offenders. Additionally, both prison inmates and domestic violence offenders admit more conservative attitudes toward women and higher levels of alcoholism than the family incest offenders. Although these findings are descriptive of the sample assessed in this study, they should not be generalized to all sex offenders, for there were no controls used in the selection of subjects from prison versus outpatient treatment programs.

#### Recommendations

The following recommendations for future research are proposed on the basis of the results of this study.

1. There is a need for research related to the longitudinal effects of sex offender treatment on the multifactorial interactional model of sexual aggression. Most measures of sexual aggression as well as

measures of contributing factors are in a self-report format which can be influenced by the subjects level of denial. Since typically one of the first issues of sex offender treatment is denial, one might expect to initially see scores elevate as treatment progresses.

2. Research is needed to explore other motivational and disinhibitory factors related to sexual aggression in male sex offender populations, such as dominance, acceptance of interpersonal violence, psychoticism, cognitive distortions, and belief in rape myths.

3. There is a need for further research that addresses opportunity factors as well as motivational and disinhibitory factors related to sexual aggression in sex offender populations.

4. An area that needs to be investigated is the differences between levels of sexual aggression in sex offenders who have been incarcerated versus those who are in outpatient treatment programs. Evidence from this study seems to indicate that sexual aggression levels are higher for prison inmates. However, studies need to be designed to specifically address this issue by structuring and controlling selection of subjects for the various groups.

5. Future research is needed to assess differences in types of sex offenders. Results from this study suggest that there may be important differences between rapists, child molesters, and exhibitionist. While there is a growing body of literature which has attempted to address this issue, it has not done so from the perspective of a multifactorial interactional model.

6. Since the moderate correlation between perspective taking and empathic concern on the IRI created suppression in the

multiple regression equation, future studies are needed to tease out the relative influence of these two aspects of empathy on overall levels of sexual aggression.

7. Future research is needed in the area of qualitative studies related to all of the various factors associated with sexual aggression including motivational factors, disinhibitory factors, and opportunity factors. An area of particular focus for this type of research might involve intensive interviews of sex offenders which address their differential levels of perspective taking and empathic concern.

8. Future research is also needed at the level of the treatment program. This research should analyze the effectiveness of multimodal treatment programs. Since this study indicates that multiple factors interact to produce sexual aggression, future studies need to compare the short and long term results of treatment programs designed to address those multiple factors. In addition, future research is needed which compares the relative efficacy of a multimodal approach to treatment as compared to the more traditional treatment programs currently being used.

9. Since the results of this study support the social learning theory of aggression, future research is needed which assesses the effectiveness of strong community based primary prevention programs aimed at the development of more egalitarian attitudes toward women, lower levels of hostility, and reduced amounts of alcohol consumption. Would this type of program, targeted at young males, prevent them from becoming sexually aggressive offenders in the future.

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## APPENDIXES

**APPENDIX A**  
**DEMOGRAPHIC DATA QUESTIONNAIRE**





APPENDIX B  
BIVARIATE SCATTERGRAMS OF DEPENDENT  
AND INDEPENDENT VARIABLES

Figure 1

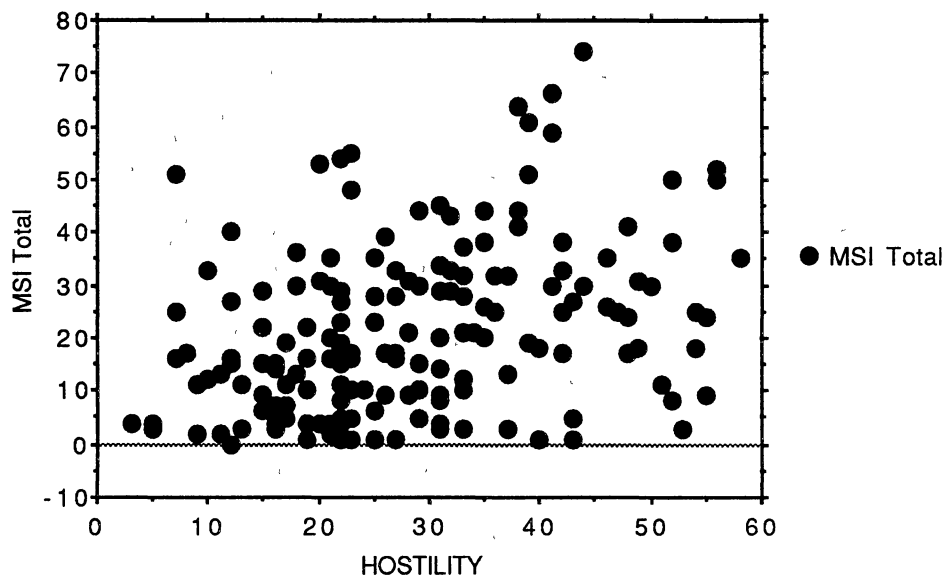
Bivariate Scattergram Of Hostility By Sexual Aggression

Figure 2  
Bivariate Scattergram of Attitudes Toward Women By Sexual  
Aggression

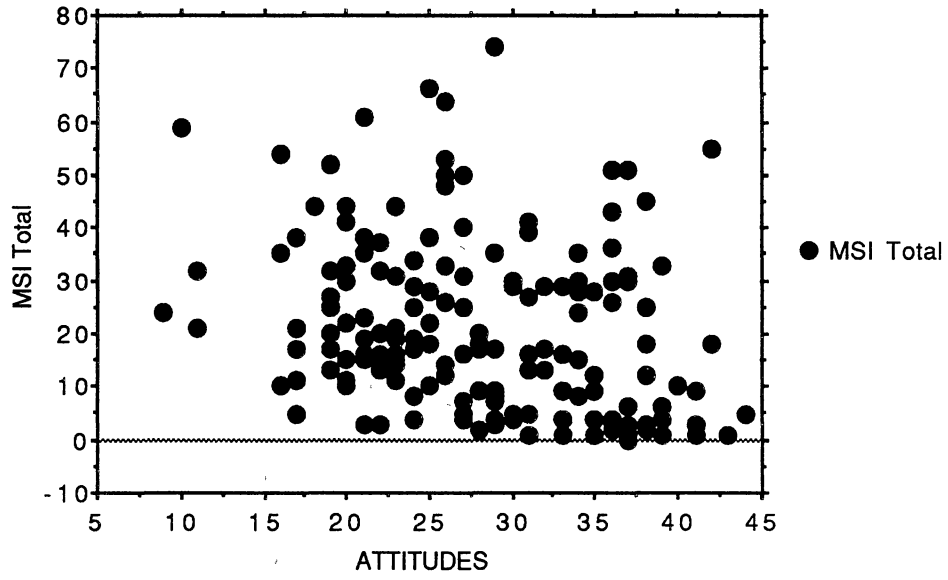


Figure 3

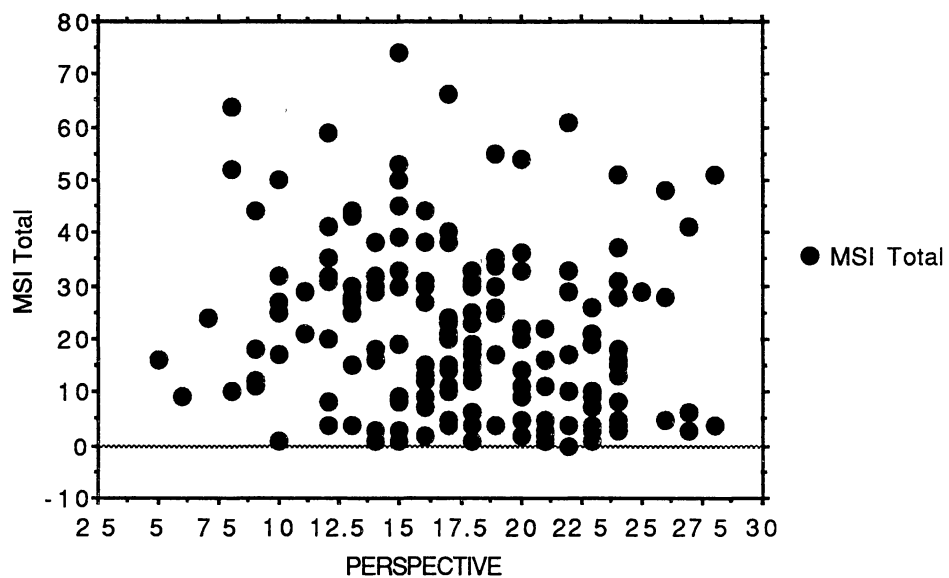
Bivariate Scattergram Of Perspective Taking By Sexual Aggression

Figure 4

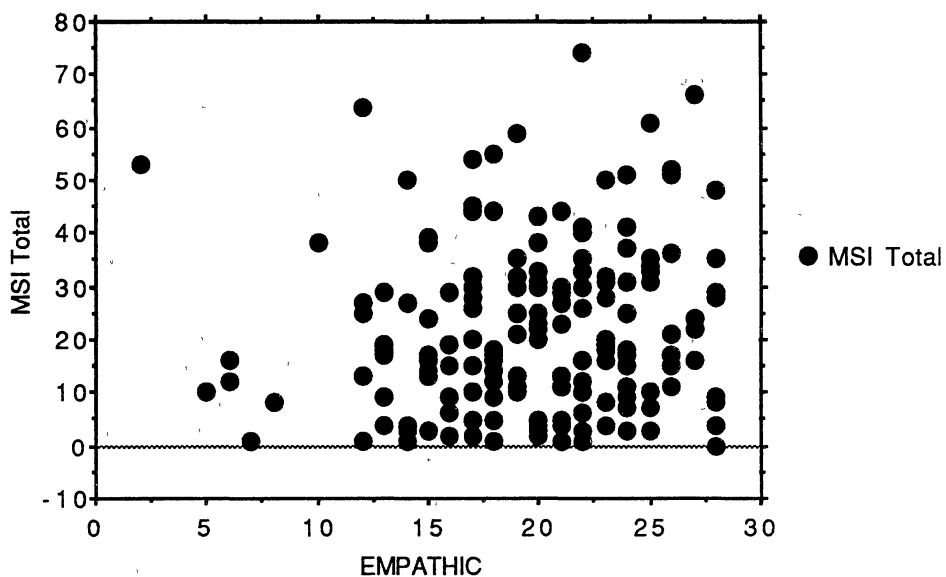
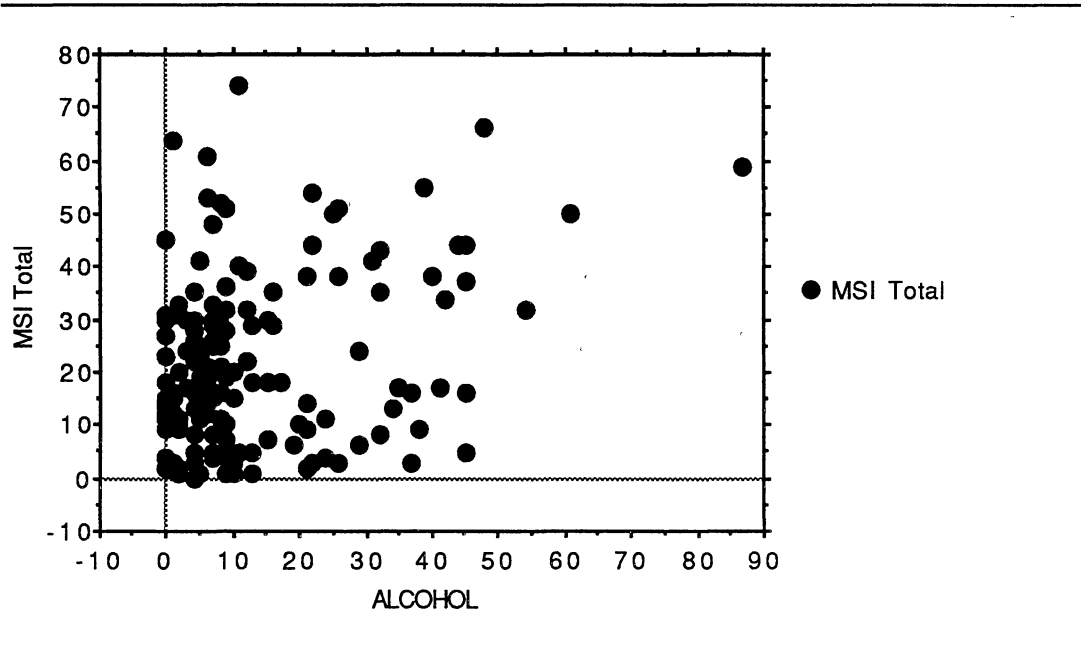
Bivariate Scattergram Of Empathic Concern By Sexual Aggression

Figure 5

Bivariate Scattergram Of Alcoholism By Sexual Aggression



8

APPENDIX C  
SCATTERGRAMS OF THE RESIDUALS

Figure 6

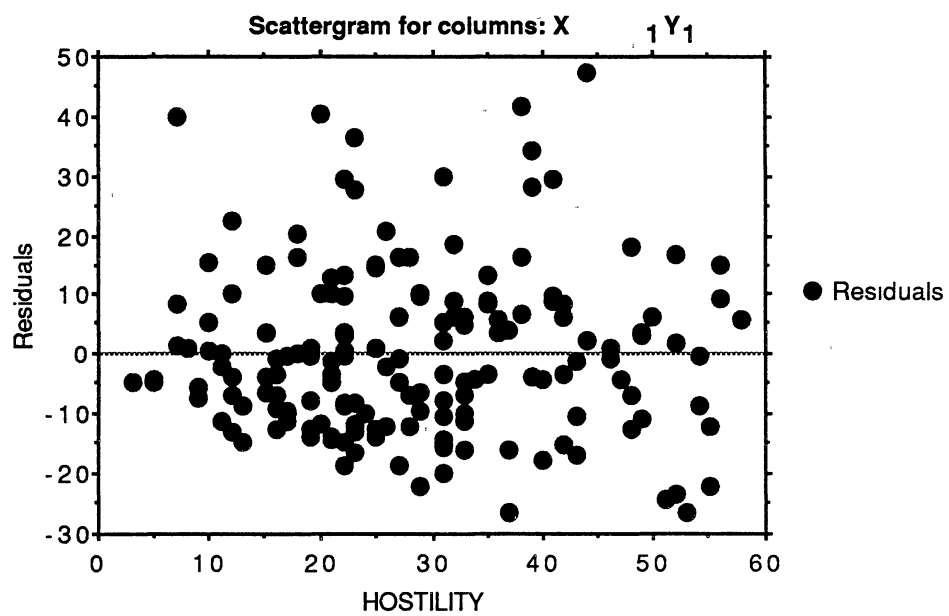
Scattergram Of The Residuals By Hostility



Figure 7

Scattergram Of The Residuals By Attitudes Towards Women

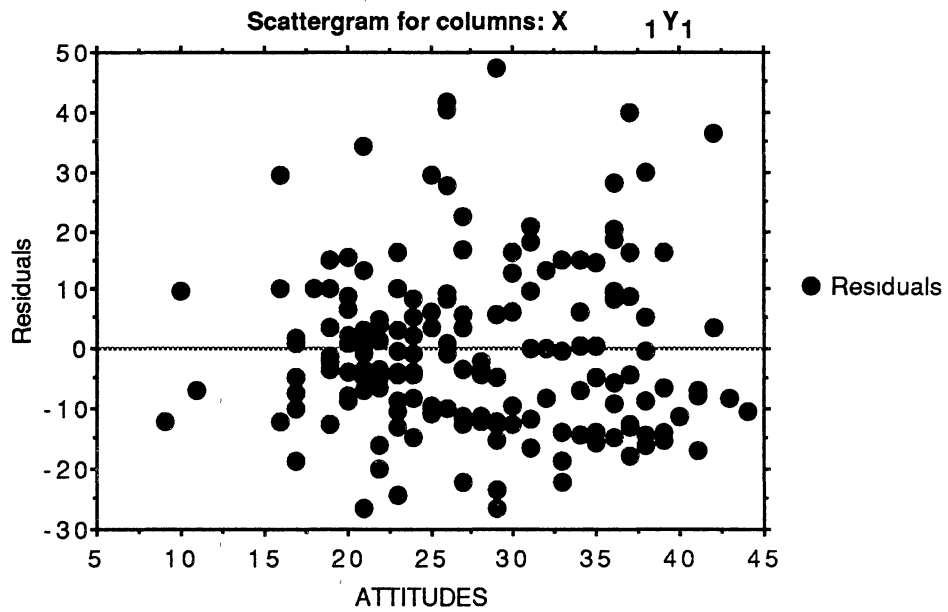


Figure 8

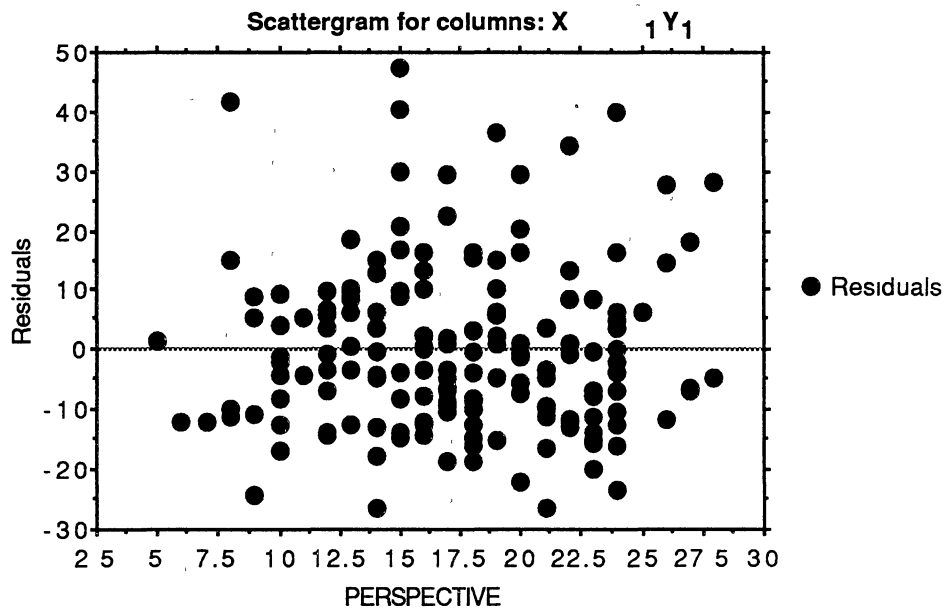
Scattergram Of The Residuals By Perspective Taking

Figure 9

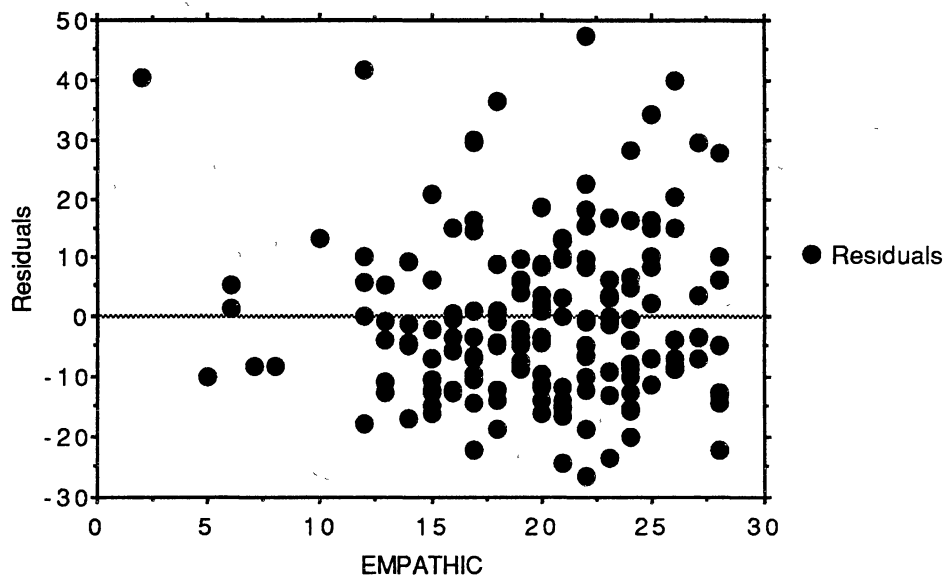
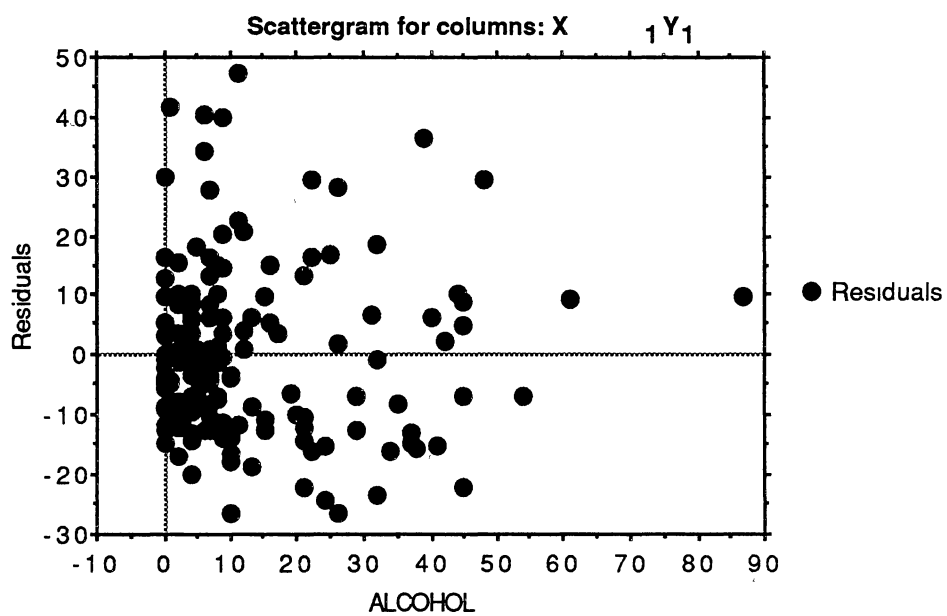
Scattergram Of The Residuals By Empatic Concern

Figure 10

Scattergram Of The Residuals By Alcoholism

VITA

Randall D. Feller

Candidate for the Degree of  
Doctor of Philosophy

Thesis: SEXUAL AGGRESSION IN A MALE SEX OFFENDER  
POPULATION AS A FUNCTION OF HOSTILITY,  
ATTITUDES TOWARD WOMEN, LEVELS OF EMPATHY,  
AND ALCOHOLISM

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Port Lyautey, Morocco, Africa, July 4,  
1957, the son of Robert and Norene Feller, husband of  
Diana Jernigan Feller.

Education: Graduated from Edison High School, Tulsa,  
Oklahoma, 1975; received Bachelor of Music Education  
degree from Oral Roberts University in May, 1981;  
received Master of Science degree in Counseling and  
Student Personnel from Oklahoma State University in  
May, 1987; completed requirements for the Doctor of  
Philosophy degree in Applied Behavioral Studies at  
Oklahoma State University in July, 1991.

Professional Experience: Music Instructor, Tulsa Public  
Schools, 1981-1983; Arts & Sciences Instructor, Dakar,  
Senegal, West Africa, 1983-1984; Family Counselor, Youth  
Services of Tulsa & Payne Counties, 1986-1988; Family  
Counselor, Family & Children's Service, 1988-1990,  
University Counselor, The Wichita State University  
Counseling And Testing Center, 1990-present.