A COMPARISON OF THE NATURE AND PREVALENCE OF SEXUAL FANTASIES BETWEEN SEX OFFENDERS AND NON-OFFENDERS

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CHAPTER 1

THEORETICAL BACKGROUND

Many researchers have proposed that sexual fantasy is important in the development and maintenance of sexual behavior, including deviant sexual acts (Abel & Blanchard, 1974; Laws & Marshall, 1990; McGuire, Carlisle, & Young, 1965). Similarly, the Diagnostic and Statistical Manual of Mental Disorders (APA, 2000) includes "recurrent, intense sexually arousing fantasies" in its definitions of sexual paraphilias. Surprisingly, given the apparent importance of sexual fantasy to the etiology, maintenance, and treatment of sexual offenders, there is a paucity of research linking them to fantasies. Given that it is a potentially critical variable, it is necessary to analyze the links between fantasy and child molestation in existing research and identify the gaps to provide direction for future studies.

Defining Sexual Fantasy

Fantasies are considered acts of the imagination that allow individuals to create a type of picture (Rokach, Nutbrown, & Nexhipi, 1988). Fantasies may be tied to reality, or they may be strictly imaginary. The thoughts may be deliberate or occur spontaneously. Sexual fantasies, in particular, are believed to stimulate

or enhance sexual arousal. As described by Wilson (1978, p. 9), "sexual fantasies may occur as fleeting daydreams while at work, bizarre and intricate dreams while asleep, or exciting images accompanying intercourse or masturbation.

Sexual fantasies may rely on the recall of past experience, anticipation of future sexual activity, include wishful thinking, or involve exciting daydreams without any desire to act upon them (Leitenberg & Henning, 1995). Consequently, sexual fantasies cover an array of arousing imagery from the simple to the elaborate, and the innocuous to the obscene.

Leitenberg and Henning (1995) broaden Wilson's description of sexual fantasy to "almost any mental imagery that is sexually arousing or erotic to the individual" (p. 470). Sexual fantasies, therefore, are personal thoughts that differ among individuals. What may be stimulating or arousing to one person may not be or may even be repulsive to another. Attempts at capturing the incidence, frequency, and differences between specific populations confirm the idiosyncratic nature of sexual fantasies (Crepault & Couture, 1980; O'Donohue, Letourneau, & Dowling, 1997; Plaud & Bigwood, 1997).

Researchers reveal that, across populations, fantasies often involve socially unacceptable and even illegal behaviors (Briere & Runtz, 1989; Looman, 1995). Some scholars contend that such fantasies should not be labeled as deviant unless they are acted upon (Leitenberg & Henning, 1995). Such a narrow interpretation of deviant sexual fantasies, however, makes their prevalence and influence difficult, if not impossible to measure. Most researchers, therefore, conceptualize deviant sexual fantasies as those that could result in deviant

behavior if put into action or that are statistically most infrequent (Gee, Ward, & Eccleston, 2003). Exactly how and to what degree deviant fantasies influence sexual offending remains contentious.

Etiology and Maintenance of Deviant Sexual Preferences

Researchers indicate that sexual fantasies are common in normal sexual activity for men and women (Crepault & Couture, 1980; Wilson & Lang, 1981). Researchers also reveal that deviant sexual fantasies are common among general population samples (Baumgartner, Scalora, & Huss, 2002; Briere & Runtz, 1989; Looman, 1995). It is uncertain exactly why certain fantasies, particularly deviant ones, become preferred over more conventional fantasies for some individuals.

Development of sexual deviance.

Clinicians and researchers note the need for theories to explain how and when a person acquires and maintains deviant sexual preferences (Abel & Blanchard, 1974; Laws & Marshall, 1990; McGuire, Carlisle, & Young, 1965).

Descriptive studies of sexual deviance sometimes precede theory development.

For example, during therapy for sexually deviant men, McGuire et al. (1965) report similarities in the case histories, suggesting a conditioning hypothesis.

In classic conditioning theory, a neutral stimulus, consistently paired with one that elicits a physiological response, eventually allows the neutral stimulus to create the same response on its own (see generally: Pavlov, 1927). The formerly neutral stimulus is then considered a conditional stimulus.

Accordingly, any stimulus that regularly precedes sexual climax in an appropriate time interval should become increasingly arousing. McGuire et al.

(1965) further note that a stimulus might be circumstantial or deliberate. They hypothesized that the deliberate act of fantasizing during masturbation provides the mechanism through which most sexual deviations are acquired and developed.

McGuire et al. (1965) purport that masturbation plays a significant function in the development and shaping of sexual stimuli. Presumably, an incident that constitutes the first "real" sexual experience creates a stronger stimulus for use in masturbatory fantasy. Subsequent masturbation then increases the stimulus value while diminishing other sexual stimuli through lack of reinforcement. Eventually, sexual stimuli that are not followed by reinforcing stimulus will lose their erotic value and disappear. The same is true for deviant sexual stimuli. A conditioned stimulus, however, must occasionally be re-paired with an unconditioned stimulus to maintain its ability to elicit a physiological response.

In the case of sexual fantasies, the slightest emphasis on an initial cue may become increasingly dominant when it is consistently associated with positive reinforcement (Laws & Marshall, 1990; McGuire et al., 1965). Because fantasies are based on recall, they are subject to a process of selection and distortion. Minor variations in an original fantasy, when paired with masturbation, are able to elicit the same or similar response as the original fantasy. A person may selectively focus on particular elements of the fantasy creating a more specified deviant sexual interest. Conversely, people may increase their arousal to a variety of stimuli by generalizing from certain elements of a fantasy. Distortion

and selection make it possible for a person to develop deviant interests from previously conventional fantasies (McGuire et al., 1965). The ability to change and maintain sexual arousal through fantasy, therefore, may be more important than the initiation of a sexually deviant interest.

Maintenance of sexual deviance.

Laws and Marshall (1990) outline three principles to account for the maintenance of sexual deviation. During the maintenance process, "sexual deviance becomes a fixed and stable orientation in the person's repertoire of socio-sexual skills, and it is highly resistant to change" (Laws & Marshall, 1990, pp. 222, 223). The first principle involves the extent to which the power of a conditional stimulus increases as a person focuses more on the aspects of the stimulus that causes arousal. As the focus concentrates on specific aspects of the stimulus, it increases the intensity and duration of the conditioned response. It follows, as McGuire et al. suggest (1965), that the power of masturbatory stimuli increases as a person focuses on the specific erotic features of a fantasy. During masturbation, the pairing of powerful erotic stimuli with fantasy allows many aspects of the fantasy to become eroticized, creating new conditional stimuli.

The second principle relies on social learning. In particular, a substantial amount of importance is assigned to symbolic modeling, "in which behavior and its consequences are developed and elaborated in thought or in mental images" (Laws & Marshall, 1990, p. 220). Marshall and Laws' symbolic modeling parallels McGuire et al.'s (1965) concepts of selection and distortion, both of which directly impact the use of fantasy during masturbation. In both instances,

manipulation of deviant sexual fantasies maintains an individual's interest in deviant sexual behavior.

In their last principle, Laws and Marshall (1990) highlight the importance of intermittent reinforcement. Behaviors for the purpose of sexual gratification, especially those involving deviant sexual acts, result in desired outcomes only part of the time. As such, sexually gratifying behaviors receive intermittent rather than consistent reinforcement. Therefore, when attempts at sexual gratification are reinforced, the eliciting behavior is restored and often at a higher level than before (Laws & Marshall, 1990).

Measuring Sexual Fantasies

Given the importance of sexual fantasy in the etiology of sexual preferences, appropriate means of assessment are critical. To date, researchers and clinicians have employed a variety of methods to assess the nature and extent of sexual fantasies. However, there are few instruments to measure the incidence and frequency of deviant fantasies. This is surprising given the widely believed influence of sexual fantasies on deviant behavior. Recently, however, measurement of sexual fantasies has received greater attention.

Measurement of sexual fantasies generally relies on three common methods: fantasy checklists, open-ended questionnaires, and ongoing monitoring (Leitenberg & Henning, 1995). Fantasy checklists provide brief descriptions of a range of sexual fantasies and require respondents to specify what fantasies they have experienced and at what frequency (Langevin, Lang, & Curnoe, 1998; O'Donohue, Letourneau, & Dowling, 1997; Wilson, 1988). Open-ended

questionnaires, on the other hand, ask respondents to describe, in detail, their preferred or most frequent sexual fantasies (Gee, Devilly, & Ward, 2004; Rokach et al., 1988). Following collection, these descriptions are often categorized and rated based on similar dimensions of the fantasies. The third method, ongoing monitoring, involves the recording, either through checklists or open-ended diaries of fantasies as they are experienced (Leitenberg & Henning, 1995).

Each method suffers from limitations; for example, fantasy checklists and open-ended questionnaires rely on respondents' recall of their fantasies and the corresponding frequencies. People may forget some of their fantasies, resulting in bias towards others. Additionally, empirical studies often employ different fantasy checklists creating problems for cross-study comparisons and metanalysis.

Open-ended questionnaires also have limitations (Leitenberg & Henning, 1995). Specifically, open-ended questionnaires often ask only for a respondent's most frequent or preferred fantasies. Limiting a person's responses reduces the reliability of the measure by excluding less frequent or undesirable fantasies. Even if open-ended questionnaires do not limit the number of fantasies, a person may easily forget less frequent fantasies.

In light of these limitations, ongoing monitoring of sexual fantasies may provide the most reliable results. This method, however, limits reported fantasies to those occurring over a specific period. Studies assessing the type and prevalence of fantasies a person experiences will undoubtedly overlook fantasies that do not occur in the given time frame (Leitenberg & Henning, 1995).

Ongoing monitoring may be particularly problematic when assessing deviant sexual fantasies. In fact, a thorough review of available literature did not find a single study of deviant sexual fantasies that utilized ongoing monitoring. Therefore, the majority of research addressing the prevalence and frequency of deviant sexual fantasies uses self-report survey questionnaires (see Table 1). Self-report surveys provide a straightforward and convenient way of gathering and comparing data between different populations.

Researchers, however, do not agree on the best survey questions for measuring deviant sexual fantasies (O'Donohue, Letourneau, & Dowling, 1997). As a result, a number of studies assessing deviant sexual fantasies employ a variety of fantasy questionnaires and are often difficult to compare. It is beyond the scope of this paper to explicate the various sexual fantasy questionnaires in use. Given the paucity of research on deviant sexual fantasies, however, the results of studies using any form of questionnaire are vitally important to understanding deviant fantasies among sex offenders.

Prevalence of Deviant Sexual Fantasies

Researchers, clinicians, and theorists are quick to emphasize the importance of deviant sexual fantasies towards sexual offending. "Among clinicians fantasy is seen as part of the offender process of most, if not all, sex offenders" (Howitt, 2004, p. 183). Researchers, however, have not consistently revealed that deviant sexual fantasies are more prevalent among sex offenders than non-offenders. For instance, as shown in Table 1, Langevin, Lang, and Curnoe (1998) found in a study of 201 men classified by type of sex offense that

Table 1
Summary of Studies Measuring Sexual Fantasies

Year	Author	Sample Groups (n)	Questionnaire
1980	Gosselin & Wilson	Sadomasochists (133) Transvestites (269) Rubberites (87) Leatherites (38) Control men (50)	WSFQ
1981	Wilson & Lang	London males (45) London females (45)	WSFQ
1983	Iwawaki & Wilson	Japanese male students (60) Japanese female students (71)	WSFQ
1988	Wilson	Non-clinical sexually variant men (88) Control men (60)	WSFQ
1997	O'Donohue, Letouneau, & Dowling	Sex offender inmates (27) Sex offender outpatients (15) Male undergraduates (86)	Own
1997	Plaud & Bigwood	Male undergraduates (116)	WSFQ
1998	Daleiden, Kaufman, Killiker, & O'neil	10-15 year old sex offenders (104) 16-20 year old sex offenders (198) 16-20 year old non-sex offenders (124) 17-20 year old male college students (135)	Kaufman SFQ
1998	Langevin, Lang, & Curnoe	Heterosexual pedophiles (14) Homosexual pedophiles (51) Exhibitionists (17) Incest sex offenders (17) Sexual aggressive offenders (24) Non-sexual offenders (50) Community control men (22)	Clarke SHQ
2002	Baumgartner, Scalora, & Huss	Child molesters residing in a mental health facility (64) Non-sexual offenders residing in a mental health facility (41)	WSFQ
2002	Hudson, Wales, Bakker, & Ward	Graduates from a treatment program for men who have sexually molested children (242)	WSFQ
2003	Dandescu & Wolfe	Child molesters in treatment (57) Exhibitionists in treatment (25)	Own
2005	Smith, Wampler, Jones, & Reifman	Adolescent males between the ages of 9-19 referred for alleged sex offenses (161)	WSFQ

Note. WSFQ = Wilson sexual fantasy questionnaire; SFQ = sexual fantasy questionnaire; SHQ = sexual history questionnaire.

only 33.3% of the sex offender groups reported fantasies other than conventional fantasies with adult females. The sex offender groups had significantly more deviant fantasies than the controls, but fewer total fantasies. Upon closer examination, however, sex offenders classified as "homosexual pedophiles" contributed the majority of deviant fantasies (48%). Incest and sexually aggressive offenders did not significantly differ from the non-sex offender¹ and heterosexual, community-control groups.

There is also the issue of the temporal ordering of deviant sexual fantasies and sexual offending. Dandescu and Wolfe (2003) examined the fantasies of 57 child molesters undergoing treatment. While the majority of child molesters experienced deviant masturbatory fantasies, a large portion (35.1%) reported no masturbation to deviant fantasies before their first offense. Similar to Langevin et al.'s findings, Dandescu and Wolfe (2003) reported that child molesters with crimes against both sexes have significantly more deviant fantasies than child molesters with only female victims. For both offending groups, however, significantly more deviant fantasies are reported after the first offense than prior, supporting Laws and Marshall's (1990) contention that deviant sexual fantasies are important in the maintenance rather than initiation of deviant sexual behaviors.

Unlike Dandescu and Wolfe (2003) and Langevin et al. (1998), most research on deviant sexual fantasies fails to disaggregate offenders based on the sex of their victim and, in some instances, the sex offense. For example,

¹ In this study, "non-sex offenders" are criminal offenders who have no arrests for any sexual offense.

O'Donohue et al. (1997) compared a sample of sexual offender inmates (n = 27), sexual offender outpatients (n = 15), and undergraduate college males from a Midwestern University (n = 86). A *t* test of independence indicated that sexual offenders scored significantly higher on the child scale² than the student sample. While all sexual offenders in the sample were convicted of offenses against children, the authors offered no comparison between offenders based on victim gender. Without this comparison, it remains unknown whether fantasy usage differed among sexual offenders by victim gender. Regardless, O'Donohue et al. (1997) suggest their findings lend support to theories that emphasize sexual fantasies as causes of sexually deviant behavior.

It is possible that O'Donohue et al.'s small sample size precluded separating the sex offenders into smaller groups for comparison. Daleiden et al. (1998), however, used one of the largest sample sizes (n = 561) comparing adolescent sexual offenders (n = 302), non-sex offenders (n = 124), and college students (n = 135). The study assessed the frequency of deviant and non-deviant fantasies of the three groups using a fantasy questionnaire created by one of the authors. The researchers ran two separate MANCOVA analyses to examine the differences between samples for sexual histories and fantasies. Unlike the previous research, youthful sexual offenders and non-sex offenders reported lower sexual fantasy scores than the college sample. The authors are reluctant, however, to draw any conclusive inferences from their findings. Instead, they suggest that underreporting of fantasies likely exists for sexual offenders. It also

² The child scale includes 14 items, all of which involve the sexual abuse of children.

remains possible that the authors' failure to disaggregate sexual offenders by offense and victim gender masks significant variation in sexual fantasies among offender subgroups.

Another limitation of studies of sexual fantasies involves the age discrepancy between the sex offenders and the control group. Because they are easier to sample, university students are frequently chosen as control groups in studies of sexual fantasies (Daleiden et al., 1998; O'Donohue et al., 1997; Plaud & Bigwood, 1997). When authors acknowledge a large age difference across their samples, however, they report that age does not correlate with any fantasy scale score (Langevin et al., 1998; Smith, Wampler, Jones, & Reifman, 2005; Wilson & Lang, 1981).

A final drawback when comparing studies of the prevalence of sexual fantasies is the inconsistent and infrequent use of assessment instruments (see Table 1). In fact, each of the previously reviewed studies utilized a different sexual fantasy questionnaire. While overall findings may be compared across the studies, sexual fantasy base rates among offender and non-offender populations cannot be reliably calculated. Use of similar procedures and checklists by scholars would allow for easier comparison across studies as well as developing normative data for a variety of offender and non-offender populations.

Studies Using the Wilson Sex Fantasy Questionnaire

Wilson's (1978) questionnaire represents an early and important effort to quantify sexual fantasies. The Wilson Sex Fantasy Questionnaire (WSFQ) has become one of the most widely used surveys for assessing the content and

frequency of sexual fantasies (e.g., Baumgartner, Scalora, & Huss, 2002; Hudson, Wales, Bakker, & Ward, 2002; Sierra, Ortega, & Zubeidat, 2006; Smith et al., 2005). Initial research using the WSFQ compared sexual fantasies between genders (Wilson & Lang, 1981) as well as between cultures (British vs. Japanese) (Iwawaki & Wilson, 1983). In a later paper (intended as an interim manual for the WSFQ), Wilson (1988) highlighted the previous studies using the WSFQ and promoted wider use of the questionnaire to help to establish better sexual fantasy norms.

Since then, several researchers have published studies using the WSFQ (Hudson et al., 2002; Plaud & Bigwood, 1997; Smith et al., 2005). Plaud and Bigwood (1997) administered the WSFQ to a sample of 116 male undergraduate students at the University of North Dakota. Compared to previously collected data from a nonclinical sample of men as well as a sample of sexually variant (but non-criminal) men (e.g., transvestite, sadomasochistic), the college sample differed significantly. Plaud and Bigwood's college sample reported more sexual fantasy than the nonclinical sample of men in Wilson and Lang's (1981) study. The male college students reported more intimate, impersonal, and overall sexual fantasies than men in the nonclinical sample. When compared to sexually variant (but non-criminal) men, however, the college sample had significantly lower scores on all factors with the exception of intimate fantasies. While the college sample produced a higher mean score on intimate fantasies than all sexually deviant men, it only reached a level of significance when compared to transvestite men. As a result, Plaud and Bigwood (1997) concluded that the

"sexual fantasy behavior of college men is largely non-deviant and very different from the sexual fantasies of sexually variant men" (p. 229). The authors consider these results positive given the theoretical link between sexual fantasy and subsequent behavior. Other studies are needed, however, before concluding that male college students in North Dakota are representative of male students across the nation.

Baumgartner, Scalora, and Huss (2002) conducted one of the few studies using the WSFQ to address a forensic offender sample. The relatively harmless nature of the questions on the WSFQ may provide a useful tool when working with sexual offending populations. Baumgartner et al. (2002) tested the WSFQ for its ability to discriminate between two offender populations (child molesters and non-sex offenders). The study collected data from a sample of 105 patients from a maximum-security mental health institution located in the Midwestern United States. Sixty-four participants were categorized as child molesters based on their official criminal histories. The remaining 41 were classified as non-sex offenders and had no recorded history of sexual offenses.

Between-groups MANOVA revealed that child molesters experienced more overall sexual fantasy than non-sex offenders. The greater overall scores reported by child molesters, however, resulted from their higher endorsement of intimate and exploratory fantasies. In addition to the comparison between the four primary factors, Baumgartner et al. (2002) examined two other fantasy subscales suggested by Wilson and Lang (1981).

Wilson & Lang (1981) highlighted 14-paired questions that distinguish a person's role (active or passive) in fantasies. Baumgartner et al.'s (2002) study revealed that child molesters reported significantly more active fantasies than the non-sex offenders. Additionally, the study assessed scores on two items that may indicate a propensity towards child molestation: (1) "having sex with someone much younger than yourself" and (2) "seducing an innocent." As hypothesized, child molesters scored significantly higher than non-sex offenders on both fantasies.

Plaud and Bigwood (1997) used independent samples *t*-tests to determine whether factor scores from either offender samples differed from a sample of college males (Plaud & Bigwood, 1997) and a sample of sexually deviant (but non-criminal) males (Wilson, 1988). The analysis revealed that child molesters and male college students reported similar scores on all four factors. The study, however, failed to compare the scores of the two items theoretically indicative of child molestation. Therefore, it is unknown whether child molesters and male college students also scored similarly on those two items.

Limited data concerning sexual fantasy base rates for the general population and sex offenders, in particular, make these results difficult to interpret. The small sample sizes from forensic populations are also problematic. Despite the general nature of the WSFQ items, sex offenders may still underreport the prevalence and frequency of sexual fantasies (Howitt, 2004). It is also possible that a lack of detail in the WSFQ items allows

respondents to interpret each fantasy item with different characteristics (e.g., gender and age).

Recently, the WSFQ has been used as part of a series of psychometric tests to predict recidivism and risk (Hudson et al., 2002; Smith et al., 2005). Hudson et al. (2002) attempted to indentify variables indicative of reoffending after the completion of a treatment program. The authors' reported mixed results for a group of child molesters who completed a prison treatment program in New Zealand. As hypothesized, higher pretreatment scores for the impersonal and sadomasochistic subscales were associated with recidivism. However, a prosocial change (lower scores post-treatment) on both of these scales was associated with a greater chance of recidivism. It appears that for recidivists a "blanket suppression" of deviant fantasies was either unsuccessful or not adhered to following release from prison (Hudson et al., 2002).

In addition to predicting recidivism, the WSFQ has also been used to assess risk level prior to treatment. During a study on adolescent sex offenders, Smith et al. (2005) found that the WSFQ provided a "meaningful way to distinguish between groups of juvenile sexual offenders" (p. 99). High-risk juvenile sex offenders reported significantly more overall fantasies than medium and low-risk sex offenders. Similar to Hudson et al.'s (2002) findings, high-risk juvenile sex offenders also scored a great deal higher on the impersonal and sadomasochistic subscales of the WSFQ. Both Hudson et al. (2002) and Smith et al. (2005) presented valuable new uses for the WSFQ. Neither study, however, reported the participants' scores for all subscales of the WSFQ. Hudson et al.

(2002) reported offenders' change in fantasy scores, but failed to include what those scores were pre- and post-treatment.

Fantasy scores are particularly useful for developing normative data for offender and non-offender populations (Wilson, 1988). A "normal" range, however, has not been established in sexual fantasy research. Dissimilar measurement instruments and sample populations hinder the development of sexual fantasy norms. This thesis adds to the paucity of sexual fantasy data for two distinct populations: undergraduate male college students and sex offenders convicted of crimes against children. The purpose of this study is to compare the frequency and type of sexual fantasies used by a sample of child molesters with those of male undergraduates. Specifically, do sex offenders and male students differ in their preference and frequency of sexual fantasies?

CHAPTER 2

METHODS and ANALYTIC STRATEGY

The data for this study come from self-reported surveys collected for a research project at Texas State University-San Marcos. The survey consists of several scales designed to measure individuals' sexual attitudes, behaviors, and fantasies.

The first section of the survey instrument incorporated a 125-question social history form. Among the 125 questions, the social history form asked about past and current sexual behavior (e.g., "How many sexual partners have you had of the opposite sex?"). Additionally, the survey included the Wilson Sex Fantasy Questionnaire (WSFQ) and the Paulhus Deception Scales (PDS), which address participants' conscious and unconscious, socially desirable responding (see Appendix for survey instruments).

Survey Administration

Student sample.

To collect the student sample, a list of required courses for all undergraduate majors was identified. Political Science (POSI) courses were chosen as the sample pool because of the number of course sections taught in a

semester and size of the classes. During the Fall 2009 semester, all course sections of POSI 2310 and 2320 (Principles of American Government and Functions of American Government, respectively) were listed, and ten were randomly selected.

Each randomly selected class instructor was contacted via email and asked if the survey could be distributed during class. An initial response from the instructors provided only two classes. In order to acquire a sufficient sample size (particularly of males), the selection process was repeated in the next school semester (Spring 2010). For each selected course section, several graduate assistants were present to administer the survey. The graduate assistants were given specific instructions for distributing consent forms and survey packets. At the beginning of each class, the consent form was read to the students. The students were provided with two copies of the consent form (one to sign and one to keep). After students completed the consent forms, they were provided with the appropriate survey packet. Consent forms were completed first, to ensure anonymity.

Survey participation was voluntary. Students in each of the classes were offered extra credit worth no more than 1% of their overall course grade. The course instructor chose the specific amount of extra credit. If any student was uncomfortable with the survey, an alternate activity was offered for the same amount of extra credit. Most students, however, chose to complete the survey. Only 19 students opted out of the survey and chose to complete the alternate activity. An additional 16 surveys were unusable because the respondents failed

to indicate their gender. A total of 166 male undergraduate students completed the survey packets. Two surveys, however, were unusable because the student answered less than half of the WSFQ items. Only one other student survey had missing responses (two items) on the WSFQ. For this survey, means were calculated and substituted for the missing scores. The sample yielded a total of 164 useable male undergraduate surveys.

Sex offender sample.

Surveys were administered to male sex offenders currently undergoing treatment in central Texas. Contacts were made with several psychologists conducting group and individual therapy sessions with sex offenders.

Psychologists who agreed to participate were provided with the same survey packet given to the college students. The sex offender surveys, however, included one additional page where they indicated their time in treatment, instant offense, age and gender of their victim, and relationship to their victim. The psychologists were informed that the study would only include sex offenders with crimes against children.

Some psychologists administered the survey to entire groups during therapy sessions. Other psychologists asked for volunteers and set up time outside of group or individual therapy sessions to complete the survey. All sex offenders were informed that participation was completely voluntary. They were also told that their response or lack of response would not affect their continuing treatment. The sex offenders, however, had the option on their consent form to share the data with their treatment provider. Additionally, the

sex offender surveys were completed confidentially. Survey packets and consent forms are kept in separate locked cabinets, with only the principal investigators of the study having access.

A total of 109 sex offenders completed the survey packet. Sex offenders whose instant offense included an adult victim (18 years or older) were excluded from the study. Following the same process used with the student sample, offender surveys with less than half of the items on the WSFQ answered were excluded from the study. Mean scores were substituted for the remaining missing items. The study includes a final sample of 99 sex offenders.

Variables

Sexual fantasy scores.

Wilson (1978) created the survey not only for the quantification of fantasies, but also as a tool to measure sexual preferences and libido. The WSFQ is based on a review of scientific and clinical literature and an examination of popular sex magazines (Wilson, 1978). The WSFQ contains 40 detailed items covering a wide array of fantasy themes that were "deliberately chosen to span the spectrum from the normal and innocuous to the deviant and relatively obscene" (Wilson, 1988, p. 49).

For each fantasy item, respondents are asked to indicate how often they fantasize about each item on a Likert scale from 0 (never) to 5 (regularly). In the current study, however, the principal investigators chose to redefine the six-point Likert scale. The researchers who designed the survey packet believed that Wilson's original scale (never, seldom, occasionally, sometimes, often, regularly)

was too ambiguous, allowing respondents to attach their own interpretation of frequency to each attribute. In the current study, Wilson's scale was redefined in more concrete terms: never (0), less than once a month (1), one to three times a month (2), once or twice a week (3), three to six times a week (4), and daily (5).

Initially, Wilson (1978) designed the WSFQ to rate each fantasy item at different times: daytime fantasies, fantasies during intercourse or masturbation, dreams while asleep, have done in reality, and would like to do in reality. One of the earliest studies administering the WSFQ revealed that fantasies reported at each time were highly correlated (Wilson & Lang, 1981). As a result, Wilson's scoring method uses only the frequencies reported for daytime fantasies (Wilson, 1988).

In the same study, Wilson and Lang (1981) used principal component analysis with promax rotation and revealed four primary factors: exploratory (e.g., homosexual activity, group sex), intimate (e.g., sexual activity with a loved partner), impersonal (e.g., voyeurism, fetishes) and sadomasochistic (e.g., forcing or being forced to have sex). Each primary factor identified by Wilson and Lang (1981) contains 10 items, summed to produce four scores from 0 to 50. A later factor analysis conducted by Plaud and Bigwood (1997) supports the four-factor structure identified by Wilson. Furthermore, positive correlations among the four factors suggest a general factor underlies the four primary factors (Wilson & Lang, 1981). A total fantasy score, therefore, may also be obtained by summing the scores of each primary factor. Wilson (1988) posits that the total fantasy score measures a person's overall sex drive or libido. Table 2 presents all 40 sexual fantasy items, categorized by primary factor.

Table 2

WSFQ Fantasy Items by Primary Factor

Exploratory

Sex with two other people.

Participating in an orgy.

Homosexual activity.

Mate-swapping.

Having incestuous sexual relations.

Being promiscuous.

Being much sought after by the opposite sex.

Being seduced as an "innocent".a

Seducing an "innocent".b

Having sex with someone of a different race.

Intimate

Making love out of doors in a romantic setting.

Having intercourse with a loved partner.

Intercourse with someone you know but have not had sex with.

Receiving oral sex.a

Giving oral sex.b

Taking someone's clothes off.b

Having your clothes taken off.a

Making love elsewhere than bedroom.

Being masturbated to orgasm by a partner.

Kissing passionately.

Impersonal

Intercourse with an anonymous stranger.

Watching others have sex.

Sex with an animal.

Being excited by material or clothing.

Being aroused by watching someone urinate.

Having sex with someone much younger than yourself.

Having sex with someone much older than yourself.

Being embarrassed by failure of sexual performance.

Using objects for stimulation.

Looking at obscene pictures or films.

Sadomasochistic

Being forced to do something.a

Forcing someone to do something.b

Whipping or spanking someone.b

Being whipped or spanked.a

Hurting a partner.b

Being hurt by a partner.a

Being tied up.a

Tying someone up.b

Exposing yourself provocatively.

Transvestism.

Passive scale item^a

Active scale itemb

Additionally, the WSFQ includes 14 paired questions designed to determine a respondent's role (active v. passive) in fantasies (Wilson & Lang, 1981). Active and passive fantasies did not emerge as factors in the principal component analysis conducted by Wilson. Studies measuring active and passive fantasies, however, found significant differences between men and women (Wilson & Lang, 1981) as well as child molesters and non-sex offenders (Baumgartner et al., 2002).

Baumgartner et al.'s (2002) conducted the only study using the WSFQ to comparing a sample of sex offenders (child molesters) with non-sex offenders (but otherwise criminal). In Baumgartner et al. (2002), the offender samples were obtained from a maximum-security forensic health institution. The current study marks the first effort using the WSFQ with a sex offender sample undergoing treatment and residing in the community. Due to the heterogeneous nature of sex offenders it is important to measure the frequency of sexual fantasies in a variety of offender samples. Results will indicate whether institutionalized offenders and those receiving treatment in the community differ in their frequency of sexual fantasies.

Socially desirable response score.

The effect of response bias is a common concern in self-report surveys.

"Nowhere has there been greater concern expressed regarding response bias in self-report than with offender populations" (Mills & Kroner, 2005). When studying offender populations, response bias (e.g., presenting oneself in a positive light) can confound self-report surveys measuring attitudes or beliefs. Sex offenders,

specifically child molesters, may be particularly susceptible to socially desirable responding because of the strong social stigma attached to their offenses (Tan & Grace, 2008). A commonly used method to assess response bias involves administering a social desirability scale in conjunction with the measure of interest (Meston, Heiman, Trapnell, & Paulhus, 1998). The current study includes the Paulhus Deception Scales (PDS): The Balanced Inventory of Desirable Responding (BIDR-7; Paulhus, 1998), to assess the offenders socially desirable responding.

Construction of The Balanced Inventory of Desirable Responding began in the early 1980s. Six revisions occurred from 1980 to 1998, culminating in the current Paulhus Deception Scales. The PDS include 40 statements answered on a five-point Likert scale from not true (1) to very true (5). The 40 statements divide equally to create two scales designed to measure conscious and unconscious response bias. Statements 1 through 20 constitute the Self Deceptive Enhancement (SDE) scale. SDE represents a type of unconscious bias, similar to narcissism (Paulhus, 1998). Those who score high on the SDE scale have a general lack of insight and believe certain things to be true of them when they are not. Extreme responses for each SDE statement are worth one-point, for a total possible score of 20. Table 3 presents the 40 PDS statements and the corresponding answers used to compute the scale scores.

Statements 21 through 40 of the PDS comprise the Impression Management (IM) scale. Impression management refers to an individual's conscious attempt to misrepresent oneself (e.g., faking or lying). High scorers on the IM scale are likely to answer survey questions in a way that makes them "look good." For each statement

Table 3
Paulhus Deception Scales with Scored Answers

	Not		Very		
	True				rue
1. My first impressions of people usually turn out to be right.	1	2	3	4	5*
2. It would be hard for me to break any of my bad habits.		2	3		5
3. I don't care to know what other people really think of me.	1	2		4	
4. I have not always been honest with myself.	1*	2		4	
5. I always know why I like things.	1	2		4	
6. When my emotions are aroused, it biases my thinking.	1*	2		4	
7. Once I've made up my mind, other people cannot change my opinion.	1	2		4	
8. I am not a safe driver when I exceed the speed limit.	1*	2		4	
9. I am fully in control of my own fate.	1	2		4	
10. It's hard for me to shot off a disturbing thought.	1*	2		4	
11. I never regret my decisions.	1	2	3	4	5*
12. I sometimes lose out on things because I can't make up my mind soon enough.	1*	2	3	4	5
13. The reason I vote is because my vote can make a difference.	1	2	3	4	5*
14. People don't seem to notice me and my abilities.	1*	2	3	4	5
15. I am a completely rational person.	1	2	3	4	5*
16. I rarely appreciate criticism.	1*	2	3	4	5
17. I am very confident of my judgments.	1	2		4	
18. I have sometimes doubted my ability as a lover.	1*	2		4	
19. It's alright with me if some people happen to dislike me.	1	2		4	
20. I'm just an average person.	1*	2		4	
21. I sometimes tell lies if I have to.	1*	2*		4	
22. I never cover up my mistakes.	1	2		4*	
23. There have been occasions when I have taken advantage of someone.	1*	2*		4	
24. I never swear.	1			4*	
25. I sometimes try to get even rather than forgive or forget.	1*			4	
26. I always obey laws, even if I'm unlikely to get caught.	1	2		4*	
27. I have said something bad about a friend behind his or her back.	1*	2*		4	
28. When I hear people talking privately, I avoid listening.	1	2		4*	
29. I have received too much change from a salesperson without telling him or her		2*		4	
30. I always declare everything at customs.	1	2		4*	
31. When I was young, I sometimes stole things.	_ 1*	2*		4	
32. I have never dropped litter on the street.	1	2		4*	
33. I sometimes drive faster than the speed limit.	1*			4	
34. I never read sexy books or magazines.	1	2		4*	
35. I have done things that I don't tell other people about.				4	
36. I never take things that don't belong to me.	1			4*	
37. I have taken sick-leave from work or school even though I wasn't really sick.				4	
38. I have never damaged library book or store merchandise without reporting it.				4*	
39. I have some pretty awful habits.			3		5
40. I don't gossip about other people's business.	1	2	3	4 4*	_
40. I don't gossip about other people's business.		<u>Z</u>			J

Instructions: Read each statement, and circle the number that best describes you, from *Not True* to *Very True* about you.

^{*}Denotes answers receiving a point toward scale score.

on the IM scale there are two answers worth a point, for a total possible score of 20. For respondents with up to five missing items, IM and SDE scores may be adjusted to increase score accuracy (Paulhus, 1998). Scales with more than five missing responses are considered invalid, and no score should be calculated. To adjust IM or SDE scales with missing responses, the available scale responses are totaled and multiplied by 20. The obtained score is then divided by the number of answered items to create the adjusted score. No sex offender surveys had over five missing responses on the PDS. Only offender surveys are adjusted for socially desirable responding, therefore no student surveys were eliminated for missing data on the PDS.

Research suggests that the IM scale is particularly sensitive to situational demands (Paulhus, 1998). Anonymous testing conditions, therefore, should reduce the amount of socially desirable responding. In sexuality research, Meston, Heiman, Trapnell, and Paulhus (1998) suggest that, even under anonymous testing conditions, high IM scorers underreport their sexual feelings and experiences. The sex offender surveys in this study were completed confidentially, likely making their responses susceptible to impression management. Researchers often acknowledge the possibility of underreporting as a limitation in the study of sexual fantasies, especially with certain offender populations (Baumgartner et al., 2002; Daleiden et al., 1998; Howitt, 2004). Aside from providing anonymity, little effort has been made to account for the underreporting or denial of deviant fantasies among sex offender populations. Without accounting for underreporting it seems unlikely that

researchers can effectively establish sexual fantasy norms, especially among offender populations.

Adjusting for socially desirable responding.

Researchers have proposed a number of ways to reduce the influence of socially desirable responding (SDR), "including self-administration of questionnaires, the 'bogus pipeline,' assessing the social desirability of items, and statistical control" (Tan & Grace, 2008, p. 69). Among these techniques, statistical control provides the most practical way to adjust for SDR. The current study uses a method described by Saunders (1991) for adjusting self-report scores. Saunders' (1991) advises that items on the SDR measure of choice should be removed if they are likely to "correlate substantively with the construct being measured" (p. 338).

In the current study, the Paulhus Deception Scales (PDS) are the chosen measure of SDR. Two statements on the PDS contain sexual content: (1) I have sometimes doubted my ability as a lover and (2) I never read sexy books or magazines. These two items were not included in PDS scoring. The computed PDS score is then regressed on the sex offender's total fantasy score and each primary factor score to obtain the unstandardized regression coefficient (b). The unstandardized regression coefficient obtained from each regression serves as the corresponding scale's correction factor. Each respondents score can then be adjusted using the following formula: Y' = Y - (b) (PDS score), where Y' represents the adjusted WSFQ score and Y is the reported score.

Data Analysis

Descriptive statistics.

Analysis of the data begins with the examination of descriptive statistics. Means for each of the 40 items on the WSFQ are calculated to determine the most prevalent fantasies for the sex offender and student samples. The fantasy means are then ranked and compared between the two samples. Examining the WSFQ item scores for each sample reveals the type of fantasies preferred by the sex offenders and male students in this study. Specifically, the ten highest scored fantasies are examined to determine whether sex offenders' fantasies differ in content from those of the male college students.

Fantasy item scores are then added according to the four primary factors (exploratory, intimate, impersonal, and sadomasochistic) as well as the passive and active subscales identified by Wilson and Lang (1981). Additionally, a total fantasy score is computed by summing the fantasy scores of all primary factors. PDS scores are then used to adjust primary factor, active, passive, and total fantasy scores of the sex offender sample for socially desirable responding. All fantasy scores are then examined in relation to WSFQ scores from previous studies.

Reliability of the WSFQ.

In his initial research, Wilson (1978) did not present any reliability data on the WSFQ. To date, Baumgarnter et al. (2002) have published the only study presenting reliability data on the WSFQ. The authors reported good to excellent internal consistencies across all four primary factors and total fantasy.

Baumgartner et al.'s sample, however, included only institutionalized criminal

offenders. Using Cronbach's Alpha (α), the current study presents internal consistency data for the WSFQ and its subscales.

Bivariate analyses.

As stated at the end of chapter one, this study examines not only the preference for types of fantasies, but also the frequencies of such fantasies. Mean scores for each primary factor, active and passive subscales, and total fantasy on the WSFQ are compared between students and sex offenders using independent samples t tests. The tests will be conducted twice, first with the unadjusted fantasy scores of the sex offenders then again after adjusting the sex offender scores for socially desirable responding.

CHAPTER 3

RESULTS

The purpose of this thesis is to distinguish whether male, child sex offenders differ from male college students in their preference and frequency of sexual fantasies. As described in Chapter 2, the Wilson Sex Fantasy Questionnaire (WSFQ) serves as the measurement tool for assessing fantasy levels. Sexual fantasy interests are compared between offenders and students using mean scores for each fantasy item. Primary factor scores are also compared between the two samples as another method of assessing fantasy interests.

Fantasy level differences are examined using independent samples *t*-tests for Wilson's four primary factors and total fantasy scores. Additionally, the fantasy scores of sex offenders are adjusted for socially desirable responding, measured by the Paulhus Deception Scales. Adjusted offender scores are then compared to student scores using independent samples *t* tests. All results are based on a total of 263 usable surveys, 164 of which comprise the student group and 99 of which comprise the child molester group.

Demographic Characteristics

Male undergraduate students ranged in age from 18 to 40 years (M = 21.6, SD = 3.12), whereas child molesters ranged from 19 to 82 (M = 42.2, SD = 15.57). A further breakdown of the age distribution can be seen in Table 4. Students are more likely to be single (95.7%), while over half of the child molesters are either married (23.2%) or divorced (36.4%). Approximately 90% of the men in both groups were either white or Hispanic. In the student sample, white subjects comprised 65.9% of the group, followed by 24.4% Hispanic. The child molester sample had a lower percentage of whites (52.6%) and proportionately more Hispanics (37.1%).

Table 4

Demographic Characteristics

	S	tudent	Of	fender
	n	%	n	%
Age				
18-25	145	90.1	14	14.4
26-33	14	8.6	22	22.8
34-41	2	1.2	12	12.3
42+	0	0.0	48	49.6
Marital Status				
Single (never married)	157	95.7	40	40.4
Married	7	4.3	23	23.2
Divorced, Widowed	0	0.0	36	36.4
Race/Ethnicity				
White	108	65.9	51	52.6
Hispanic	40	24.4	36	37.1
African American	6	3.7	4	4.1
Other	10	6.1	6	6.1

Note. Two offenders did not indicate race/ethnic group. Three students and three offenders did not include a birth date.

Primary Factor Scores.

The WSFQ contains 40 sexual fantasy items that divide equally to create four subscales or primary factors. Reported scores for each item are summed to create four scores, one for each primary factor. Primary factor scores are also combined to create a total fantasy score. Figure 1 illustrates the total fantasy and primary factor scores for students and offenders. Also included in Figure 1 are the adjusted offender scores for total fantasy and each primary factor. Adjusting offender scores reduces the impact of socially desirable responding and presents a more accurate depiction of offender fantasy levels.

For both students and offenders, intimate fantasies contribute the most to the total fantasy score, followed by exploratory, impersonal, and sadomasochistic fantasies. In other words, both students and offenders fantasized more frequently about intimate fantasies (i.e., kissing passionately and having intercourse with a loved partner). Figure 1 shows that students scored higher on all four primary factor and total fantasy scores than offenders. Students' scores indicate that they fantasize more frequently on all primary factors than offenders. After adjusting for socially desirable responding offenders' scores increased, but did not reach the level of fantasizing reported by the students.

Figures 2 and 3 depict student and offender primary factor scores as a percentage of their total fantasy score. For each group, intimate fantasies constitute over 50% of total fantasy. Exploratory fantasies followed with 20% of the total fantasy score for students and 16% for offenders. Impersonal fantasies were a close third, representing 17% of fantasies for students and 15% for offenders.

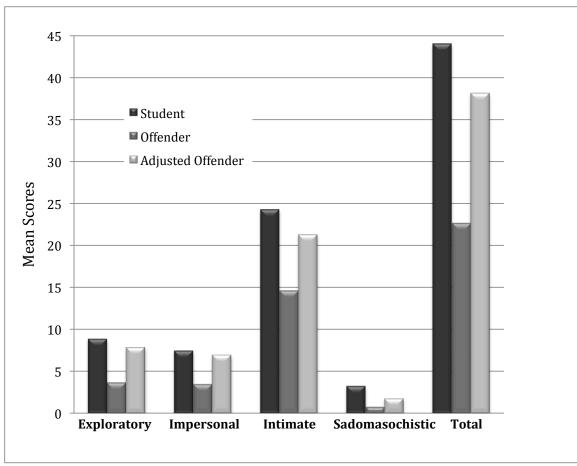


Figure 1 WSFQ Total Fantasy and Primary Factor Scores

Sadomasochistic fantasies contribute the least, with only 8% and 4% for students and offenders, respectively.

Adjusting for socially desirable responding not only increased offenders' sexual fantasy scores, but it also altered the primary factors contribution to total fantasy (see Figure 4). Specifically, intimate fantasies decreased from 65% to 56% of total fantasy. All other primary factors increased in percentage of total fantasy. The percentage increase for exploratory and impersonal fantasies raised the contribution toward total fantasy for offenders beyond the student percentages. In other words, adjusting for socially desirable responding revealed that offenders experienced more exploratory and impersonal fantasies in relation to total fantasy than students.

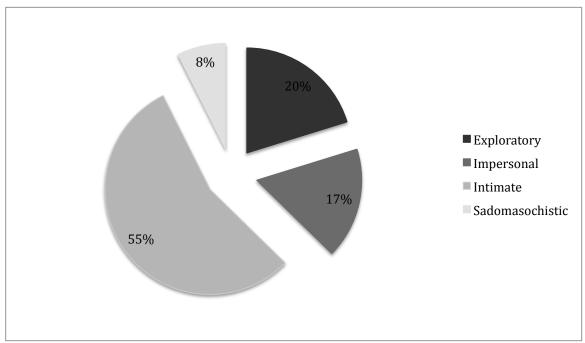


Figure 2 Students Primary Factor Scores by Percent of Total Fantasy

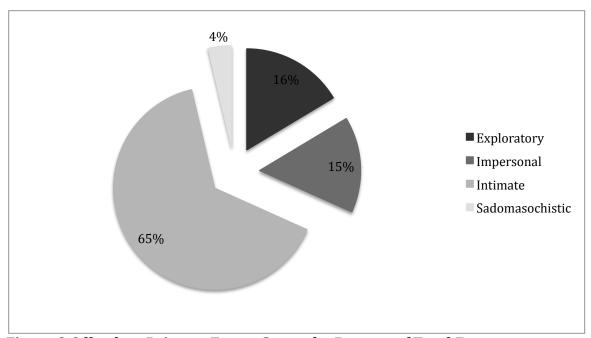


Figure 3 Offenders Primary Factor Scores by Percent of Total Fantasy

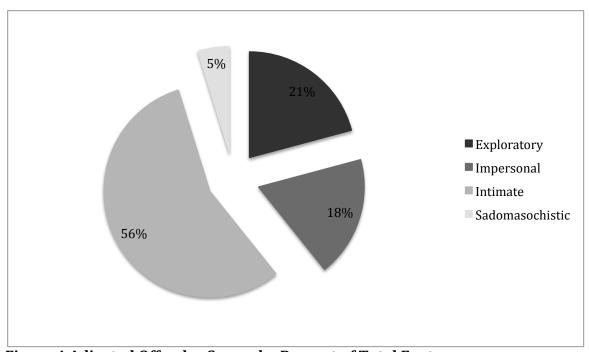


Figure 4 Adjusted Offender Scores by Percent of Total Fantasy

Independent samples t tests were employed to determine whether the mean factor scores are significantly different between the students and offenders. Table 5 presents the results from these analyses as well as the internal consistencies of the WSFQ and its primary factors. For all primary factors, Cronbach's α coefficient exceeded the acceptable level of reliability. Internal consistencies for the four primary factors ranged from .76 for the impersonal scale to .91 for intimate fantasies. The total WSFQ had the strongest reliability score at .94.

Student and child molester scores were significantly different for all primary factors and total fantasy at the $p \le .05$ levels. When using the adjusted child molester fantasy scores, there were no significant differences on the exploratory and impersonal factors. Intimate and total fantasy scores remained significantly different. The sadomasochistic fantasy factor experienced the smallest change after adjusting for socially desirable responding and remained significant.

Active and Passive Scores.

Active and passive subscale scores were computed from the fourteen-paired items identified by Wilson and Lang (1981). The seven pairs of items depict either an active or a passive role in the same fantasy theme (e.g., giving oral sex vs. receiving oral sex, being tied up vs. tying someone up). The seven questions in each subscale are summed to produce active and passive fantasy scores. Students reported higher active and passive fantasy scores than offenders; however, both students and offenders reported more active than passive fantasies (see Figure 5). The univariate findings revealed that students reported experiencing active and

Table 5
Sexual Fantasy Means, Standard Deviations, and Significance Tests for the WSFQ Primary Factors

	Exploratory	Intimate	Impersonal	Sadomasochistic	Total
Student	8.89 (7.7)	24.31 (11.2)	7.52 (6.6)	3.25 (4.9)	43.97 (26.1)
Child Molester	$3.70 (4.7)^*$	14.58 (10.3)*	$3.46 (4.2)^*$	$0.83 (2.0)^*$	22.57 (17.9)*
Adjusted CM	7.94 (4.1)	$21.32 (9.7)^*$	7.02 (3.8)	1.83 (1.9)*	38.10 (16.1)*
α	.817	.906	.759	.803	.937

^{*}Significantly different from student sample, $p \le .05$

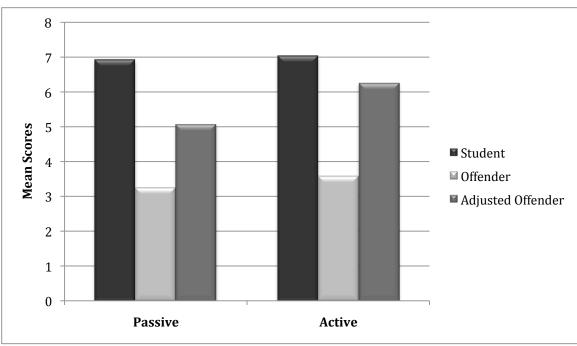


Figure 5 Active and Passive Subscale Scores

passive fantasies more frequently than offenders. Student fantasy scores remained higher than offenders after adjusting for socially desirable responding.

Student and offender scores were significantly different on the active and passive subscales. The difference on the passive subscale remained significant after adjusting offender scores, with students reporting more passive fantasies than offenders, t(260) = 3.9, $p \le .05$. The difference on the active subscale, however, was no longer significant after adjusting offender scores (see Table 6). Internal consistencies were slightly lower for the active (.72) and passive (.69) subscales than the primary factors; however they are still at an acceptable level.

Table 6
Sexual Fantasy Means, Standard Deviations, and Significance Tests for Active and Passive Fantasies

	Passive	Active
Student	6.92 (4.9)	7.03 (5.3)
Child Molester	$3.25 (3.0)^*$	$3.58 (3.4)^*$
Adjusted CM	$5.07 (2.8)^*$	6.25 (3.1)
α	.694	.718

^{*}Significantly different from student sample, $p \le .05$

Fantasy Items with Highest Scores

The scores and rankings of the ten highest endorsed fantasies for students and offenders are reported in Table 7. Higher scores indicate more frequent fantasizing. Mean scores for students and offenders were highest for the same three fantasy items: (1) having intercourse with a loved partner, (2) kissing passionately, and (3) receiving oral sex. The remaining seven fantasy items were the same for the

students and offenders; however, they differed in their rank order (see Table 5).

Nine out of the ten highest-scored fantasies are categorized as intimate. The tenth

Table 7
Highest Endorsed Fantasies Ranked by Student Means

	Student	Offender
Having intercourse with a loved partner.	3.46	2.68^{1}
Kissing passionately.	2.09	2.16^{2}
Receiving oral sex.	2.85	1.70^{3}
Taking someone's clothes off.	2.77	1.40^{5}
Intercourse with someone you know but have not had sex with.	2.72	1.16^{6}
Making love elsewhere than a bedroom.	2.58	1.128
Having your clothes taken off.	2.15	1.14^{7}
Being much sought after by the opposite sex.	2.10	1.02^{10}
Giving oral sex.	1.80	1.51^{4}
Being masturbated to orgasm by a partner.	1.65	1.099

Note. Superscript numbers for offender scores denote the ranking for the respective fantasy item.

fantasy item, "being much sought after by the opposite sex", is an exploratory fantasy. Although the ten highest endorsed fantasies are the same for both groups, students reported higher mean scores than offenders for each fantasy item. Higher mean scores indicate students fantasize about each item with greater frequency than offenders.

CHAPTER 4

DISCUSSION

The primary purpose of this study was to determine whether child molesters and male college students differ in the frequency and preference of their sexual fantasies. Several areas of sexual fantasies were measured and male college students were compared with child molesters, using the Wilson Sex Fantasy Questionnaire (WSFQ). In addition, the Paulhus Deception Scales (PDS) were included to adjust offender fantasy scores for socially desirable responding. Analysis of student and offender fantasy scores produced four important findings: (1) offenders in the current study reported the lowest WSFQ fantasy scores to date, (2) students report significantly more fantasies than child molesters, (3) the most commonly reported fantasies were roughly the same for students and offenders, (4) and offenders underreport their frequency of fantasies on all WSFQ subscales.

Cross-Study Comparisons

Chapter 1 highlighted several studies measuring the frequency of sexual fantasies. Many of these studies employed the Wilson Sex Fantasy Questionnaire (WSFQ) as their measurement tool (Baumgartner et al., 2002;

Gosselin & Wilson, 1980; Plaud & Bigwood, 1997; Wilson, 1988). Limited access to data from previous studies precluded running significance tests with samples from these studies. Still, comparing the mean scores across similar studies can produce some general inferences.

As shown in Table 8, sexually variant men (e.g., sadomasochists, fetishists, transvestites, and polyvariants) from Wilson's (1988) study reported the highest WSFQ scores, followed by the male undergraduate students in Plaud and Bigwood's (1997) study. Baumgartner et al. (2002) compared a sample of institutionalized child molesters with the students from Plaud and Bigwood's study and sexually variant men from Wilson's study. Baumgartner et al. (2002) conducted independent samples t tests on all four primary factors, as well as total fantasy. The analysis revealed that child molesters reported similar scores as college and fetishist males. The child molesters, however, reported significantly fewer exploratory, impersonal, and sadomasochistic fantasies than sadomasochist and polyvariant men.

The current study produced some of the lowest recorded WSFQ scores for samples from any population. Child molesters in the current study reported fantasizing half as much as the sample in Baumgartner et al.'s (2002) study. Furthermore, the adjusted child molester scores surpassed the scores of only three samples: control men, transvestites (Gosselin & Wilson), and Japanese men (Iwawaki & Wilson). The male undergraduate students in the current study also reported relatively low WSFQ scores when compared with other male undergraduates. Their scores, however, were comparable to samples of non-

Table 8
Comparison of Wilson Sex Fantasy Questionnaire Means Across Studies

Study	irison oj vrnsor	Exploratory	Intimate	Impersonal	Sadomasochistic	Total
Wilson		•		•		
	Control men	13.7	21.9	11.4	4.3	51.3
	Sadomasochists	20.9	30.9	22.5	20.6	94.9
	Transvestites	18.9	21.7	15.9	13.0	64.5
	Fetishists	15.8	28.1	16.0	5.1	65.0
	Polyvariants	21.7	33.5	22.8	32.0	110.0
Plaud 8	Bigwood					
	Male students	14.3	31.7	11.7	4.9	62.6
Baumga	artner et al.					
J	NSO	9.2	20.7	9.7	5.9	45.5
	CM	13.6	28.1	13.0	4.8	59.6
Current	t Study					
	Male students	8.9	24.3	7.5	3.3	44.0
	Child molesters	3.7	14.6	3.5	.8	22.6
	Adjusted CM	7.9	21.3	7.0	1.8	38.1
Gosseli	n & Wilson					
	Control men	8.1	16.9	7.6	2.3	34.9
	Sadomasochists	11.3	19.5	12.8	17.8	61.4
	Transvestites	7.2	13.1	7.4	8.7	36.4
	Rubberites	8.6	17.4	13.0	12.8	51.8
	Leatherites	8.7	15.0	10.9	13.2	47.8
Wilson	& Lang	12.2	22.7	9.2	4.6	48.7
Iwawaki & Wilson		7.0	13.8	8.0	4.2	32.9

Note. NSO = non-sex offenders; CM = child molesters. Polyvariants included men with more than one sexually variant behavior.

sexual offenders (but otherwise criminal) from Baumgartner et al. (2002) and men from Wilson and Lang's (1981) study.

Prevalence of Sexual Fantasies

Analysis of sexual fantasies using the WSFQ revealed that students reported a significantly higher level of overall fantasy than child molesters.

Students' total fantasy scores remained significantly higher even after adjusting offender scores for socially desirable responding. On all four primary factors

(exploratory, impersonal, intimate, and sadomasochistic) fantasy scores were significantly higher for students than offenders prior to adjusting for socially desirable responding. After adjustment, however, only the intimate and sadomasochistic primary factors remained significantly different, with students reporting higher scores.

Thus, students and offenders only differed on two of the WSFQ primary factors. The higher total fantasy score for students, therefore, is the result of higher scores on the intimate and sadomasochistic fantasy factors. It is primarily the contribution of greater intimate, non-deviant sexual fantasies that distinguishes students from child molesters. Daleiden et al. (1998) reported a similar finding when comparing groups of adolescent offenders with male college students. The current research supports Daleiden et al.'s (1998) claim that sex offending "may be associated with suppressed levels of nondeviant fantasy rather than elevated levels of deviant fantasy" (p. 205).

Active and passive subscales.

Although factor analysis did not identify active and passive fantasies as underlying factors on the WSFQ, Wilson designed the WSFQ to assess a subject's preferred role in fantasies (active vs. passive). Previous research found significant differences between men and women (Wilson & Lang, 1981) and offender groups (Baumgartner et al., 2002) when comparing active and passive fantasy scores. In the current study, students reported significantly higher active and passive scores than child molesters prior to adjusting for socially desirable responding.

After adjusting offender scores only passive fantasies remained significantly higher for the students. A closer examination of offenders' change in scores after adjustment revealed that active and passive fantasies increased by 75% and 56%, respectively. Even after a 75% increase in active fantasies, however, the child molesters in the current study produced lower scores than the institutionalized child molesters from Baumgartner et al.'s (2002) study. It is possible that offenders in treatment may feel a greater need than those institutionalized to favorably present themselves to researchers.

Another possible explanation involves the relation of sexual fantasies with the severity of sexual offense. Incarcerated of institutionalized offenders are likely to have committed more serious offenses than offenders on probation or parole. Future research should compare how sexual fantasies differ between sexual offenders in treatment and those incarcerated or institutionalized regarding the nature of their offense.

Most Frequent Sexual Fantasies

Although students reported significantly more fantasies than offenders, both groups showed a similar preference for the type of sexual fantasies most frequently experienced. The ten highest endorsed fantasies were the same for both students and offenders, with some variation of the order between the groups. Intimate fantasies represent nine of the ten most frequent sexual fantasies for both students and offenders. This interpretation of the WSFQ items shows that student and sex offender fantasies are alike in kind, even though they differ in their frequency. As the first study to compare the rank order of WSFQ

items, these results should be used cautiously until corroborated by future research.

Most Underreported Fantasy Factors

Adjusting offender scores serves two main purposes in the current study. First, they show that accounting for socially desirable responding eliminates several significant differences between student and offender fantasy levels. Second, adjusted offender scores, when compared to their reported scores, indicate which areas of sexual fantasies offenders tend to underreport. The adjusted offender scores for exploratory and impersonal fantasies increased from their reported scores by 114% and 103%, respectively.

The exploratory and impersonal primary factors encompass the most sexually experimental (i.e., fetishes) and deviant (i.e., having incestuous sexual relations) fantasies. Given the nature of exploratory and impersonal fantasies, it is not surprising that offenders would underreport the frequency of such fantasies. It is also possible that treatment has made offenders acutely aware of the type of fantasies they should avoid and increased their desire to suppress such fantasies.

Offenders also seemed to underreport their level of intimate fantasies. However, their adjusted scores increased 46% (less than half the increase of exploratory and impersonal fantasies). Intimate fantasies include the most innocuous fantasies on the WSFQ (i.e., kissing passionately) and appear less likely to induce a socially desirable response from offenders. Adjusted offender scores also reveal a change in the contribution of primary factors toward total

fantasy score. Specifically, intimate fantasies decreased while exploratory and impersonal fantasies increased in contribution toward the total fantasy score for offenders.

Limitations and Future Research

Several limitations in the present study should be noted. There is a particular concern with the demographic differences between the student and offender samples. Mean age differed by 20 years for students and offenders. The majority of students are single, while offenders are either married or divorced. Future studies need to incorporate non-criminal community samples, more demographically comparable to child molester samples. The current study is also limited to students and offenders located in central Texas. Future research needs to incorporate larger, more nationally representative sex offender and control samples.

Another limitation in the current study involves the administration of the surveys. Student surveys were administered anonymously. However, sex offender surveys were confidential to allow for follow-up studies. Administering the surveys confidentially, rather than anonymously, likely induced offenders to present themselves more favorably to the researchers. Additionally, sex offenders had the option to make the results of their surveys available to their treatment providers. Those offenders opting to share survey results with their treatment provider may feel an even larger need to respond to questions in a manner congruent with their treatment goals.

Offender treatment also presents other unique limitations to the current study. Time in treatment for the child molesters ranged from under a month to ten years. As the first study measuring the sexual fantasies of offenders undergoing treatment, it is unclear how length of treatment affects offenders' sexual fantasy scores. Although child molesters may underreport certain sexual fantasies, low sexual fantasy scores may also be a result of overcorrecting their deviant sexual fantasies. The difficult task for future research is to distinguish between effective treatment outcomes and socially desirable responding. Future research, therefore, needs to assess sex offenders at the beginning of treatment, at intervals during treatment, and post-treatment.

The final limitation in the current study is the use of the WSFQ with offender groups. The WSFQ is one of only a few instruments designed to exclusively measure both deviant and non-deviant sexual fantasies. Wilson intended the WSFQ to be "a slightly indirect and semi-disguised measure of sexual preferences", however, it appears easily susceptible to socially desirable responding or underreporting (Wilson, 1988, p. 45). Child molesters in the current study report lower fantasy scores than sex offenders, non-sex offenders, and non-criminal, but sexually deviant groups (sadomasochists, transvestites, fetishists) from previous research. The unexpectedly low scores in the current study questions the utility of the WSFQ to accurately assess fantasy levels among sex offender undergoing treatment.

APPENDIX

SURVEY INSTRUMENTS

Wilson Sex Fantasy Questionnaire

Everyone has sexual fantasies. It is normal to have several sexual fantasies in one day. A fantasy is any mental image. The mental image may be brief and only last a second or two. Or the image can be elaborate and last several seconds, even minutes. Some fantasies will be hazy and others will seem clear.

Indicate how often you fantasize about the following themes using the scale:

0-Neve	er e e e e e e e e e e e e e e e e e e
1-Less	than once a month
2-One 1	to three times a month
3-Once	or twice a week
4-Thre	e to six times a week
5-Daily	
79.	Making love out of doors in a romantic setting, e.g., field of flowers, beach at
night	
	Having intercourse with a loved partner
81.	Intercourse with someone you know but have not had sex with
82.	Intercourse with an anonymous stranger
83.	Sex with two other people
84.	Participating in an orgy
85.	Being forced to do something
86.	Forcing someone to do something
87.	Homosexual activity
88.	Receiving oral sex
89.	Giving oral sex
90.	Watching others have sex
91.	Sex with an animal
92.	Whipping or spanking someone
93.	Being whipped or spanked

94. Taking someone's clothes off
95. Having your clothes taken off
96. Making love elsewhere than bedroom, e.g., kitchen or bathroom
97. Being excited by material or clothing, e.g., rubber, leather, underwea
98. Hurting a partner
99. Being hurt by a partner
100. Mate-swapping
101. Being aroused by watching someone urinate
102. Being tied up
103. Tying someone up
104. Having incestuous sexual relations
105. Exposing yourself provocatively
106. Transvestism (wearing clothes of the opposite sex)
107. Being promiscuous
108. Having sex with someone much younger than yourself
109. Having sex with someone much older than yourself
110. Being much sought after by the opposite sex
111. Being seduced as an "innocent"
112. Seducing an "innocent"
113. Being embarrassed by failure of sexual performance
114. Having sex with someone of a different race
115. Using objects for stimulation, e.g., vibrators, candles
116. Being masturbated to orgasm by a partner
117. Looking at obscene pictures or film
118. Kissing passionately

Paulhus Deceptions Scales

Read each statement, and circle the number that best describes you, from *Not True* to *Very True* about you.

ac to very true about you.		Not True			ery rue
1. My first impressions of people usually turn out to be right.	1	2	3	4	5
2. It would be hard for me to break any of my bad habits.	1	2	3	4	5
3. I don't care to know what other people really think of me.	1	2	3	4	5
4. I have not always been honest with myself.	1	2	3	4	5
5. I always know why I like things.	1	2		4	
6. When my emotions are aroused, it biases my thinking.	1	2	3	4	5
7. Once I've made up my mind, other people cannot change my opinion.	1	2	3	4	5
8. I am not a safe driver when I exceed the speed limit.	1	2	3	4	5
9. I am fully in control of my own fate.	1	2	3	4	5
10. It's hard for me to shot off a disturbing thought.	1	2		4	
11. I never regret my decisions.	1	2	3	4	5
12. I sometimes lose out on things because I can't make up my mind soon enough.	1	2	3	4	5
13. The reason I vote is because my vote can make a difference.	1	2	3	4	5
14. People don't seem to notice me and my abilities.	1	2	3	4	5
15. I am a completely rational person.	1	2	3	4	5
16. I rarely appreciate criticism.	1	2	3		5
17. I am very confident of my judgments.	1	2		4	
18. I have sometimes doubted my ability as a lover.	1	2	_		5
19. It's alright with me if some people happen to dislike me.	1	2	3	4	5
20. I'm just an average person.	1	2	3	4	5
21. I sometimes tell lies if I have to.	1	2	3	4	5
22. I never cover up my mistakes.	1	2	_	4	5
23. There have been occasions when I have taken advantage of someone.	1	2	3	4	5
24. I never swear.	1	2	3	4	5
25. I sometimes try to get even rather than forgive or forget.	1	2	3	4	5
26. I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5
27. I have said something bad about a friend behind his or her back.	1	2	3	4	5
28. When I hear people talking privately, I avoid listening.	1	2	3	4	5
29. I have received too much change from a salesperson without telling him or her		2	3	4	5
30. I always declare everything at customs.	1	2	3	4	5
31. When I was young, I sometimes stole things.	1	2	3	4	5
32. I have never dropped litter on the street.	1	2	_	4	5
33. I sometimes drive faster than the speed limit.	1	2	3	4	5
34. I never read sexy books or magazines.	1	2	_	4	5
35. I have done things that I don't tell other people about.	1	2	3	4	5
36. I never take things that don't belong to me.	1	2	_		5
37. I have taken sick-leave from work or school even though I wasn't really sick.	1			4	
38. I have never damaged library book or store merchandise without reporting it.		2		4	
39. I have some pretty awful habits.	1	2	_	4	5
40. I don't gossip about other people's business.	1	2	3	4	5

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