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Timelines of Disclosures Regarding Number of Victims by Juvenile Sex Offenders
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Chapter I

Review of the Literature

The number of juvenile sex offenders has risen greatly over the past 20 years, with juveniles committing approximately 20% of all sexual offenses (Ertl & McNamara, 1997). These statistics come from juveniles who have been convicted of their crimes and from research conducted with adult sex offenders. Approximately 50% of adult offenders report having committed their first offense in adolescence (Abel, Mittleman, & Becker, 1985; Rubenstein, Yeager, Goodstein, & Lewis, 1993, as cited in Bourke & Donohue, 1996). The juvenile victims of these crimes and other physical violence often know the perpetrator, whether it be a sibling, neighbor, or friend (Lowenstein, 2006). It should be noted that over 50% of offenses committed by juveniles involve victims under the age of twelve (Brown, Flanagan, & McLeod, 1984; Dube & Herbert, 1988, as cited in Bourke & Donohue, 1996).

Bourke and Donohue (1996) outlined three types of sexual offenses. The first includes voyeuristic or harassing types of offenses where the juvenile does not touch the victim. The second involves touch and ranges from fondling or molestation to rape. The third requires that the victim be a minimum of four years younger than the offender.

Becoming aware of the severity of this social issue has led to an increase in the number of treatment programs for juvenile sex offenders. Programs geared toward treating juvenile sex offenders more than doubled in the 16-year period from 1986 to 2002. In 1986 there were 350 programs, in 1992 that number had risen to 750 programs.
(Hunter & Lexier, 1998), and in 2002 the number had increased to 1, 347 programs (McGrath, Cumming, & Burchard, as cited in Waite, Keller, McGarvey, Wieckowski, Pinkerton, & Brown, 2005).

Youth offenders have been noted to need more extensive treatment than adults to help them control and adjust their deviant sexual thoughts and behaviors (Aylwin, Clelland, Kirkby, Reddon, Studer, & Johnston, 2000). Given this, determining what elements make a program efficacious has become a topic of interest for researchers and clinicians. The primary purpose of such programs is an effort to help reduce recidivism, which can alternately be viewed as a means of protecting potential victims in the future. It should be noted that most programs for assessing and treating sex offenders have been designed for adult offenders, but quite frequently their usage has been extended downward to juvenile populations.

Although the primary purpose of treatment programs is attempting to reduce offender recidivism, research has shown that recidivism rates are not as high as the public might speculate. Studies that have examined recidivism in adult sexual offenders indicate rates of 12% for treated sex offenders and 17% for untreated sex offenders (Witt, Bosley, & Hiscox, 2002). There are a few studies that have examined recidivism rates in juveniles. The results of these studies portray rates from 3% to 20% of juveniles sexually re-offending in a time period up to five years after their forensic psychological evaluation or upon discharge from treatment (Langstrom & Grann, 2000; Prentky, Harris, Frizzell, & Righthand, 2000; Witt et al., 2002). Although a majority of sexual offenders do not commit further sexual offenses, they often commit other, non-sexual offenses. Hanson
and Bussiere (1998) found a 40% non-sexual recidivism rate among adults, while a Swedish study of juveniles found that 65% recidivated non-sexually.

In the interest of protecting past or potential victims, those working with sex offenders need to know information about the offender’s victims and crimes, so as to know how to intervene. This type of information can also be helpful from a therapeutic standpoint, in helping the therapist better understand the offender and how to proceed with treatment. Getting offenders to provide such information can prove difficult, given fear of further legal ramifications. At this time, there is little information regarding when sexual offenders, adults or juveniles, disclose information. Baker, Tabacoff, Tornusciolo, and Eisenstadt (2001), stated, “However, there is reason to question the completeness and accuracy of such “pretreatment” information…” (p. 80). Although there is no research examining the timing of offenders’ disclosures, there is research indicating under what conditions they may be more likely to disclose (e.g., polygraph testing). In order to improve treatment programs and promote the safety of past and potential victims, it is important to know when or what may lead to further disclosure of victims.

English, Pullen, and Jones of the National Institute of Justice (1997) proposed a “containment model” to manage adult sexual offenders. This model consists of three parts. The first is treatment specifically geared towards sex offenders. The second is monitoring and supervising those convicted of committing a sexual offense. The third is using polygraph tests with the goal of gathering a complete and accurate sexual history, making sure to inquire about deviant thoughts and behaviors. In regards to this approach to containment, Branaman and Gallagher (2003) state, “This model is generally accepted as the “gold standard” for the necessary elements of sex offender treatment” (p. 45).
They also noted that more than half of probation and parole programs for sex offenders use polygraph tests as a means of monitoring. One important note regarding many containment approaches is that the offenders on probation or parole often have to pay for their supervision and treatment themselves (English, 1998), something that would have to be modified in a juvenile program.

All offenders referred to treatment need to have a thorough evaluation in order for therapists to assess their current risk, potential for recidivism, and to determine how to best structure treatment. A thorough evaluation also is often used as a way of obtaining information to present to the courts, such as whether the offender should be placed in confinement or released back into the community (Bonner, Marx, Thompson, & Michaelson, 1998). The information obtained through an evaluation is important in light of research indicating that certain types of sexual offenders are at greater risk to commit further or more violent sexual offenses.

It seems to be widely accepted that juvenile sex offenders are a heterogeneous group; juvenile sex offenders are thought to vary widely in level of overall pathology and motivation for sex offending behavior. Several typologies of offenders have been described in the literature. Some authors have suggested separating violent from non-violent offenders or dividing groups based on their motives for their behavior (Hunter, Figueredo, Malamuth, & Becker, 2003).

Witt et al. (2002) outlined a taxonomy of juvenile sex offenders based on their psychological testing results. The first and largest group consists of the Antisocial/Impulsive offenders. This type of offender often has perpetrated other violent offenses and tends to choose older victims than the offenders in the other classifications.
The second group is comprised of the Unusual/Isolated offenders. These juveniles have higher rates of recidivism than offenders in the other classifications, which may be a result of their serious social and cognitive shortfalls. The third classification is the group of Over-controlled/Reserved juvenile sex offenders, which has a comparatively low rate of recidivism. This group has lower levels of psychopathology than the first two groups. The last classification in the taxonomy is the Confident/Aggressive group of offenders. These offenders often are narcissistic and also show relatively low recidivism rates when compared to the Anti-social and Unusual groups. Research continues to be conducted in search of a reliable and valid typology that accurately accounts for juvenile sex offenders’ behaviors, traits, and crimes.

Assessment information is often used to determine treatment goals, but just what is the goal in treating sex offenders? Kokish (2003) outlined three goals for which to strive when treating sex offenders: 1) to reduce the number of subsequent sexual re-offenses; 2) to reduce the number of other criminal offenses, not including sexual offenses, and; 3) to help the client change in order for him to increase his social functioning. There are some important pieces of information that should be gathered during an assessment of a sex offender. One is the number of victims the person has perpetrated against and the other is the types of crimes committed. This information is not only crucial at the assessment in regards to guiding treatment, but must be re-assessed throughout the treatment process (Baker, Tabacoff, Tornuscio, & Eisenstadt, 2001).

Once all of the information necessary for an assessment has been collected, Witt, et al., (2002) suggested that the assessment information can be used in four ways. The first use is as a form of risk assessment to determine how much danger the offender poses
to others and what may lead to increases or decreases in their level of dangerousness. A second use, which ties into the first, is to determine the level of supervision the child/adolescent should receive (e.g., can the child/adolescent remain at home or does the child need to be placed in a different setting?). Determining how much supervision the juvenile needs is directly dependent on the level of risk he presents. A third use of assessment information is in the creation of a treatment plan. Finally, the fourth use suggested is as a form of risk management. This final use is intended to help clinicians and law enforcement personal determine the offender's immediate risk of re-offending.

In regards to risk assessment, there are no guarantees. At the present time, there is no empirically validated or objective way to specifically determine whether the offender is at risk of re-offending or committing another crime (Hunter & Lexier, 1998). Attempts have been made to create measures that accurately assess factors that lead to an offender re-offending or not offending. Gentry, Dulmus, and Theriot (2005), compared the Level of Service Inventory-Revised (LSI-R) and the Static-99 assessment tools designed to assess potential for recidivism. The Static-99 is designed to measure static factors, those that do not change, or those that change in only one direction (e.g., age), while the LSI-R is designed to measure dynamic factors. Their results indicated that the participant offenders fell into similar categorical levels for recidivism rates on both measures. Being able to categorize offenders showed the importance of using instruments that measure different types of factors (i.e., static or dynamic factors), since what each test measured may lead to a better understanding of the offender. One major limitation to the study was the small sample size. Although there are actuarial measures available to assess levels of recidivism, research is still somewhat limited. Thus,
determining an offender's level of risk cannot be done with absolute certainty (Gentry, Dulmus, & Theriot, 2005).

When assessing, treating, and monitoring juvenile sex offenders adjudicated to treatment, there are a variety of means used. Bonner et al., 1998, suggested that psychological assessments completed with juvenile offenders should involve an evaluation of their cognitive abilities, abuse history, other non-sexual delinquent behaviors, antisocial behaviors, mental health history, and sexual history. One of the main sources of information is the clinical interview. There has been a push towards using structured interviews when assessing juvenile sex offenders, partially driven by the move in the field for the use of evidence-based, empirically valid assessments and treatments. Even with the push towards using empirically valid measures, the use of interviews is not without its limitations. One limitation is the difficulty in determining if the interviewee is being honest and if his account of events is truly accurate. "It is not uncommon for an alleged juvenile offender to distort information..." (Hunter & Becker, 1994, p.140). To try and supplement or obtain more accurate information evaluators may conduct interviews with the offenders' families, but they too may be hesitant to provide accurate information. It should be noted, however, that juvenile sex offenders and their families often revealed more information, including information regarding more victims and crimes, over the course of treatment (Baker et al., 2001). Just why this occurs and what factors lead to more complete disclosure are not entirely known.

A second source of information is through psychological testing. Testing can involve measures administered by a professional or by self-report. Psychological measures often go through many validation studies to ensure that they accurately assess
what they are intended to measure. Tests given to juvenile sex offenders often include personality inventories, problem or symptom checklists, and tests designed to assess sexually deviant thoughts or interests. The measures that analyze cognitions, symptoms, personality characteristics and other such information have been shown to reliably and validly measure these characteristics, which is of note, given that they are used across the field, not just with juvenile sex offenders. Measures used specifically with juvenile sex offenders continue to be evaluated to determine if they accurately assess what they intend to measure (Bonner, et al., 1998). Examples of measures used with juvenile offenders include The Adolescent Cognition Scale (Abel & Becker, 1984), the Math Tech Sex Test (Kirby, 1984), and Multiphasic Sex Inventory – Adolescent version (Nichols & Molinder, 1984). Even so, the information gleaned from psychological tests is beneficial when assessing juvenile sex offenders and determining their course of treatment. Information from standardized measures is of benefit when used in conjunction with clinical interviewing, given that it can be administered in a standardized manner. These measures may increase in benefit value if they can be shown to accurately measure the factors in juvenile sex offenders that they are intended to measure (e.g., adolescents’ sexual arousal, sexual knowledge, sexual attitudes, behaviors, distorted cognitions, psychosocial factors, etc.) and can provide information that helps clinicians better understand and treat juvenile sex offenders.

Biometric tests are often the final source of information used when assessing and treating both adult and juvenile sexual offenders (Bonner et al., 1998). One biometric test that has been studied and used with both adult and juvenile sex offenders is the plethysmograph. This test measures levels of arousal in the penis or vagina.
Plethysmography is often used to assess whether the offender has arousal to deviant sexual stimuli (Bonner, et al., 1998). Results of studies completed with adult sex offenders have shown that they often are aroused by deviant materials (Bourke & Donohue, 1996). Using the plethysmograph with juveniles is controversial given the invasiveness of the test, and the fact that its use has not been validated with juvenile samples (Bourke & Donohue, 1996).

Another more frequently used biometric measure is the polygraph, which measures changes in the examinee’s heart rate, respiration, and galvanic skin response. The polygraph or “lie-detector” test can be used to help gather what is hopefully more accurate information than the clinical interview alone. In using the polygraph, it is hoped that offenders may be more honest when answering interview questions and thus giving a clearer, more accurate account of their offenses and/or sexual thoughts. Although the information gleaned from the polygraph is often assumed to be more truthful, this assumption is questionable, given that polygraph accuracy, reliability, and validity still remain uncertain (Veneziano & Veneziano, 2002).

The polygraph test’s reliability and validity are still found to be questionable, even though the use of this tool has been widespread since its development in the early 1900s and research has been conducted to establish the polygraph’s accuracy, reliability, and validity. A problem in establishing accuracy, reliability, and validity is the manner in which many studies gather their data. For example, researchers may ask an examinee to self report whether the polygraphist’s results are correct, blindly score archived polygraph tests, or they may have non-criminals take the polygraph and fake deception (Abrams, 1991). Ahlmeyer, Heil, McKee, and English (2000) indicated that in a study
completed by Bartol (1993) accuracy rates (as defined by correct determinations of the examinee passing or being found deceptive) were found to range between 70% and 86%. Accuracy rates, a term Ahlmeyer et al. used interchangeably with validity, were determined by “the examinee’s deception being confirmed by confession or truthfulness being confirmed by confession” (p.125). Regarding validity, they discussed that in 12 field studies, a 98% accuracy rate was found. They also noted that in 11 reliability studies, the polygraph had a 92% accuracy rate. Ahlmeyer et al. explained, “Reliability was determined by the internal consistency of correct nondeceptive/deceptive relevant questions” (p. 125). All of this information indicates a relatively high rate of examinees being said to have passed the polygraph or appropriately being found deceptive.

The use of the polygraph with sex offenders, in particular, occurs in three areas -- assessment, treatment, and supervision (Hagler, 1995). Part of what makes the use of this tool questionable is that it is measuring truthfulness or deception through physiological changes (Saxe, Dougherty, & Cross, 1985). One problem in the use of the polygraph is that an examiner is interpreting the examinee’s physiological arousal to ascertain the truthfulness of the response. To increase the usefulness of a polygraph test, the examiner must ensure that relevant questions are being asked (Wilcox, 2000). How the person is questioned can affect how he or she answers in return.

Multiple questioning styles exist and the style used in a testing session depends on the use of that specific examination. In order to design appropriate questions, the polygrapher must review the examinee’s historical information and conduct a pretest interview. This is to ensure that the person understands what will occur during testing and to know what types of questions are designed to elicit a response, should the
examinee try to be deceptive. There are three general types of polygraph questioning techniques, as outlined by Saxe, Dougherty, and Cross (1985). The first is the relevant/irrelevant question technique. This technique mixes relevant and irrelevant questions and is often used as a screening device. The thought behind questioning a subject like this is that if the person is trying to deceive the examiner, greater arousal will occur when relevant questions are asked. The second technique is the control question technique. The control question technique is very similar in design to the relevant/irrelevant question technique, with one difference being that it is often regarding a specific issue or situation. Another factor that separates this test from the relevant/irrelevant question test is that the control questions are designed to elicit arousal responses even in non-deceptive examinees by leading the person to doubt the truthfulness of his/her response. The final technique is the concealed information test. This technique is generally used in criminal investigations where questions asked are designed to determine how much information the examinee knows about a crime, not to determine deceptiveness. It is assumed that only someone guilty of committing the crime would be able to answer questions regarding details of the event.

The relevant/irrelevant question, control question, and concealed information polygraph tests are the three basic types of questioning techniques used in the general field of polygraphy. Abrams (1991) listed three types of polygraph tests that might be useful when working with a sex offender population, which were identical to the three uses or types of polygraphs with adult offenders outlined by Branaman and Gallagher (2003). The first type of polygraph is the instant offense or specific incident polygraph test. As its name suggests, the specific incident test is used to determine if the subject has
information about or partook in a certain event. The types of questions asked are those relevant to the incident. Branaman and Gallagher (2003) explained that in reviews of four field studies, specific-incident tests were found to be 98% accurate at identifying guilty subjects and 75% accurate at detecting innocent subjects. The next type is the maintenance polygraph, which is used on a regular basis to monitor whether an offender has violated or is in compliance with the terms of his/her probation or parole. Abrams did not give accuracy rates for this type of test, but explained that they found 68% of offenders who had to receive periodic tests as part of their probation were successfully caught if they had re-offended or successfully did not re-offend. The third type is the sexual history disclosure polygraph. This is administered after the examinee’s sexual history has been obtained. The purpose of this test is to review the information of the person’s sexual history, prior to the incident that they have been charged with, in order to gather an accurate understanding of the person’s behaviors preceding the alleged crime. It should be noted that the sexual history disclosure test looks at the broadest time span, while the specific incident test is very narrow in its scope. For the disclosure test, Abrams stated that there was a 95% accuracy rate for offenders being found truthful and a 90% accuracy rate for being found deceptive.

Even though half of the adult sex offenders surveyed in a study completed by Grubin and Madsen (2006) believed that the polygraph is a useful tool and the results of other studies indicate that when a polygraph is mandated, offenders engage in fewer offending behaviors while the number of their disclosures increases, it does not mean the polygraph test always yields accurate information. Results of polygraphs either indicate deception or non-deception (Abrams, 1991). There are two types of errors that can occur
with a polygraph test (Grubin & Madsen, 2006). The first is the false positive, which is when a person appears deceptive on a test, when in actuality he has told the truth. The second is the false negative, which indicates the person was truthful, when really he was being deceptive. More often it has been found that the error rates accompanying the false positive are higher than for the false negative in adult sex offender populations.

Branaman and Gallagher (2003) indicated that the range of false positive errors was between 0% and 25%, with the average being 15%, while the range for false negative errors was between 0% and 8%, with an average of 5%. Given that there are significant consequences when the polygraph is used in assessing and monitoring sex offenders, an up to 25% chance of being found deceptive when one has not been deceptive is of concern.

One study examined adult sex offenders’ views of the accuracy of the polygraph test. In the study completed by Kokish, Levenson, and Blasingame (2005), participants reported few instances where a false positive or negative occurred. Their reports match the error rates indicated in other studies, given that there were twice as many false positives (22 out of 333), as there were false negatives (11 out of 333). The participants who suffered a false positive result still believed that the polygraph is a useful part of treatment.

Saxe, Dougherty, and Cross (1985) described several factors that can affect the polygraph test’s accuracy and validity. One is the polygraph examiner and his or her training. In an order to improve the training and practice standards of polygraphers, the American Polygraph Association has created practice standards and procedures that their members must follow (Wilcox, 2000). Another factor is the polygraph subject,
particularly the subject's cognitive abilities. At this point, there is little to no research on the relationship between a person's intellectual functioning and polygraph performance. It is likely that a person's intellectual level could affect his/her ability to be truthful, if he/she is unable to adequately comprehend the question, if they understand what the test is measuring and are able to prevent those physiological reactions from occurring. A third factor mentioned by Saxe, Dougherty, and Cross (1985) is the testing setting. For example, if the person truly believes the polygraph can accurately detect deception he or she is more likely to be truthful. Likewise, if examinees are in a setting where they know the consequences of being deceptive, they are more likely to try to respond in a non-deceptive manner. The final factor that can affect the validity of the polygraph are what Saxe, Dougherty, and Cross (1985) labeled "countermeasures." This catch-all term accounts for things that affect the subject's physiological states, such as drugs, physical activity, or psychological tools (e.g., being in a hypnotic state or biofeedback training).

The assessment and treatment of juveniles, regardless of measure used, is always accompanied by a myriad of ethical and legal concerns, especially with incarcerated juveniles. This is of importance because the timing of an assessment can be an issue. If information is obtained prior to their adjudication, the information has the potential to be used to incriminate the youth, since the limits of confidentiality change when the assessment or treatment is court ordered (Hunter & Lexier, 1998). This can have an effect on what information will be obtained, given that a juvenile might reveal less information if it is being gathered prior to adjudication. If a juvenile is revealing less information for fear of further consequences, one may consider using a polygraph, since it is viewed as a more standardized and accurate way information can be gathered.
The polygraph is also not immune to legal and ethical problems when used with juveniles because most of the research validating the use of the polygraph has been completed on adult populations.

As mentioned before, polygraph testing has been used with adult and juvenile sex offenders both prior to their conviction and post-conviction. In most instances where it is used with adult and juvenile sex offenders, it is administered post-conviction. In 2005, 35 states required it as a condition of the offender's probation (Grubin & Madsen, 2005). The state of Ohio used to require post-conviction polygraph tests but banned the use of such polygraph tests with juvenile sex offenders as of December 1, 2006 (In re D.S., 2006). The Supreme court ruled in favor of limiting polygraph use with juvenile offenders for multiple reasons. First they ruled its use violated the defendant's Fifth Amendment rights, given that disclosure of more offenses or victims could lead to further prosecution. Second they opined there is not enough research on the use of the polygraph with a juvenile population or accounting for developmental differences that could affect polygraph results. The final reason is that in this specific case, there was not enough evidence that the defendant’s post-conviction polygraph examinations were going to be used as a therapeutic tool.

Post-conviction polygraphs have been used with the sex offender population not only as an assessment tool, but also as a monitoring tool. Those who believe the polygraph should be used as a monitoring tool think its use will allow three objectives to be met: 1) honesty, 2) compliance with treatment, and 3) compliance with their supervision (Kokish, 2003). Studies analyzing adult sex offender samples have shown that when the polygraph is used as a monitoring tool, it leads to offenders admitting to
more victims or behaviors, earlier age of onset for these behaviors, and their own past abuse (Hindman & Peters, 2001). Hindman and Peters also said, "...a series of studies found that the polygraphed group differed from the non-polygraphed in several important ways: they reported many more victims, far less history of having been sexually victimized themselves, and a much higher incidence of having offended as juveniles" (p. 11). Hindman and Peters documented that adult offenders self-reported an average of 1.5 victims when completing their sexual history. The offenders who were granted immunity and administered a polygraph test reported an average of 9.0 victims. They also documented the number of victims reported by juveniles in residential care before and after being polygraph tested. The juvenile offenders reported an average of 2.1 victims pre-polygraph and 11.6 victims post-polygraph. Ahlmeyer, Heil, McKee, and English (2000) analyzed the number of victims and offenses reported by convicted adult sex offenders, most of whom were Caucasian, who were incarcerated or on parole. They examined reports from the offenders' Presentence Investigative Reports, Sexual History Disclosure forms, and polygraph examinations. Results indicated that, "the polygraph examination process effectively elicits a greater number of admissions of offending behavior in both settings” (p. 134). Prior to their polygraph test, the inmate population reported an average of 83 victims. This number increased to 165 victims reported during the polygraph test. Parolees reported an average of 4 victims pre-polygraph and 6 during the polygraph. Again, it must be reiterated that studies completed on adult populations should not just be generalized to juvenile populations without additional research.

The research examining the use of polygraphs with juvenile sex offenders is limited. In one study, 76 adolescent male participants, most of whom were Caucasian
(77.6%) and ranging in age from 10 to 18, were found to admit more about victims, types of crimes, and other past negative behaviors at the polygraph test than their previous assessment information indicated (Emerick & Dutton, 1993). All participants had been adjudicated to treatment for a sexual offense. Each offender’s assault history records were reviewed and all offenders participated in a clinical interview. During their clinical interview, they were instructed as to what could be expected during their polygraph examination. Offenders were told that information would be collected on previously undisclosed assault behaviors, but not in detail, so further incident reports would not be required, so as not to put the juvenile offenders in legal jeopardy. Results indicated that participants’ self-reports changed during confirmation polygraph testing, meaning more information (i.e., number of victims, number of assaults, gender of victims, amount of force used, number of relationships exploited, and degree of intrusion) was disclosed. According to Fanniff and Becker (2006), the Emerick and Dutton study is the only article that has been published regarding the amount of information disclosed by juvenile sex offenders about their sexual offenses upon being polygraph tested.

The polygraph test has been found to be quite useful in multiple studies and a variety of agencies fully believe it is necessary to use as a treatment or monitoring tool (Ahlmeyer et al., 2000; Emerick & Dutton, 1993; Hindman & Peters, 2001). Oregon was the first state to mandate its use with convicted sex offenders, but before the mandate, the Polygraph Licensing Board had a hearing to determine how to administer these tests appropriately to this population. Those who came to testify were professionals in other arenas, such as psychology or law. When discussing the hearing of the Polygraph Licensing Board, Abrams (1991) said, “In essence, the judges indicated that without
polygraph testing, they would not feel secure releasing these individuals into the community” (p. 259). Even with such strong research findings about polygraph use and the conviction of those in the legal field to protect future victims, there has been little research conducted on its use with juveniles. Craig and Molder (2003) stated, “To date, there is a remarkable absence of research regarding the use of the polygraph with juveniles, particularly those under 16 years-of-age” (p. 65). Little research on the topic has made it unclear as to whether modifications need to be made to the polygraph to account for juveniles lacking, “…cognitive skills and moral understanding to produce meaningful physiological responses to various polygraph questions” (Craig & Molder, 2003, p. 72). Additionally, there is concern that there is limited research and information regarding the consequences of admissions of criminal activity during the polygraph test. The use of polygraph tests has not been completely banned, but in order for one to be used as part of the juvenile’s treatment or as a monitoring tool, there must be sufficient supporting evidence to warrant its use. The Ohio Supreme Court ruling is significant, given that there are multiple treatment programs that require polygraph tests to monitor offenders’ behavior to help make the treatment more effective (Ahlmeyer et al., 2000; Emerick & Dutton, 1993; Hindman & Peters, 2001; Madsen, Parsons, & Grubin, 2004).

Using the polygraph to assist in monitoring sexual offenders seems as though it could be useful and some adult offenders believe that the polygraph is useful. Adult sex offenders, 82% of whom were Caucasian, who have to take polygraph tests as a term of their probation completed a survey about polygraphs, with the results indicating that 44% believed they were more truthful when giving information to their probation officer or therapist than they would have been if they had not been questioned using a polygraph.
machine (Grubin & Madsen, 2006). Another interesting finding from this study was that more than 30% of the sample also believed the polygraph led them to be more honest with family and friends. Most importantly, Grubin and Madsen (2006), reported that 56% of the participants believed that the polygraph was useful in helping them to not re-offend, while 63% believed it decreased their likelihood of engaging in the high risk behaviors associated with their offending. In another study, Kokish, Levenson, and Blasingame (2005), adult sex offenders’ subjective experiences of being monitored with random polygraph tests during their treatment were measured. Offenders, even those found deceptive, believed the polygraph was helpful to their treatment. When offenders described the polygraph as helpful in their treatment, they generally meant it forced them to be more honest with themselves and others (Kokish, Levenson, & Blasingame, 2005).

Madsen, Parsons, and Grubin (2004) designed a study to determine if there was evidence to support the belief of adult offenders that the polygraph helped them to not re-offend and increase their honesty in treatment. The participants, convicted adult sex offenders, were divided into two groups. One group was told they would be receiving regular polygraph tests and the other was told that they were going to be monitored, and as such, at times, may have to complete polygraph tests. All participants were administered two polygraph tests, separated by a three month interval. At the first testing participants were separated into two groups, but at the second testing all participants knew they would be receiving a polygraph. The findings indicated that at the first testing, there was no difference between the groups in regard to the seriousness of the offending behaviors being reported, but at the second testing fewer reported completing offending behaviors. "'Seriousness' was determined by the extent of purposeful activity
required to engage in the behavior, and was classified as low, medium, and high: ‘Low serious’ behaviors were comparatively passive...‘High serious’ reflected active attempts to acquire victims...” (Madsen, et al., 2004, pp. 685-686).

Although the results of this study shed some light onto the effectiveness of the polygraph as a treatment or monitoring tool, it has a major limitation. The limitation was that their final sample size was very small, given that throughout the process about half the men dropped out. This study was not designed to measure whether the number of disclosures changed between the offenders’ initial interview and then subsequent polygraph tests, but results showed that the numbers of disclosures increased. In a similar study, results indicated that when regular polygraph tests were used with adult sex offenders, the offenders reported additional high-risk behaviors about which their therapists and probations officers were previously unaware (Grubin, Madsen, Parsons, Sosnowski, & Warberg, 2004).

The purpose of the present study is to examine when juvenile sex offenders disclose offending behaviors. By reviewing when they make any additional disclosures (i.e., pre-polygraph test, at polygraph testing, throughout the course of treatment/post-polygraph) more information can be gained not only about the number of victims by juvenile sex offenders, but also about the usefulness of the polygraph as a treatment or monitoring instrument. Having data to support such tools can lead to the improvement of juvenile sex offender treatment programs, given their prevalence, even though there is limited research focused on this particular population.
Chapter II

Rationale and Hypotheses

Given the increasing awareness of juvenile sex-related crimes, researching juvenile sex offenders, their assessment, and treatment is important to improve not only our understanding of the offenders, but also what is necessary to enhance treatment. Sapp and Vaughn (1990) stated, “Literature identifying juvenile sex offender treatment is scant” (p. 133). While there has been an increase in the literature and research with this population, there continue to be concerns about treating this population. One of the main concerns when treating sex offenders in general is their honesty when disclosing information about what they have done both pre- and post-treatment. This information is important because the goal of treatment is to prevent recidivism. Working to understand and prevent recidivism is not only helpful to the offender, but a matter of public safety. Knowing the offender’s past victims and crimes is necessary to both determine what behaviors should be addressed in treatment and protect the victims.

Information about sex offenders’ history is often gathered in a pre-treatment interview, but this information is likely to be limited for either fear of further charges being pressed or the knowledge that the interviewer does not necessarily know the truth about the extent of the offender’s crimes. Research has indicated that more disclosures are made by adult offenders when a polygraph test is used as part of their probation and/or treatment (Ahlmeyer, Heil, McKee, & English, 2000; Madsen, Parsons, & Grubin, 2004). Hindman and Peters (2001) found that adult offenders self-reported an average of
1.5 victims when completing their sexual history and an average of 9.0 victims at their polygraph test. They also documented the number of victims reported by juveniles in residential care before and after polygraph testing. The juvenile offenders reported an average of 2.1 victims pre-polygraph and 11.6 victims post-polygraph. It should be noted that when offenders reveal new victims once in treatment, facility staff are required to report this information to law enforcement or children’s protective services. Offenders, themselves, have also indicated that they believe the test is accurate and helpful in their treatment (Kokish, Levenson, & Blasingame, 2005). These studies suggest that there are other victims that typically go unreported at both the assessment and the polygraph, which may be revealed later in treatment. Thus, the purpose of the present study is to examine the number of victims reported by juvenile sexual offenders prior to their polygraph test, the day of their polygraph test, and later in their treatment. The timeliness of this study is important, given that the Ohio Supreme Court ruled in November 2006 that the polygraph cannot be used in a post-adjudication manner with juvenile sex offenders unless it is determined that it is necessary for treatment. The ruling has significantly affected treatment providers given various studies have indicated that the polygraph is a useful treatment tool (e.g., Grubin & Madsen, 2006; Kokish et al., 2005).

The main question being asked in this study is: When juvenile sex offenders are adjudicated and mandated into treatment, when do they disclose information about the number of victims they have perpetrated against? More specifically, the following null hypothesis is made:
H₀: There are no statistically significant differences in the number of victims reported by offenders over three time periods (i.e., pre-polygraph test, day of polygraph testing, and post-polygraph test/during treatment).
Chapter III

Method

Participants

Data for the present study will come from male juvenile sex offenders between the ages of 12 and 17, who were previously mandated to a sex offender treatment program located in a medium to large city in the Midwest. While in treatment, offenders receive a complete psychological assessment, individual therapy, group therapy, and attend school on-site. The average length of stay is 7 months, but sex offenders can be present for upwards of 14 months. All of the offenders in this program are male. Participants are involved in the treatment program for 6-18 months, with most completing the program within a 6-12 month time frame.

Power Issues

Based on a review of the literature, the sample size of similar studies varied from 30 to over 100 participants. Some of the sample sizes were low, given many of these studies generated their own data and did not work with archival data. Ahlmeyer et al. (2000) based their findings on a sample size of 60 for a study in which they examined the impact of the polygraph on the number of victim disclosures by offenders, a sample size of 60 was analyzed. According to Cohen (1992) for a medium effect at a .05 significance level, when examining three groups, a sample size of 52 is necessary. For a medium effect at the .01 level of significance with the same number of groups, the sample size must be 76 participants. Considering the criterion discussed above and the size of
samples used in other studies, at least 125 charts will be reviewed and recorded.

*Polygraph use at the Juvenile Training School*

One certified polygraphist was contracted to work at the facility from which data will be gathered. The polygraphist received his training at the National Training Center of Polygraph Science and he is a member of the Academy of Certified Polygraphists. All polygraph examinations were conducted off-site in the polygraphist’s office. Polygraph examinations occur 6 to 8 weeks after the offender has been admitted to the facility. Offenders were questioned with the sexual history disclosure method of polygraph. The questions asked during a polygraph examination were based on the written sexual history all juveniles adjudicated to the program complete, once they have completed their pre-polygraph training, in which they are educated on sexual language.

The services of a polygraphist were also employed when specific incidents of question arose at the facility (e.g., incidents occurring in the cottage). Maintenance polygraph tests were also used, in that all offenders were required to receive a polygraph every six months while in the program. The number of maintenance tests administered to each offender varied, due to varying lengths of stay in treatment.

*Procedure*

Approval for this file study will be obtained from a University’s Institutional Review Board and from the Training School before data will be collected. Each client has a central file, psychology file, social work file, and polygraph file. All four components of each client’s chart will be reviewed. To maintain confidentiality, offender and victim names will not be recorded. All offenders will be assigned a number for tracking during data collection. The data collected will consist of the offender’s
demographic information, including age, race, grade, Full Scale IQ scores, date of admission to the facility, offense that led to adjudication to treatment, number of victims related to placement offense, history of offenses, the number of victims reported, and date of discharge (see Information/Data Sheet in Appendix A). The data collected regarding victims reported will consist of three data points. These three points will be the number of victims reported by offenders prior to receiving a polygraph test (i.e., up until the day of their polygraph), the day of their polygraph test, and during the rest of their treatment (i.e., from the day after their polygraph test until discharge). The first data point was chosen based on literature indicating that sex offenders reveal some victims upon intake into treatment, particularly information about the crime that led to their conviction. The second data point was set to be the day of their polygraph test, given information from a professional who has worked with a juvenile sex offender population indicating that this is a time when they often disclose additional victims. Although juveniles may view the polygraph test as a threat and subsequently reveal more victims, use of the polygraph is better understood to be a means of verifying the number of victims reported by the offender. The third point was chosen because, “Clinical experience strongly suggests that the true number and extent of sexual crimes may be revealed only after several months of treatment” (Baker, Tabacoff, Tornusciolo, & Eisenstadt, 2001, p. 80).
Chapter IV

Proposed Analyses

The purpose of this study is to examine the number of victims reported by offenders over three time periods (i.e., assessment phase, day of polygraph testing, and post-polygraph test/during treatment). A repeated measures Analysis of Variance (ANOVA) will be conducted to evaluate differences in the means reported across time. In addition, the percentage of change in amount of disclosures between the three time categories will also be calculated.

<table>
<thead>
<tr>
<th></th>
<th>Time 1 (pre-polygraph)</th>
<th>Time 2 (day of polygraph)</th>
<th>Time 3 (post-polygraph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of victims</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reported</td>
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<td></td>
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</tbody>
</table>

Percentage of Change in Number of Disclosures

<table>
<thead>
<tr>
<th></th>
<th>Time 1 to Time 2</th>
<th>Time 2 to Time 3</th>
<th>Time 1 to Time 3</th>
</tr>
</thead>
<tbody>
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</table>

Contingent upon the actual sample size obtained, post hoc analyses for race will be conducted. It should be noted, however, there does not appear to be any specific research dealing with any differentiation effects of verification polygraph tests as related to race.
References


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### Appendix A

**Information/Data Sheet**

<table>
<thead>
<tr>
<th>Client Number (assigned to ensure confidentiality)</th>
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<tbody>
<tr>
<td>Age</td>
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<tr>
<td>Race</td>
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<td></td>
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<tr>
<td>Date of Placement of offense</td>
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<tr>
<td>Placement offense</td>
<td></td>
<td></td>
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<tr>
<td>Number of victims related to offense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of offenses</td>
<td></td>
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<tr>
<td>Full Scale IQ</td>
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<tr>
<td>Victims reported during the day of the polygraph* (Date of Polygraph)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victims reported until release from treatment*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of discharge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Stay</td>
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</tbody>
</table>

* Number of victims is cumulative
Chapter V
Dissertation
Abstract

This study was designed to examine the number of victims reported over the course of treatment by 12- to 17-year-old juvenile sex offenders adjudicated to a treatment program. Records were reviewed at four time periods to ascertain the number of victims disclosed at each time period: at the time of conviction, assessment phase (1st day of treatment until polygraph), at the polygraph examination, and from the day of the polygraph to discharge. Results indicated that additional victims \( M = 2.39, SD = 3.50 \) were reported over the participants’ time in the program, with the most additional victims being reported during the assessment phase prior to the polygraph, which was from 6-12 weeks after the day of their placement in the program.
Timelines of Disclosures Regarding Number of Victims by Juvenile Sex Offenders

The number of juvenile sex offenders has risen greatly over the past 20 years, with juveniles committing approximately 20-33% of all sexual offenses (Edwards & Beech, 2004; Ertl & McNamara, 1997). The rising numbers have led to more attention being placed on juvenile offenders, both in efforts to better understand them and determine how to better treat them. In fact, they have received so much attention that the Adam Walsh Child Protection and Safety Act was enacted in 2006, and requires juvenile offenders to register in the national sex offender registry just like adult offenders.

Although the registry requirement is a relatively new issue with federal mandates officially being enacted in June 2009, it is estimated that 3% of all sex offenders on the public registry are juveniles (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2009). Statistics and information about juvenile sex offenders comes from juveniles who have been convicted of their crimes and from research conducted with adult sex offenders.

The juvenile victims of both juvenile and adult sexual offenders often know the perpetrator, whether it be a sibling, neighbor, or friend (Lowenstein, 2006). It should be noted that over 50% of offenses committed by juveniles involve victims under the age of 12. Additionally, approximately 50% of adult offenders report having committed their first offense in adolescence (Bourke & Donohue, 1996). Ahlemeyer, Heil, McKee, and English (2000) found that adult male sex offender inmates and parolees both reported an average age of onset of 28 (inmate SD = 7.11, parolee SD = 8.27) in their presentence investigation report, but on subsequent polygraph examination, inmates reported an average age of onset of 12 (SD = 5.16) and parolees an average age of onset of 23 (SD = 8.72). Wilcox and Sosnowski (2005) studied a sample of 14 adult male sex offenders...
participating in a treatment program and found that pre-polygraph records indicated they reported an average age of onset of 27.9 years ($SD = 18.4$), but an average age of onset of 13.5 years ($SD = 3.8$) at their polygraph exam. Given these staggering statistics and the potential long term implications, such as the controversial issue of having to register as a sex offender anywhere from 10-25 years to the rest of their lives (Adam Walsh Child Protection and Safety Act, 2006), the importance of continuing to research this population is clear for the welfare of both the offender and his victims.

Juvenile sex offender research is most often based on information gathered when the offender enters treatment (Baker, Tabacoff, Tornusciolo, & Eisenstadt, 2001); however, Baker et al. stated, “...there is reason to question the completeness and accuracy of such "pretreatment" information...” (p. 80). They further indicated that clinical experience has shown that juvenile sex offenders typically disclose additional victims after being in treatment for several months. At this time, while there is research examining what may lead to disclosures, there is no research information specifically examining the timing of disclosures by adult and juvenile sexual offenders, over the course of treatment.

To maximize treatment effectiveness, those working with sex offenders need to know information about the offender’s victims and crimes. In general, it is difficult and impractical to gather information from victims due to the underreporting of sexual abuse (Priebe & Svedin 2008), and cases never being prosecuted or charges being dropped (Faller, Birdsall, Henry, Vandervort, & Silverschanz, 2001). Thus, it is important to try to ascertain this information from the offenders themselves. Disclosure of the nature of the sex offenders’ acts, including revelation of behavior that was not prosecuted, is
considered an integral part of many sex offender programs (Ertl & McNamara, 1997; Frost, Daniels, & Hudson, 2006; Hindman & Peters, 2001), with some clinicians claiming it is essential in addressing the risk of re-offending (Frost et al., 2006). Disclosure can be further viewed as important because offenders who deny their offenses often refuse treatment or are seen as incompatible with treatment programs (Ware & Marshall, 2008). This type of information can be helpful from a therapeutic standpoint, in helping the therapist better understand the offender and how to proceed with treatment.

**Studies Reporting Numbers of Admissions of Victims**

Despite the central role that full disclosure is felt to play in treatment programs, it has been shown that “self-reporting often fails to uncover the true extent of an offender’s sexual history” (Hindman & Peters, 2001, p. 8). Baker et al., (2001) interviewed 47 male juvenile sex offenders ($M_{age} = 14.64$ years, $SD = 1.55$) and their families and found that over the course of treatment, 25 of the participants revealed additional victims or offenses with an average of 3.31 ($SD = 2.46$) new victims being reported. Participants also reported more information about their own victimization and family dysfunction. Emerick and Dutton (1993) examined an adolescent male sample ($M_{age} = 15.09$ years) who were referred for an in-patient assessment at a hospital treatment facility for juvenile sex offenders after being reported for, charged with, or adjudicated of a sexual crime. The racial make-up of the sample was 77.6% Caucasian, 10.5% Mexican American, 9.2% Native American, and 2.6% African American. The study found a significant difference in the number of victims reported at intake ($M = 1.87$) and at their polygraph test ($M = 2.85$). In 1994, Hindman and Peters (2001) compared polygraphed juvenile offenders (ages not reported) who were granted immunity from further prosecution to
non-polygraphed adult offenders (average age was not reported) without immunity and found that those who had a polygraph exam (i.e., the juvenile offenders) reported an average of 4.3 victims per offender while the self-reporters (i.e., the adult offenders) reported an average of 2.9 victims per offender. This suggests that the polygraph examination may lead to further victim disclosures that might otherwise go unreported.

The literature with adult offenders is also helpful in shedding light on the total number of victims in which sexual perpetrators are involved. Abrams (1991) studied 71 adult males (average age was not reported) and found they made 166 total admissions prior to receiving a polygraph examination whereas “an additional 538 (total) admissions were made during their polygraph examination, but prior to testing” (i.e., during their pre-test interview) (p.258). Hindman and Peters (2001) reviewed sexual histories and polygraph confirmed sexual histories of 227 adult male sex offenders (average age was not reported) who had been in a treatment program between 1978 and 1988. The participants were divided into two groups: those who knew they would receive a polygraph and those who did not. Their results indicated that pre-treatment, both groups reported an average of 1.25 total victims (standard deviations were not reported). After treatment began and the two groups were analyzed separately, they found that the group that was administered the polygraph and given immunity from further prosecution reported an average of nine total victims, compared to an average of 1.5 total victims being reported by the non-polygraph group. In regard to their studies with adult offenders, Hindman and Peters (2001) state, “With polygraphs, they disclose six times as many victims and most confess that they were sexually offending as juveniles” (p. 14).

Ahlmeyer et al., (2000) examined the number of past victim and offense admissions of 60
adult male sex offenders ($M_{\text{age}}$ inmates = 39 years; $M_{\text{age}}$ parolees = 36 years) who were either incarcerated or being supervised on parole. The 35 incarcerated participants were voluntarily in treatment, while the 25 parolees were mandated to treatment. Each participant had completed a sexual history within the first 90 days of his admission to treatment, and then each was administered a polygraph exam. Once the polygraph was completed, the examiner discussed the results and any deception concerns with the participant allowing the opportunity for any further disclosures. They found that both the inmates and parolees reported an increased number of victims and offenses when a polygraph test was given (sexual history only $M_{\text{victims}} = 50$, $Mdn = 8$; polygraph $M_{\text{victims}} = 99$, $Mdn = 10$). It should be noted that Ahlmeyer et al., (2000) did not report standard deviations; however they reported medians stating, “…medians are better indicators of the frequency of victimizing behavior,” (p.129). Heil, Ahlmeyer, and Simons (2003) studied cross over offenses (e.g., having male and female victims or having adult and child victims) and included the number of victims reported by 223 inmates ($M_{\text{age}} = 39$ years) and 266 parolees ($M_{\text{age}} = 34$ years) who were in treatment programs and supervised by law enforcement. They found that both the inmates and parolees reported more victims at their polygraph exam than previously reported in their presentence investigative report (inmates – sexual history $M = 2$, $Mdn = 1$, polygraph $M = 14$, $Mdn = 5$; parolees – sexual history $M = 1$, $Mdn = 1$, polygraph $M = 2$, $Mdn = 1$). Wilcox and Sosnowski (2005) studied 14 adult males ($M_{\text{age}} = 42.5$ years) participating in a community based treatment program, and found that they admitted more victims during their polygraph examination than previously reported on their Multiphasic Sex Inventory and Sexual History Disclosure Test (inventory – $M = 3.7$, $SD = 1.63$; polygraph – $M = \ldots$)
Renshaw (1994) examined the number of victims reported by 40 adult male offenders ($M_{\text{age}} = 35$ years) to determine if there were any differences in numbers reported by those who had been sexually abused as children and those who denied any childhood abuse. The participants completed interviews and were administered polygraph tests within the first 60 days they were in the treatment program. The offenders not abused in childhood reported an average of 1.25 victims ($SD = 0.91$), while the offenders who were said to have been abused in childhood reported an average of 3.45 victims ($SD = 4.30$). Although victim reports between the offenders' interviews and polygraph exams were not formally analyzed, she concluded, "Furthermore, as expected the progression of victim disclosure increased throughout the screening process with the largest number of admissions accumulated at the time of polygraph" (p. 28).

Table 1 provides a summary of the juvenile studies discussed, while Table 2 summarizes the adult offender studies. In sum, a compilation of the results from the three juvenile studies was completed by adding the numbers of average victims reported in each study at the two time periods (initial reports or clinical interviews and then at secondary interviews or polygraph examinations), and then dividing this number by the number of studies that provided this data. It should be noted that if information for one of the time periods was not available the average was taken from the information that was available. The assemblage of studies showed that juvenile offenders ($M_{\text{age}} = 14.87$ years; range 10-18) reported an average of 1.70 victims at their initial interviews, however the information for initial interviews was available from only one study, Emerick & Dutton, 1993. At the secondary interview and/or polygraph examination the juvenile offenders reported an average of 3.49 victims. It should be noted that it is unclear whether it is 3.49
additional victims or 3.49 total victims disclosed. A compilation of the results of the five adult studies that had an average number of victims reported showed that adult offenders’ ($M_{\text{age}} = 37.58$ years; range 18-80) presentence investigation reports, sexual history disclosure forms, and any other legal records resulted in an average of 9.89 reported victims and an average of 29.80 victims reported at the polygraph and throughout treatment. It should be noted that in two studies, there were separate averages in initial disclosures based on different assessment tools, and one study had two data points in the secondary/polygraph disclosures, thus these averages were added in as two separate data points when calculating the overall average of the adult sex offender studies. Although the information about the number of further victims disclosed showed an increase when a polygraph exam was administered, it is still difficult to ascertain whether the additional disclosures are a direct result of the polygraph examination or a result of other factors discussed in the studies such as age, intellectual level, offenders’ past victimization, familial influence, decision to participate in treatment (e.g., juveniles’ parents or guardians make decisions for them) inmate or parolee, and employment status (Craig & Molder, 2003; Faller et al., 2001; Heil et al., 2003; Sefarbi, 1990).

Factors Affecting Admission or Denial of Offenses

In order to more clearly understand the extent of offending, it is important to know more about when or what may lead to further disclosure of victims. Getting offenders to provide information regarding previous offenses and victims can prove difficult, especially since Rogers and Dickey (1991), Ahlmeyer et al. (2000), and Lord and Willmot (2004) noted, defensiveness and denial are understandable reactions from sex offenders who attempt to cope with a highly adversarial legal system, are fearful of
further legal ramification such as being prosecuted for new crimes or victims revealed often with serious far-reaching consequences. In regard to protecting offenders from further prosecution in efforts to obtain more truthfulness in treatment, Blasingame (1998) stated, "This immunity appears to be an equally powerful tool in facilitating additional disclosures" (p. 38). Hindman and Peters (2001) noted that rules regarding protection from further prosecution for the report of offenses prior to their current conviction vary from state to state, with some not providing any immunity, thus placing the offender in a place of forced choice (i.e., be deceptive and risk being caught being deceptive or tell the truth, both of which could lead to suffering further prosecution/consequences). In addition to concerns about further legal actions, adult offenders may deny offenses due to a lack of motivation, fear of losing friends and family, and the potential consequences to their self-esteem or self-image (Ware & Marshall, 2008). These additional factors may influence offenders' disclosures, but they are beyond the extent of this study.

Although many offenders have reasons to deny their offenses, some offenders disclose some or all of their offenses and victims. Some research has explored the conditions associated with complete disclosure. Sefarbi (1990) attempted to identify factors that may impact a juvenile offender's admission or denial of an offense by analyzing the characteristics of juvenile offenders who admitted and those who denied they committed an offense. In the small, 10 participant sample, the adolescents (age ranged from 12-18, seven of whom were aged 13-15) who had admitted to the charges in their court records were those who came from disengaged families, while those who denied charges were from enmeshed families. The results indicated that admitters suffered a series of abandonments, experienced abuse or neglect, had under-protective
parents, had low self-esteem, lacked understanding about sexuality, had a mother who
gave birth to them while a teenager, and were blamed for family problems. Sefarbi
concluded that the sex offense was often an expression of anger. In contrast, deniers
were often overwhelmed with little parent support, had been a parentified child, had poor
performance in school, were isolated by peers, preferred the company of younger
children, were considered nice and dependable by relatives and neighbors, had higher
self-esteem than admitters, and had family communication with avoidance of discussions
about sexuality. Both groups were characterized as having weak executive functioning
and a lack of firm rules in their lives. Although identifying the characteristics that lead to
disclosures by offenders is beyond the scope of this study, Sefarbi’s results provide
further information regarding additional factors that may influence juvenile offender
disclosure. Faller et al. (2001) examined a number of factors, such as suspect, victim,
and abuse characteristics and case proceedings thought to impact an offender’s disclosure
or denial of offenses. Information was gathered from 301 criminal record case files that
had been investigated over a 10 year period involving sexual offenses committed by
adolescent ($N = 15$) and adult male offenders ($M = 32.8$ years; $SD = 13.1$; range 14-73).
Most of the investigated cases resulted in a prosecution, but 53 were not criminally
prosecuted after the initial charge. Information regarding the demographics of the
offenders (i.e., socio-economic status, age, and relationship to the victim), age of the
victim, severity and the duration of the abuse, medical evidence, videotaped victim
disclosures, child protective services involvement, and skill level of law enforcement
investigators was collected. Those who confessed were younger ($M_{age} = 31$ years, $SD =
12.8$) than those who did not confess ($M_{age} = 36$ years, $SD = 13$), but no comparisons
were made between juvenile and adult offenders. Offenders who were unemployed or worked in unskilled jobs were also more likely to confess than skilled employees. In regard to the offense characteristics, offenses were divided into three severity categories: penetration, sexual contact, and both. When an offender had committed a higher severity offense (penetration with and without sexual contact), there were more confessions than lower severity cases (i.e., sexual contact). Offenders were also more likely to confess when there was a greater frequency of offenses. More specifically, in 80% of cases with 10 or more episodes (i.e., high frequency) of abuse suspects confessed, while only 55-60% of suspects confessed in cases with less frequent episodes of abuse. Lastly, it was found that when cases were investigated by state police, 75% of offenders confessed, compared to county, town, or municipality law enforcement's 65.6% confession rate. Although there were higher rates of confession by state police, the proportion of complete confessions (i.e., confessing to all acts described by the victims) obtained by state police (25%) was lower than local law enforcement (34.6%).

**Evaluation of Sex Offenders**

It is common practice in containment and treatment programs for sex offenders to receive a thorough evaluation in order for therapists to assess their current risk (e.g., one does not want to put a violent offender in a low security/supervisory setting) and to determine how to best structure treatment (Veneziano & Veneziano, 2002). In a review of the literature on juvenile sex offenders, Veneziano and Veneziano stated, “Because of the heterogeneous nature of juveniles who have committed sex offenses, it is generally conceded that a comprehensive clinical assessment be performed on each offender prior to the development and implementation of an individualized treatment plan” (p. 253).
Further, Hunter and Lexier (1998) discussed the ethical and legal treatment issues when working with juvenile sex offenders and recommended, "Clinicians should, when possible, conduct evaluations following adjudication…Clinical assessments should be directed at helping determine amenability to treatment, required level of care, identification of treatment goals, and estimated risk of reoffending" (p. 346). These evaluations are often used as a way of obtaining information to present to the courts, such as whether the offender should be placed in confinement or released back into the community (Bonner, Marx, Thompson, & Michaelson, 1998; Witt, Bosley, & Hiscox, 2002). The information obtained through an evaluation is important in light of research indicating that certain types of sexual offenders are at greater risk to commit further or more violent sexual offenses.

It is generally agreed that there are some important pieces of information that should be gathered during an assessment of a sex offender. One is the number of victims the person has perpetrated against and the other is the types of crimes committed. This information is not only crucial at the assessment in regards to guiding treatment, but should be re-assessed throughout the treatment process (Baker et al., 2001), especially given the studies previously discussed that have indicated that the number of victims and offenses reported can increase over the course of treatment or under certain conditions (e.g., when a polygraph examination is administered or they are granted immunity from further prosecution) (Ahlmeyer et al., 2000; Ertl & McNamara, 1997; Frost et al., 2006; Hindman & Peters, 2001).

There are multiple means of gathering information about juvenile sex offenders, their crimes, and their victims. One is a structured clinical interview, which is usually
administered immediately upon admission into treatment. Administering a clinical interview so early in treatment can be limiting, since a clinician has to assume or determine if the interviewee is being honest and if accounts of events are truly accurate. In this regard, it has typically been found that juvenile sex offenders often revealed more information, including information regarding additional victims and crimes, over the course of treatment. Another source of data is psychological testing, which can be used to examine factors such as those previously discussed as impacting disclosure and personality characteristics, psychosexual characteristics, cognitions toward sexual behavior, and motivation to treatment (Bonner et al., 1998). Lastly, biometric tests (e.g., plethysmographs, polygraphs, etc.) are often used when assessing and treating both adult and juvenile sexual offenders (Bonner et al., 1998). More specifically, the polygraph or “lie-detector” test has been used to help confirm information presented in the clinical interview and to gather additional information. Although the information gleaned from the polygraph is often assumed to be more truthful by being able to detect deceptions, this assumption is questionable, given that polygraph accuracy, reliability, and validity still remain uncertain (Grubin & Madsen, 2005; Veneziano & Veneziano, 2002). Some studies have suggested that polygraph tests have a high degree of accuracy for both truthful and deceptive tests, 95% and 90% accurate respectively (Abrams, 1991). Branaman and Gallagher (2003) reported similar accuracy rates with guilty (deceptive) sex offenders at 97% and non-guilty (non-deceptive) sex offenders at 93%. They noted that after reviewing multiple studies, the rate of false positives (i.e., finding a person deceptive when he is actually not deceptive) ranged from 0% to 25%, and the false negative (i.e., finding someone not deceptive when he is actually deceptive) rate ranging
from 0% to 8%. Grubin and Madsen (2006) stated that the US National Academy of Sciences estimated polygraphs are accurate 81%-91% of the time. The American Psychological Association website stated, “So-called “lie detection” involves inferring deception through analysis of physiological responses to a structured, but unstandardized, series of questions” (http://www.apa.org/research/action/polygraph.aspx, 2004). Craig and Molder (2003) also note, “There are no set national guidelines for the use of the polygraph with juveniles nor is there a minimum testing age” (p. 65). The error rates, particularly finding examinees deceptive when they in fact are not, lack of overall standardization of questions, and difficulty finding means of confirming information obtained, influence the continued concerns among professionals regarding the use of the polygraph with sex offenders. The American Polygraph Association states that they believe polygraph testing is accurate, but specify in their policies:

“Psychophysiological Detection of Deception (PDD) (polygraph) testing of convicted sex offenders should be regarded as a decision-support tool intended to assist professionals in making important decisions regarding risk and safety. Polygraph testing should not replace the need for other forms of behavioral monitoring or traditional forms of supervision and field investigation (p. 4).”

Regardless of concerns, 70% of community based adult sex offender treatment programs and 45% of juvenile sex offender treatment programs use polygraph examinations (Grubin, 2008; Kokish, Levenson, & Blasingame, 2005). It should be noted that in sex offender treatment programs the polygraph is used as a means of confirming collateral information and previous reports on victims and offenses. This differs from other
criminal polygraphs in which suspects are asked questions regarding information about a crime or specific incident that it is assumed only a suspect would know.

The purpose of the present study is to examine when and how many juvenile sex offenders disclose offending behaviors/victims. By reviewing when they make any additional disclosures (i.e., pre-polygraph test, at polygraph testing, throughout the course of treatment/post-polygraph) more information can be gained not only about the number of victims by adjudicated juvenile sex offenders, but also indirectly about the usefulness of the polygraph as a treatment or monitoring instrument.

Method

Participants

Participants ($N = 74$) were male juveniles ranging in age from 12 to 17 years ($M = 14.58$ years, $SD = 1.19$) who were adjudicated to a sex offender program from 2003 to 2008. The 24 to 36 bed sex offender program is a residential treatment program located in a medium sized, primarily urban Midwestern county. The program was designed to try to prevent recidivism and provide necessary treatment for the offenders adjudicated to the facility. The demographic information included race, age, IQ score (as measured by the Wechsler Abbreviated Scale of Intelligence, Wechsler Intelligence Scale for Children-IV, or the Culture Fair Intelligence Test; data were available for only 47 of the 74 participants), length of stay, and placement offenses (see Table 3). The length of stay in the sex offender program varied ($M = 29.21$ months, $SD = 9.51$, range 4 to 53 months), as did the length of time spent on after-care.
Procedure

After permission to access the database and polygraph files was obtained from the training school (see Appendix A) and the university Institutional Review Board (see Appendix B), archival data were gathered from a computer database and the polygraph examiner’s files on juvenile sex offenders adjudicated to treatment at the training facility. Since both a computer database and paper files were reviewed by the primary researcher, participants were assigned numbers to ensure confidentiality and to allow for accurate tracking of their demographic information and disclosures across the four time periods. Demographic information gathered included the participants’ age, race, placement offense, number of victims related to placement offense, IQ score, and length of stay (see Table 3). The Record of Arrest and Prosecution (RAP sheet) was used to discern the number of victims related to their placement offense. Once all of the demographic information was gathered, information from four time intervals regarding the number of new victims disclosed was gathered from the RAP sheet and the polygrapher’s files, specifically reviewing the polygraph question that listed all victims and sexual offenses: Time 1 (conviction) number of victims related to the juvenile’s initial adjudicated offense; Time 2 (pre-polygraph) the number of victims disclosed from the day of admission up until the initial polygraph exam (this was a 6 to 12 week educational period); Time 3 (polygraph examination) the number of victims disclosed during the polygraph; Time 4 (post-polygraph) the number of victims disclosed from the end of the polygraph exam until discharge from the program (range 6 weeks to 53 months). It should be noted that when participants enter the program they complete a 6 to 12 week educational period where they are required to provide written sexual histories to staff to
confirm their previously reported victims and offenses. The sexual histories must be completed prior to the polygraph examination. The data used to calculate the number of additional disclosures made at Times 2, 3, and 4 came from only one polygrapher’s files. In order to receive certification to perform polygraph tests in Ohio, one must attend an accredited polygraph school and have at least 4 years of polygraph experience and continuing education. The polygraph examiner in this study was appropriately trained as he received training at the National Training Center of Polygraph Science and is a member of the Academy of Certified Polygraphists. The polygraph examination, as used in the context of this treatment program, is a collaborative process where the polygrapher and juvenile review the juvenile’s written sexual history within the framework of the questions used on the polygraph test protocol. Given that this is a confirmation polygraph, the collaborative period allows the polygrapher to clarify questions so they can be asked in a “Yes” or “No” format, and provides the juvenile with the structure of the polygraph examination. It should be noted that only one question from the polygrapher’s files was used for information gathering (i.e., “Beside (victims names previously reported) do you have any other victims?”). If other victims were disclosed, the polygrapher asked the victims’ names, ages, and number of times an offense was committed. All participants were administered additional maintenance polygraph examinations to ensure no new offenses occurred while in residential treatment or in after-care, but the number of additional exams varied across participants due to their varying lengths of stay, and thus is accounted for in the post-polygraph time period and not examined separately. Participants in the treatment program are not provided immunity and are at risk to be prosecuted for additional victims or offenses they reveal;
however, it should also be noted that information extracted from the files for the purpose of this study did not place participants at any further legal risk, since all additional victims or offenses disclosed were brought to the attention of the participants’ case manager who then reported such offenses according to institution rules and state laws at the actual time of the disclosure.

Results

In order to initially analyze the data, the means and standard deviations of disclosures were calculated for each of the four time periods (see Table 4). One-way repeated measures ANOVA indicated that there was a significant effect across time intervals, Wilks’s $\Lambda = 0.21, F(3, 71) = 91.00, p=.001, \eta^2 = .33$. To determine which time periods differed, post-hoc pairwise comparisons were conducted. These analyses revealed the following differences: the mean number of victims reported at Time 1 was significantly lower than the mean for Time 2, $t(73) = -2.53, p=.001$; the mean at Time 1 was significantly higher than the means at both Time 3, $t(73) = 14.64, p=.001$ and Time 4, $t(73) = 5.16, p=.001$; the mean at Time 2 was significantly higher than the means at both Time 3, $t(73) = 5.89, p=.001$ and Time 4, $t(73) = 4.93, p=.001$.

Discussion

The study of juvenile sex offenders is a growing field, although there is a paucity of research on the topic of disclosure, even though disclosure is viewed to be an integral part of treatment. This study found that juvenile sex offenders further disclosed, on average 2.39 additional victims, after being adjudicated to a residential treatment program. Most additional victim reports occurred during the time period from the day
they enter the treatment program (Time 1 – 87 total victims reported by the 74 participants) to the polygraph test (Time 2 – 157 total victims reported by the 74 participants), with fewer victims being reported during the polygraph test or the rest of the treatment program [Time 3 (at their polygraph examination) – 1 victim reported and Time 4 (post-polygraph) – 19 total victims reported]. It should be noted that only one of the 74 participants reported an additional victim on the day of his polygraph test. All of the participants completed a 6 to 12 week educational period (i.e., Time 2) upon admission to the treatment program to learn about sexual terms/offenses and provide their sexual history. During this phase of treatment, they were informed that they would be receiving a polygraph examination at some point in the future. It is difficult to determine if the increased number of victim reports during this educational time period is a result of their education and/or a result of the knowledge that they will have to complete a polygraph exam. Although significantly more victims were reported over time, it was found that four of the 74 offenders (5.4%) actually recanted a total of nine victims. It is not known what factors led to the withdrawal of these originally reported victims. While it also remains unknown why recanted victims only occurred during Time 4 (post-polygraph), it may be a function of the participants better understanding of what sexual offenses actually are, and/or a function of the accuracy of the polygraph itself.

Consistent with other studies, the number of victims reported by juvenile sex offenders participating in this treatment program increased over time. Baker et al. (2001) found that 53.2% (N = 25) of the 47 juvenile sex offenders they assessed reported an average of 3.31 more victims from their preadmission assessment to their in-treatment assessment (range = 6 – 30 months). Emerick and Dutton (1993) found that adolescent
sex offenders reported significantly more victims ($M = 2.85$ victims) when administered a polygraph than at their intake ($M = 1.87$ victims); the time elapsed between their intake and polygraph examination was not reported, however. Hindman and Peters (2001) examined the number of victims reported by six juveniles in residential treatment before and after the implementation of polygraph examinations to their program – an average of 2.1 total victims per offender were reported pre-polygraph and an average of 11.6 total victims per offender post-polygraph. When comparing an outpatient, polygraphed juvenile sample to an outpatient, non-polygraphed adult sample that was not provided with immunity, Hindman and Peters (2001) found that the non-polygraphed adult sex offenders reported an average of 2.1 total victims per offender while the polygraphed juvenile sex offenders reported an average of 4.3 total victims per offender.

Although not directly related to the juvenile sample in the present study, it is interesting to note that the literature examining adult offenders found an even greater numbers of victims reported by these older individuals (see Tables 1 and 2). The results of the adult studies showed that adult offenders ($M_{age} = 37.58$; range 18-80) reported an average of 9.89 victims in presentence investigations, sexual histories, and legal records, but an average of 29.80 victims when polygraph tested and throughout the course of treatment. It should be noted that in all of these studies, it was impossible to determine if the numbers of victims reported at the polygraph examinations were additional victims or included previously disclosed victim counts.

Based on past research with those adjudicated to sex offender treatment programs, it appears that there are several factors that may lead to additional victim disclosures. One such factor that has frequently been studied in regard to disclosure is the use of the
polygraph. All of the studies reviewed found that when a polygraph is used, offenders reported more victims or offenses. As just discussed above, Emerick and Dutton (1993) found that 76 adolescent sex offenders reported an increased number of victims when a polygraph was used, on the average of 0.98 victims per individual. Hindman and Peters (2001) reported that 87 juvenile sex offenders who were administered a polygraph examination and provided with immunity reported an average of 4.3 victims, compared to an average of 2.1 victims reported by 48 adult male sex offenders who did not have immunity and were not polygraphed. In regard to polygraph usage with adults, Abrams (1991) reported that 71 adult male sex offenders reported a total of 372 additional victims during their polygraph test. Ahlmeyer et al. (2000) found in an adult male sample of 35 inmates and 25 parolees, whose ages were unknown, reported an average of 46 more total victims at their polygraph compared to their presentence investigation and sexual history disclosure. Hindman and Peters (2001) studied 227 adult offenders who were in treatment between 1978 and 1988 and whose ages were not reported and found that self-reported histories resulted in an average of 2.7 total victims reported, while a polygraph exam in which the participant was provided with immunity showed an average of 11.3 total victims reported. Finally, Wilcox and Sosnowski (2005) studied adult male sex offenders ($M_{age} = 42.5$) and found that on average they reported 13.2 more victims at their polygraph than in their initial sexual history disclosure. In regard to polygraph examinations, Abrams (1991) stated, "Many disclosures are made at the time that the offender is notified that he/she is going to be required to take the examination," (p. 261), suggesting the offenders beliefs about the polygraph may impact its utility with this population. Grubin and Madsen (2006) gave 114 adult sex offenders a questionnaire
about their polygraph experience and 50 (44%) of the offenders reported that they were more truthful with their treatment team because of the polygraph.

In addition to offenders finding the polygraph to be a useful tool, Abrams (1991) and McGrath, Cumming, Hoke, & Bonn-Miller (2007) reported that some clinicians also find it helpful. Satisfaction surveys have been used to evaluate how useful supervision officers and treatment providers view the use of the polygraph with adult sexual offenders. McGrath et al. (2007) sent a satisfaction survey regarding polygraph examinations to a total of 239 supervision officers and treatment providers. The results indicated that 96% of the respondents rated the polygraph helpful \( (n = 144) \) or very helpful \( (n = 86) \), with 4% rating the polygraph as unhelpful \( (n = 6) \) or very unhelpful \( (n = 3) \). It was noted that supervision officers found the polygraph significantly more helpful than did the treatment providers. Lastly, Grubin (2008), in making a case for polygraph testing with adult sexual offenders, stated:

"Thus, while some, mostly coming from a practitioner perspective, argue strongly for post-conviction polygraph testing of sex offenders on clinical grounds, others, often from academic backgrounds, remain to be convinced that the gains are real and the risks are properly understood" (p. 178).

Although not examined in this study, it is important to note that other factors likely impact disclosure, namely family factors and psychosocial experiences, as well as, the knowledge of the offender as to just what is a sexual offense may also impact disclosure. In the initial phase of the present treatment program, juveniles spend time learning about terminology regarding sex and sexual offending, which allows for a common language between offenders, treatment teams, and polygraph examiners. In the
present study, a training school therapist, two social workers, and three administrators who assisted the primary author in reviewing their charting system suggested that this educational period may impact their understanding of what they had done and whether it qualifies as a sex offense. No research was found regarding this specific issue of sexual education, however. Another factor influencing additional disclosures in this population may be their familial background or upbringing. As Sefarbi (1990) found, juveniles from disengaged families were more likely to disclose than those from enmeshed families. She created a profile describing some of the traits she found common to the five admitters and five deniers included in her study. The admitters experienced abandonments, neglect or abuse, had low self-esteem, had few or mixed messages about sexuality, and often was the scapegoat for the family's problem. Deniers were dependent on their parents, had overprotective parents, were isolated by peers, and their families communicated but often avoided discussing sexuality. Both groups were found to have weak executive functioning and a lack of firm rules in their lives. In regard to the offenders' history and background, there are a number of issues that could be explored such as whether or not the juvenile was a victim of physical, emotional, or sexual abuse or neglect. Previous studies have found that unfortunately half of juvenile sex offenders report a history of abuse. In a study completed by Baker et al. (2001), 51% of the 47 juvenile sex offenders were documented victims of child abuse. Veneziano and Veneziano (2002) reported that 40% of adolescent sexual offenders participating in treatment were known to be sexually abused at the beginning of their treatment. Information on adult offenders indicates that approximately one third report being victimized as children. Renshaw (1994) reported that 28% of the offenders reported a history sexual abuse in childhood. Hindman and
Peters (2001) found that on self-reports 61-67% of adults reported being sexually abused in childhood, but when given a polygraph exam the percentages decreased and ranged from 17-32%. Similarly, the use of pornography or type of pornography used by juvenile sex offenders was found to influence the number of victims, with more victims being reported by those who used pornography for masturbation than those who did not (Emerick & Dutton, 1993). Although previous researchers have found that more victims have been disclosed by offenders over time and the information provided by these data have begun to specify when these disclosures were made, more research is needed.

The present study and a review of the literature suggest a polygraph should not be used as the sole means to gather information, however when it is used as a supplement to information gathering there is an increase in the number of victims reported. Whether or not these victims would have been reported over the course of treatment without the use of the polygraph is unknown. Given the large increase in victim reports between juvenile and adult offenders, it may be beneficial for further research to examine developmental levels to clarify when offenders are perpetrating against the most victims.

Finally, this study has a number of limitations. The first is the relatively small sample size which was limited to 74 boys due to record availability, although this sample size is comparable to the other three juvenile studies (M = 70 participants) and five adult studies (M = 76.67 participants) previously discussed. The second limitation is the lack of interrater reliability regarding the review of charts, in that all of the data were collected from the RAP sheet and polygraph charts solely by the author. Although the majority of files contained clear information about the identity of victims, there were a few occasions when information was unclear, primarily due to some participants having multiple
polygraph examinations coded on the same protocol as their initial polygraph exam, thus making it more difficult to discern victims newly reported or previously reported after their initial polygraph. The third limitation is that the juvenile offenders were self-reporting additional victims, and it is theoretically possible that in addition to family and psychosocial factors, other factors, such as program reinforcements (e.g., earning or losing privileges or passes to visit home based on whether the polygraph test was found deceptive or non-deceptive) may have impacted their reporting. Lastly, participants in this study all had different lengths of stay in the program and after-care, which may have also impacted number of victims disclosed in unknown ways. Although this study had limitations, the information provided further supports previous research indicating that more victims are disclosed over the course of treatment. Further research would be helpful in continuing to better determine what factors impacted an offender’s reporting and recanting, and thus help further understanding of juvenile sex offenders and how treatment/polygraph testing may impact the number of juveniles who continue to offend post treatment. In regard to future research, the following recommendations are made in order to enable researchers to better compare studies of additional victims. One recommendation is to clarify the design of the treatment program used, particularly the system of polygraph usage. Additionally, if a polygraph is used, are the participants provided with immunity or other incentives and consequences. A second recommendation is to clarify if victims reported are in addition to those previously disclosed or are victim counts cumulative. These recommendations should be helpful in clarifying the information in order to make future research on juvenile sex offender reporting easier to understand.
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<table>
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<tr>
<th>Authors (year)</th>
<th>Setting</th>
<th>Participants</th>
<th>Mean Age (SD)</th>
<th>Instruments Used</th>
<th>Initial Disclosures</th>
<th>Secondary/Polygraph Disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker, Tabacoff, Tornusciolo, &amp; Eisenstadt (2001)</td>
<td>Treatment Program (inpatient or outpatient unknown)</td>
<td>43 adjudicated males, 4 non-adjudicated males</td>
<td>14.64 yrs. (1.55 yrs.)</td>
<td>Pre-Admission Youth Characteristic Measure (YCM), In-Treatment YCM</td>
<td>Unknown</td>
<td>$M = 3.31 \ (SD = 2.46)$ additional victims reported at In-Treatment YCM</td>
</tr>
<tr>
<td>Hindman &amp; Peters (2001)</td>
<td>Out-patient Treatment Program for sex offenders on probation</td>
<td>87 juvenile male offenders with conditional immunity and polygraphed, 48 adult male offenders without immunity whose histories were not polygraphed</td>
<td>Ages not reported</td>
<td>Polygraph examinations</td>
<td></td>
<td>$M = 4.3$ total victims from polygraph verified histories of juvenile offenders</td>
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<tr>
<td>Emerick &amp; Dutton (1993)</td>
<td>In-patient Hospital Based Treatment Program for Adolescent Sexual Offenders</td>
<td>76 males reported for, charged with, or adjudicated of a sexual crime</td>
<td>15.09 yrs. (SD not reported)</td>
<td>Collateral Information (e.g., Legal Records), Clinical Interview, Polygraph Examination</td>
<td>$M = 1.70$ total victims (collateral and intake combined)</td>
<td>$M = 2.85$ total victims reported at polygraph</td>
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<td>Authors, Setting</td>
<td>Participants</td>
<td>Mean Age (SD)</td>
<td>Instruments Used</td>
<td>Initial Disclosures</td>
<td>Secondary/Polygraph Disclosures</td>
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<tr>
<td>Abrams (1991) Out-patient Treatment for sex offenders on probation</td>
<td>71 adult males Ages not reported</td>
<td>Treatment information Polygraph Examination</td>
<td>166 total admissions during treatment prior to polygraph</td>
<td>538 total admissions during polygraph pre-test interview</td>
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<td></td>
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<tr>
<td>Renshaw (1994) Out-patient Program “Sex Offenders and Victims Treatment Program”</td>
<td>40 males on probation or parole (mandated to treatment) 35 yrs.</td>
<td>Screening Interview Polygraph Examination</td>
<td>No formal statistics reported regarding initial disclosures and polygraph disclosures. “The progression of victim disclosure increased throughout the screening process with the largest number of admissions accumulated at the time of polygraph.” (p. 26)</td>
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<td>25 male parolees (mandated to treatment) parolees 36 yrs.</td>
<td></td>
<td>$M = 50$ victims (SHD inmates and parolees combined)</td>
<td>$M = 110$ (2nd polygraph inmates and parolees combined)</td>
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<td>Setting</td>
<td>Participants</td>
<td>Mean Age (SD)</td>
<td>Instruments Used</td>
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<tr>
<td>Hindman &amp; Peters (2001)</td>
<td>Out-patient Treatment Program for sex offenders on probation</td>
<td>98 males</td>
<td>Ages not reported</td>
<td>Self-reported sexual histories, Polygraph verified sexual histories</td>
<td>$M = 1.5$ victims (self reported sexual histories)</td>
<td>$M = 9$ victims (polygraph verified histories)</td>
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<td></td>
<td>Out-patient Treatment Program for sex offenders on probation</td>
<td>129 males</td>
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<tr>
<td></td>
<td>76 males</td>
<td>Ages not reported</td>
<td>Self-reported sexual histories, Polygraph verified sexual histories</td>
<td>$M = 2.5$ victims (self reported sexual histories)</td>
<td>$M = 13.6$ victims (polygraph verified histories)</td>
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<td>152 males</td>
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<tr>
<td>Heil, Ahlmeier, &amp; Simons (2003)</td>
<td>Sexual Offender Treatment Program for Inmates</td>
<td>223 inmates (mandated to treatment)</td>
<td>inmates 39 yrs.</td>
<td>Presentence Investigation Report (PSIR), Redirecting Sexual Aggression Sexual History Disclosure Questionnaire (SHD), Polygraph Examination</td>
<td>$M = 1.5$ victims (PSIR inmates and parolees combined)</td>
<td>$M = 10.5$ victims (treatment and polygraph – inmates and parolees combined)</td>
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<td>Approved community based treatment providers</td>
<td>266 parolees (mandated to treatment)</td>
<td>parolees 34 yrs.</td>
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<tr>
<td>Wilcox &amp; Sosnowski (2005)</td>
<td>Community based Sex Offender Group Work Program</td>
<td>14 males on probation (voluntarily participated in study)</td>
<td>42.5 yrs.</td>
<td>Sexual History Disclosure Testing (SHDT), Multiphasic Sex Inventory (MSI), Polygraph Testing</td>
<td>$M = 3.7$ total victims (SHDT and MSI combined)</td>
<td>$M = 16.9$ total victims (polygraph)</td>
</tr>
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</table>
Table 3

Demographic Information Regarding Race, Age, Full Scale IQ, Number of Sexual and Non-Sexual Offenses Prior to Admission to Treatment Program, Length of Stay in the Program, and Convicting Offense Leading to Placement in the Treatment Program for 74 Participants

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>% of Sample</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
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<td>Race</td>
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<td>Caucasian</td>
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<td>African American</td>
<td>36</td>
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<td>1.4</td>
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<tr>
<td>Other/Unknown</td>
<td>4</td>
<td>5.4</td>
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<td></td>
<td></td>
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<tr>
<td>Age (years)</td>
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<td>12-17</td>
<td>14.58</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>Full Scale IQ</td>
<td>47</td>
<td>70-127</td>
<td>92.21</td>
<td>14.16</td>
<td></td>
</tr>
<tr>
<td>Number of Prior Offenses</td>
<td>74</td>
<td>0-24</td>
<td>1.93</td>
<td>1.77</td>
<td></td>
</tr>
<tr>
<td>(Sexual and Non-sexual)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Stay</td>
<td>73</td>
<td>4-53</td>
<td>29.21</td>
<td>9.51</td>
<td></td>
</tr>
<tr>
<td>(months)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convicting Offense Leading to Placement(^a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rape</td>
<td>n = 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempted Rape</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Sexual Imposition</td>
<td>n = 50(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Imposition</td>
<td>n = 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Indecency</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlawful Restraint</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complicity</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggravated Menacing</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempt</td>
<td>n = 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)17 juveniles were not placed immediately, but placed after violating a court order.

\(^b\)One record indicated the original charge of gross sexual imposition was amended to attempt and another record was amended to attempted aggravated assault.
Table 4

Mean (Standard Deviation) of Victims per Offender, Range and Total Number of Victims Reported by 74 Participants at their Conviction and Additional Victims Disclosed Over the Course of Treatment at Each Time Period

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Mean (SD)</th>
<th>Range</th>
<th>Total Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 (Conviction)</td>
<td>1.18 (0.67)</td>
<td>1.00 – 6.00</td>
<td>87</td>
</tr>
<tr>
<td>Time 2 (Pre-polygraph/6-12 weeks in program)</td>
<td>2.12 (3.08)</td>
<td>0.00 – 17.00</td>
<td>157</td>
</tr>
<tr>
<td>Time 3 (At their polygraph exam)</td>
<td>0.01 (0.12)</td>
<td>0.00 – 1.00</td>
<td>1</td>
</tr>
<tr>
<td>Time 4 (Post-polygraph/ ranged from week 6 to 53 months)</td>
<td>0.26 (1.34)</td>
<td>-3.00 – 8.00(^a)</td>
<td>19</td>
</tr>
<tr>
<td>Total victims disclosed (Times 2 – 4)</td>
<td>2.39 (3.50)</td>
<td>-1.00 – 18.00(^a)</td>
<td>177</td>
</tr>
<tr>
<td>Total victims (Times 1 – 4)</td>
<td>3.57 (3.49)</td>
<td>0.00 – 19.00</td>
<td>254</td>
</tr>
</tbody>
</table>

\(^a\)A negative number represents victims that were recanted
Appendix A

Mean (Standard Deviation) of Victims per Offender, Range and Total Number of Victims Reported by 36 African American participants and 33 Caucasian participants at their Conviction and Additional Victims Disclosed Over the Course of Treatment at Each Time Period

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean (SD)</th>
<th>Range</th>
<th>Total Victims</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African American</strong></td>
<td>36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 (Conviction)</td>
<td></td>
<td>1.14 (0.42)</td>
<td>1.00 – 3.00</td>
<td>41</td>
</tr>
<tr>
<td>Time 2 (Pre-polygraph)</td>
<td></td>
<td>1.72 (2.61)</td>
<td>0.00 – 12.00</td>
<td>62</td>
</tr>
<tr>
<td>Time 3 (At polygraph)</td>
<td></td>
<td>0.03 (0.17)</td>
<td>0.00 – 1.00</td>
<td>1</td>
</tr>
<tr>
<td>Time 4 (Post-polygraph)</td>
<td></td>
<td>0.19 (1.69)</td>
<td>-3.00 – 8.00*</td>
<td>7</td>
</tr>
<tr>
<td><strong>Caucasian</strong></td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 (Conviction)</td>
<td></td>
<td>1.21 (0.89)</td>
<td>1.00 – 6.00</td>
<td>40</td>
</tr>
<tr>
<td>Time 2 (Pre-polygraph)</td>
<td></td>
<td>2.12 (2.63)</td>
<td>0.00 – 11.00</td>
<td>70</td>
</tr>
<tr>
<td>Time 3 (At polygraph)</td>
<td></td>
<td>0.00 (0.00)</td>
<td>0.00 – 0.00</td>
<td>0</td>
</tr>
<tr>
<td>Time 4 (Post-polygraph)</td>
<td></td>
<td>0.24 (0.83)</td>
<td>-2.00 – 3.00*</td>
<td>8</td>
</tr>
</tbody>
</table>

*A negative number represents victims that were recanted*
Appendix B

Hillcrest Training School Approval Letter

Statement of Authorization

1/28/2008

To Whom It May Concern:

Re: Timelines of Disclosures Regarding Number of Victims by Juvenile Sex Offenders

I authorize for Jaime Stovering, M.A., to conduct a Level 1 research study that will involve chart reviews and statistical analysis of victim disclosure by juvenile sexual offenders at Hillcrest Training School. The purpose of the study is to better understand if and when juvenile sex offenders disclose information about their victims throughout the course of treatment. Additionally, the study would examine whether additional victims are disclosed and when this is most likely to occur (e.g., during the assessment phase, on the day of the offender's polygraph test, or throughout the course of treatment after the initial polygraph test). No identifying information that could compromise the offenders' confidentiality will be collected. Per protocol at Hillcrest, any new victims or crimes that have been disclosed and noted in the offender's chart have already been reported to the proper authorities (i.e. law enforcement officials or children's protective services) by Hillcrest staff. The results of this study will provide useful information to Hillcrest so they may better understand the timing of disclosures by offenders as part of their treatment program. This information could prove useful, given the paucity of research on this topic. This project will be used as a doctoral dissertation at Xavier University. Results from this research will be made available to the Hillcrest Training School Superintendent for review and comment before dissemination or publication, if requested. Thank you for your time and consideration.

Brian Griffiths, Psy.D.
Superintendent Hillcrest Training School

W. Michael Nelson III, Ph.D., ABPP
Dissertation Chair

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Appendix C

Xavier University IRB Approval Letter

March 5, 2008

Dr. W. Michael Nelson
Faculty Advisor
Xavier University
Department of Psychology
ML 6511

Dear Dr. Nelson:

The IRB reviewed your letter regarding protocol # 0493-1, *Timeline of Disclosures Regarding Number of Victims by Juvenile Sex Offenders* in which you provided additional information pertinent to the issue of the identifiers in the charts. The additional information has necessitated a re-reviewed of the study. We have determined that the identifiers do not need to be stripped from the charts. Therefore, the study is approved as submitted with the understanding that strict confidentiality will be maintained.

We wish you success in your research!

Sincerely,

Charles J. Grossman, Ph.D.
Interim Chair

C: Jaime Stovering, Primary Investigator
Summary

Problem

The number of juvenile sex offenders has risen greatly over the past 20 years, with juveniles committing approximately 20-33% of all sexual offenses (Edwards & Beech, 2004; Ertl & McNamara, 1997). The rising numbers have led to more attention being placed on juvenile offenders, both in efforts to better understand them and determining how to better treat them. Additionally, approximately 50% of adult offenders report having committed their first offense in adolescence (Bourke & Donohue, 1996). In the interest of protecting past or potential victims, those working with sex offenders need to know information about the offender’s victims and crimes, so as to know how to best intervene.

In general, it is difficult to gather information from victims due to the underreporting of sexual abuse (Priebe & Svedin 2008), and cases never being prosecuted or charges being dropped (Faller, Birdsall, Henry, Vandervort, & Silverschanz, 2001). Thus, it is important to try to ascertain this information from the offenders themselves. Although full disclosure is considered a central part of treatment programs it has been shown that “self-reporting often fails to uncover the true extent of an offender’s sexual history” (Hindman & Peters, 2001). Many offenders have reasons to deny their offenses, however, some offenders disclose some or all of their offenses and victims. Some research has explored what conditions may lead an offender to more likely disclose, with the most common factor studied being the use of polygraph testing as a tool to detect deception in the offenders’ self reporting. A compilation of the results from three juvenile studies (Baker, Tabacoff, Tornusciolo, & Eisenstadt, 2001; Emerick & Dutton, 2002; Vink et al., 2003).
1993; Hindman & Peters, 2001) showed that juvenile offenders ($M_{\text{age}} = 14.85$ years; range 10-18) reported an average of 1.70 victims at their initial interviews and self-reports and an average of 3.49 victims at polygraph and throughout treatment. The results of the six adult studies (Abrams, 1991; Ahlmeyer, Heil, McKee, & English, 2000; Heil, Ahlmeyer, & Simons, 2003; Hindman & Peters, 2001; Renshaw, 1994; Wilcox & Sosnowski, 2005) showed that adult offenders’ ($M_{\text{age}} = 37.58$ years; range 18-80) presentence investigation reports, sexual history disclosure forms, and any other legal records reported an average of 9.89 victims and an average of 29.80 victims reported at the polygraph and throughout treatment. There are many other factors that may impact disclosure but examination and discussion of these factors is beyond the scope of the present study.

The purpose of the present study was to examine when and how many juvenile sex offenders disclose offending behaviors/victims. By reviewing when they make any additional disclosures (i.e., pre-polygraph test, at polygraph testing, throughout the course of treatment/post-polygraph) more information can be gained not only about the number of victims by adjudicated juvenile sex offenders, but also indirectly about the usefulness of the polygraph as a treatment or monitoring instrument.

**Method**

After obtaining approval from a university Institutional Review Board and a residential training facility for adjudicated sexual offending adolescents, archival data was gathered from a computer database and the polygraph examiner’s files on juvenile sex offenders adjudicated to treatment at the training facility. The participants ($N = 74$) were male juveniles ranging in age from 12 to 17 years ($M_{\text{age}} = 14.58$ years, $SD = 1.19$)
who were adjudicated to a residential sex offender treatment program from 2003 to 2008. The demographic information included race, age, IQ score, length of stay, and placement offenses. The length of stay in the sex offender program, as did the length of time spent on after-care varied ($M = 29.21$ months, $SD = 9.51$).

Information gathered included the number of victims related to their placement offense/conviction (Time 1) and the number of victims reported at three time periods during the course of treatment -- Time 2 (pre-polygraph) day of admission up until the day of their initial polygraph exam (i.e., 6 to 12 weeks after placement in the treatment program); Time 3 (day of polygraph); Time 4 (post-polygraph) time from the polygraph exam until discharge from the program. It should be noted that information extracted from their files did not place participants at any further legal risk.

**Findings**

In order to initially clarify the data, the means and standard deviations of disclosures were calculated for each of the four time periods (see Table 4). One-way repeated measures ANOVA indicated that there was a significant effect across time intervals, Wilks's $\Lambda = 0.21$, $F(3, 71) = 91.00$, $p = .001$, $\eta^2 = .33$. To determine which time periods differed, pairwise comparisons were conducted. Results indicated that the mean number of victims reported at Time 1 was significantly lower than the mean for Time 2, $t(73) = -2.53$, $p = .001$. The mean at Time 1 was significantly higher than the means at both Time 3, $t(73) = 14.64$, $p = .001$ and Time 4, $t(73) = 5.16$, $p = .001$. The mean at Time 2 was significantly higher than the means at both Time 3, $t(73) = 5.89$, $p = .001$ and Time 4, $t(73) = 4.93$, $p = .001$. The percentage of change between each of the four time periods was also calculated.
Implications

This study found that the 74 participants were initially convicted on an average of 1.18 ($SD = 0.67$) victims, and over the course of treatment reported an average of 2.39 ($SD = 3.5$) additional victims, which is consistent with three previous studies that ascertained the number of victims that juvenile sex offenders reported over the course of treatment. The present study and a review of the literature suggest a polygraph should not be used as the sole means to gather information since the error rates of finding someone truthful as deceptive ranges from 0% to 25% and the error rates of finding someone deceptive as truthful ranges from 0%-8% (Branaman & Gallagher, 2003).

Research regarding polygraph use is limited with juveniles, as Craig and Molder (2003) state, “There are no set national guidelines for the use of the polygraph with juveniles nor is there a minimum testing age” (p. 65). More specifically, the research regarding polygraph use with the sex offender population is generally conducted on adults with only two previous studies examining the use with juvenile sex offenders. However, the research reported that when the polygraph is used as a supplement to information gathering there is an increase in the number of victims reported (Abrams, 1991, Ahlmeyer, Heil, McKee, & English, 2000; Emerick & Dutton, 1993, Heil Ahlmeyer, & Simons, 2003, Hindman & Peters, 2001; Renshaw, 1994; Wilcox & Sosnowski, 2005).

Whether or not these victims would have been reported over the course of treatment without the use of the polygraph is unknown. Given the large increase in victim reports between juvenile and adult offenders, it may be beneficial for further research to examine developmental levels to clarify when offenders are perpetrating against the most victims. Further research would also be helpful in continuing to better determine what factors
impacted an offender’s reporting and recanting, and thus help further understanding of juvenile sex offenders and how treatment/polygraph testing may impact the number of juveniles who continue to offend post treatment.