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# IS EVERYONE RATED EQUAL? AN EXAMINATION OF FACTORS RELATED TO SEXUAL RISK IN ETHNICALLY DIVERSE MALE ADOLESCENTS WHO HAVE SEXUALLY OFFENDED

by

Verónica Chávez

### A DISSERTATION

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Under the Supervision of Professor Mario J. Scalora

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# IS EVERYONE RATED EQUAL? AN EXAMINATION OF FACTORS RELATED TO SEXUAL RISK IN ETHNICALLY DIVERSE MALE ADOLESCENTS WHO HAVE SEXUALLY OFFENDED

Verónica Chávez, Ph.D.

University of Nebraska, 2010

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As the juvenile justice system has evolved, there has been a need for clinicians to make judgments about risk posed by adolescents who have committed sexual offenses. There are inherent difficulties in attempting to assess risk for violence among adolescents due to the developmental changes taking place and the absence of well-validated instruments to guide risk prediction judgments. With minority groups increasing in numbers in the U.S., it is likely that professionals will encounter minority individuals when conducting risk assessments. Overall questions regarding race/ethnicity have been neglected and there are few if any published research that explores risk factors with minority juvenile sex offenders.

The present study examined whether differences exist between Caucasian and racial/ethnic minority adolescent sexual offenders on four risk assessment measures (J-SORRAT-II, J-SOAP-II, SAVRY, and ERASOR). The sample of 207 male adolescent sexual offenders was drawn from treatment facilities in a Midwestern state. Overall results indicated that minority adolescent sex offenders had fewer risk factors endorsed than Caucasian youth across all risk assessment tools. Exploration of interactions between race and factors such as: family status, exposure to family violence, and family history of criminality upon the assessment tools risk ratings yielded non-significant

findings. Limitations, suggestions for future directions, and clinical implications are discussed.

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### CHAPTER 1: Introduction

Is Everyone Rated Equal? An Examination of Factors Related to Sexual Risk in

Ethnically Diverse Male Adolescents who have Sexually Offended Introduction

Since the 1980's the juvenile justice system has become increasingly punitive in part due to perceptions about juveniles engaging in more serious crimes. As a result, there is an overall concern with increasing public protection and finding avenues to target interventions for those youth. Therefore, it is important to identify youth who are at the highest risk of harming others in order to take steps toward preventing this from occurring. Structured and empirically informed risk assessment is important for several reasons. First, it can potentially help to reduce discretionary biases often associated with court decision making and case disposition (Hoge, 2002; Schwalbe, Fraser, Day, & Cooley, 2006). Second, it helps determine which adolescents are likely to reoffend in the future and what factors contribute to their reoffending. Third, risk assessment can also aid in identifying factors to target in treatment with the goal of reducing recidivism. Finally, it may also aid in making decisions about appropriate placements, sentencing, supervision planning, and level of community notification needed (Bonner, Marx, Thompson, & Michaelson, 1998; Bourke & Donohue, 1996; Hoge, 2002; Prentky, Harris, Frizzell, & Righthand 2000; Worling & Curwen, 2000).

It is important to note that the court's reliance on mental health professionals to aid in judicial decision making with regard to juveniles has not always been the norm. However, in recent years, courts are relying more and more on clinicians to make risk predictions of future violence of juveniles. Specifically, with juvenile offenders heavily overrepresented in data on sexual offenses, there has been an increasing interest in identifying those who are likely to reoffend. According to the Federal Bureau of Investigation, 1 out of every 5 sexual assaults, and 1/3 of sexual assaults on children under 12-years of age involve a perpetrator under the age of 18 (Snyder, 2000; Snyder & Sickmund, 1999). Even with these large numbers, it is important to note that this may still be a gross underestimate of actual numbers, since not all sexual assaults are reported nor all juveniles adjudicated and charged with a sexual assault. It is not uncommon for first time offenders to plea down and be charged with a lesser crime (Caldwell, 2002).

Another important reason for being able to identify adolescents who are likely to reoffend sexually is that that there is a common misunderstanding that once an adolescent commits a sexual assault, he or she will continue to re-offend sexually into adulthood. As a result 20 states have adopted laws allowing perpetrators to be committed as sexually violent persons (SVP) with at least 6 of these states allowing juveniles to be committed as SVPs (Caldwell, 2002; Gookin, 2007). Prior to the Adam Walsh Child Protection and Safety Act of 2006 being signed into law on July 27, 2006, only juveniles prosecuted and convicted as adults were required to register under the federal Jacob Wetterling Act of 1994. Now, however, Title I of the Adam Walsh Act, also known as the Sex Offender Registration and Notification Act (SORNA), requires the registration of juvenile sex offenders aged 14 or older who have committed or attempted to commit an offense consistent with or more severe than aggravated sexual abuse in all states (McPherson, 2007; Center for Sex Offender Management, 2010). There has been much criticism of statutes requiring juvenile registration because in general, youth are believed to be more malleable to change through treatment that addresses sexual deviancy. Opponents also

affirm that mandating such long periods of registration is onerous as the statutes assume that sexual risk factors are the same for adults to adolescents, which is not the case. Requiring a minimum of 15-year to maximum lifetime registration for adolescents may also be problematic due to the inherent difficulty in attempting to assess violence risk among adolescents because of the vast number of developmental changes taking place and due to the absence of well-validated instruments to guide risk prediction judgments with this populations (Borum, 2003; Grisso, 1998; Prentky & Righthand, 2003; Prentky et al., 2000).

Due to this paucity in research, the primary goal of the current study was to examine the relationships between risk rating scores (e.g., the Juvenile Sexual Offense Recidivism Risk Assessment Tool-II, Juvenile Sex Offender Assessment Protocol-II, Structured Assessment of Violence Risk in Youth, and Estimate of Risk of Adolescent Sexual Offense Recidivism) and their relationship to key variables, namely: race/ethnicity, intact or broken family status, exposure to family violence, and family history of criminality. Existing literature on the changing attitude of the juvenile justice system toward juvenile offenders; the nature and extent of sexual offenses perpetrated by adolescent sex offenders, and current assessment, and treatment of adolescent sex offenders will be reviewed. Furthermore, since the central part of this study is to examine risk assessment with minority adolescent sex offenders, literature on the relationship between race/ethnicity, crime, sexual attitudes and perceptions; and risk assessments with ethnically diverse populations will also be examined. Establishment and Reform Within the Juvenile Justice System Since its creation in 1899, the juvenile justice system has experienced several changes in the ways it has historically approached juvenile offenders. Initially, the premise of the juvenile justice system was to protect the best interest of the child under the doctrine of *parens patriae*, with a focus on treatment and rehabilitation rather than on punishment (Barnickol, 2000; Bishop, Frazier, Lanza-Kaduce, & Winner, 1996; Feld, 1987; Mack, 1909; Salekin, 2002). According to Mack (1909) it was the state's duty to act in the place of the negligent parent and raise the child or adolescent to be a productive member of society.

Prior to the establishment of the juvenile court, juvenile offenders were dealt with by the adult criminal court and were subject to harsher punishments (Feld, 1987; Mack, 1909). Within years of the establishment of the juvenile court, and by the 1960s juvenile courts had jurisdiction over nearly all cases involving children and adolescents less than 18 years of age. While, in theory the focus of the juvenile court was benevolent in attempting to keep children and adolescents out of jail, the lack of formal procedures to guide the adjudication process rendered the juvenile court a failure in the eyes of society (Feld, 1987).

Among some of the criticisms of the juvenile court was that it had unlimited discretion in how it treated juvenile offenders, oftentimes at the cost of adolescent's due process rights. Therefore, beginning in 1966 the Supreme Court responded by formalizing juvenile court procedures which resulted in the increase of due process rights afforded to juvenile offenders (in *Re Kent* 1966 and in *Re Gault* 1967). At about the same time, Congress also passed the Juvenile Delinquency Prevention and Control Act of 1968 (JDPCA), which recommended that states deal with status offenses outside of the court jurisdiction. It also encouraged states to develop plans and programs at the community level to decrease delinquency by providing states with federal funding to carry out these programs (JDPCA, 1968). The JDPCA was a precursor to the extensive Juvenile Justice and Delinquency Prevention Act that replaced it in 1974 (JJDPA, 1974; P.L. 93-415). This substantial reformulation called for the deinstitutionalization of status offenders within a two year period, the separation of adults and juvenile prisoners, and encouraged community based programming to address the growing rates of delinquency and its effects on society (Barnickol, 2000; JJDPA, 1974).

Within a decade after the enactment of the JJDPA of 1974, a rise in juvenile crime during the mid 1980s and 1990s, once again turned the public wrath on the juvenile court system. The response was to reformulate the once "rehabilitative model" the juvenile court had initially adopted to a more punitive model. This led to an increase of juveniles being transferred to adult criminal court for crimes involving violent and criminal offenses (Salekin, 2002). Current trends indicate that juvenile crime rates have been steadily decreasing. The Office of Juvenile Justice and Delinquency Prevention (2004b) Annual Report indicates that the number of juvenile arrests in 2001 was 2.3 million (4% below the 2000 level). Notwithstanding this downward trend, a recent federal legislation (i.e., the Adam Walsh Child Protection and Safety Act of 2006) mandating juvenile to be part of the sex offender notification statutes has been enacted.

### Nature and Extent of Sexual Offenses Perpetrated by Adolescent Sex Offenders

Over the past two decades, there has been a surge in research focusing on adolescent sexual offenders and recognition of this group as distinct from general juvenile delinquents (Veneziano & Veneziano, 2002; Bourke & Donohue, 1996). Prentky and colleagues (2000) hypothesize that two principal factors responsible for this increased attention include increased awareness of the inherent harm caused to the victims and a further refutation of the idea that these offenses are youthful sexual experimentation as well as an increased understanding of the frequency of adolescent sexual offending. The literature is replete with research that has investigated the nature/characteristics of adolescent sex offenders including how their level of functioning compares to other youth and if this may have an impact on their offending behaviors. Several surveys and crime reports indicate that adolescents are responsible for around 20% of rapes and 30%-50% of child sexual abuse (Becker, Kaplan, Cunningham-Rathner, & Kavoussi, 1986). While this may seem like a high number, one must consider the possibility that such estimates may be conservative due to overall reluctance to report sexual offenses especially those committed by adolescents. It is also important to consider the fact that in addition to these assaults going unreported, of those reported a relatively low number result in an arrest and even fewer result in a conviction. At its core, research has sought to answer the question of why adolescents offend sexually. Several hypotheses have been posited and correlations have been found between those who sexually offend and the perpetrators' own histories of neglect/physical abuse, frequent separation from parents or out of home placement, history of sexual victimization, severe trauma and familial dysfunction, and lack of social competence (Veneziano & Veneziano, 2002).

Past research focusing on the role of attachment in the development of sexually coercive behavior has yielded preliminary information that the quality of attachment bonds between a parent and child may contribute to the etiology of sexual offending behavior (Seidman, Marshall, Hudson, & Robertson, 1994). Prentky, Knight, Smins-Knight, Straus, Rokous, & Cerce's (1989) findings on the importance of consistency of early interpersonal attachments lend indirect support to the suggestion that certain early abuse experiences or combinations of these may be conducive to a subset of adolescent sexual offenders' preference for young victims. Poor attachments in childhood have also been hypothesized to lead to a limited or incapacity for intimacy, and to produce emotional loneliness and an inclination for aggressive behavior (W. L. Marshall, Hudson, & Hodkinson, 1993).

In an effort to explain the cause of adolescent sexual offending behavior against children, rather than same-age peers, Daversa and Knight (2007) created a model using 329 juvenile sexual offenders using early care-giving experiences and a series of latent personality traits. They hypothesized that childhood maltreatment severity (i.e., physical, emotional, and sexual abuse, and caregiver instability) would contribute to the development of the specific core mediating traits (i.e., psychopathy, sexual inadequacy, sexual fantasy, and child sexual arousal), and that these mediators would predict adolescent sexual offending behavior against children. Findings revealed four significant paths (1. Emotional and physical abuse, through psychopathy and sexual fantasy, to child fantasy and child victim; 2. Emotional and physical abuse, through sexual inadequacy, sexual fantasy, and child fantasy to child victim; 3. Emotional and physical abuse, through sexual inadequacy, to child fantasy and child victim; 4. Sexual abuse directly to child victim) and one minimal path (Sexual abuse, through sexual fantasy and child fantasy, to child victim) predicting preferences for young children with emotional abuse (i.e., antipathy, neglect) being the most robust predictor. Their results likewise supported

the role of emotional abuse in the development of psychopathy and sexual inadequacy. Consistent with other research that has found that negative experiences in childhood (e.g., parental dislike, criticism, hostility, neglect) increased the risk of psychopathy in criminal samples (L. A. Marshall & Cooke, 1999). Daversa and Knight's (2007) findings suggest the importance of early maltreatment experiences and psychopathic traits in increasing the risk for adolescent sexual offending against young victims.

Similarly, with regard to sexual inadequacy, past literature has revealed that adolescent sexual offenders who are embarrassed by their physical appearance and worry about their ability to attract same-age female peers may choose younger victims to compensate for their inability to compete with other adolescent males (Daversa & Knight, 2007; Messerschmidt, 1999, 2000). Another possible cause relates to research findings of the disproportionate number of adolescent sexual offenders who offend against younger victims, who have themselves been victimized sexually, when compared to adolescent offenders who sexually assault same-aged girls or adult women (Awad & Saunders, 1991; Kaufman, Hilliker, & Daleiden, 1996).

While it is important to keep in mind that to a certain extent delinquency is normative in adolescence with only a small percentage of juvenile delinquents continuing to offend into their adult lives; most adolescents will desist as they mature (Loeber & Stouthamer-Loeber, 1998; Moffitt, 1993). It is well accepted in the field that those who continue to offend into their adult lives (life-course-persistent) begin their offending at an early age, engage in a wider variety of offending, and offend more frequently than those who desist (Moffitt, 1993). For example, Långström (2002) found that when adolescents who had committed sexual offenses were followed for up to 6 years, a small fraction, ranging from 3% to 14%, were rearrested or reconvicted of sexual offense. This study also found that these adolescents were more likely to be rearrested for nonsexual offenses. Other research has found that with effective treatment, reported rates of reoffending (sexual, violent nonsexual, and nonviolent) can be significantly reduced (Borduin, Henggeler, Blaske, & Stein, 1990; Eastman, 2004; Fanniff & Becker, 2006; Worling & Curwen, 2000).

Because research in this area is still relatively scarce, sexual assault recidivism rates for adolescents vary considerably, from 0% to 40% across studies (Righthand, Prentky, Knight, Carpenter, Hecker, & Nangle, 2005). This great variability is in part due to sampling and methodological differences such as the length of follow up period, with a longer follow up yielding higher reoffense rates (Righthand, et al., 2005; Quinsey, Harris, Rice, & Cormier, 1998). Mean follow-up periods currently vary from 6 months to 9 years (Worling & Långström, 2003, 2006). It may also be a function of the measurement of recidivism, such as using reconvictions versus rearrest data, therefore it is important to be mindful of both the source of the data and the length of follow-up periods when assessors draw conclusions about the risk a particular individual may pose (Worling & Långström, 2006). Additionally, the impact of clinical interventions, and the nature of the population under investigation may also be impacting the large discrepancies in recidivism rates (Caldwell, 2002; Långström, 2002; Prentky et al., 2000; Worling & Långström, 2003). However, even with the discrepant findings, it is a well accepted fact that there is undeniably a subgroup considered to be at high risk to reoffend (Barbaree, Hudson, & Seto, 1993). In fact, there are studies that have specifically investigated such subgroups of juvenile sex offenders who commit repeat sex offenses

even after official sanctions (Långström & Grann, 2000; Rasmussen, 1999; Worling & Curwen, 2000). These findings with juvenile sex offenders are consistent with the research on general delinquency where a small group of persistent delinquents is responsible for a disproportionate number of criminal activity (Beohring, 2002). Sexual-Specific Risk Assessment and Treatment with Adolescent Sexual Offenders

Given the desire to manage and prevent violence from youth, especially when sexual misconduct is involved, the need to identify those juveniles who are likely to continue to engage in such behaviors becomes paramount. The benefits of risk assessment with sexually abusive adolescents are multifaceted. Such assessment can help in treatment planning for these youth especially if they will benefit from sex offender specific treatment. It can also help in determining the level of restrictiveness of the placement and treatment they will be receiving from inpatient, outpatient, residential, or group homes. Treatment programs focus across a range of areas targeting cognitive distortions; moral reasoning; increasing empathy; accepting responsibility for behaviors; enhancing problem-solving, coping, and social skills; decreasing deviant sexual arousal; dealing with trauma of sexual victimization; and relapse prevention (Becker & Kaplan, 1993; Becker, Kaplan, Tenke, 1992; Borduin et al., 1990; Bourke & Donohue, 1996; Caldwell, Skeem, Salekin, & Van Rybroek, 2006; Center for Sex Offender Management, 2010; Fanniff & Becker, 2006; Marshall & Laws, 2003; Reitzel, & Carbonell, 2006). Although over the years several programs have been created that cater to the treatment of juvenile sex offenders, limited treatment outcome data with this population is available (Worling & Curwen, 2000).

In addition to the importance of treatment with adolescent sex offenders, much emphasis has been placed on identifying factors that increase the likelihood of reoffending. Previous literature examining recidivism in juvenile delinquents and at-risk youth have identified several factors that can potentially predict future reoffending, such as past delinquent behavior, substance use, lack of social support/stressors, personality traits, mental disorders, opportunity, and future residence (Chu & Thomas, 2010; Heilbrun, Cottle, & Lee, 2000; Mann, Hanson, Thornton, 2010) academic problems, peer rejection, low prosocial behavior (Chun, 2010; Hämäläinen & Pulkkinen, 1995; Leschied, Chiodo, Nowicki, & Rodger, 2008; Lewin, Davis, & Hops, 1999; Pulkkinen, Lyyra, & Kokko, 2009) psychosocial maturity and relational aggression such as social exclusion, spreading rumors, and gossiping (Cruise, Fernandez, McCoy, Guy, Colwell, & Douglas, 2008; Odgers & Moretti, 2002; Odgers, Moffitt, Broadbent, Dickson, Hancox, Harrington, Poulton, Sears, Thomson, & Caspi, 2008). However, these predictive factors vary by gender with early academic problems being the strongest predictors of future problems for girls and peer rejection for boys (Lewin et al., 1999). Existing literature has shown that adolescent boys are more likely to engage in problematic behaviors that bring them in contact with the law (Hodges & Kim, 2000; Odgers & Moretti, 2002; Odgers, et al., 2008). Heilbrun et al. (2000) have found that across age and gender, previous arrests and criminal activity, nature of current charge and demographic factors (e.g., age, gender) are the best predictors of future reoffending. But, such research begs the question: how are adolescent sexual offenders different from juvenile delinquents engaging in nonsexual offenses?

In an effort to identify the range and heterogeneity of sexually abusive adolescent offenders several researchers have attempted to classify adolescent sex offenders into typologies. Becker and Kaplan (1993) suggested a model based on clinical observation, which lead them to determine that youthful sex offenders follow one of three pathways (i.e., completely desisting, continued nonsexual delinquency, or continued sexual offending). More recently other typologies have been developed based on empirical evidence. For instance, Långström, Grann, and Lindbland (2000) identified a five cluster solution of juvenile sex offenders based on 15 prior offense characteristics. Results indicated that Cluster 1 (offended against an unknown male child victim in a public area) and Cluster 2 (engaged in non-contact, exhibitionism) were more likely to reoffend sexually as compared to Cluster 3 (had one contact offence in public places against unknown adolescent or adult female victims), Cluster 4 (offended against a known child victim in a non-public area) and Cluster 5 (offended against one known adolescent or adult female victim indoors). However, the utility of the results from this study are limited because at follow-up only nine individuals from Clusters 1 and 2 were available. In a similar line of research Worling (2001) identified four personality-based subtypes of 112 adolescent male sexual offenders based on the California Psychological Inventory. Results indicated no significant differences between subgroups in relation to victim age or gender and relationship to victim. Furthermore, recidivism results indicated significant differences such that adolescent offenders in the two more severe subgroups (Antisocial/Impulsive and Unusual/Isolated) were most likely to be charged with a subsequent violent (sexual or nonsexual) or nonviolent offense, however there were no significant differences across the four personality-based groups.

Given the relative absence of validated tools, some have argued for a downward extension of adult risk assessment tools to be used with adolescents. However, this poses several problems as more recent literature articulates that while there may be similarities between adult and adolescent sex offenders, these two groups are different and some risk factors that are present for adult sex offenders are not present for adolescents. While there may be some overlap with respect to risk factors, there are unique risk factors for both groups "indicating that checklists and actuarial tools designed to estimate risk for one group should not be used for the other" (Worling & Långström, 2006, p. 235). For example, research has shown that while deviant sexual interests as measured by penile plethysmography (PPG) has been shown to be a robust predictor of sexual recidivism in adult sex offender populations (Hanson & Bussière, 1998), similar research conducted with adolescent sex offenders has yielded inconsistent results with some researchers finding that deviant arousal as assessed by PPG was related to sexual recidivism with adolescent sex offenders (Clift, Rajlic, & Gretton, 2009) while others have not (Gretton, McBride, Hare, O'Shaughnessy, & Kumka, 2001). In a study of 98 juvenile sex offenders, Hunter, Goodwin, and Becker (1994) failed to find a strong relationship between prior sexual victimization and deviant arousal using a phallometrically derived deviance quotient. Findings did indicate that those offenders who had perpetrated against male victims only had advanced measured deviant arousal than those who had perpetrated against female victims only or a combination of both males and females. Due to inconsistent results, great caution is warranted for this kind of assessment with juvenile sex offenders (Hunter et al., 1994; Stinson & Becker, 2008).

Yet, there are several limitations in attempting to assess for likelihood of reoffending behavior in adolescent populations. Researchers in the field liken this to assessing "moving targets" (Grisso, 1998). Additionally, due to the relative low base rate for recidivism in this subgroup of sexual offenders and difficulty distinguishing between age-appropriate and age-inappropriate preferences for juvenile sexual offenders accurately assessing risk is all the more difficult (Prentky et al., 2000; Prescott, 2004). While there are several factors/domains that professionals consider when assessing adolescent sex offenders, (e.g., intellectual, neuropsychological, psychopathological, social and behavioral, victimization history, personality, substance use, sexual riskclinical judgments), these remain too broad in scope (Becker & Kaplan, 1993; Becker et al., 1992; Bonner et al., 1998; Center for Sex Offender Management, 2010; Cuadra, Viljoen, & Cruise, 2010; Veneziano & Veneziano, 2002). The field is limited in its ability to assess risk of sexual violence among adolescents due to the relative absence of well-validated approaches to guide such judgments. The limitations of using unstructured clinical judgments are well documented in the literature as fairing no better than chance at actually predicting reconvicted rates of offenders for any violent (sexual or otherwise) offense (Bengtson & Långström, 2007; Hanson & Bussière, 1998; Viljoen, Scalora, Cuadra, Bader, Chávez, Ullman, et al., 2008).

Traditional risk assessment highlights the differences between actuarial and unstructured clinical models for determining risk. Whereas the unstructured clinical approach methods focuses on individual assessment using a case conceptualization approach, the actuarial method consists of examining and coding relevant material and historical records to calculate risk scores based on an objective scoring system for a set of risk factors which have been identified through research with large samples of individuals (Dolan & Doyle, 2000; Sreenivasan, Kirkish, & Garrick, 2000). Proponents of the clinical approach argue that its focus on individual assessment and flexibility is critical due to the heterogeneity of recidivists, but it has also been criticized as having low interrater reliability, low validity (Monahan & Steadman, 1994; Quinsey et al., 1998), and low predictive validity compared to the actuarial method which is considered superior to unstructured clinical judgment (Barbaree, Seto, Langton, & Peacock, 2001; Hanson, 2000; Meehl, 1954; Mossman, 1994).

On the other hand, the actuarial method has been used in the penal system for several years to make decisions about granting parole. Others argue that this method's focus on static variables does so at the risk of individual variation and trivializes the clinician's professional judgment and training. In any case, all experts alike agree that a score on a given scale is not an absolute statement of risk (Craig, Browne, Stringer, & Breech, 2004; Prescott, 2004). In more recent years, there has been an attempt to synthesize these two approaches, where the historical records are used in complement to clinical judgment of individuals, that is, systematizing clinical interviews to make assessment more reliable and valid (Dolan & Doyle, 2000; Singh, 2008). While experts working with adult offenders have access to several actuarial risk assessment tools which have been researched and studied systematically (e.g., [Static-99] Hanson & Thornton, 1999; the Rapid Risk Assessment of Sexual Offense Recidivism [RRASOR] Hanson, 1997; and the Sex Offender Risk Appraisal Guide [SORAG] Quinsey et al., 1998) such is not the case for clinicians who work with adolescents as there is not enough published research to develop and test actuarial tools for sexual recidivism risk in adolescents

(Worling & Långström, 2003, 2006). Given the paucity in this area and the lack of an actuarial tool for adolescents, experts have suggested that simply identifying relevant risk factors may be important and helpful in informing clinical decisions, such approach has been referred to as *empirically guided clinical judgment* (Hanson, 2000; Hanson & Morton-Bourgon, 2009; Worling & Långström, 2006). While, the link between a total score derived from such an approach is not directly linked to a specific probability of reoffending (like actuarial tools), the advantage is likely higher accuracy due to the research evidence supporting the risk factors (Hanson, 2000; Worling & Långström, 2006).

In recent years, there has been a move to make risk assessment for sexual and nonsexual reoffending more systematic. In an effort to identify risk factors for criminal recidivism in adolescent sex offenders, Worling and Långström (2003) completed a review of existing empirical and professional literature and distinguished between risk factors that were supported by the literature (e.g., deviant sexual interest, prior criminal sanctions for sexual assaults), promising risk factors (e.g., attitudes supportive of sexual offending), possible yet inconclusive risk factors that future research should explore further (e.g., high-stress family environment), and unlikely risk factors (e.g., denial of sexual offense, lack of victim empathy). With increased interest in this area and as a result several adolescent risk assessment tools have been developed, which have been derived from empirical and published data on risk factors common in this population, to assist clinicians. Some of these tools include the Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (J-SORRAT-II; Epperson, Ralston, Fowers, & DeWitt, 2005), the Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II; Prentky & Righthand,

2000, 2001, 2003), the Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2003), and the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR; Worling & Curwen, 2001). The development of these tools represents a significant step in this area, yet there is a lack of evidence regarding the predictive validity of these tools. Published studies examining the predictive validity of the J-SOAP-II or the SAVRY with adolescents who have committed sexual offenses are scarce. In a recent study by Viljoen, Elkovitch, Scalora, & Ullman (2009) examining the ability of the ERASOR, the Youth Level of Service/Case Management Inventory (YLS/CMI), the Psychopathy Checklist: Youth Version (PCL:YV), and the Static-99 in predicting reoffending behaviors, findings indicated that none of the instruments significantly predicted sexual reoffending. While the ERASOR's structured professional judgments approached significance, the Static-99 did not predict sexual or general reoffending in their sample. However, both the YLS/CMI and the PCL: YV predicted nonsexual violence, general violence, and any type of offending behavior (Viljoen et al., 2009). In a separate study examining the potential of the J-SORRAT-II, SAVRY, and J-SOAP-II in predicting violent behavior, Viljoen et al. (2008) found that total scores on the SAVRY and J-SOAP-II significantly predicted nonsexual violence but none of the instruments predicted *sexual* violence. Age and developmental differences were also found, such that the J-SOAP-II and SAVRY were less effective in predicting violent reoffending in youth aged 15 and younger than in older youth (Viljoen et al. 2008).

While interest in sexual offending in *adult* populations has been the focus of research, and while this may have some benefit in guiding research that focuses specifically on adolescents who sexually abuse, there are limitations of merely extending

adult risk assessments downward to adolescents (Center for Sex Offender Management, 2010; Hanson & Bussière, 1998). Like the adult sex offender literature, the adolescent sexual offender risk assessment literature suffers from similar methodological weaknesses such as the reliance upon reconviction rates which significantly underestimates true recidivism rates, the lack of untreated matched samples, small sample sizes, and the fact that follow-up periods are limited and range significantly (Beckett, 1999; Caldwell, 2010). There are few empirical studies that focus on risk assessment with juvenile sexual offenders (Prentky et al., 2000; Righthand et al., 2005). However, there are a number of studies that have investigated the predictive factors of juvenile sexual recidivism. The literature has well established that past behavior is the best predictor of future behavior; similarly the number of sexual offenses is perhaps the most robust predictor of adolescent sexual recidivism (McCann & Lussier, 2008; Rasmussen, 1999; Schram, Milloy, & Rowe, 1991). Kahn and Chambers (1991) conducted a follow up of 221 juvenile sexual offenders and found that verbal threats during the index offense and denial or victim blame were associated with sexual offense recidivism in the 7.5% of their sample population who reoffended. Smith and Monasterky (1986) found the indecent exposure to same age or adult victims, male victim, and stranger-victim were all predicative of sexual offense recidivism.

One of the most significant predictors of juvenile sex offender recidivism is delinquent behavior. Research has found that involvement with peers, crimes against persons, attitudes towards sexual assault, and family normlessness were predictive of sexual recidivism in adolescents (McCann & Lussier, 2008; Ageton, 1983; Hunter, Hazelwood, & Slesinger, 2000). In a similar line of research, Prentky and Knight (1993) identified adolescents who continued to sexually offend into adulthood and found that they were characterized by a history of impulsivity and antisocial behavior. In the adult literature, deviant sexual arousal has been identified as one of the better predictors of sexual recidivism (Rice, Quinsey, & Harris, 1991). However, the results for evidence of an association between deviant sexual arousal and juvenile sexual recidivism have been mixed. In a study by Kenny, Keogh, and Seilder (2001), results indicated that deviant sexual fantasies were directly related to juvenile sex offender recidivism in a sample of 70 male adolescent sex offenders. More recent research has found that pornography use among juvenile sex offenders was related to aggressive behaviors (Alexy, Burgess, & Prentky, 2009).

Similarly, other researchers have found that juvenile sexual offenders who recidivated were significantly more likely to demonstrate deviant patterns of sexual arousal and fantasies (McCann & Lussier, 2008; Schram et al., 1991; Långström & Grann, 1999). In contrast, Kahn and Chambers (1991) did not report significantly more deviant arousal in their sample. Prentky et al. (2000) suggest that studies that utilize ratings of deviant sexual arousal by therapists working with adolescent sex offenders have difficulty differentiating appropriate and age-appropriate sexual preferences for juvenile sex offenders. Yet another predictor of recidivism among juvenile sexual offenders is a history of sexual victimization, however studies have found this to be at most a weak association (Jespersen, Lalumiere, & Seto, 2009; Rasmussen, 1999; Knight & Prentky, 1993; Prentky & Knight, 1993). In general, although research has identified factors associated with recidivism in adolescent sex offenders, there continues to be a lack of empirically-based risk assessment instruments to utilize when making professional and clinical judgments about future sexual reoffending.

There is no doubt that more studies are needed to further investigate aspects of adolescent sexual offending behaviors. The active steps being taken to address the paucity of literature in this domain will help to inform current and future development of risk assessment instruments that can accurately predict sexual recidivism. The concern, however, is that these instruments continue to be developed and normed on Caucasian youthful offenders, even though it is a well-known fact that the criminal and juvenile justice systems are disproportionally populated by ethnic and racial minorities.

### Race/Ethnicity and Crime

With the rapidly shifting population changes occurring in the United States, as minority groups increase in numbers, it is becoming more likely that experts and professionals in the field of risk assessment will encounter individuals of diverse backgrounds when conducting risk assessments. According to the Office of Juvenile Justice and Delinquency Prevention (2004a), it is estimated that the population of juvenile minorities will experience the most growth between 1995 and 2015 as the number of Native American juveniles increase 17%, Black juveniles are expected to increase 19%, Hispanic juveniles 59%, Asian/Pacific Islander juveniles 74%, while Caucasian juveniles will increase by only 3%. With regard to minorities in the legal system, there has been much controversy with studies which have found that possible race biases exist at every stage of the juvenile justice system from the initial filing of charges to sentencing. Other research has also found biases against minority adolescent offenders including: 1) differential assessment and classification of risk for reoffending and sentencing recommendations even after adjusting for legally relevant case and offender characteristics (Bridges & Steen 1998), 2) differences in sentencing outcomes and waivers to adults court (Poe-Yamagata & Noya, 2005), and 3) differences in treatment received (Martin & Grubb, 1990). It has become increasingly important to fully explore and meaningfully interpret potential differences across ethnic groups when these occur (cf. Barrera, Castro, & Biglan, 1999). Yet, part of the controversy is that some researchers have found evidence of biases and others have not (Dannefer & Schutt, 1982; Sarri, 1986). In a more recent review of the literature, Hicks (2004) highlighted racial/ethnic differences in several areas of forensic practice.

Existing literature comparing minority youth to majority youth have found important differences in factors predictive of delinquent behavior. For instance McLeod, Kruttschnitt, and Dornfeld (1994) found that parenting practices predicted antisocial behavior for Caucasian youth but not for African American youth. To test Moffit's hypothesis that adolescence-limited juvenile offenders demonstrated higher cognitive abilities than the life-course persistent offenders, Donnellan, Ge, and Wenk (2000) found support for the hypothesis for Caucasian and Hispanic youth but not for African American youth. Other studies have found that urban male Caucasian adolescents exhibited greater substance use difficulties compared to African American youth and Caucasian youth's delinquency appeared to be related to psychological problems and troubled family background whereas for African American youth the delinquency was related to social factors (Dembo, Williams, & Schmeidler, 1994; Dembo, Schmeidler, Chin, Borden, Manning, & Rollie, 1998). A study by Warheit (1994) suggested that racial mistrust was strongly related to a self-reported willingness to engage in delinquent behaviors among African American, Haitian, and other Caribbean Island Black middle school boys. The results yielded no significant differences among the 3 groups, but when compared with non-Blacks, African Americans and Haitians reported a greater willingness to violate the law even after controlling for SES (Warheit, 1994).

More broadly, research on factors that predict or protect against juvenile delinquency, has shown that strong attachment between parents and youth, parental involvement, and close parental supervision of youth have been associated with less involvement in delinquency (Smith & Krohn, 1995). Similarly, research on families of delinquent youth are characterized by poor supervision and control practices, distant, uninvolved and unattached parents (Cerkovich, & Giordano, 1987; Hirschi, 1969; Larzelere & Patterson, 1990; Loeber & Stouthamer-Loeber, 1986; Wells & Rankin, 1987). A number of theoretical frameworks addressing the etiology of delinquency place family process dynamics as the central role. In particular, Hirschi's (1969) social control model posits the idea that individuals are naturally inclined towards deviance. Conformity, which comes as a result of attachment to groups and individuals and a focus on control, is influenced most strongly by one's family and the control it has over individuals (Krohn, 1991). While past literature has explored the importance of family context variables (e.g., economic hardship, single-parent family), family process variables (attachment, control, involvement), and involvement in delinquent behaviors, much of the literature tended to focus on Caucasian adolescent delinquents (Conger, Conger, Elder, Lorens, Simons, & Whitbeck, 1992; Fanworth, Lizotte, & Krohn, 1994; Patterson, 1986). In the last two decades increased attention has been paid to how these factors differ or are similar in youth of ethnically diverse backgrounds. Factors that have

been shown to be particularly salient in being associated with delinquency in African American and Hispanic youth are economic disadvantage (McLoyd, 1990), absence of father figure for Hispanics compared to White youth (Wilkinson, 1980), control and supervision for African Americans (Cernkovich & Giordano, 1987).

Smith and Krohn (1995) found that family functioning played a role in predicting juvenile delinquency in their sample of 987 students but the impact of family life on youth varied across different racial and ethnic background (White, African American, and Hispanic youth). Findings indicate that while family socialization had a relatively weak impact on African American and White families, it has a more pervasive effect on Hispanic adolescents' behavior. This is not surprising since previous research has found that family solidarity, cohesion, and interdependence are particularly important among Hispanic families (Becerra, 1988). When looking at individual family processes and the etiological patterns leading to delinquency, Smith and Krohn's (1995) model indicated variations between racial and ethnic groups and patterns of family processes and delinquency. For Hispanic youth, the degree of family control was unrelated to juvenile delinquency, while degree of family involvement and the indirect influence of attachment on family involvement were found to have an important influence on conformity. On the other hand, the model showed that parental attachment and control were related to delinquency in African American and White families. With regard to the impact of family hardship on family processes dealing with parental attachment and parental involvement and delinquency, the authors found that White families were particularly affected, as were Hispanic families, while African American families were less affected by it. Similar to previous findings, the authors also found that Hispanic youth were more

affected by the absence of a father when compared to White or African American adolescents and suggest that "possibly the loss of this powerful source of identification and conformity can be associated with delinquent behavior among young Hispanic males" (p. 86). However, results did not find associations between single-parent families and either disruptive family process of delinquency in White and African American youth. Overall, it appears that the effect of disruption in families (e.g., parental breakups, reduced attachment and involvement with children) appears to be more robustly related to delinquency for Hispanic youth than for White or African American youth.

### Race/Ethnicity and Sexual Attitudes and Perceptions

There are other published research considering ethnicity and sexuality, sexual arousal, or sexual attitudes and perceptions towards sexual coercion, which, although it does not specifically answer questions related to the risk assessment with sexually abusive minority youth, it may shed some light on the idea that different risk factors may be involved in the onset of offending or recidivism risk. With regard to adolescent sexual arousal, in a study of 71 male adolescent sex offenders, Murphy, DiLillo, Haynes, and Steere (2001) explored the relationship between offender and offense characteristics (e.g., victim gender, history of physical and sexual victimization, race) and interactions between these factors in the prediction of phallometrically calculated sexual arousal to deviant and nondeviant stimulus. Forty-seven percent of their sample was Caucasian youth while the remaining 52.9% were African American. The authors found that the most consistent predictors of sexual arousal were gender of victim (male) and race such that Caucasian subjects tended to respond more than African American subjects did. On

the other hand, it may be that sexual deviance *per se* isn't that important of a risk factor for sexual offending in ethnic minority individuals.

Literature investigating attitudes towards sexual coercion in ethnically diverse populations is more readily available. To date, most studies examining sexual coercion have focused on high school or college-aged samples, both for convenience and also due to the high incidences of college women reporting sexual victimization (Currier, & Carlson, 2009; Kalof, Eby, Matheson, & Kroska, 2001; Kalof & Wade, 1995; Koss & Oros, 1982; Miller & Marshall, 1987; Yoon, Funk, & Kropf, 2010). Theoretical models such as Hall and Hirschman (1991) have been proposed which look at the roles of developmentally related personality traits and situational and state-dependent physiological, cognitive, and affective factors in sexual coercion. They speculated that the majority of sexual coercers may be motivated by cognitive distortions and may not necessarily have deviant personality traits or sexual arousal. In fact, it is not uncommon for this group of sexual coercers to be highly represented among acquaintance sexual coercer groups. On the other hand, sexual coercers with developmentally-related personality traits are described as having more pervasive antisocial features and more likely to recidivate (Hall, DeGarmo, Eap, Teten, & Sue, 2006; Teten, Hall, & Capaldi, 2009).

Hall et al. (2006) expanded on Malamuth and colleagues' (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Sockloskie, Koss, & Tanaka, 1991) confluence model which posits two pathways, hostile masculinity and impersonal sex, associated with men who engaged in sexually coercive behavior. Both the hostile masculinity and impersonal paths are hierarchical. The former, however, includes

variables such as impulsiveness, general hostility, and misogynistic beliefs while the latter is comprised of early family violence, child sexual abuse, adolescent delinquency, and sexual promiscuity (Malamuth et al., 1991, 1995). While there is admittedly a dearth of knowledge on the role of cultural factors in the course of sexually coercive behavior, Hall et al. (2006) cite prior research hypothesizing that "there are culture-specific influences that may moderate the situational and developmental risk factors for sexual coercion proposed in the Hall and Hirschman (1991) model" (p. 733). Hall et al. (2006) further comment on the idea that being part of a collectivist cultural group which emphasizes interpersonal harmony may serve as a protective factor against sexual coercion. Several researchers have similarly supported the idea of a "cultural protective model" and have found that loss of face, (a culturally derived construct defined as the threat of loss of one's social integrity/role and the impacts of one's behavior on others), serves as a protective factor against sexual coercion among Asian-American men but not among European American men (Hall, Sue, Narang, & Lilly, 2000; Hall, Teten, DeGarmo, Sue, & Stephens, 2005; ; Teten, Hall, & Capaldi, 2009; Zane & Mak, 2003).

In their study, Hall et al. (2006) examined different courses of sexual coercion through self-report and laboratory measures in a geographic sample of 266 Asian American and 299 European American college men. They further identified four sexually coercive groups (i.e., noncoercer, desister, initiator, and persistent) with past sexual coercion being the biggest predictor of sexual coercion. Individuals in the persistent sexual coercers group were found to have higher levels of delinquency, hostile masculinity, and were twice as likely to engage in sexual harassment in the laboratory compared to other sexual coercer groups. Their study also found ethnic differences such that Asian Americans had higher scores on risk factors related to early family violence, acceptance of violence, and hostile masculinity when compared to European Americans while European Americans had higher level of delinquency. However, despite the presence of more risk factors, Asian Americans were no more likely to be at greater risk for sexual coercion than European Americans, a finding that is consistent with prior research where no differences were found in the frequency of sexual coercion between Asian Americans and European Americans (Hall et al., 2000).

Further, cultural factors related to loss of face served as a protective factor against delinquency, acceptance of violence, and hostile masculinity for Asian Americans. Additionally, results showed that for Asian Americans, loss of face "attenuated the risk for self-reported sexual coercion created by the risk factors" (p. 740). Zane and Mack (2003) found that consideration regarding the fulfillment of social roles and losing face when failing to fulfill these is more prominent in Asian American cultures than in European American cultures. Hall et al. (2006) concluded that similarly, "loss of face may be a protective factor against risk for sexual coercion among Asian American men to the extent that prescribed social roles do not include sexual coercion" (p. 740). Similarly, research has found that for Asian American college students, concern about the negative impact of sexual aggression on their reputation served as a protective factor (Hall et al., 2000) as did Asian cultures' emphasis on self-control of sexual and aggressive behavior (Kwan, & Sodowsky, 1997; Hall, Windover, & Maramba, 1998). On the other hand, among Asian Americans who held misogynous beliefs and drank alcohol before sexual activity, concern about their social standing was a risk factor for sexual aggression (Hall et al., 2000; Teten, Hall, & Capaldi, 2009).

Previous research on the influence of race on sexual attitudes and experience with sexual violence has generated ambiguous findings, where some researchers have found no significant differences with regard to sexual attitudes or expectations (Goodschilds & Zellman, 1984) while others have (Brenner & Tomkiewics, 1986; Davidson, J. Kenneth, Moore, Earle, & Davis, 2008). In a sample of high school Black youth, Wade (1991) found that 63% of the sample proclaimed egalitarian gender role attitudes, 20% approved of young men having multiple girlfriends, and 9% held that women "like" to be raped. In contrast, in a study looking at the gender attitudes of Black male college students, Wade's (1992) findings suggested that Black men held very traditional attitudes. Close to half of his sample endorsed the traditional idea that an association between amount spent on a date and female indebtedness exists, and 63% agreed with the mistaken belief that women are responsible for some acts of rape (Wade, 1992).

Kalof and Wade (1995) investigated the influence of race and gender on rapesupportive attitudes and on experience with sexual coercion among 323 White and 60 Black undergraduates. Results indicate that overall women were significantly less likely than men to profess attitudes supportive of adversarial sexual beliefs, acceptance of interpersonal violence, acceptance of rape myths, and sex role stereotyping. The authors also found that gender influenced sexual attitudes and experience more strongly than race. However, a small interaction between race and gender on the acceptance of interpersonal violence was found as well as some evidence of a race/gender interaction on the acceptance of rape myths, where White women were more likely than Black women to report attitudes supportive of rape myths and acceptance of interpersonal violence. In a similar line of research, Kennedy and Gorzalka (2002) examined selfreported attitudes of 400 Asian and non-Asian university students residing in Canada toward towards rape, sexual harassment, and general sexual behavior. Results found that Asian students were significantly more conservative in their attitudes toward sexual behavior, were more tolerant of rape myths, and more accepting of sexual harassment. However, Asian participants' tolerance for rape myths and sexual harassment decreased as length of residency in Canada increased.

Past research has also found date-rape-tolerant and victim-blaming attitudes to be associated with sexual coercion (Currier & Carlson, 2009; Feltey, Aisnlie, & Geib, 1991; Flood & Pease, 2009; Lavoie, Robitaille, & Hebert, 2000; Malamuth, Linz, Heavey, Barnes, & Acker, 1995) and, in some studies, also found to predict sexual coercion in dating relationships (Cohn, Dupuis, & Brown, 2009; Muehlenhard, Friedman, & Thomas, 1985; Proite, Dannels, & Benton, 1993). Other studies have also found that these attitudes are gender and age related with males more likely than females to sanction sexually coercive behavior across settings (Farris, Treat, Viken, & McFall, 2008; Farris, Treat, & Viken, 2010; Farris, Viken, & Treat, 2010; Feltey et al., 1991; Krajewski, Rylands, Dosch, & Gilmore, 1996; Lindgren, Schacht, Pantalone, Blayney, & George, 2009; Lonsway & Fitzgerald, 1994) and younger aged students more likely to endorse them (Barone, Weissberg, Kasprow, Voyce, Arthur, & Shriver, 1995; Feltey et al., 1991). With regard to the relationship between these attitudes and race and ethnicity, the literature has been mixed with some researchers having found that race/ethnicity and age influence such attitudes (Dull & Giaocopassi, 1987; Fischer, 1987) and others finding no relationship (Foshee, 1996; O'Keeffe, 1997; Weisz & Black, 2001).

In their study of sexual coercion occurring within the context of dating or going on a date which can encompass a variety of behaviors "ranging from kissing to intercourse performed against the will of the victim" (p. 407), Geiger, Fischer, and Eshet (2004), found that gender and age were the stronger predictors of date-rape-tolerant and victim-blaming attitudes, with male students in lower grades (hence younger) being more likely than female students in all grades to endorse such attitudes. Although these attitudes decreased with age, findings remained significant for categories of stereotypes justifying sexual coercion by the time and location of the date, the victim's behavior while on the date, the minimization of the seriousness of date rape, and the assailant's motive. SES and religious orientation were found to explain a small but significant proportion of the variance in student's support of some of the categories. Specifically, the lower the SES of the students the more likely they were to endorse stereotypes justifying sexual coercion by the time and location of the date, victim's behaviors during the date, and attacker's motive. With regard to religious orientation, the more conservative these were the more likely students were to hold traditional stereotypes that justified sexual coercion and to attribute the assault to females' conduct during the date. The authors concluded that males and females "continue to be socialized to hold sexist views and double standards concerning male and female behavior while on a date" (pg. 421). Other research has found that men's sexual misperception errors are influenced by alcohol use by either gender, clothing deemed to be provocative, and dating behaviors such as initiating the date or making eye contact. These factors in turn are associated with men's increased perception of women's sexual interest (Farris, Treat, & Viken, 2010; Farris, Treat, Viken, & McFall, 2008; Farris, Viken, & Treat 2010).

## Risk Assessments with Ethnically Diverse Populations

As previously mentioned, risk assessment has the potential to aid in several contexts. Specifically related to ethnically diverse populations, another important reason for the use of risk assessment is that it serves as a potential strategy for the reduction of racial and gender disparities in treating offenders who are involved with the juvenile justice system (Schwalbe et al., 2006). Schwalbe et al. (2006) point out the crucial and possibly devastating impact of using risk assessment measures that are not equally and validly predictive across demographic variables, suggesting that "substantial differences in predictive validity across demographic groups may inadvertently introduce systemic biases rather than neutralize them. Indeed, risk assessment instruments with differential validity by race/ethnicity or gender could do more harm than good if the authority of standardized measurement seemed to verify existing biases" (p. 306).

Studies looking at the predictive validity of risk assessments measures across race/ethnicity or gender have yielded inconsistent findings with some research finding no differences across demographic groups (Ilacqua, Coulson, Lombardo, & Nutbrown, 1999; Jung & Rawana, 1999) while others have found the predictive validity to be higher for males than for females (Schwalbe, Fraser, Day, & Arnold, 2004; Sharkey, Furlong, Jimerson, & O'Brien, 2003) and higher for White juveniles than for African American youth (Schwalbe et al., 2004). Across any stage of the juvenile or adult legal system, differential treatment poses a problem as it can potentially increase the likelihood of juvenile delinquency and recidivism going undetected. For instance, previous research has documented differential treatment of African American youth, such that in some jurisdictions they are more likely to be under surveillance by law enforcement compared to White youth (Leiber & Mack, 2003; Leiber & Stairs, 1999; MacDonald & Chesney-Lind, 2001).

Research has also shown that African American youth are more likely to be confined to secure detention facilities and young female offenders are given harsher sanctions, including longer sentences, than males who commit the same offenses (McDonald & Chesney-Lind, 2001; Pope & Fayerherm, 1995). Schawlbe et al. (2006) point out that because formal detection of males and African American delinquent youth is more likely, recidivism rates of female and European American delinquent youth are likely to be artificially lowered. Artificially lowered recidivism rates can in turn influence the association between risk and recidivism. In their study of 9,534 African American and European American adjudicated youth, Schwalbe et al. (2006) found that recidivism rates varied by gender and race/ethnicity with European American females being less likely to be identified as reoffending. Their study also found that, overall, race/ethnicity was the strongest predictor of recidivism, however it only accounted for 18% of the variance meaning that a large portion was unaccounted for possibly due to variables that were not included in the risk assessment instrument.

Experts in the field have yet to determine whether the importance of certain risk factors for sexual reoffending in adolescent varies with race or ethnicity (Worling & Långström, 2003). As the literature points out adolescent sex offenders are a heterogeneous group and when you add race and ethnicity to the equation, this may additionally complicate the issue. Overall questions regarding race or ethnicity have been neglected and there is very little if any research pertaining to these questions with *adult* sex offenders, and only one published study exists that explores risk assessment

with juvenile sex offender populations. However, overall there appears to be a relative absence of reports indicating whether and to what extent minorities have engaged in sexually coercive behaviors. This appears strikingly odd especially since federal, state, and local statistics have clearly and for decades reported the drastic overrepresentation of minorities in both adult and juvenile justice systems. Some have long hypothesized that researchers tend to shy away from investigating whether there are associations between rates of crime and violence and class, race, or ethnicity (Hawkins, Laub, & Lauritsen, 1998; Pallone & Hennessy, 2000). But is that the complete answer to what is causing the paucity in research? A simple answer would be no since minority ethnicity has in fact been considered in studies of juvenile delinquency and adult offending in general.

In stark contrast to empirical research on nonsexual criminal offending, ethnicity status has not often been factored in when examining sexuality-related research (cf. Weiderman, Maynard, & Fretz, 1996). What proportion of adolescent sex offenders are minorities? To what degree are the risk assessment instruments aimed at identifying risk for reoffending adequate for use with minority populations? Are certain risk factors more important for certain minority individuals? In the development of the instruments to what degree were they normed on minorities?

While several questions related to this topic abound, there are few if any answers. Among the few studies investigating some of these questions, Långström (2004) found that the RRASOR and Static 99 were equally moderately accurate among *adult* Nordic and European sex offenders for the prediction of any sexually and any violent nonsexual recidivism. However, neither measure could differentiate African Asian sexual or violent recidivists from non-recidivists. This brings into question the fact that the predictive validity of these measures may not generalize across offender ethnicity or migration status. Furthermore, results related to the nature and extent of sexual assault indicated that those of African Asian backgrounds had more often sexually offended against a nonrelative or stranger, had higher Static 99 scores, were younger, more often single, and more often homeless (Långström, 2004). Långström (2004) postulated the possibility that "different risk factors or causal chains may be involved in the development or persistence of offending among minority or immigrant sexual abusers" (p. 107).

In a very recent retrospective study, Martinez et al. (2007) evaluated the predictive ability of J-SOAP-II in a predominantly urban minority sample of 60 juvenile sex offenders receiving community-based sex-offender treatment with respect to general violent recidivism, sexual recidivism, and treatment compliance. The participants were predominantly of Latino background. Results indicated that the J-SOAP-II total score significantly correlated with all three outcome variables (general, sexual recidivism, and treatment compliance). Further, ROC analyses yielded a high degree of accuracy in predicting general recidivism with an AUC = .76 and sexual recidivism AUC = .98. The results with regard to the J-SOAP-II individual subscales varied with the outcome variables, although findings indicate that the Dynamic subscales (Intervention and Community Stability/Adjustment) performed better than the Static subscales (Sexual Drive/Preoccupation and Impulsive-Antisocial Behaviors).

Although and perhaps because research is so limited in this area, researchers have taken a step back and opted for identifying barriers to assessment and treatment as well as factors that are important to consider in assessment and treatment of diverse populations. For example, previous qualitative research looking at minority ethnic sex offender's

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experiences of the Prison Service Sex Offender Treatment Programme by Patel and Lord (2001) indicated that a significant minority of Black SOPTP clients regarded race and culture as having been an issue in their treatment experience. Cited examples of this included: "lack of facilitator awareness and poor communication," "clash of interests" with peer White group members which resulted in individuals feeling "stereotyped of victimized," and feeling that they had been treated differently from their White counterparts by facilitators who "lacked an awareness of linguistic and cultural differences in daily life outside of prison." In response to Patel and Lord's (2001) findings, Webster et al., (2004) explored the impact of SOTP on a matched sample of 52 Black sexual offenders and 52 White sexual offenders. Results indicated that the treatment being offered was equally effective on measures of denial of sexual interests, pro-offending attitudes, social competence, and relapse prevention for both groups.

Webster et al.'s (2004) results did find differences between Black and White offenders with regard to pre-treatment scores where Black offenders had higher levels of denial of premeditation and offense repetition with the former disappearing posttreatment but the latter remaining significant for Black offenders post treatment. The authors suggested that these findings might have been culturally influenced such that, "Black culture may be particularly intolerant of sexual abuse, and that this intolerance is more marked than in White culture. Such cultural intolerance may therefore manifest in the Black group strongly denying any possibility of a repetition of their offending behavior" (p. 122). Other possible explanations suggested by the authors include distrust on the part of ethnic minority clients and/or issues pertaining to the validity of assessment instruments normed on White populations.

Jones, Lorendo, Johnson, & McFarlane-Nathan, (1999) cite a number of potential barriers to the effective treatment of minority ethnic groups such as differences in client and therapist values, mistrust of "Anglo-oriented" treatment, and differences in language and communication style. Other commonly cited barriers are the evaluator's own biases and assumptions that he or she brings to the assessment which can impact conclusions drawn (Borum, 2000; Borum, Otto, & Golding, 1993; Sue, Arrendondo, & McDavis, 1992), possible past experiences with prejudice and discriminatory psychological practices which can hinder rapport-building and trust (Sue & Sue, 1999) to name a few. Additionally, some of the common factors that experts in the field often consider in the assessment and treatment of ethnically diverse sexual offenders, are cultural and ethnic differences related to normative sexual behavior and development, importance of family and group dynamics, immigration history (Kawahara, 2002; Sciarra, 1999), acculturation (Phinney, Lochner, & Murphy, 1990), in addition to racial and ethnic identity, cultural context, and socialization (Kawahara, 2002; Phinney, 1990; Sciarra, 1999). Because sexual behavior is culturally normed, further consideration of how culture is related to sexual offending is important. Research on non-offending adolescents has shown that multicultural adolescents who do not identify with or fit comfortably into either the dominant or their native ethnic culture tend to exhibit lower level of self-esteem and more serious psychopathology symptoms such as depression and suicide (Phinney et al., 1990). Rationale for the Present Study and Research Questions

Even though a myriad of research has been undertaken in order to better comprehend characteristics common to adolescent sexual offenders, there is a need for additional research which examines the relationship between sexual offending behaviors, race and/or ethnicity, and risk for sexual or nonsexual reoffending. At its most basic, research needs to consider the inclusion of minority adolescent and adult individuals in the normative and development samples of risk assessment measures, especially given the disproportionate minority confinement rates which continue to plague the juvenile and adult justice systems. To address the need for research dealing with minorities and sexual offenses, the purpose of this study is to evaluate whether any differences exist between Caucasian and ethnic minority adolescent sexual offenders on risk relevant static and dynamic predictors of sexual assault. Essentially, what is the generalizability of sexual offending predictors across ethnic and racial groups? Are they the same for Caucasian and minority adolescents?

## Hypotheses

- Given previous findings on the overrepresentation of ethnic and racial minorities in both the juvenile and criminal justice systems, it is hypothesized that minority youth in this sample will have a higher number of previous violent non-sexual, sexual, and/or non-violent non-sexual criminal histories, compared to Caucasian youth.
- Based on previous literature it is hypothesized that total scores on each of the four instruments will differ significantly between groups, such that the adolescent sexual offender minority group will have higher overall *total* scores, indicative of greater risk item ratings, compared to the Caucasian group.
- Given Långström's (2004) finding that "different risk factors or causal chains may be involved in the development or persistence of offending among minority or immigrant sexual abusers" (p. 107), albeit with adult sex offenders, and that

most instruments have been validated and normed on Caucasian youth, it is expected that the pattern of *subscale* scores comprising each of the two measures containing items clustered into various subscales (e.g., the J-SOAP-II and SAVRY) will differ between groups such that minority sex offenders will have higher subscale scores indicative of higher risk, compared to their Caucasian adolescent sexual offender counterparts.

- Given previous findings that the presence of a father figure and, hence, intact family structures serve as protective factors for youth, it is hypothesized that Caucasian and minority adolescent sexual offenders who come from intact home will have fewer risk factors compared to Caucasian and minority youthful offenders who come from broken families as defined by divorced and/or separated parents.
- It is also hypothesized that of youth who come from broken families, minority adolescent sex offenders will be rated higher compared to their Caucasian counterparts.
- Based on literature suggesting that the high incidence of youths' exposure to violence in African American and Latino/Hispanic communities leads to an increased propensity to act out aggressively if exposed (Crouch, Hanson, Saunders, Kilpatrick, & Resnick, 2000), it is expected that minority sex offenders who have been exposed to violence in the home will be rated higher compared to Caucasian youth on all four risk assessment tools.

• Based on existing literature, it is hypothesized that minority youth who have a family/parental history of criminal involvement will have higher risk scores compared to their Caucasian counterparts.

CHAPTER 2: Method

## Participants

Participants were 207 male adolescents drawn from two treatment settings addressing adolescent sexual misbehavior. One hundred and eighty-two of these were admitted to and participated in the Lincoln Regional Center's Whitehall Adolescent Sex Offender Residential Treatment Program. The Whitehall program is a residential treatment facility that provides sexual offense-specific treatment for youth who have been committed by the courts. The average length of time for youth complete the program varies from  $1\frac{1}{2}$  to 2 years, during which they participate in individual, group, and family therapy addressing relapse prevention strategies and the development of more effective coping skills. The youth were admitted to the program between 1992 and 2008. For the purposes of the proposed study, the data were stratified by race in order to increase the number of ethnically and/or racially diverse youth for adequate comparison purposes and to better address the proposed ethnically and racially related research questions. Demographic information for Whitehall Program youth includes: a total sample of 182 adolescents who committed sexual offenses with approximately 53.3% (n = 97) youth between the ages of 12 to 15, 46.7% (n = 85) between the ages of 16 to 18, and a mean age at the time of admission being 15.32 (SD = 1.53). A large proportion of youth in the archival data set were non-Hispanic Caucasian (77.5%, n = 141), 10.4% (n = 19) were

African-American, 6.6% (n = 12) were Hispanic, 1.6% (n = 3) were American Indian or Alaskan Native, and 3.8% (n = 7) mixed race/ethnicity.

Further information includes the Whitehall youth having had engaged in a variety of sexual offense-related behaviors, including genital penetration (37.4%, n = 68), anal penetration (34.6%, n = 63), oral-genital contact (48.4%, n = 88), fondling (63.2%, n = 115), and exhibitionism (12.6%, n = 23). These numbers do not add up to 100% because some youth had multiple index offenses. While most youth had been formally charged and adjudicated with sex-related offenses, some youth were not formally prosecuted (15.4%, n = 28). The majority of youths' index offenses were perpetrated against victims who were 3 years or younger than the perpetrators (85.8%, n = 151). In most cases, the victims were known to the perpetrator (93.3%, n = 167) rather than strangers. Additionally, many of offenses were of intra-familial nature (69.3%, n = 124), such as being a biological, half-, or step-sibling. One-quarter of youth had committed index offenses against male only victims (25.1%, n = 45), whereas 47.5% (n = 85) perpetrated against female only victims, and 27.4% (n = 49) perpetrated against both male and female victims.

Twenty-five male adolescents participated in treatment facilities under the supervision of Omni Behavioral Health, the largest non-profit, community integrated behavioral health organization provider of mental health services in Nebraska. A power analysis was conducted to determine the appropriate number of additional minority individuals to be included in the study due to the current low number from the previous data collection which is insufficient to make analytic comparisons. Using an effect size of r = .20 and power of .80, approximately 95 additional participants of minority

background were identified to be included in the present study. However, due to the unavailability of additional data, information was gathered from 25 participants.

Demographic information for Omni Behavioral Program youth includes: a total sample of 25 adolescents who committed sexual offenses with approximately 52.0% (n = 13) of youth between the ages of 12 to 15, 48.0% (n = 12) between the ages of 16 to 18, and a mean age at the time of admission being 15.44 (SD = 1.44). Thirty-two percent (n = 8) of youth were non-Hispanic Caucasian, 40.0% (n = 10) were African-American, 12.0% (n = 3) were Hispanic, 8.0% (n = 2) were American Indian or Alaskan Native, and 8.0% (n = 2) mixed race/ethnicity.

Omni Behavioral Health youth had engaged in a variety of sexual offense-related behaviors, including genital penetration (16.0%, n = 4), anal penetration (8.0%, n = 2), oral-genital contact (24.0%, n = 6), fondling (36.0%, n = 9), and exhibitionism (24.0%, n = 6). These numbers do not add up to 100% because some youth had multiple index offenses. While most youth had been formally charged and adjudicated with sex-related offenses, some youth were not formally prosecuted (68.0%, n = 17). In the Omni sample, the majority of youths' index offenses were perpetrated against victims who were peeraged or older than the perpetrators (66.7%, n = 16). In most cases, the victims were known to the perpetrator (95.8%, n = 23) rather than strangers. In contrast to Whitehall youth, the offenses of adolescents from Omni Behavioral Health were not intra-familial in nature (75.0%, n = 18), only 25% (n = 6) were intra-familial in nature, such as being a biological, half-, or step-sibling. One-third of youth had committed index offenses against male only victims (33.3%, n = 8), whereas 62.5% (n = 15) perpetrated against female victims.

For the purpose of this study, adolescent sexual offenders will be defined as those youth who have been suspected, charged, or adjudicated of a sexual offense against children, peers, or adults. Those youth who were suspected of sexual offenses include noncriminal adjudications cases (e.g., abuse/neglect or Child in Need of Supervision). Participant demographic characteristics for each program and total sample are shown in Table 1. Table 1a. shows demographic characteristics by race.

	LRC	Omni	Total Sample
	M (SD) or n (%)	<i>M</i> ( <i>SD</i> ) or <i>n</i> (%)	M (SD) or n (%)
Participant Sample	182	25	207
Length of Stay	389.97 (233.65)	211.5 (179.26)	369.08 (234.73)
Mean Age at Admission	15.32 (1.53)	15.44 (1.45)	15.34 (1.52)
Mean Age at Discharge	16.12 (1.51)	16.04 (1.55)	16.11 (1.51)
Ages 12-15	97 (53.3%)	13 (52%)	110 (53.1)
Older than 16	85 (46.7%)	12 (48%)	97 (46.9%)
Race			
Non-Hispanic Caucasian	141 (77.5%)	8 (32%)	149 (72%)
African-American	19 (10.4%)	10 (40%)	29 (14%)
Hispanic	12 (6.6%)	3 (12%)	15 (7.2%)
American Indian/Alaskan Native	3 (1.6%)	2 (8%)	5 (2.4%)
Mixed Race	7 (3.8)	2 (8%)	9 (4.3%)
Race Collapsed			
Caucasian	141 (77.5%)	8 (32%)	149 (72%)
Minority	41 (22.5%)	17 (68%)	58 (28%)
Type of Offense *			
Genital Penetration	68 (37.4%)	4 (16%)	72 (34.8%)
Anal Penetration	63 (34.6%)	2 (8%)	65 (31.4%)
Oral-Genital Contact	88 (48.4%)	6 (24%)	94 (45.4%)
Fondling	115 (63.2%)	9 (36%)	124 (59.9%)
Exhibitionism	23 (12.6%)	6 (24%)	29 (14%)
Obscene Telephone Calls	2 (1.1%)	0 (0%)	2 (1.0%)
Convicted of Index Offense	130 (72.2%)	7 (28%)	137 (66.8%)
No Formal Charges/Adjudicated	28 (15.6%)	17 (68%)	45 (22%)
Age of Victim			
Peer and Older	25(14204)	16 (66 70%)	<i>41 (20, 59/</i> )
	25 (14.2%)	16 (66.7%)	41 (20.5%)
Younger (at least 3 year gap)	151 (85.8%)	8 (33.3%)	159 (79.5%)

Table 1. Participant Demographic Characteristics

Victim Relation**			
Stranger	12 (6.6%)	1 (4%)	13 (6.3%)
Familial	124 (68.1%)	6 (24%)	130 (62.8%)
Known - Unrelated	83 (45.6%)	19 (76%)	102 (49.3%)
Sex of Victim Index Offense			
Male Only	45 (25.1%)	8 (33.3%)	53 (26.1%)
Female Only	85 (47.5%)	15 (62.5%)	100 (49.3%)
Both	49 (27.4%)	1 (4.2%)	50 (24.6%)

\* These numbers do not add up to 100% because some youth had multiple index offenses. \*\* These numbers do not add up to 100% because some youth had multiple victims who were related, known but unrelated, or stranger.

	Minority	Caucasian	Total Sample	
	M (SD) or n (%)	M (SD) or n (%)	M (SD) or n (%)	
Participant Sample	58	149	207	
Length of Stay	331.33 (233.32)	383.61 (234.44)	369.08 (234.73)	
Mean Age at Admission	15.09 (1.47)	15.44 (1.53)	15.34 (1.52)	
Mean Age at Discharge	15.88 (1.49)	16.20 (1.52)	16.11 (1.51)	
Ages 12-15	36 (62.1%)	74 (49.7%)	110 (53.1)	
Older than 16	22 (37.9%)	75 (50.3%)	97 (46.9%)	
Type of Offense *				
Genital Penetration	14 (24.1%)	58 (38.9%)	72 (34.8%)	
Anal Penetration	18 (31%)	47 (31.5%)	65 (31.4%)	
Oral-Genital Contact	21 (36.2%)	73 (59.7%)	94 (45.4%)	
Fondling	35 (60.3%)	89 (59.7%)	124 (59.9%)	
Exhibitionism	6 (10.3%)	23 (15.4%)	29 (14%)	
Obscene Telephone Calls	0 (0%)	2 (1.3%)	2 (1.0%)	
Convicted of Index Offense	38 (65.5%)	99 (67.3%)	137 (66.8%)	
No Formal Charges/Adjudicated	16 (27.6%)	29 (19.7%)	45 (22%)	
Age of Victim				
Peer and Older	20 (35.1%)	21 (14.7%)	41 (20.5%)	
Younger (at least 3 year gap)	37 (64.9%)	122 (85.3%)	159 (79.5%)	
Victim Relation**				
Stranger	4 (6.9%)	9 (6%)	13 (6.3%)	
Familial	25 (43.1%)	105 (70.5%)	130 (62.8%)	
Known - Unrelated	35 (60.3%)	67 (45%)	102 (49.3%)	
	55 (00.570)	07 (7570)	102 (+7.570)	
Sex of Victim Index Offense				
Male Only	19 (33.3%)	34 (23.3%)	53 (26.1%)	

Table 1a. Demographics and Sample Characteristics by Race

Female Only	31 (54.4%)	69 (47.3%)	100 (49.3%)
Both	7 (12.3%)	43 (29.5%)	50 (24.6%)

\* These numbers do not add up to 100% because some youth had multiple index offenses. \*\* These numbers do not add up to 100% because some youth had multiple victims who were related, known but unrelated, or stranger.

## **Measures**

*Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (J-SORRAT-II; Epperson, Ralston, Fowers, & DeWitt, 2005).* The J-SORRAT-II is a 12-item actuarial tool designed to assess risk of violence among male adolescent offenders between the ages of 12 to 18 at the time of their index sexual offense (Epperson et al., 2005). Some of the items on the J-SORRAT-II focus on the youths' sexual and nonsexual offense history and other items examine youths' treatment history, school records, and history of past victimization. The J-SORRAT-II utilizes a criterion-based scoring system. Of the 12 J-SORRAT-II items, five are scored to specify whether the risk factor is present or absent in any given individual (0, 1), another five items are scored on a 3-point scale (0, 1, 2), and two items are scored on a 4-point scale (0, 1, 2, 3) to designate severity for a particular risk factor (e.g., number of sex offense related adjudication and length of sexual offending history based on charged offenses).

The J-SORRAT-II was developed by identifying factors that were the most predictive of sexual recidivism in a sample of 636 12 to 17-year-old males, (race or ethnicity of the sample was not available), adjudicated for sexual offenses (Epperson et al., 2005). In the test development sample, Epperson et al. (2005) found the J-SORRAT-II was effective in predicting recidivism. Using receiver operating curve (ROC) analyses, the area under the curve was .89 for predicting the likelihood that a juvenile would recidivate sexually as a juvenile and .79 in predicting the likelihood that a youth would recidivate sexually as either a juvenile or adult. The AUC is the probability that a randomly selected adolescent scoring high on a given instrument will be more likely to recidivate than a randomly selected juvenile with a low score. It is important to note, however, that this study was conducted with the sample on which the J-SORRAT-II was developed and other studies are needed to validate the instrument with independent samples. Again, until recently, no research was available using the J-SORRAT-II with independent samples. In Viljoen et al.'s (2008) sample of 169 male youth in a residential adolescent sex offender program, the J-SORRAT-II did not significantly predict sexual or nonsexual reoffending behavior in adolescents who had sexually offended.

*Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II; Prentky & Righthand, 2001, 2003).* The J-SOAP-II was the first evaluator-completed checklist of risk factors that was designed to determine risk for sexual violence and risk for general criminal delinquency (Prentky & Righthand, 2003). It was designed to be used with males between the ages of 12-18, who have a history of sexual misbehavior. In developing the instrument, the authors focused on selecting items from reviews of the literature of risk factors commonly present in juveniles who had sexually offended (Prentky et al., 2000; Righthand et al., 2005). The risk factors that were chosen had empirical support and/or clinical relevance (Prentky & Righthand, 2003). The original version of the instrument had 23 items and was later revised to include 26 items. This later version was used in a pilot study and was then extensively revised to develop concrete behavioral anchors, in addition to deleting items with limited predictive validity and adding new risk factors.

The revised version of the instrument, the J-SOAP-II consists of 28 items, with four scales. The first two scales (Sexual Drive/Preoccupation and Impulsive-Antisocial

Behaviors) have eight items each which focus specifically on static risk factors, which are generally unchangeable historical variables. The other two scales (Intervention and Community Stability/Adjustment) one with seven and one with five dynamic variables, respectively, focus on dynamic, thus potentially changeable, risk factors. The items on this instrument are rated on a three-point scale, with a higher score representing greater risk. A total score is then obtained by summing the items on the four scales. At the present time, there are no categories or classifications associated with various total scores, and the J-SOAP-II functions as an "empirically informed guide" rather than an actuarial tool (Prentky & Righthand, 2003, p. 8). The straight forward instructions and examples of the J-SOAP-II and its predecessor the JSOAP make them easy to use. The risk ratings have the potential to be sensitive to changes resulting from sex-offense specific treatment, though it was not intended as such. It can be used as a brief screening tool in addition to being used for evaluation, treatment planning, and treatment delivery.

Although the J-SOAP-II and the earlier version, the J-SOAP, are routinely used, little is known about its predictive validity. Prentky et al. (2000) used the earlier version of this tool, the J-SOAP, with 96 inner city, low SES, juvenile sexual offenders between 9-20 year of age (M=14) from Philadelphia, information on the race or ethnicity of the participants was unavailable. The official recidivism rates over a 12-month follow-up period were too low and the authors were unable to evaluate the tool's predictive validity. Promising results regarding the 26-item original version have been presented with regard to interrater agreement, internal consistency, and item-total correlations (Prentky et al., 2000; Righthand et al., 2005). Concurrent validity with the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge & Andrews, 1996) total score proved to be highly correlated with three of the scales as well as the JSOAP total score, but only moderately correlated with Scale 1 Sexual Drive/Preoccupation (Righthand et al., 2005). The authors also investigated the discriminant validity of the JSOAP comparing 45 juvenile sex offenders in residential placement with 89 juvenile sex offenders who were in the community. Results indicated that Scales 1, 2, and 3 successfully discriminated between the two groups (with an average 7 point difference). That is, sex offenders in the community scored lower on these scales than sex offenders in residential placements, on average (Righthand et al., 2005). Until very recently, there were no available published data reporting the psychometric properties of the J-SOAP-II, which is important because the J-SOAP-II differs significantly from the original version with items being deleted, moved to different scales, added, or revised (Martinez, Flores, & Rosenfeld, 2007).

Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, Forth, 2003). The SAVRY was designed to aid professionals in determining the potential risk for violence by adolescents between 12 and 18. It is a structured professional judgment (SPJ) tool designed to assess violence, not sexual violence specifically. It is important to note that it does not create a numeric score that can be used to predict a certain level of risk. Rather it attempts to serve as a source of important and empirically sound factors to consider when making a clinical judgment. The SAVRY provides a list of 24 risk factors and 6 protective factors which professionals consider and rank, from low to high. However, the final judgment of violence risk is made based on an overview of these rankings and any additional factors not included in the standard SAVRY, and not based on cut-off scores or any total risk score produced by the instrument. However, for research purposes investigators use the numerical scores while clinicians do not.

Among some of SAVRY's strengths is that the instrument is easy to utilize while preparing an assessment or to use as a reference. It includes the empirical support for each of the risk and protective factors included. In regards to psychometric properties, Catchpole and Gretton (2003) found that the SAVRY correlated with the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge & Andrews, 2002) and the Psychopathy Checklist: Youth Version (PCL-YV, Forth, Kosson, & Hare, 2003). Additionally, the SAVRY significantly predicted institutional aggressive behaviors and conduct disorder symptoms related to aggression in a sample of incarcerated adolescents (Bartel & Forth, 2000). Two prospective studies have been conducted in an attempt to explore the link between SAVRY summary risk ratings and actual recidivism. One study found that youth who were rated as low, moderate, and high risk for violence later committed a violent act 6%, 14%, and 40% of the time respectively over the next year (Catchpole & Gretton, 2003). In a similar study, Gretton and Abramowitz (2002) found that low-, moderate-, and high-risk youths had violent recidivism rates of 5.7%, 13.1%, and 40.4% respectively. Among those youth that recidivated, 69.7% were rated high risk, 24.2% were rated as moderate risk, and 6.1% were rated as low risk. However, until very recently, no published research specifically looking at the predictive ability of the SAVRY with youth who had committed sexual offenses was available. Viljoen et al. (2008) found that the SAVRY and J-SOAP-II significantly predicted nonsexual violence but did not predict sexual violence. Furthermore, the J-SOAP-II and SAVRY were less effective in predicting violent reoffending in youth aged 15 and younger than in older youth. Specifically, youth aged 15 and under were significantly more likely to be incorrectly judged as being at high risk for future violence.

While the SAVRY does have strengths, there is some concern that the SAVRY does not differentially weight any specific items despite the fact that research on these constructs indicates significantly higher effect sizes for some factors (i.e., History of Violence; see Tolan, Guerra, & Kendall, 1995) than for others. Additionally, the SAVRY focuses on general delinquency as opposed to sexual offending specifically. Additionally, there are no published data on the breakdown of race or ethnicity of the sample used in the development of the measure. The only available information with regard to the sample used in the development of the SAVRY is that 104 incarcerated male offenders were part of the initial development and validation study. Published studies have reported a sample breakdown consisting primarily of Caucasian male juveniles (Catchpole & Gretton, 2003; Gretton & Abramowitz, 2002).

Studies that have looked at the SAVRY with diverse samples are scarce. For example, in a cross-sectional study using the SAVRY with 47 male and 35 female highrisk Native American youth, Fitch (2004) found that females scored higher than male participants in the SAVRY risk factor groups and on total SAVRY scores. Additionally, female youth scored 62.5% higher in Protective Factors than the males, but lower in Violence Committed. For both male and female subjects, higher scores on Protective Factors were associated with lower scores on Violence Committed. Furthermore, in an attempt to examine potential factors impacting disproportionate minority confinement, Chapman, Desai, Falzer, and Borum (2006) examined risk and protective factors across race in a sample of 757 10-17 year-old detained youth (70% male). Their sample consisted of White (36%); African American (39%), Hispanic (24%), Asian (< 1%), and other (< 1%). Findings indicated that while African American youth were more likely than White youth to be detained for charges classified as a serious juvenile offense, such as rape or murder, they were rated as significantly lower risk than White youth. Minority youth were also more likely to have early initiation of violence and community disorganization when compared to their White counterparts, although African American and Hispanic youth were more likely to be rated as having certain protective factors, such as engagement in prosocial involvement and strong attachments and bonds. More recently, Meyers and Schmidt (2008) found that the SAVRY was robust in predicting violent recidivism across gender and ethnicity.

Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR; Worling & *Curwen*, 2001). While the JSOAP and J-SOAP-II was designed and tested as a tool that offered the possibility of coding it from archival file data due to the majority of items being static or historical, such is not that case for the ERASOR. That is, it was designed to be use by evaluators following a clinical assessment and interview since most risk factors are dynamic in an effort to identified treatment targets and reevaluate progress routinely. Originally developed in 2000, the ERASOR is an empirically-guided instrument designed to aid clinicians in estimating the short-term (at most 1 year) risk of sexual reoffense for adolescents, aged 12-18 years, who have committed a sexual assault. It was created as part of the Sexual Abuse, Family Education and Treatment (SAFE-T) Program which is a specialized community-based program that provides sexual abuse specific assessment, treatment, consultation, and long-term support to child victims, families, and adolescent offenders (Worling & Curwen, 2000). The 1-year maximum is based on the relatively short follow-up time frames that studies have used, the longest being a 3-year-follow-up (Worling, 2004).

The instrument was modeled after the Historical Clinical Risk-20 (HCR-20; Webster, Douglas, Eaves, & Hart, 1997) and the Sexual Violence Risk-20 (SVR-20; Boer, Hart, Kropp, & Webster, 1997) both two of the best-known, empirically-guided risk assessment checklists used to estimate risk of future violence with adults (Worling, 2004; Worling & Långström, 2006). To select risk factors, Worling & Curwen (2000) used three sources of information: published studies of adolescent sexual-offense recidivism, published checklists and guidelines regarding the clinical judgment of risk and protective factors for adolescent sex offenders, and literature on adult sex offense recidivism. The ERASOR is in its second and most recent version, with 26 items divided into 5 content areas. The Historical Sexual Assaults content area with 9 items focuses on static factors while the remaining 16 items in the four remaining content areas (Sexual Interests, Attitudes, and Behaviors; Psychosocial Functioning; Family/Environmental Functioning; and Treatment) focus on dynamic factors. The 26 items are rated on a 4point scale (present = 2, partially/possibly present = 1, not present = 0, unknown = 0). The dynamic risk factors, 16 items, are coded using a 6-month-recency time frame. Given that there is no empirical support for combining risk factors to predict adolescent sexual recidivism, clinical judgment is necessary in making the overall risk rating of low, *moderate*, and *high*. While there may be a relationship between the number of high-risk factors and the rating of risk (i.e., more high-risk factors suggest higher risk to reoffend), the authors suggest that the final decision will rest on the combination of risk factors rather than the number (Worling, 2004; Worling & Curwen, 2001; Worling, & Långström, 2003).

To explore the preliminary psychometric properties of the ERASOR, risk ratings were collected from 28 clinicians who evaluated 136 adolescent males (12-18 years, M=14.9) from several community-based agencies in Toronto and specialized residential treatment centers in Minnesota. Youth were evaluated by master's or doctoral level clinicians at intake, mid-way through the program, and at discharge. Sample breakdown by race of participants was not published. Average interrater agreement for individual items and for total ERASOR score ranged from .57 - .96 for all items and .92 for total score. Item-total correlations were adequate (r = .25) for 21 of the 25 risk factors (Worling, 2004). Further exploration of discriminant validity indicated that the ERASOR successfully discriminated between adolescents who for the first time were identified/caught for sexual offenses from those who have sexually reoffended despite being sanctioned by an adult for a prior sexual assault (Worling, 2004). The ERASOR also successfully differentiated between adolescent sex offenders in specialized residential treatment centers, who had higher scores and thus at higher risk for sexual reoffending, and adolescent sex offenders in community-based treatment (Worling, 2004).

Among some of its strengths is that the ERASOR manual provides rational and detailed instructions. Given its structured format with risk factors derived from the existing literature, the ERASOR potentially increases the accuracy of predicting sexual recidivism in youth. It has demonstrated adequate psychometric properties (Worling, 2004). Like the J-SOAP-II, the ERASOR also has the potential for evaluating treatment outcome (Worling & Curwen, 2000). However, there are limitations to the instrument

including its heavy reliance on clinical judgment. Similar to the J-SOAP-II there are no prospective studies regarding its predictive validity yet available.

## Procedure

Trained raters completed the J-SOAP-II, J-SORRAT-II, SAVRY, and ERASOR for each youth based on comprehensive file information that included psychiatric and psychological assessments, social work reports, nursing records, and arrest records. Because the J-SOAP-II,SAVRY, and ERASOR require knowledge of clinical issues (e.g., symptoms of Attention-Deficit/Hyperactivity Disorder), these tools were completed by three Ph.D. level graduate students in Clinical Forensic Psychology who had completed coursework and practica on clinical and forensic assessment of youth and adults. As the J-SORRAT-II does not require clinical training to complete, this tool was completed by two undergraduate raters who were psychology majors and had completed coursework in forensic psychology.

Prior to commencing coding, all raters received comprehensive training on the tools, including didactic sessions, assigned readings, and the completion of 5 practice cases using actual case files. The practice cases were reviewed and discussed among the raters. To examine the predictive validity of the risk assessment tools, information will again be collected on whether youth engaged in sexual aggression and non-sexual aggression during the treatment program.

A random sample of 22.2% (n = 46) files were selected in order to examine whether the risk assessment tools could be reliably coded on the basis of available information. Another rater who had similar training and background separately recoded these files. Intraclass correlation coefficients for single raters (ICC<sub>1</sub>s) were calculated using a two-way random effects model (McGraw & Wong, 1996). The ICC<sub>1</sub>s for total scores on the J-SORRAT-II, J-SOAP-II, SAVRY, and ERASOR fell in the excellent range, according to the classification system used by Cicchetti and Sparrow (1981; refer to Table 2).

Measure	Range	М	SD	SEM	Median	ICC <sub>1</sub>
J-SORRAT-II	0-17	6.00	3.53	.245	5.00	.89
J-SOAP-II	14-53	34.81	8.55	.594	36.00	.83
SAVRY	7-45	28.67	7.86	.548	30.00	.80
ERASOR	5-47	25.25	7.98	.555	25.00	.86

Table 2. Ratings of Risk Assessment Instruments

Note. M = mean; SD = standard deviation; SEM = standard error of mean; ICC<sub>1</sub> = intraclass correlation coefficients; J-SORRAT-II = Juvenile Sexual Offense Recidivism Risk Assessment Tool–II; J-SOAP-II = Juvenile Sex Offender Assessment Protocol–II; SAVRY = Structured Assessment of Violence Risk in Youth; ERASOR = Estimate of Risk of Adolescent Sexual Offense Recidivism.

#### Analysis Plan

Prior to analysis, various data screening methods were employed on all variables to assess the accuracy of data entry, the presence of missing values and univariate outliers, as well as to compare the data set to various assumptions of multivariate analysis (e.g., linearity, normal distribution, etc.). The comparison of groups were performed after each of the groups were separately examined for distributional and other properties. While finding different distributional properties across the groups would usually be perceived as problematic for the planned principal analyses, any differences found may be an important finding in this study since the driving hypothesis is that differences will be found as a function of race or ethnicity. Departures from normality were assessed by examining skewness and kurtosis statistics, as well as through visual inspections of distributions in comparison to the normal curve.

## **CHAPTER 3:** Results

#### Characteristics of Risk Assessment Instruments

Instrument summary risk classifications of participants at admission are shown in Table 2. On the J-SORRAT-II, 38.2% (n = 79) of youth were classified as low risk, 51.2.0% (n = 106) youth as moderate risk, and 10.6% (n = 22) as high risk. On the SAVRY, 14.5% (n = 30) were classified as low risk, 64.3.0% (n = 133) as moderate risk, and 21.3% (n = 44) as high risk. On the ERASOR, 28% (n = 58) of participants were classified as low risk, 48.3.0% (n = 100) as moderate risk, and 23.7% (n = 49) as high risk. As previously mentioned, there are no categories or classifications associated with the J-SOAP-II.

Bivariate Pearson r correlations were completed to examine the relationship between continuous scores on the various risk measures. Spearman-Brown correlations were calculated for scores that were ordinal in nature (i.e., SAVRY and ERASOR structured professional ratings). The correlations between the J-SORRAT-II, J-SOAP-II total scores, SAVRY total scores, and the SAVRY and ERASOR structured professional judgments were classified as small to medium, according to Cohen's (1988) classification system. With the exception of J-SORRAT-II and SAVRY structured professional rating, all other instruments were correlated with one another. The correlations between the risk instruments are listed in Table 3.

# Table 3. Correlations Between Risk Instruments

											SAVRY	
			Sexual	Impulsive/	<b>T</b> , , , ,	0, 1, 11,	GANDN	TT: / ! 1	Social/	<b>T</b> 1 <sup>1</sup> <sup>1</sup> 1	Structured	ERASOR
Measure	JSORRAT- II	JSOAP- II Total	Drive Scale	Antisocial Scale	Intervention Scale	Stability Scale	SAVRY Total	Historical Section	Contextual Section	Individual Section	Professional Rating (SPR)	Risk Rating
J-SORRAT-II	_	.37**	.39**	.28**	.14*	.20**	.29**	.27**	.20**	.22**	.11	.31**
J-SOAP-II		_	.65**	.73**	.73**	.77**	.78**	.62**	.67**	.71**	.41**	.34**
Total												
Sexual Drive			_	.14	.28**	.33**	.21**	.18**	.27**	.16*	.03	.34**
Impulsive/				_	.41**	.52**	.80**	.74**	.59**	.68**	.53**	.26**
Antisocial												
Intervention					-	.49**	.58**	.33**	.52**	.64**	.34**	.17*
Stability						_	.71**	.56**	.65**	.62**	.29**	.14*
SAVRY Total							-	.88**	.81**	.85**	.56**	.27**
Historical								_	.60**	.57**	.49**	.29**
Social/									_	.56**	.37**	.13
Contextual												
Individual										_	.56**	.22**
SAVRY SPR											_	.43**

Note. J-SORRAT-II = Juvenile Sexual Offense Recidivism Risk Assessment Tool–II; J-SOAP-II = Juvenile Sex Offender Assessment Protocol–II; SAVRY = Structured Assessment of Violence Risk in Youth; ERASOR = Estimate of Risk of Adolescent Sexual Offense Recidivism.

p < .05. p < .01.

In order to test the various hypotheses set forth, subjects of non-Caucasian racial or ethnic background (e.g., African American, Hispanic, Asian, Native American, and Mixed Race) were aggregated into a single group, henceforth referred to as the minority group. Although such aggregation necessarily ignores potentially important differences between minority subgroups and the Caucasian group (henceforth, the majority group), it was noted that that minority subgroups did not achieve a size that allowed for meaningful comparison.

Univariate statistics were performed to explore differences between minority and Caucasian adolescent sex offenders on relevant background and offense-related behavior. Findings revealed that minority youth had significantly more previous psychiatric hospitalizations when compared to their Caucasian counterparts, F(1, 206) = 6.085, p =.014. With regard to school behavior-related problems, Caucasian youth were significantly more likely to have been suspended F(1, 206) = 12.301, p = .001 and expelled F(1, 206) = 13.178, p = .000 compared to minority youth. Further exploration of the type of sexual offenses committed revealed that male adolescent minority youth were significantly more likely to have subjected their victims to genital penetration, F(1, 1)101 = 41.659, p = .000; and penetration F(1, 96) = 28.031, p = .000; oral/genital contact, F(1, 120) = 36.572, p = .000; fondling F(1, 141) = 8.095, p = .005; exhibitionism F(1, 60) = 34.171, p = .000; and obscene telephone calls F(1, 39) = 7.125, p = .011 when compared to their Caucasian counterparts. Minority youth were also significantly more likely to have offended against victims to whom they were related F(1, 202) = 14.905, p = .000, while Caucasian youth were more likely to have offended against victims who were known but not related F(1, 202) = 3.985, p = .047.

#### Criminal History and Risk Factors in Caucasian and Minority Sexual Offenders

To test the hypothesis that minority youth in this sample would have a higher number of prior non-sexual violent, sexual violent, and non-violent non-sexual (property) criminal histories compared to Caucasian youth, an ANOVA was performed. Results indicated that minority sex offenders engaged in significantly more property offenses compared to their Caucasian counterparts, F(1, 205) = 7.796, p = .006. There were no significant differences between the two groups on prior sexual violent offenses, F(1, 205)= .602, p = n.s.; or prior nonsexual violence, F(1, 205) = .136, p = n.s., as such the hypothesis was only partially supported with regard to minorities having a higher number of property offenses.

## Instrument Total Scores in Caucasian and Minority Sexual Offenders

To test the hypothesis that total scores on each of the four instruments would differ significantly between Caucasian and minority male adolescent sexual offenders, such that the adolescent sexual offender minority group would have higher overall total scores, indicative of greater risk item ratings, between groups analysis of variance (ANOVAs) were performed on instruments with a continuous score rating (i.e., J-SOAP II) and chi-square tests were performed on instruments with a categorical risk rating (e.g., low, moderate, high), namely the J-SORRAT-II, SAVRY, and ERASOR. Results on the J-SOAP-II indicated that there were significant differences in the total score on this measure between Caucasian and minority sex offenders, *F*(1, 205) = 8.161, *p* = .005, such that Caucasian adolescent sex offenders had higher total scores. Findings did not support the hypothesis proposed. Analysis of variance values for total instrument and subscale scores for minority and Caucasian youth are shown in Table 4.

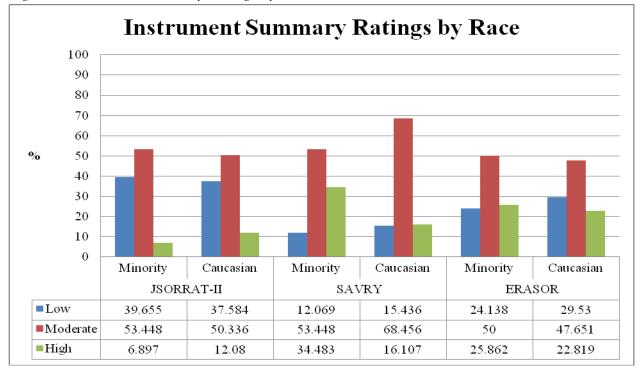
Instrument	Minority (M, Sd.)	Caucasian (M, Sd.)	F	
JSOAP-II Total	32.14 (9.01)	35.85 (8.15)	8.161*	
Sexual Drive/Preoccupation	6.34 (4.04)	8.81 (3.22)	21.180**	
Impulsive/Antisocial	10.21 (3.35)	9.28 (3.49)	3.046	
Intervention	9.95 (3.23)	11.21 (2.38)	9.494*	
Community Stability	5.64 (2.60)	6.55 (1.97)	7.404*	
SAVRY				
Historical	11.34 (3.37)	11.11 (3.77)	.176	
Social/Contextual	6.38 (2.62)	7.05 (2.26)	3.397	
Individual	10.17 (3.61)	10.74 (3.09)	1.302	

*Table 4. Risk Assessment Instrument Total and Subscale Scores by Race for Continuous Variables* 

Note. \* *p* < .05. \*\* *p* < .001

Chi-square tests were performed on the J-SORRAT-II, SAVRY, and ERASOR. Results on the J-SORRAT-II indicated that there was no significant relationship between Caucasian/minority adolescent sex offenders and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = 1.182$ , p = .554. Results on the SAVRY indicated that there was a significant relationship between Caucasian/minority adolescent sex offenders and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = 8.42$ , p = .015. Caucasians were significantly more likely to be rated moderate risk when compared to minority adolescent sex offenders, while minority youth were more likely to be rated high risk compared to their Caucasian counterparts. The effect size was .202. Results on the ERASOR indicated that there was no significant relationship between Caucasian/minority adolescent sex offenders and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = .64$ , p = n.s. The results on the SAVRY were partially supportive of the stated hypothesis as minority youth were rated higher risk than Caucasian youth. See Figure 1 for Instrument Summary Ratings by Race.

Figure 1. Instrument Summary Ratings by Race



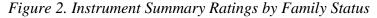
## Instrument Subscale Score Comparison for Caucasian and Minority Sexual Offenders

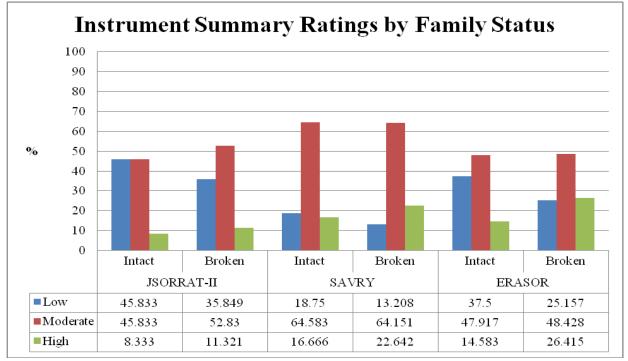
To test the hypothesis that subscale scores on each of the two instruments (e.g., the J-SOAP-II and SAVRY) would differ significantly between Caucasian and minority male adolescent sexual offenders, such that minority sex offenders will have higher subscale scores indicative of higher risk, compared to their Caucasian adolescent sexual offender counterparts, between groups analysis of variance (ANOVAs) were performed. Item ratings on the SAVRY were converted from low, moderate, and high, to scores of 0, 1, and 2, allowing for the pattern of subscale scores to be examined using an ANOVA. The conversion of categorical ratings to numerical values has an empirical precedent in the sexual risk literature. Because neither the J-SORRAT-II nor the ERASOR have subscales, these measures were not explored in this section of the analyses. Results on the J-SOAP-II indicated that there were significant differences in the subscale scores between Caucasian and minority sex offenders such that Caucasian youth received higher subscale total scores on the Sexual Drive/Preoccupation Scale (e.g., items related to prior sex offenses including number and gender of victims, sexualized aggression and preoccupation), F(1, 205) = 21.180, p = .000; on the Intervention Scale (e.g., items associated with treatment factors such as taking responsibility, empathy, remorse, and understanding of risk factors), F(1, 205) = 9.494, p = .002; and on the Community Stability/Adjustment Scale (e.g., factors related management of sexual urges, stability in school and home situation), F(1, 205) = 7.404, p = .007. There were no significant differences between the two groups on the Impulsive/Antisocial Behavior Scale (e.g., antisocial or conduct problems) F(1, 205) = 3.046, p = .082. See Table 4 for analysis of variance values for total instrument and subscale scores for minority and Caucasian youth.

Results on the SAVRY indicated that there were no significant differences in any of subscale total scores between Caucasian and minority sex offenders: Historical Risk Factors Subscale, F(1, 205) = .176, p = n.s.; the Individual/Clinical Risk Factors Subscale F(1, 205) = 1.302, p = n.s.; however, the Social/Contextual Risk Factors Subscale approached significance, F(1, 205) = .3.397, p = .067. Results did not support the proposed hypothesis across the two instruments with subscales. See Table 4 for analysis of variance values for total instrument and subscale scores for minority and Caucasian youth.

# Family Status and Instrument Total Scores

To test the hypothesis that adolescent sexual offenders, irrespective of race/ethnic background, who come from intact homes will have fewer risk factors compared to youthful offenders who come from broken families as defined by divorced and/or separated parents, a between groups analysis of variance (ANOVA) or chi-square test were performed. Results on the J-SOAP-II indicated that there were no significant differences in the total score on this measure between adolescent sex offenders from intact versus broken homes, F(1, 205) = 2.451, p = n.s. On the J-SORRAT-II, results indicated that there was no significant relationship between youth from broken/intact homes and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = 1.625$ , p = n.s. Results on the SAVRY indicated that there was no significant relationship between youth from broken/intact homes and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = 1.402$ , p = n.s. Similarly, results on the ERASOR indicated that there was no significant relationship between youth from broken/intact homes and whether they were rated as low, moderate, or high risk,  $\chi^2(2) = 4.187$ , p = n.s. Results were not as hypothesized. Instrument summary ratings by family status are shown in Figure 2.





Family Status and Instrument Total Scores in Caucasian and Minority Sexual Offenders

To test the hypothesis that of the minority and Caucasian youth who come from broken families, minority adolescent sex offenders will be rated higher compared to their Caucasian counterparts, a 3-way mixed factorial ANOVA was performed to examine the effects of race (Caucasian vs. minority) and family status (intact vs. broken) upon the number of risk factors endorsed on each of the four risk assessment instruments. Due to differences in the number of risk factors measured in each instrument, the total number of risk factors endorsed for all measures will be converted into standardized using z-scores for analysis involving 3-way mixed factorial ANOVAS. Results indicated that across the risk assessment instruments as a whole, family status had a significant effect on risk factor endorsement (F(1, 202) = 6.705, p = .010)), such that individuals raised in a broken home were judged to have a greater number of risk factors than those raised in an intact home. Race also had a significant effect of risk factor endorsement (F(1, 202) =(6.995, p = .009)), such that individuals who identified as belonging to an ethnic or racial minority group were judged to have a fewer number of risk factors than their white counterparts (See Figure 3 and 4). The interaction of these factors was not significant (F(1, 202) = 1.145, p = n.s.)). Repeated-measures analysis of risk factor endorsement among the assessment instruments revealed non-significant effects for race (F(3, 606) =1.150, p = n.s.), family status (F(3, 606) = .091, p = n.s.), and the interaction of those factors (F(1, 202) = 1.145, p = n.s.)).

Ordinal logistic regression models were conducted using the race and family status with the instrument summary ratings (i.e., low, moderate, high). On the J-SORRAT-II, there was no statistically significant effect of race (Wald  $X^2 = 0.39$ , df = 1,

N = 207, p = n.s.) or family status (Wald X<sup>2</sup> = 1.60, df = 1, N = 207, p = n.s.) on J-

SORRAT-II summary risk ratings.

Figure 3 – Effect of Race (Minority)

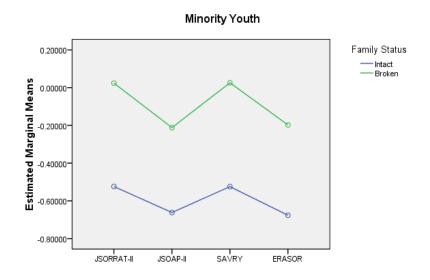
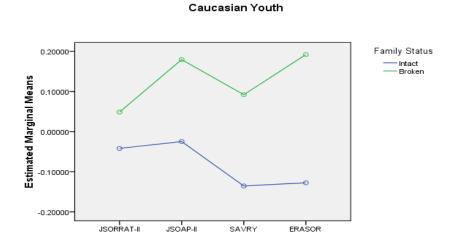
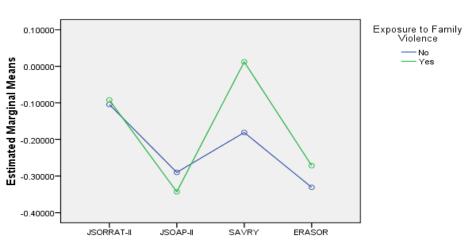


Figure 4 – Effect of Race (Caucasian)



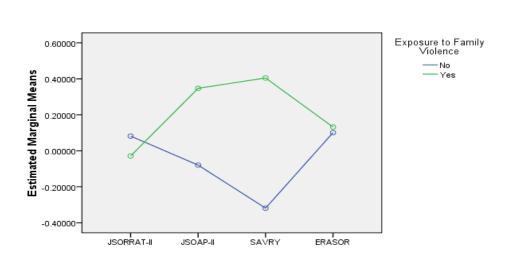
On the SAVRY, race was negatively associated with risk rating (Wald  $X^2 = 6.080$ , df = 1, N = 207, p = .014). For every unit decrease in race (i.e., going from 1 to 0), the expected ordered log odds decreases by .79 as youth move to the next lower category of the SAVRY summary rating. There was no statistically significant effect of family status on the SAVRY summary rating (Wald  $X^2 = 1.330$ , df = 1, N = 207, p = n.s.). On the ERASOR, family status was positively associated with risk rating on this measure (Wald  $X^2 = 3.955$ , df = 1, N = 207, p = .047). For every unit increase in family status (i.e., going from 0 to 1), the expected ordered log odds increased by .62 as youth move to the next higher category of ERASOR summary rating (Wald  $X^2 = .425$ , df = 1, N = 207, p = n.s.). Only results on the SAVRY lend support to the hypothesis as stated. Exposure to Family Violence and Risk Factors in Caucasian and Minority Sexual Offenders

To test the hypothesis that minority sex offenders who have been exposed to violence in the home will have higher risk scores, compared to Caucasian youth, a 3-way mixed factorial ANOVA was performed to examine the effects of Race (Caucasian vs. "minority") and Violence Exposure ("yes" vs. "no") upon number of risk factors on four risk assessment instruments. Across the risk assessment instruments as a whole, race had a significant effect on risk factor endorsement, (F(1, 202) = 5.687, p = .018)), such that individuals from an ethnic or racial minority group were determined to have a fewer number of risk factors compared to their Caucasian counterparts (See Figures 5 and 6).



# Minority

Figure 6 – Effect of Race (Caucasian)

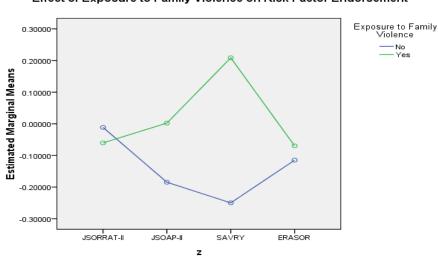


Caucasian

Across the various risk assessment instruments, Exposure to Family Violence did not have a significant effect on risk factor endorsement, (F(1, 202) = 1.863, p = n.s)).

Furthermore, the interaction of Family Violence Exposure and Race was not significant (F(1, 202) = .836, p = n.s.)). Repeated-measures analysis of risk factor endorsement among the risk assessment instruments revealed a significant effect of family violence exposure on risk factor endorsement, (F(3,606) = 3.854, p = .009)). Examination of the estimated marginal means for each measure reveals that while risk factor endorsement on the J-SORRAT-II and ERASOR are nearly identical, individuals who are exposed to family violence are rated as having a greater number of risk factor on the J-SOAP-II and SAVRY (See Figure 7). There were non-significant effects for race (F(3, 606) = 2.509, p = n.s.)), and the interaction of family violence exposure and race (F(3, 606) = 2.255, p = n.s))

## Figure 7 – Effect of Exposure to Family Violence



#### Effect of Exposure to Family Violence on Risk Factor Endorsement

Ordinal logistic regression models were conducted using race and exposure to family violence with the instrument summary ratings (i.e., low, moderate, high). On the J-SORRAT-II, there was no statistically significant effect of race (Wald  $X^2 = .480$ , df = 1, N = 207, p = n.s.) or exposure to family violence (Wald  $X^2 = 2.860$ , df = 1, N = 207, p = n.s.)

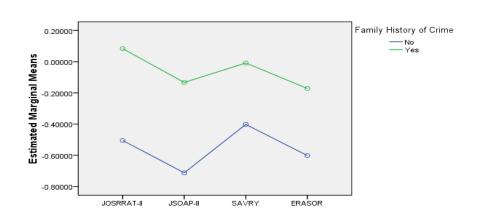
*n.s.*) on this instrument's summary risk ratings. On the SAVRY, race was negatively associated with risk rating (Wald  $X^2 = 7.00$ , df = 1, N = 207, p = .008), while exposure to family violence was positively associated (Wald  $X^2 = 4.534$ , df = 1, N = 207, p = .033). For every unit decrease in race (i.e., going from 1 to 0), the expected ordered log odds decreases by .85 as youth move to the next lower category of the SAVRY summary rating. For every unit increase in exposure to family violence (i.e., going from 0 to 1), the expected ordered log odds increases by .62 as youth move to the next higher category of the SAVRY summary rating. On the ERASOR, there was no statistically significant effect of either race (Wald  $X^2 = .597$ , df = 1, N = 207, p = n.s.) or exposure to family violence (Wald  $X^2 = 0.73$ , df = 1, N = 207, p = n.s.) on this instrument's summary rating. Findings from the SAVRY supported the hypothesis as stated.

#### Family Criminal History and Risk Factors in Caucasian and Minority Sexual Offenders

To test the hypothesis that minority youth who have a family/parental history of criminal involvement will have higher risk scores compared to their Caucasian counterparts, a 3-way mixed factorial ANOVA was performed to examine the effects of Race (Caucasian vs. "minority") and Family History of Criminality ("yes" vs. "no") upon number of risk factors on four risk assessment instruments. Across the risk assessment instruments as a whole, family history of criminality had a significant effect on risk factor endorsement (F(1, 202) = 12.320, p = .001)), such that individuals with a family history of criminality were judged to have a greater number of risk factors than those who came from families without any history of criminal activity. Race also had a significant effect of risk factor endorsement (F(1, 202) = 10.961, p = .001)), such that individuals from an ethnic or racial minority group were judged to have a fewer number of risk factors when

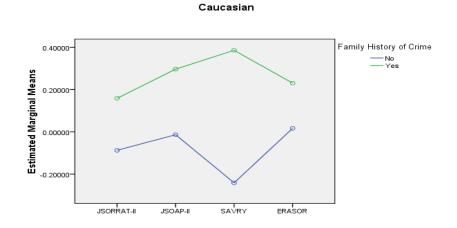
compared to Caucasian youth (See Figures 8 and 9). The interaction of these factors was not significant (F(1, 202) = .378, p = n.s.)). Repeated-measures analysis of risk factor endorsement among the assessment instruments revealed non-significant effects for family history of criminality (F(3, 606) = .420, p = n.s.)), race (F(3, 606) = 1.778, p = n.s.)), and the interaction of those factors (F(1, 606) = 1.157, p = n.s.)).

Figure 8 – Effect of Race (Minority)



Minority Youth

Figure 9 – Effect of Race (Caucasian)



Ordinal logistic regression models were conducted using race and family history of criminality with the instrument summary ratings (i.e., low, moderate, high). On the J-SORRAT-II, there was no statistically significant effect of race (Wald  $X^2 = .636$ , df = 1, N = 207, p = n.s.) or family history of criminality (Wald  $X^2 = .869$ , df = 1, N = 207, p =n.s.) on this instrument's summary risk ratings. On the SAVRY, race was negatively associated with risk rating (Wald  $X^2 = 5.160$ , df = 1, N = 207, p = .023). For every unit decrease in race (i.e., going from 1 to 0), the expected ordered log odds decreases by .74 as youth move to the next lower category of the SAVRY summary rating. There was no statistically significant effect of family history of criminality (Wald  $X^2 = .610$ , df = 1, N =207, p = n.s.) the SAVRY summary rating. On the ERASOR, there was no statistically significant effect of either race or family history of criminality on this instrument's summary rating. Findings from the SAVRY supported the hypothesis as stated.

## **CHAPTER 4: Discussion**

As public concern grows regarding adolescent offenders and as courts continue to rely on clinicians to make judgments regarding the risk of offending and reoffending in adolescent sexual offenders, the need for empirically-validated instruments that can be used with this population becomes more important. In light of growing concerns that the juvenile courts continue to see more and more ethnic and racial minorities pass through their threshold, it is likewise important that these empirically-validated instruments take into account the role that culture and race may have in offending behavior. This is particularly important given research findings that have found possible racial biases at every stage of court proceedings (Bridges & Steen, 1998; Poe-Yamagata & Noya, 2005). As such, the purpose of this study was to evaluate whether differences exist between

Caucasian and minority adolescent sexual offenders on risk relevant static and dynamic predictors of sexual assault.

#### Criminal History and Risk Factors in Caucasian and Minority Sexual Offenders

With regard to the hypothesis that minority youth would have a higher number of prior non-sexual violent, sexual violent, and non-violent non-sexual (property) criminal histories compared to Caucasian youth, the analyses conducted here revealed partial support. Specifically, findings indicated that minority sex offenders had more property offenses compared to Caucasian youth. The current finding is consistent with past literature indicating that a history of property offenses is more prevalent among nonwhite than white youth (Weisz, Martin, Walter, & Fernandez, 1991). However, there were no significant differences between the two groups on prior sexual violent offenses or prior nonsexual violent offenses. Univariate analyses did however reveal significant differences between Caucasian and minority youth on type of sex offense committed, such that minority youth were more likely than Caucasian youth to have engaged in genital penetration, anal penetration, oral/genital contact, and exhibitionism. Minority youth were also more likely to have offended against victims to whom they were related. A possible explanation for this finding is that there might have been a different threshold for referring minority and Caucasian youth for treatment services. While data was available as to whether youth were adjudicated, it was not known how they were adjudicated and referred for services, nor were the circumstances leading to the legal involvement known.

## Instrument and Subscale Scores in Caucasian and Minority Sexual Offenders

The hypothesis that the adolescent sexual offender minority group would have higher overall *total* scores across the four assessment instruments, indicative of greater risk item ratings, was supported by one assessment instrument. On the SAVRY, minority youth were more likely to be rated high risk compared to their Caucasian counterparts, while Caucasians were significantly more likely to be rated moderate risk. This finding is in contrast to Chapman and colleagues' (2006) results which indicated that African-American minority youth were more likely to be rated as lower risk than White youth. Findings on the J-SOAP-II were contrary to what had been predicted as Caucasian adolescent sex offenders had higher total scores. While findings did not support the hypothesis proposed, they are consistent with recent findings by Ikomi, Rodney, and McCoy (2009) who found that Caucasian adolescents with sexual behavior problems were most likely to commit aggravated sexual assault compared to Hispanic or Black youth. There was no relationship between race and total scores on the J-SORRAT-II or the ERASOR. Similarly, the hypothesis that minority adolescent sexual offenders would have higher subscale scores compared to their Caucasian counterparts was not supported. In fact, on the J-SOAP-II Caucasian youth received higher subscale scores on the Sexual Drive/Preoccupation, Intervention, and Community Stability/Adjustment scales, while there were no significant differences on the Impulsive/Antisocial Behavior scale. It is possible that the different findings on the various J-SOAP-II subscales point toward Caucasian youth in this sample being higher risk. With regard to sexual preoccupation, previous research with adult sex offenders has also found that minority adult sex offenders tended to score lower on items related to this construct (Långström, 2004).

Results of these analyses using the SAVRY revealed no significant differences on subscale scores between the two groups. It is possible that the items on these assessment instruments do not fully explain the risk factors that are pertinent to sexual offending among minority youth, especially given that most instruments have been validated and normed on Caucasian youth. Another explanation may be that minority youth in this sample simply had less risk factors and hence were lower risk. Alternatively, because the juvenile justice system continues to exact significant discretion in as far as how juvenile offenders are processed (i.e., whether they are sent to treatment centers, detention centers, or placed in foster homes), these factors may also play a role in how minority youth were rated. Because not all youth were identified by or entered the legal system in the same manner, this may also have impacted the ratings on the various risk assessments. A similar conclusion has been posited to explain differences among minority and immigrant adult sex offenders (Långström, 2004).

#### Family Status and Instrument Total Scores

Another hypothesis of the current study was that adolescent sexual offenders coming from broken homes (i.e., divorced or separated parents), irrespective of race, would have higher total scores on each instrument compared to adolescent sexual offenders from intact homes. Results on the J-SOAP-II, J-SORRAT-II, SAVRY, and ERASOR indicated that there were no significant differences in the total scores between adolescent sex offenders from intact versus broken homes, failing to support this hypothesis. This finding is in contrast to past research which has found that strong attachment between parents and youth have been associated with less involvement in delinquency (Larzelere & Patterson, 1990; Smith & Krohn, 1995). Family Status and Instrument Total Scores in Caucasian and Minority Sexual Offenders

Past research suggests that the presence of intact family structures serve as protective factors for youth. This finding is particularly salient for minority youth for whom research has shown that low family cohesion is strongly associated with delinquency (Becerra, 1988; McLoyd, 1990; Smith & Krohn, 1995). As such, another hypothesis of the current study was that minority youth from broken families would be particularly affected and hence rated higher compared to their Caucasian counterparts. The current study found that across the four risk assessment instruments, both family status and race had a significant effect on risk rating. While individuals raised in a broken home had a greater number of risk factors than those raised in an intact home and minority individuals were judged to have a fewer number of risk factors than their white counterparts, there was no interaction between these two factors. In other words, the effect of these factors on risk factor endorsement was not significantly different between minority adolescents and their Caucasian counterparts across all measures, and thus the hypothesis was not supported. The results of this study are consistent with recent literature findings on the importance of living arrangements of adolescent sex offenders, namely that they are more likely to live in a female-only household (Ikomi et al., 2009). It is possible that in households where there is only one adult provider hence making financial concern an important stressor, supervision of children may suffer. However, this was not a questions posed in the current study, but one that would be important for future research to address. Additionally, in this study minority youth did not appear to be particularly affected by the lack of family cohesion as suggested by prior research, (Becerra, 1988; McLoyd, 1990; Smith & Krohn, 1995), it is possible that even if the

nuclear family was broken apart by divorced or separation, that other extended family members may have stepped in and neutralized the absence of a second parent. This would be consistent with the importance of interdependence and extended family kin among ethnic/racial minority groups (Becerra, 1988; Gibbs & Huang, 1998; Sue & Sue, 1999).

Family status and race were further explored using instrument summary ratings (i.e., low, moderate, high). Results revealed non-significant effects of race and family status on J-SORRAT-II summary risk rating. On the SAVRY, race was negatively associated with risk rating such that being classified as belonging to a minority group corresponded to a decrease in the SAVRY summary rating. There was, however, no statistically significant effect of family status on the SAVRY summary rating. On the ERASOR, family status was positively associated with risk rating on this measure such being classified as coming from a broken family corresponded to an increase in ERASOR summary rating. In other words, youth from a broken family were rated higher on the ERASOR. However, there was a non-significant effect of race on ERASOR summary rating.

## Exposure to Family Violence and Risk Factors in Caucasian and Minority Sexual Offenders

A wealth of research has consistently found that minority youth are exposed to higher rates of familial violence compared to Caucasian youth and that this finding is not necessarily attenuated by increasing household income (Crouch et al., 2000; Korbin et al., 1998; Spearly & Lauderdale, 1983). Additionally, the violence that minority youth are exposed tends to be more serious in nature (Miller, Wasserman, Nuegebauer, GormanSmith, & Kamboukous, 1999; Perkins, 1997). In the current study, it was hypothesized that minority sex offenders who had been exposed to violence in the home would have higher risk scores compared to Caucasian youth. Race had a significant effect on risk factor endorsement across the various risk assessment instruments, such that minority adolescent boys had fewer risk factors compared to Caucasian adolescents. Exposure to family violence, as well as the interaction of family violence exposure and race did not have significant effects. There was, however, a significant effect of family violence exposure on risk factor endorsement by risk assessment instruments, such that individuals who were exposed to family violence were rated as having a greater number of risk factor on the J-SOAP-II and SAVRY. There were non-significant effects for race, and the interaction of family violence exposure and race. Simply stated, the effect of race and the interaction of race and family violence exposure on risk factor endorsement were similar for each measure. As such, the hypothesis was not supported.

Further exploration of this hypothesis using race and exposure to family violence with the instrument summary ratings, revealed that there were non-significant effects of race or exposure to family violence on the J-SORRAT-II summary risk rating. Race was negatively associated with SAVRY summary risk rating, while exposure to family violence was positively associated. Being classified as belonging to a minority group corresponded to a decrease in SAVRY summary rating, meaning that minority youth were rated lower on this instrument. For every unit increase in exposure to family violence there was an increase in SAVRY summary rating, which means that youth who have been exposed to family violence were rated higher on the SAVRY. There were no statistically significant effects of either race or exposure to family violence on the ERASOR summary rating. Current study findings are consistent with literature which has found that exposure to family violence is a risk factor for violence including sexually coercive behavior (Hall et al., 2000).

## Family Criminal History and Risk Factors in Caucasian and Minority Sexual Offenders

Various factors related to parental antisocial behavior have been associated with violent behavior among youth. Parental criminality, in particular, has been linked with increased risk for violent crime among youth (Farrington, 1989; Sirpal, 2002). A possible explanation for the increased risk is that when youth are raised by parents who have engaged in criminal activity, the behavior is modeled and internalized as acceptable. Based on prior findings, it was predicted that minority youth with a family/parental history of criminal involvement would have higher risk scores compared to their Caucasian counterparts. Findings on the current study indicated that across the four risk assessment instruments, family history of criminality had a significant effect on risk rating, such that individuals with a family history of criminality were judged to have a greater number of risk factors than those who came from families without any history of criminal activity. This finding is consistent with expectations based upon prior research. Race also had a significant effect on risk rating, with minority individuals having a fewer number of risk factors compared to their Caucasian counterparts. This finding was in contrast to what had been predicted. There were no non-significant interaction effects of race, family history of criminality, and risk assessment instruments. Simply stated, the effects of family history of criminality, race, and the interaction of family history of criminality and race on risk factor endorsement were not significantly different between minority adolescents and their Caucasian counterparts across all measures and thus the

hypothesis proposed was not supported. While findings from the current study did not yield interactions between the above named factors, the main effects support prior research that family history of antisocial behavior is correlated with youth engagement in delinquent behavior (Farrington, 1989; Sirpal, 2002).

Findings utilizing race and family history of criminality with the instrument summary ratings suggested that race was negatively associated with SAVRY risk rating, such that minority youth were rated lower on the SAVRY. There was a non-significant effect of family history of criminality on this instrument's summary rating. Neither race nor family history of criminality yielded significant effects on the J-SORRAT-II or ERASOR summary ratings.

#### Limitations of the Present Study

The present study attempted to shed some light on differences in risk factors for ethnic/racial minorities and majority Caucasian adolescent sex offenders. It is the first known study to examine differences between minority and Caucasian sexually abusive youth on commonly-used risk assessment tools with adolescent sex offenders (J-SORRAT-II, J-SOAP-II, and ERASOR) and general juvenile offenders (SAVRY). Overall, results from the present study suggest that there are differences between these two groups, such that minority youth tend to have less risk factors across the four risk assessment tools.

The contributions of the present research notwithstanding, there are several limitations that should be noted. One limitation is the relatively small comparison sample of minority youth, which may explain the non-significant results. Relatedly, another limitation is that because the minority sample was small it was necessary to combine all ethnic/racial minorities (i.e., African-American, Hispanic/Latino, American Indian/Alaskan Native, and Mixed Race) into one minority category. This is problematic because the resulting comparison group is heterogeneous in a number of potentially relevant ways. The different cultural values, norms, and experiences among these subgroups may have a significant impact on psychological and sociological factors, including issues related to deviant sexual behavior and sexual violence perpetration. As a result, findings from this study may not be generalizable across all of the ethnic and racial groups included. Thus, future studies should aim at including a large enough sample of each minority subgroup to investigate whether the results from the present study apply. Although not strictly a third limitation, the author of this study chose to focus this dissertation on male adolescent sexual offenders and as such the generalizability of these findings to female adolescent sexual offenders is questionable. A fourth limitation is that the risk assessment instruments ratings were based on file/chart information. While the files provided extensive background and treatment information from a variety of sources, it does not make up for the benefits of conducting a clinical interview, particularly when attempting to make judgments about dynamic factors.

Finally, as previously noted the risk assessment instruments utilized in this study are not without limitations, not only with individuals of minority status but also with Caucasian youth. Studies have shown that the instruments are limited in their ability to predict reoffending behavior of a sexual and non-sexual nature (Viljoen et al., 2009; Viljoen et al., 2008). This leads to the possibility that the variables that make up the instruments may not be capturing certain important information about a youth's likelihood to reoffend.

### Future Research

There are several potential implications for research of this nature. Specifically, it needs to provide a basis for more effective risk assessment procedures with adolescent sexual offenders of ethnic and racial minority backgrounds. There is a need for research which provides a more complete picture of how risk factors vary across race or ethnicity because this has potential implications for how the courts treat adolescent sexual offenders, including the level of restriction placed with regard to treatment placement or judicial consequences given.

It is important to note that the risk assessment tools have largely been developed and normed on Caucasian populations and as such the risk factor items may not be as pertinent to ethnically/racially diverse youth. Other variables to consider when assessing minority youth are level of acculturation, number of years in the United States, primary language spoken, socioeconomic status, and mental disorders. Reid (1995) provides an extensive discussion of the necessary conditions to demonstrate cross-cultural equivalence of rating scales across linguistic, conceptual, scale, and normative groups, which has not been done with these measures. This is especially important as the demographics of the United States continue to change and minority groups are fast becoming a large part of the American culture. Future research is also essential in examining whether the results from this study are replicable among adolescent female sex offenders, as very little is known regarding this specific population (Worling & Långström, 2003).

Much of the risk assessment literature has focused on studies using retrospective designs, in many instances using a single source of information, limiting the applicability

of findings. Future research must focus on prospective study designs which incorporate a thorough review of multiple sources of information, including a review of the adolescent's file, interviews with family members, school personnel, and previous risk assessments. Studies conducted in such a manner would undoubtedly result in increased reliability of the data collected. Additionally employing multiple methods of data collection (e.g., clinical interview, as well as psychological testing), examination of multiple domains of youth's functioning, and the collection of information on static and dynamic factors (Worling & Curwen, 2001) would increase the applicability of this research.

Moreover, while there are studies that have investigated the J-SOAP, there is only one known study to date looking at the psychometric properties of the J-SOAP-II which included a sample of adolescent minority sex offenders. Since the present study did not examine whether there are or are not differences between Caucasian and minority youth on recidivism rates, it remains critically important to address this issue. Specifically, additional research needs to be conducted examining the psychometric properties of the J-SORRAT-II, J-SOAP-II, and ERASOR to examine whether different factor structures emerge or whether certain risk factors are more strongly related to sexual assault recidivism for different ethnic groups. It is also important for future studies to examine the qualitative aspects of reoffending (imminence, frequency, and severity) to guide risk assessment judgments and increase clinician confidence and ability to accurately predict recidivism (Worling & Langstrom, 2003).

Equally important would be for future research to more fully investigate the factors that influence clinician's ratings of adolescents risk for violence. Because the

literature has been mixed about potential biases against minority offenders, it is crucial that future studies address this issue by investigating if and how clinician's assumptions about race and violence, including the clinicians' own race/ethnicity, impact their judgments of violence risk in adolescent populations. Lastly, research that explores whether, and to what degree, the risk assessment instruments used in this study are sensitive to sex-offense specific treatment changes is also important. Because there are time limitations to estimates of risk for sexual and violent recidivism, due to the dynamic nature of some risk factors and because so many changes are taking place during adolescence, research focusing on periodic reassessment throughout treatment would be tremendously beneficial. Continued research on risk assessment and risk management is necessary especially research that focuses on developmental aspects of adolescents who have offended violently and those who are at-risk for future violence in order to better tailor programs and interventions, matching intensity of service with risk (more intense services for those high rate offenders), monitoring treatment, and improving youth psychological functioning.

#### **Clinical Implications**

The present study also has implications for treatment, including identifying the most important risk factors to address in treatment. Having a better understanding of factors possessed by minority and Caucasian sexual offenders and addressing these issues in treatment may furthermore impact recidivism rates. Findings from this study showing that male Caucasian adolescent sex offenders were rated as having more risk factors than minority youth provide useful information in order to target those offenders with more risk factors and hence higher risk ratings. One of the criticisms of the juvenile justice

system has historically been that a large amount of resources are spent on offenders who do not need as high a level of treatment. Identifying those youth who are in need of more resources is just as important.

Not only is it important to be able to assess risk for violence, but given the fact that recent legislation require that states include juveniles under their sex offender registration laws (Caldwell, 2002; Center for Sex Offender Management, 2010), another crucial and equally important factor is managing risk in institutional settings and out in the community (Borum, 2003; Heilbrun, 1997). Risk management of youth in the community becomes particularly important given that a number of juvenile offenders may be given probation, community services, or be treated on an outpatient basis (Borum, 2003). Heilbrun (1997) noted that while the legal system is more invested in prediction-oriented styles of risk assessment, clinicians who work directly with adolescents who are potentially prone to act out violently are more invested in management of risk because this is better suited to the circumstances in which the key decision-makers retain control over the individuals, and can therefore act to reduce ongoing risk. In the latter, the emphasis is on working to change the dynamic risk factors through treatment and interventions (Heilbrun, 1997). In light of the increasing pressure for clinicians to predict risk of violence accurately, there is an implicit assumption that it is the responsibility of therapists to act so as to reduce risk of violence by their clients, and the key question is how to go about doing this. Heilbrun (1997) notes some suggestions such as including the client, in this case the adolescent, in their treatment planning, targeting specific behaviors clearly, encouraging the adolescent to see the risk reduction as an attainable goal they have control over, and having the adolescent follow

the progress made towards the end goal. Because this study did not address recidivism but rather focused on identifying differences in risk factors between Caucasian and minority youth, it bears indirect, but nonetheless important implications for clinicians' management of risk in residential or outpatient settings. Adolescents are often a difficult population to engage in therapy, more so when they have offended and are in some cases forced to participate in treatment. Often times, adolescent sex offenders have a difficult time accepting responsibility for their offenses and it is up to the skilled clinician to guide and help engage them in treatment.

This type of research can also lead to important implications for juvenile justice policy makers who rely on research to make decisions about funding programs aimed at targeting and reducing violence in juveniles. It would be a regrettable mistake to construe the large proportion of unsupported hypotheses in the current research as unsupportive of the need for future research examining cultural issues in the clinical practice of adolescent risk assessment. A number of significant findings were observed, albeit the direction of the findings were opposite of the predicted direction; minority adolescents in this study scored lower than their Caucasian counterparts on a number of measures. The hypotheses advanced herein were premised upon the belief that minority adolescents would score higher due to higher prevalence of these risk factors among this population. The fact that minority adolescents scored lower, but were nonetheless identified as needing treatment, suggests that possible bias exists in the referral of these individuals. Said differently, the results reported here suggest that individuals responsible for identifying adolescents in need of residential treatment (e.g., juvenile court players, treatment program coordinators) are basing their decisions on factors other than the results of the risk assessment measures, and in so doing are including adolescents with objectively lower risk. At present, we cannot say with any certainty what these other factors are, although they may include the aforementioned factors including level of acculturation, ethnicity of the evaluator and adolescent, religion and language barriers. The very real possibility that treatment decisions are being influenced by racial and ethnic-group membership requires future research to determine if this is indeed the case.

While it is clear that the significant findings in this study support additional research, the non-significant findings observed when testing these hypotheses also raises important questions that require future research to answer. A number of significant differences were observed between Caucasian and minority adolescents in the univariate analyses presented above. Among these, it is notable that minority adolescents were significantly more likely to have engaged in genital penetration, anal penetration, oral/genital contact, and exhibitionism compared to their Caucasian counterparts, relatively severe behaviors that convey a higher risk of recidivism. It is an interesting speculation that the individuals responsible for identifying adolescents in need of residential treatment may have been taking the higher prevalence of these offense-related behaviors into account, but future research is necessary to determine if that is actually the case. As interesting is why the higher risk implied by these behaviors did not translate into higher risk on the JSOAP-II, SAVRY, JSORRAT-II, and the ERASOR. Here again, future research is necessary to determine why this was not the case.

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## APPENDIX A

# JUVENILE SEXUAL OFFENSE RECIDIVISM RISK ASSESSMENT TOOL-II

(J-SORRAT-II)

### APPENDIX B

# JUVENILE SEX OFFENDER ASSESSMENT PROTOCOL-II (J-SOAP-II)

### APPENDIX C

## STRUCTURED ASSESSMENT OF VIOLENCE RISK IN YOUTH (SAVRY)

## APPENDIX D

ESTIMATE OF RISK OF ADOLESCENT SEXUAL OFFENSE RECIDIVISM (ERASOR)