MASOC

Promoting safety through specialized interventions with sexually abusive youth

Massachusetts Association for the Treatment of Sexual Abusers

Special Commission Briefing Book

Jointly Created by MATSA and MASOC

September 11, 2014

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Jointly Created by MATSA and MASOC

In 2013, the MA Legislature established a special Commission to investigate and study the most reliable protocols for assessing and managing the risk of recidivism of sex offenders.

The Commission was charged with developing risk assessment protocols for sexual offenders including, but not limited to, the following populations: juveniles, female offenders and persons with developmental, intellectual, psychiatric or other disabilities. In addition, the Commission is charged with assessing the effectiveness and necessity of sections 178C to 178P, inclusive, of chapter 6 of the General Laws and the guidelines promulgated by the sex offender registry board, pursuant to section 178K. In its work, the Commission will: determine (i) a sex offender's risk of re-offense; (ii) his or her degree of dangerousness posed to the public; and (iii) the general public's access to information based upon the offender's risk of re-offense and the degree of dangerousness. Given the range of backgrounds of those participating in the Commission, MATSA and MASOC has identified a curated selection of current research on the various populations identified in this mandate as well as some overviews that might be helpful for this discussion.

We acknowledge that these articles are only a small sampling of the emerging research in the field. However, we thought it would be helpful to identify the most current research articles in our joint fields that study adults and adolescents who have sexually abused. Furthermore, if there is additional information needed from this perspective, the members of MATSA and MASOC would be pleased to be a resource or provide access to additional research.

Background

The Massachusetts Association for the Treatment of Sexual Abusers, Inc. (MATSA), formed in 1995, is a non-profit local chapter of the national parent organization. MATSA is dedicated to principles that foster research and information exchange, further professional education, and advance professional standards and practice in the field of sex offender evaluation and treatment. MATSA currently has over 100 members in Massachusetts and surrounding states. For more information, visit the website at www.matsa.org or contact at LreGdry@aol.com

The Massachusetts Adolescent Sex Offender Coalition (MASOC) is a coalition of professionals committed to preventing sexual abuse through early intervention in the lives of children and adolescents who have sexually abused. Since its founding in 1986, MASOC has been providing training to professionals throughout New England and nationally; educating legislators and key stakeholders about critical policy changes; and coordinating all of our efforts with professionals who care deeply about children and teens, and keeping our communities safe for everyone. For more information, visit the website at www.masoc.net or contact at info@masoc.net.

Briefing Book
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Recidivism and Risk Assessment

- Study Characteristics and Recidivism Base Rates in Juvenile Sex Offender Recidivism by M Caldwell.

Additional Reading Suggestions about Adolescents

Additional Reading Suggestions about Adults

Additional Reading about Adolescents

Overview

A comprehensive set of reviews on the state of the science and clinical practice is contained in a recent special issue of *the International Journal of Behavioral Consultation and Therapy*, edited by Phil Rich. A great volume, and its available free @ http://baojournal.com/IJBCT/IJBCT-8_3-4/IJBCT-8_3-4.html

General Developmental Framework

Cook, A., Spinazzola, J. et al (2005). Complex Trauma in Children and Adolescents, *Psychiatric Annals, 35 (5),* pp. 390-398

Steinberg, L., & Scott, E. S. (2003). Less guilty by reason of adolescence. *American Psychologist, 58,* 1009-1018.

Reforming Juvenile Justice (2013). National Academy of Science. Bonney, Richard et al., Eds. Chapter 4: Adolescent development. http://www.nap.edu/catalog.php?record_id=14685)

APA Amicus Brief for Miller vs. Alabama (2013). http://www.apa.org/about/offices/ogc/amicus/miller-hobbs.aspx

Developmental Framework for PSB/JSO in Children/Adolescents

Latham, C., & Kinscherff. R. (2012). *A developmental perspective on the meaning of problematic sexual behavior in children and adolescents*. Holyoke, MA: NEARI Press.

Longo, R. E., & Prescott, D. S. (2006). *Current perspectives: Working with sexually aggressive youth and youth with sexual behavior problems*. Chapter one

Rich, P. (2009). Understanding Complexity in Sexually Abusive Youth. In J. T. Andrade (Ed). *Handbook of Violence Risk Assessment and Treatment for Forensic Social Workers*

Recidivism and Risk Assessment

DiCataldo, Frank (2013). Risk assessment instruments for juvenile sex offenders. Sex Offender Law Report, 14(5), 65-80.

Risk Management and Intervention

Creeden, K. (2005). Trauma and Neurobiology: Considerations for the treatment of sexual behavior problems in children and adolescents. In R. Longo and D. Prescott (Eds.). *Current Perspectives: Working with sexually aggressive youth and youth with sexual behavior problems.* Holyoke, MA: NEARI Press.

Letourneau, E., Henggeler, S., and Borduin (2009). MST for JSO: 1 year results from randomized effectiveness trial. Journal of Family Psychology, 23, 89-102.

Letourneau, E. (2009). Does SORNA work with juveniles?

Lipsey, M. (2009). The Primary Factors that Characterize Effective Interventions with Juvenile Offenders: A Meta-Analytic Overview. *Victims and Offenders, 4:2,* 124-147

Additional Reading about Adults

Overview

Because of the issue of generalizability and the advantages that come from eventually developing local norms, having some studies that were done within Massachusetts are helpful to have as anchors for our decision making. Below are several follow-up studies that have been done on sexual offenders considered for civil commitment or committed at the Massachusetts Treatment Center.

Francis, B., Harris, D. A., Wallace, S., Knight, R. A., & Soothill, K. (2014). Sexual and general offending trajectories of men referred for civil commitment. *Sexual Abuse: Journal of Research and Treatment, 26,* 311-329. DOI: 10.1177/1079063213492341

Knight, R. A., & Thornton, D. (2007). *Evaluating and Improving Risk Assessment Schemes for Sexual Recidivism: A Long-Term Follow-Up of Convicted Sexual Offenders.* Final Report, NCJ 217618, http://nij.ncjrs.gov/publications.

Parent, G., Guay, J. P., & Knight, R. A. (2011). An assessment of long-term risk of recidivism by adult sex offenders: One size doesn't fit all. *Criminal Justice and Behavior, 38,* 188-209.

Parent, G., Guay, J. P., & Knight, R. A. (2012). Can we do better? The assessment of risk of recidivism for adult sex offenders. *Criminal Justice and Behavior, 39(12),* 1647-1667. DOI: 10.1177/0093854812451680

Thornton, D., & Knight, R. A. (2014). Construction and validation of SRA-Need Assessment. *Sexual Abuse: Journal of Research and Treatment.* DOI: 10.1177/1079063213511120

Risk Evaluation: Maximizing Risk Accuracy

MATSA/MASOC

Presentation to SORB

1/31/2013

Overview of Presentation

- Brief history of risk assessment and the different kinds of assessment that have been developed;
- Indication of where MA SORB Classification fits in these strategies;
- Summary of the criteria for evaluating risk instruments;
- Quick overview of the recent empirical evaluations of risk instruments;
- Suggest strategies for improving the MA SORB Classification.

BRIEF HISTORY OF RISK ASSESSMENT

Brief History

- ***First generation*** – Unstructured clinical judgment, including structured clinical guidelines (SCG).
- ***Second generation*** – Actuarial risk scales comprising static, historical factors.
- ***Third generation*** – the assessment of "criminogenic needs" or dynamic risk factors.

Bonta, 1996

Brief History

First Generation

- Characteristics of ***Unstructured Clinical Judgments*** –
  - No items specified for considering risk level;
  - Method for combining items is not specified.

(Hanson & Morton-Bourgon, 2009)

Brief History

First Generation

- Characteristics of ***SCGs***–
  - They identify items to use in the decision and typically provide numerical values for each item;
  - Although they also usually provide a method for combining the items into a total score, they do not specify a priori how the clinician should integrate the items;
  - No tables linking the summary scores to recidivism rates.

(Hanson & Morton-Bourgon, 2009)

Brief History

Second Generation

- Requirements of ***Empirical Actuarials*** –
  - Provide specific items to make the decision with quantitative anchors, which are derived from empirical investigation;
  - Method for combining the items into an overall score is specified;
  - Tables linking the summary scores to recidivism rates are provided.

(Hanson & Morton-Bourgon, 2009)

Brief History

Second Generation

- Requirements of ***Mechanical Actuarials*** –
  - They provide specific items for the decision with numeric values for each item, which are derived from a review of literature and theory;
  - Method for combining the items into an overall score is specified;
  - Tables linking the summary scores to recidivism rates are not provided.

(Hanson & Morton-Bourgon, 2009)

Brief History

Second Generation

- Additional condition *Adjusted Actuarials* –
  - Use appropriate actuarials (empirical or mechanical);
  - The clinician adjusts the score (and the recommendation) using factors external to the actuarial.

(Hanson & Morton-Bourgon, 2009)

MA SORB CLASSIFICATION FACTORS

Where Does It Fit?

MA SORB Classification Factors

Where Does It Fit?

- Somewhere between an unstructured judgment and an SCG –
  - It specifies a set of factors to be considered; but
  - It does not provide any quantification of these factors (i.e., numeric item scores).
  - In many items it does not provide clear specification of where the cutoff for "presence" or "absence" of a factor would be.
  - Thus, it provides limited guidance both on the presence of items and on the combining of items.

MA SORB Classification Factors

Example of SVR-20

☑Item 3. Psychopathy

Code this by reference to the PCLR. Code PCLR scores of 30 or above as "Y", scores of 21-29 as "?", and scores of 20 or lower as "N".

Y = 2

? = 1

N = 0

MA SORB Classification Factors

Example of SORB Factors

☑Item 2. Repetitive and Compulsive Behavior

The SORB has decided that, for the purpose of this Factor, an offender exhibits repetitive sexual offending behavior if he has a history of two or more separate incidents of sexual misconduct. Similarly, the SORB has decided that an offender's repetitive sexual misconduct is compulsive if the information regarding his separate incidents of sexual misconduct indicates:

(a) a repetition of the manner and method of committing the offenses;

(b) a pattern of ritualistic, bizarre, or distinctive acts;

?charges, convictions, self-report?

(c) that in the interval between acts of sexual misconduct, the offender had sufficient opportunity to reflect on the wrongfulness of his conduct and take remedial measures by avoidance, counseling or otherwise, to stop himself from committing subsequent acts of sexual misconduct;

?includes both impulsive and compulsive behavior?

(d) adult family members, adult friends, adult co-workers, employers, law enforcement, the court, or social services had sanctioned the offender for sexual misconduct and the offender, nonetheless, committed a subsequent act of sexual misconduct; or

(e) the offender committed his acts of sexual misconduct as a result of sudden uncontrollable urges or desires to commit the acts.

EVALUATING RISK TOOLS

Evaluating Reliability and Validity

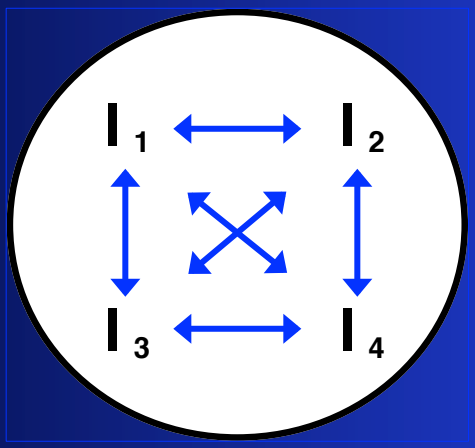
Reliability

Reliability is --

- Accuracy
- Consistency
  - Across raters
  - Across time
  - Across different measures of the same construct
- Freedom from variable error.

Interrater Reliability

Internal Consistency



Advantages of Quantification

Reliability Checks

- Allows one to calculate various forms of reliability –
  - Item reliability
  - Reliability of subscales (e.g., sexual deviance, criminality, etc.)
  - Internal consistency of items in the instrument
- Thus, quantification allows us to restructure items and their anchors to improve reliability.

SCGs and Actuarials

Reliability Results

- Most popular SCGs and actuarials assessed in the comparative literature have acceptable reliability.
- Unstructured judgments have poor reliability.
- The reliability of MA SORB Classification Factors have not been assessed.

ASSESSING VALIDITY

Predicting Recidivism

Validity Answers the Question

- Does a test measure what it is suppose to *measure*?
- What does a test measure?
- What can one *do* with the test?
- What does a test score *predict*?

Predicting Sexual Recidivism

Instrument Type	*d*	(95% CI)
Empirical Actuarial	.67	(.63 - .72)
Mechanical Actuarial	.66	(.58 - .74)
SCG	.46	(.29 - .62)
Unstructured Judgmt	.42	(.32 - .51)

(Hanson & Morton-Bourgon, 2009)

Predicting Sexual Recidivism

- Overall, controlling for a large number of study variables, Empirical and Mechanical were *significantly better* predictors of recidivism;
- SCGs using clinical judgment and SCGs that calculate total scores do not differ.
- In all studies examined, clinicians' adjustment of actuarial scores consistently *lowered* predictive accuracy.

(Hanson & Morton-Bourgon, 2009)

Why Is Clinical Judgment Inferior?

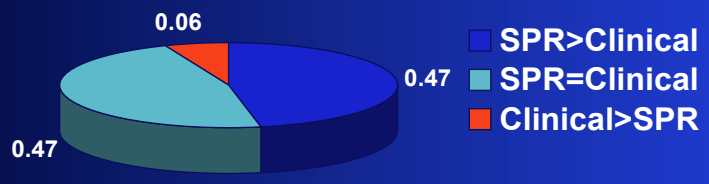
- Across multiple areas of prediction, mechanical actuarial prediction (*statistical prediction rules [SPRs]*) has been shown to be superior to clinical judgment.
- A recent meta-analysis summarizes the results of years of research *(Grove et al., 2000).*

(Grove et al., 2000)

- All studies published in English from 1920s to mid 1990s.
- 136 studies on the prediction of health-related phenomena or human behavior.

(Grove et al., 2000)

Accuracy



Why Is Clinical Judgment Inferior?

- A large body of research has documented the reasons for the cognitive errors that clinicians make.
- For instance, clinicians are great at making observations and rating items, but they are worse than a formula at adding the items together and combining them.

Advantages of Quantification

Validity Checks

- Allows one to use various strategies for improving validity of a measure–
  - Assess item correlation with outcome;
  - Adjust item cutoffs to maximize prediction;
  - Assess the validity of subscales (e.g., sexual deviance, criminality, etc.);
  - Optimize item weights for decision-making and predicting.
- Thus, one can restructure items, their anchors, cutoffs, and combinations to improve validity.

STRATEGIES FOR IMPROVING MA SORB CLASSIFICATION

Potential Strategies

Improving the Current MA SORB Criteria

- Create separate adult and juvenile actuarials;
- Create separate male and female actuarials;
- Divide instrument into static and dynamic item subsets;
- Use recent meta-analytic literature to purge items that are not likely to have predictive validity;

Examples of Poor Predictors

- Released from civil commitment vs. not committed (Knight & Thornton, 2007)
- Maximum term of incarceration;
- Current home situation (?vague and unspecified?);
- Physical condition;
- Documentation from a licensed mental health professional specifically indicating that offender poses no risk to reoffend;

Examples of Poor Predictors

- Recent behavior while incarcerated;
- Recent Threats;
- Supplemental material;
- Victim impact statement.

Potential Strategies

Improving the Current MA SORB Criteria

- Create separate adult and juvenile actuarials;
- Create separate male and female actuarials;
- Divide instrument into static and dynamic item subsets;
- Use recent meta-analytic literature to purge items that are not likely to have predictive validity;
- Transform items into a quantifiable format with clear cutoffs;
- Do a preliminary check on the predictive validity of revised items using existing data bases.

Potential Strategies

Improving the Current Criteria

- Do a small study on a subset of offenders to establish reliability.
- When using the revised instrument, require item and total scores for future validation studies.

Potential Strategies

Alternatively

- Follow the lead of some other states and use existing static and dynamic instruments on which substantial research has already been done.
- MATSA and MASOC would be happy to consult on any strategy that MA SORB wishes to implement to improve the reliability and validity of current classification method.

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Assessing Risk for Sexual Recidivism: Some Proposals on the Nature of Psychologically Meaningful Risk Factors

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Abstract

Risk assessment and treatment for sexual offenders should focus on individual characteristics associated with recidivism risk. Although it is possible to conduct risk assessments based purely on empirical correlates, the most useful evaluations also *explain* the source of the risk. In this review, the authors propose that the basic requirements for a psychologically meaningful risk factor are (a) a plausible rationale that the factor is a cause of sexual offending and (b) strong evidence that it predicts sexual recidivism. Based on the second of these criteria, the authors categorize potential risk factors according to the strength of the evidence for their relationship with offending. The most strongly supported variables should be emphasized in both assessment and treatment of sexual offenders. Further research is required, however, to establish causal connections between these variables and recidivism and to examine the extent to which changes in these factors leads to reductions in recidivism potential.

Keywords

dynamic risk factors, risk assessment, sexual recidivism

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Sexual crimes are among those that invoke the most public concern. These concerns are heightened when it appears that the offense should have been predicted and could have been prevented, as when new offenses are committed by known offenders. The observed sexual recidivism rate of sexual offenders is less than commonly believed (10% to 15% after 5 years; Hanson & Bussière, 1998; A. Harris & Hanson, 2004), and the overall recidivism rate of sexual offenders is lower than the recidivism rate of other offender groups (Beck & Shipley, 1989; Cunliffe & Shepherd, 2007; Hanson & Thornton, 2000; G. T. Harris et al., 2003). Nevertheless, not all sexual offenders are equally likely to reoffend. It is the task of those who assess and treat sexual offenders to determine who the highest risk offenders are and provide interventions that are (a) proportional to the level of risk and (b) tailored to the causes of the offending.

There is considerable disagreement among researchers and practitioners about the best way to assess sexual offenders' recidivism risk; nevertheless, most experts agree on some principles. First, for a characteristic to be considered a risk factor, meaningful definitions of lower and higher risk must be established in advance, and these must predict (with some probability) an outcome (Kraemer et al., 1997). A second agreed principle is that sexual offender risk is multiply determined: There is no one risk factor that is strongly related to recidivism. Evaluators must consider a range of risk factors. A third point of agreement is that structured approaches to assessing risk are more accurate than unstructured clinical opinion (Hanson & Morton-Bourgon, 2009; Monahan, 2007). A number of structured tools or frameworks for measuring sexual recidivism risk are available and widely used (Archer, Buffington-Vollum, Stredny, & Handel, 2006; Interstate Commission for Adult Offender Supervision, 2007; McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2009); in many contexts, they are expected (Doren, 2002; Jackson & Hess, 2007).

Conceptualizing Causal Risk Factors

It is possible to conduct a risk assessment based purely on atheoretical actuarial predictors. However, given equivalent accuracy, assessments respond better to the needs of decision makers and those being assessed (and to science) when the evaluation also *explains* the source of the risk. The distinction between simple correlates and clinically useful risk factors has been discussed by Andrews and Bonta (2006; Bonta, 1996), using the terms *static* and *dynamic* risk factors. According to these authors, *static risk factors* are relatively fixed aspects of offenders' histories, such as age and the extent of previous offending, that raise the risk of reoffending but cannot be changed for the better through deliberate intervention. Although static risk factors can change (criminal history can get worse; offenders gets older), they are not suitable as targets for an intervention. In contrast, Andrews and Bonta (2006) use the term *dynamic risk factors* to describe psychological or behavioral features of the offender that raise the risk of reoffending and that are potentially changeable, such as (distorted) attitudes or (deviant) sexual interests. Because Andrews and Bonta considered that dynamic risk factors should be the focus of correctional programming, these factors

are also called "criminogenic needs." Hanson and Harris (2000) further divided dynamic risk factors into *stable* risk factors (relatively enduring problems, such as alcoholism and personality disorders) and *acute* risk factors (rapidly changing features that signal the timing of reoffending, such as intoxication or emotional collapse).

Using the static/dynamic distinction, Bonta (1996) identified three generations of risk assessment procedures. The first generation was unstructured professional opinion, in which neither the risk factors nor the method of forming the overall evaluation were specified in advance. The second generation of risk assessments involved explicit, structured approaches to combining static, historical factors into an overall risk score. The items for second-generation instruments were selected based solely on empirical relationships with recidivism. The most commonly used risk tools for sexual offenders, such as Static-99 (Hanson & Thornton, 2000) or Risk Matrix-2000 (Thornton et al., 2003), are classic examples of second-generation risk tools. Although the second-generation instruments are more accurate than unstructured clinical opinion (Hanson & Morton-Bourgon, 2009), they do little to inform those who treat or monitor sexual offenders about the areas on which their interventions should focus.

Third-generation tools, in contrast, are designed to assist intervention efforts. According to Bonta (1996), third-generation scales are empirically validated actuarial measures that contain substantial amounts of dynamic items (criminogenic needs). Several third-generation risk tools have been developed for general offenders (e.g., Level of Service/Case Management Inventory, Andrews, Bonta, & Wormith, 2008; OAsys, Howard, 2009); only recently, however, has research focused on third-generation instruments for sexual offenders. Examples of structured risk tools for sexual offenders that meaningfully sample criminogenic needs include STABLE-2007/ACUTE-2007 (Hanson, Harris, Scott, & Helmus, 2007); Structured Risk Assessment (Thornton, 2002a) and its variant, the Structured Assessment of Risk and Need (Webster et al., 2006); the Violence Risk Scale–Sex Offender Version (Olver, Wong, Nicholaichuk, & Gordon, 2007); the Sexual-Violence-Risk Management 20 (Boer, Hart, Kropp, & Webster, 1997); and the Sex Offender Treatment Needs and Progress Scale (McGrath & Cumming, 2003). On average, these frameworks show similar levels of predictive accuracy to static risk factor scales and, in most cases, add incremental predictive validity beyond Static-99 (Beech, Friendship, Erikson, & Hanson, 2002; Knight & Thornton, 2007; Olver et al., 2007; Thornton, 2002a). The research on these measures is still sufficiently underdeveloped that important questions remain concerning the conceptual foundations of these scales, whether they target the most relevant factors and the extent to which it is possible to associate recidivism rates with specific scores.

Even though the static/dynamic language has been widely adopted, these terms may not be sufficient to address current developments in research and applied risk assessment. Beech and Ward (2004; Ward & Beech, 2004) have argued that dynamic risk factors should be understood as psychological traits, which they variously call "vulnerabilities," "psychological mechanisms," "causal factors," and "psychological predispositions." The factors that Hanson and Harris (2000) consider acute dynamic risk factors, such as negative affective states or current interpersonal conflict, Beech

and Ward (2004) describe as "states" (vs. "traits") or as triggering events/contextual risk factors. Beech and Ward's state/trait conception differs significantly from the stable/acute distinction because states and traits are both aspects of the same underlying construct—for any state, there should be a corresponding trait. In contrast, the concept of "acute" risk factors can subsume factors that have no parallel among stable risk factors.

For Beech and Ward (2004), the concept of triggering events is most similar to Hanson and Harris's (2000) concept of acute dynamic factors, and Ward and Beech (2004) explicitly group Hanson and Harris's (2001) acute risk factors as triggering/contextual events. Both the Hanson/Harris and Ward/Beech models lack precision, however, on the extent to which acute risk factors are required to be external to the individual. For example, research has established a relationship between victim access and sexual recidivism (Hanson et al., 2007; Hanson & Harris, 2000), but both theories (and the empirical findings) do not clearly distinguish between a potential victim moving next door and deliberate cruising.

Beech and Ward's (2004) work presents a significant conceptual challenge to the static/dynamic distinction. They argued that static risk factors have predictive significance because they act as markers of the past operation of dynamic risk factors. Consequently, a static factor (e.g., history of offending against boys) can be an indicator of a psychologically meaningful causal factor (e.g., deviant sexual interests). If this conceptualization of risk factors is adopted, the conceptual distinction between static and dynamic factors loses meaning.

To date, there is little empirical support for the distinction between stable and acute risk factors. In a recent prospective study, Hanson et al. (2007) found that monthly assessments of "acute" risk factors were surprisingly stable predictors of recidivism; the average of the ratings for the previous 6 months was a better predictor of recidivism than the most recent rating. Rather than functioning as signals of imminent reoffending, the "acute" factors seemed to be better understood as ongoing, current expressions of longer term problems, that is, as manifestations of underlying dispositions or traits.

We propose that another way to understand risk factors, instead of classifying them as static or dynamic, is by adopting the concept of *psychologically meaningful risk factors*. Such risk factors can be conceptualized as individual propensities, which may or may not manifest during any particular time period. Like the traditional concept of trait, propensities are enduring characteristics that leads to predictable expressions of thoughts, feelings, or behaviors. Although propensities are characteristics of individuals, these propensities can also be recognized by individuals' transactions with others and the environments in which they live. Through consistency in beliefs, actions, and appearance, offenders can contribute to consistencies of their environment in ways that are relevant to their recidivism risk (e.g., high-crime neighborhoods, criminal associates). The propensity to gravitate toward criminogenic environments would be expected to be a conceptually distinct (and potentially better) indicator of long-term recidivism risk than the criminogenic environments themselves. Although certain circumstances would be expected to contribute to sexual crime (e.g., drinking or using

drugs with delinquent youth; Ageton, 1983), offenders with the propensity to place themselves in such situations would be expected to be at increased long-term recidivism risk compared with offenders whose natural tendencies lead them to safer environments.

We use the term *propensities* to describe psychologically meaningful risk factors in order to emphasize that the problematic behavior of interest arises through interactions with the environment. Aggressive offenders are not aggressive all the time—they become aggressive given certain interpretations of their environment (in the classic cognitive-behavioral sense). Alternate terms that are compatible with our conceptualization are *long-term vulnerabilities* and *if . . . then . . . behavioral signatures* (Mischel & Shoda, 1995; Smith, Shoda, Cumming, & Smoll, 2009). We avoided the term *trait* because its classic connotations imply much greater cross-situational stability than is actually observed (Mischel, 1968, 2009).

In the context of sexual offender treatment, the most useful propensities are those that are amenable to change. It is not necessary, however, that propensities be amenable to change for them to be psychological meaningful risk factors or for them to be of interest to treatment providers. For example, the extent to which male sexual interests can be changed through deliberate intervention is debatable. Nevertheless, there is widespread agreement that having deviant sexual interests is a risk-relevant propensity. Even if some criminogenic propensities cannot be changed, it is possible that such propensities can be neutralized through compensatory strengths or prosthetics.

The criteria used to identify risk-relevant propensities include both theory and evidence. First, there must be a plausible justification that the factor could be a cause of sexual reoffending. By this we mean that most people would agree that the factor (a) is psychologically meaningful, (b) could plausibly be a cause of sexual offending, (c) might be worth targeting in treatment or is already usually targeted in treatment, or (d) is treated as plausible in criminological or social learning theories of offending. Additionally, there must be robust empirical evidence that the factor predicts recidivism. Further evidence is required to establish a characteristic as a cause of offending. Although there is no single method for identifying causal connections, one strong form of empirical justification involves observing changes in recidivism rates following experimental manipulation of the characteristic (e.g., Andrews, 1980).

The next section of the article identifies the psychological factors that have the strongest empirical evidence as risk factors for sexual offenders. The primary empirical consideration for inclusion was evidence that the factor predicts recidivism. It is not our intention in this article to provide fully integrated theoretical accounts of how each factor is a cause of sexual offending; this is an issue beyond the scope of the current article. Instead, we focus on the evidence of predictive validity, dividing the potential risk factors into five categories based on the strength of this evidence. First, *empirically supported risk factors* are those where at least three studies, when meta-analytically integrated, show the construct to have significant predictive value for sexual recidivism. Consequently, a risk factor may be categorized as empirically supported even if some

studies have not found it to predict reconviction, as long as the meta-analytic summary was significant.

Meta-analysis has become the accepted method of answering questions concerning the magnitude and direction of empirical relationships (Barbaree, 2005; Cooper, 2003; Hanson & Broom, 2005). Not only can it provide a succinct summary of the overall effect, but it can also determine whether the variation in findings across studies is more than would be expected by chance (e.g., Borenstein, Hedges, Higgins, & Rothstein, 2009). We selected three studies as the minimum for consideration because it is a commonly accepted number for meta-analyses (e.g., Hanson & Bussière, 1998) and a number that provides reasonably stable results while allowing a broad coverage of the risk factor research.

To be considered supported, the effect for the risk factor needed to be more than trivial (average $d > 0.15$). By convention, d values of 0.20 are considered "small," 0.50 are "moderate," and 0.80 are "large" (Cohen, 1998). Note, however, that any labels for the size of empirical relationships are fluid, given that an effect that is "small" in one context may be "large" in another. A d of 0.15 would correspond to a difference in recidivism rates of at least 5%, less than which is unlikely to be meaningful for applied decisions. A d of 0.20 would correspond to recidivism rate differences of 10% (i.e., 20% vs. 30%), which are "small" but still of interest to decision makers. We chose a threshold of 0.15 because factors with smaller relationships with recidivism would have limited practical value, and they are unlikely to add incrementally once other, stronger, risk factors are considered.

We also discuss individual findings in terms of their area under the receiver operating characteristics curve (*AUC*). Both d and *AUC* are based on similar statistical models (Swets, 1986), and the transformations between these metrics are well documented: for example, d of 0.20 = *AUC* of 0.556, d of 0.50 = *AUC* of 0.639, d of 0.80 = *AUC* of 0.714; Rice & Harris, 2005). By our definition, a trivial effect ($|d| < 0.15$) would correspond to an *AUC* value between 0.46 and 0.54.

Second, *promising risk factors* are those that at least one study has shown the construct to have significant predictive value for sexual recidivism and where there are other kinds of relevant supportive evidence. This additional evidence could include a correlation between the risk factor and an actuarial risk determination, a correlation between the risk factor and number of sexual convictions, a correlation between the risk factor and self-reported sexual aggression in an unconvicted sample, or evidence that the risk factor is more strongly present in a sexual offender sample than a nonsexual offender sample.

Third, we consider *risk factors that are unsupported overall, but with interesting exceptions.* These are risk factors where the overall effect from meta-analysis is small and the confidence interval (CI) included zero, but where at least one large, credible study has found a significant effect, or where a significant effect has been found for subgroups of sexual offenders.

Fourth, we suggest some potential risk factors that are *worth exploring*—there are no (or inconclusive) prediction studies, but there is some other supporting evidence,

such as comparisons between sex offenders and nonsex offenders or post hoc comparisons between recidivists and non-recidivists.

Finally, we provide a nonexhaustive list of variables that evidence suggests are *factors with little or no relationship to sexual recidivism*, including some that may be surprising to those familiar with typical clinical practice with sex offenders. To be included in the list of unrelated factors, the factor's relationship to sexual recidivism must have been investigated in at least five studies, and the upper end of the 95% CI for the *d* statistic should be less than 0.15. This, in effect, requires that the data are sufficient to determine that the factor's association with recidivism is both small in absolute terms and smaller than that of factors typically regarded as predictive (minimum mean $d > 0.15$).

To review the evidence of predictive validity, we started with the variables identified in the previous meta-analytic reviews conducted by Hanson and colleagues (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004, 2005). These studies created an evidence base that has been extremely influential both in directing the subsequent development of risk assessment tools and in informing the objectives of modern treatment programs. To these reviews, we added findings from two subsequent large-scale recidivism prediction studies: the Bridgewater recidivism study (Knight & Thornton, 2007) and the Dynamic Supervision Project (DSP; Hanson et al., 2007). The Bridgewater recidivism study examined approximately 600 men evaluated for civil commitment at the Massachusetts Treatment Center for Sexually Dangerous Persons at Bridgewater between 1959 and 1984. Follow-up time varied, although many were followed for extensive periods of time (300+ were followed for more than 10 years, and some were followed for 25 years). DSP was a prospective study of risk assessment procedures, involving an average 3.5-year follow-up of 997 sexual offenders on community supervision between 2001 and 2005 in Canada and two U.S. states (Iowa, Alaska). The findings from these two studies were integrated using the cumulative meta-analytic techniques described by Hanson and Broom (2005; see Table 1).

Empirically Supported Risk Factors

Table 2 displays the risk factors categorized as empirically supported. We believe that the evidence is sufficient for these characteristics to be considered risk factors. Readers should be cautious, however, about interpreting the relative importance of one factor compared with another. In most cases, the CIs overlap; when they do not, the findings are based on a limited number of studies (less than five).

The CIs represent the range of plausible values for the population parameters (where the true values lies). Substantive interpretations can be based on values anywhere in the interval (Cumming & Finch, 2005). When the observations are uncorrelated, two values can be considered to differ at the $p < .01$ level if their CIs do not overlap (Cumming & Finch, 2005). Given that the different risk factors would be expected to be substantially positively correlated, CIs provide a test of differences with extremely low statistical power. Consequently, it is difficult to use the data

Table 1. Updates to Hanson and Morton-Bourgon's (2004) Meta-Analytic Findings on Risk Factors With the Addition of Two New Data Sets (Bridgewater: Knight & Thornton, 2007; DSP: Hanson et al., 2007)

Variable	Study	Mean *d*	95% CI	Q/Q_{Δ}	*N* (*k*)
Sexualized violence	Hanson and Morton-Bourgon (2004)	0.12	–0.06, 0.29	3.46	1,140 (7)
	Bridgewater	0.28	0.04, 0.52	1.18	383 (1)
	New total	0.18	0.04, 0.32	5.14	1,523 (8)
Negative social influences	Hanson and Morton-Bourgon (2004)	0.22	–0.01, 0.45	2.36	938 (6)
	DSP	0.32	0.05, 0.59	0.30	798 (1)
	New total	0.26	0.08, 0.44	2.66	1736 (7)
Poor cognitive problem solving	Hanson and Morton-Bourgon 2004	0.14	–0.09, 0.37	3.53	475 (3)
	DSP	0.35	0.08, 0.63	1.37	799 (1)
	New total	0.22	0.05, 0.40	4.90	1,274 (4)
Loneliness	Hanson and Morton-Bourgon 2004	0.03	–0.10, 0.17	5.79	1,810 (6)
	DSP	0.35	0.08, 0.63	4.31*	799 (1)
	New total	0.09	–0.03, 0.21	10.10	2,609 (7)

Note: DSP = Dynamic Supervision Project.
*$p < .05$.

presented to make strong statements about the relative importance of the various risk factors, and given that they are univariate relationships, these data cannot be used to assess their unique or incremental contribution to recidivism prediction.

Sexual preoccupation refers to an abnormally intense interest in sex that dominates psychological functioning. Sex is engaged in for itself, as a way of defining the self, or as self-medication. The problematic type of sexual preoccupation is not that associated with romantic love or intense attraction to a specific person. The sexually preoccupied man usually feels sexually dissatisfied despite engaging in high levels of (mainly impersonal) sexual behavior (Långström & Hanson, 2006). Individuals demonstrating sexual preoccupations would substantially overlap with those described as having sexual compulsions, sexual addiction, and hypersexuality (Kafka, 2003; Marshall, Marshall, Moulden, & Serran, 2008). In Hanson and Morton-Bourgon's (2004) meta-analysis, sexual preoccupations significantly predicted sexual, violent, and general recidivism. It was also found to be a significant predictor of sexual recidivism in the subsequent studies by Knight and Thornton (2007; $AUC = 0.65$) and Hanson et al. (2007; $AUC = 0.58$).

Sexual preference for prepubescent or pubescent children, however measured, significantly predicted sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis. For the purpose of defining this construct, children would include

Table 2. Psychologically Meaningful Risk Factors According to Their Strength of Evidence for Predicting Sexual Recidivism

Variable	Mean *d*	95% CI	*Q*	*N* (*k*)	Source
Supported					
Sexual preoccupation	0.39	0.23, 0.56	8.31	1,119 (6)	A
Any deviant sexual interest	0.31	0.21, 0.42	21.91	2,769 (16)	A
Sexual preference for children (PPG)	0.32	0.16, 0.47	11.52	1,278 (10)	B
Sexualized violence	0.18	0.04, 0.32	5.14	1,523 (8)	B, C
Multiple paraphilias	0.21	0.01, 0.41	6.71	477 (4)	B
Offense-supportive attitudes	0.22	0.05, 0.38	14.53*	1,617 (9)	B
Emotional congruence with children	0.42	0.16, 0.69	4.32	419 (3)	B
Lack of emotionally intimate relationships with adults					
Never married	0.32	0.21, 0.45	9.62	2,850 (8)	D
Conflicts in intimate relationships	0.36	0.05, 0.66	2.08	298 (4)	B
Lifestyle impulsivity					
General self-regulation problems	0.37	0.26, 0.48	22.85	2,411 (15)	A
Impulsivity, recklessness	0.25	0.06, 0.43	5.35	775 (6)	B
Employment instability	0.22	0.13, 0.30	20.88	5,357 (15)	A
Poor cognitive problem solving	0.22	0.05, 0.40	4.90	1,274 (4)	B, E
Resistance to rules and supervision					
Childhood behavior problems	0.30	0.16, 0.43	7.11	1,996 (8)	B
Noncompliance with supervision	0.62	0.45, 0.79	5.86	2,159 (3)	B
Violation of conditional release	0.50	0.34, 0.65	16.55**	2,151 (4)	B
Grievance/hostility	0.20	0.09, 0.31	13.58	3,139 (11)	B, C, E
Negative social influences	0.26	0.08, 0.44	2.66	1,736 (7)	B, E
Promising					
Hostility toward women	0.29	0.00, 0.58		799 (1)	E
Machiavellianism	1.40	0.48, 2.33		99 (1)	F
Callousness/lack of concern for others	0.29	0.11, 0.47	0.001	1,173 (2)	C, E
Dysfunctional coping					
Sexualized coping	0.43	0.14, 0.74		798 (1)	E
Externalizing	0.27	0.03, 0.51		380 (1)	C

Note: A: Hanson and Morton-Bourgon (2005); B: Hanson and Morton-Bourgon (2004); C: Knight and Thornton (2007); D: Hanson and Bussière (1998) transformed from *r* to *d* assuming 13.4% base rate; E: Hanson et al. (2007); F: Thornton (2003).
*$p < .05$ **$p < .01$.

females aged 0 to 12 years and males aged 0 to 13 years. The age difference is because of the later age of puberty for boys than for girls (Parent et al., 2003). Children are marked by the relative absence of physical cues typically indicative of the biological ability to mate and reproduce. These include immaturity in skin texture, degree of body and pubic hair, smell, body shape, musculature, and breast and genital development. Pedophilic interests can be identified by self-report, offense history (e.g., Seto & Lalumière, 2001), and specialized testing (e.g., phallometry).

Sexualized violence describes an interest in sadism or a preference for coercive sex over consenting sex (Lalumière & Quinsey, 1994). Phallometric interest in rape did not significantly predict sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis. Sexual interest in violence did predict sexual recidivism in Knight and Thornton's (2007) Bridgewater study, however, and when the Bridgewater results are added to Hanson and Morton-Bourgon's data set (see Table 1), the effect becomes statistically significant ($d = 0.18$, 95% CI [0.05, 0.32], $k = 8$) with no significant variability across studies ($Q = 5.1$, $p > .50$). Although the available data support sexualized violence as a risk factor, the evidence supporting sexualized violence is not as strong as the evidence supporting sexual interest in children.

Multiple paraphilias are two or more rare, unusual, or socially deviant sexual interests in persons, objects, or activities (see Laws & O'Donohue, 2008). Among sexual offenders, the most common paraphilias involve sexual interest in children (pedophilia), exhibitionism, voyeurism, and paraphilic rape (sexualized violence). Paraphilias were significantly associated with sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis. In the Bridgewater (Knight & Thornton, 2007) study, multiple paraphilias was one of five variables that predicted sexual recidivism for child molesters. The extent to which the paraphilias need to be illegal is unknown. It is possible that a paraphilia may be legal but, nonetheless, offense related; for example, an offender may coerce someone into sexual activities for which it is difficult to find a consenting partner (e.g., certain forms of coprophilia). We were unable to locate studies that specifically examined the recidivism rates of sexual offenders with only noncriminal paraphilias (e.g., transvestism, shoe fetishism).

Offense-supportive attitudes, for which various definitions have been proposed, are defined as beliefs that justify or excuse sexual offending in general. The risk-relevant attitudes are those that condone sexual offenses in others or in general, rather than the accounts offenders provide to excuse or justify their own specific offenses (Maruna & Mann, 2006). Examples of offense-supportive attitudes for child molesters include beliefs that children can enjoy sex, that adult–child sex is harmless, or that children can be sexually provocative (Abel, Becker, & Cunningham-Rather, 1984; Hanson, Gizzarelli, & Scott, 1994; Mann, Webster, Wakeling, & Marshall, 2007). Rapists may state that rape is justified, harmless, or even enjoyable for the woman (Bumby, 1996; Scully & Marolla, 1984).

As with all attitudes, there can be problems identifying and measuring the extent to which these beliefs are present. For sexual offenders, the presence of offense-supportive beliefs is often inferred from the statements offenders make about their offending—hence the difficulty distinguishing between criminogenic and noncriminogenic attitudes. Although the cognitive-behavioral worldview implies that all behavior follows from cognitions, a single act of sexual offending does not entail the existence of offense-supportive attitudes. Like the rest of us, sexual offenders are able to do things that are contrary to their values and moral beliefs, acts for which they feel ashamed and deeply regret. There is no evidence, however, that evaluators are able to distinguish between feigned and sincere remorse, particularly in adversarial settings.

Offense-supportive attitudes showed a small but statistically significant relationship with sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis. There was, however, significant variability across the nine recidivism studies summarized in that review. Furthermore, none of the specific types of offense-supportive attitudes (e.g., rape attitudes, child molester attitudes) showed a relationship with recidivism. There appeared to be different effects, however, based on the context of the assessment. In the six studies in which offenders were assessed as part of intake assessment for treatment, offense-supportive attitudes were significantly related to sexual recidivism (average $d = 0.36$, 95% CI [0.14, 0.59], $Q = 8.13$, $p = .14$, $n = 875$, $k = 6$). In contrast, offense-supportive attitudes assessed in other, more adversarial contexts (e.g., community supervision, precourt) showed no relationship to recidivism (average $d = 0.04$, 95% CI [–0.20, 0.29], $Q = 2.78$, $p = .25$, $n = 742$, $k = 3$; both estimates computed for this article using fixed-effect meta-analysis; Borenstein et al., 2009). Subsequent research has revealed a similar pattern. Attitudes significantly predicted recidivism in treatment samples (Craig, Thornton, Beech, & Browne, 2007; Olver et al., 2007) but not in the community supervision sample examined by Hanson et al. (2007). Further work is needed to determine if there are ways of conceptualizing and measuring offense-supportive beliefs that would permit more consistent assessments of risk-relevant attitudes across diverse settings.

Emotional congruence with children refers to feeling that relationships with children are more emotionally satisfying than relationships with adults. The offender who is emotionally congruent with children may find children easier to relate to than adults, may feel he is still like a child himself, and may believe that children understand him better than adults do. He often feels himself to be "in love" with his child victims, as if the relationship was reciprocal (Wilson, 1999). In Wilson's study, this risk factor was found mainly among extrafamilial child molesters who molested boys; in contrast, incest offenders tended to elevate their victims to adult status, and those who offended against unrelated girls seemed motivated by a desire for sexual gratification rather than a need for emotional intimacy. Hanson and Morton-Bourgon (2004) found emotional congruence with children (which they named "emotional identification with children") to be significantly associated with sexual recidivism. It was also related to sexual recidivism among child molesters (but not rapists) in both the Bridgewater (Knight & Thornton, 2007) and DSP studies (Hanson et al., 2007).

Lack of emotionally intimate relationships with adults had a significant relationship with recidivism in the two major meta-analytic studies (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2004). This applies both to offenders who have no intimate relationships and to those whose intimate relationships involved repeated conflict and/or infidelity. Offenders who desire intimacy but have been unable to achieve it are at increased risk, as are those who do not desire intimacy. Note that these varying facets of dysfunctional intimacy may have different underlying pathologies and so may lead to different treatment targets. For example, the lack of *any* history of intimate relationships may indicate atypical sexual interests (Blanchard & Bogaert, 1997), whereas a history of conflictual relationships may reflect problems with attachment

and emotional management. In the DSP, relationship instability was significantly and linearly related to all types of recidivism.

Lifestyle impulsiveness refers to low self-control, chronic instability in employment and housing, lack of meaningful daily routines, irresponsible decisions, and limited or unrealistic long-term goals. This factor is a major determinant of criminal behavior (Gottfredson & Hirschi, 1990), and it predicted all types of recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis. A corresponding factor, impulsive acts, predicted sexual charges in the DSP ($AUC = 0.64$). Lifestyle impulsiveness can also be seen as corresponding to Facet 3 of the PCL-R (Hare, 2003), which predicted serious sexual recidivism in the Bridgewater data set ($AUC = 0.63$ for 10-year follow-up). Employment instability and substance abuse history—both of which showed small, significant relationships with sexual recidivism in Hanson and Morton-Bourgon's (2004) study—are, in our view, appropriately viewed as indicators of lifestyle impulsiveness.

Poor problem solving involves cognitive difficulties in generating and identifying effective solutions to the problems of daily living. Offenders may avoid addressing obvious problems and deploy ineffective problem-solving skills when problems are attended to. For example, they may ruminate about negative aspects of the situation or select a course of action with a high probability of failure. Problem-solving deficits commonly involve (a) deficits in problem recognition/conceptualization, (b) lack of consequential thinking, and (c) difficulties generating a suitably wide range of options.

Poor cognitive problem solving showed a significant linear relationship to all recidivism outcomes in the DSP (Hanson et al., 2007). Adding these data to Hanson and Morton-Bourgon's (2004) earlier meta-analysis produced an overall significant predictive effect (see Table 1).

Resistance to rules and supervision, including rule breaking and opposition to external control, predicted serious sexual recidivism in the Bridgewater data set ($AUC = 0.63$ for 10-year follow-up). It corresponds to Facet 4 in the PCL-R (Hare, 2003). Items related to this construct, such as rule violations, noncompliance with supervision, and violation of conditional release, were consistently large predictors of sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis, although the number of studies that measured this construct was limited. As expected, this finding was replicated in the DSP where the variable "lack of cooperation with supervision" showed a significant linear relationship with all types of recidivism.

There appear to be two facets of resistance to rules: a defiant attitude to authority and a history of oppositional behavior (e.g., failing to follow direction, missing or arriving late for appointments, deceiving the supervisor). The underlying propensity here is conceptualized as the defiant attitude to authority, with oppositional behavior being a manifestation of this underlying propensity.

Grievance/hostility involves the perception of having been done wrong by the world, feeling that others are responsible for their problems, and wanting to punish others as a consequence. Offenders with this schema are preoccupied with obtaining the respect they desire from others and frequently ruminate on vengeance themes

(Mann, 2005). They have difficulty seeing other people's point of view and anticipate further wrongs will be perpetrated against them. Hanson and Morton-Bourgon (2004) found hostility predicted sexual recidivism. In the DSP, this variable (labeled "negative emotion/hostility") was significantly related to violent and general recidivism but not to sexual recidivism. In the Bridgewater data set, the *AUC* for this variable was 0.58 ($p = .017$) for predicting sexual recidivism during a 10-year follow-up period.

Negative social influences refer to having a social network dominated by individuals who are involved in crime, promote criminal behavior, or weaken the behavioral controls of the offender. Although social networks can be considered "external" to the offenders, individuals tend to choose and recreate consistent environments. Social influences are emphasized in many of the major theories of crime (Andrews & Bonta, 2006; Sutherland & Cressey, 1970) as well as by major theories of human behavior (Azjen, 2005; Bandura, 1986). The presence of negative social influences is also one of the strongest predictors of general criminal recidivism (Gendreau, Little, & Goggin, 1996).

The presence of negative social influences was not a significant predictor of sexual recidivism in Hanson and Morton-Bourgon's (2004) review, but it did predict sexual recidivism in the subsequent DSP (Hanson et al., 2007). When the DSP study is added to the earlier meta-analysis, the overall effect becomes significant and nontrivial (see Table 1).

Promising Risk Factors

Table 2 also lists the risk factors categorized as promising. These risk factors have the support of one or two prediction studies plus some supporting evidence of other kinds.

Hostile beliefs about women involve seeing women as malicious and deceptive in their interactions with men. Offenders holding this view believe that women like making fools of men, that women seldom express their true feelings directly, and that if a women appears sexually interested in a man, the expression is probably deceitful and manipulative (Malamuth & Brown, 1994). Women are therefore placed in a separate category not worthy of trust and respect. This construct showed a significant linear relationship to all recidivism outcomes in the DSP (Hanson et al., 2007; *AUC* of 0.58 for sexual recidivism). In a retrospective correlational study, Thornton (2002b) found it to be more common among sexual recidivists than among first-time offenders. Malamuth's research has found such beliefs to predict sexual aggression in community samples (Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Sockloskie, Koss, & Tanaka, 1991).

Machiavellianism combines the following components: (a) a view of others as weak, cowardly, selfish, and easily manipulated and (b) an interpersonal strategy in which it is viewed as sensible and appropriate to take advantage of others (Christie & Geis, 1970). Thornton (2003) demonstrated that this pattern was more marked in repeat child molesters than single-conviction child molesters and that it predicted sexual recidivism over and above its relationship to past sex offending.

Lack of concern for others (also termed *callousness*) is characterized by egocentricity, a tendency to engage in instrumental rather than affectively warm relationships; poor empathy; and a lack of sympathy for others. It corresponds to Facet 2 in the PCL-R (Hare, 2003). Men with this profile are described as selfish, cynical, and willing to be cruel to meet their own needs. They appear indifferent to other people's rights or welfare, except as it influences their own interests. Lack of concern for others showed a significant linear relationship to all recidivism outcomes in the DSP (Hanson et al., 2007). It also significantly predicted sexual recidivism in the Bridgewater study (*AUC* of 0.60 and 0.65 in the 10- and 15-year follow-up periods, respectively).

Dysfunctional coping is defined as the ways in which sexual offenders manage negative emotions such as anger, anxiety, rejection and humiliation, which are related to their risk of sexual recidivism. The two forms of dysfunctional coping most relevant to risk assessment involve responding to stress (a) through sexual responses or (b) through externalizing behaviors more generally.

Sexualized coping is defined as the use of sex to manage negative emotions and stressful life events (Cortoni & Marshall, 2001). The sexual behavior may be normal or deviant, although typically it involves impersonal sexual behavior, as this strategy involves the use of sex, not necessarily intimacy. Those who engage in sexualized coping show increased sexual activity during periods of stress or dysfunction. Sexualized coping significantly predicted sexual recidivism in the DSP (*AUC* of 0.62). Sexual offenders often report increased deviant sexual fantasies and masturbation during periods of stress (McKibben, Proulx, & Lusignan, 1994). A link between negative emotion and sex is common among those who engage in high-risk sexual behavior (Bancroft et al., 2003a, 2003b) as it is among child molesters (Whitaker et al., 2008).

Externalized coping involves the tendency to respond in a reckless, impulsive manner when faced with stress or problems. As defined in the Structured Risk Assessment system (where it is labeled "Dysfunctional Coping"), it overlaps poor problem solving and poor emotional control (Knight & Thornton, 2007). Impulsive behavior is common among sexual offenders, and they are more likely to reoffend with a nonsexual crime than a sexual crime (Hanson & Bussière, 1998). In the Bridgewater study, externalized coping significantly predicted serious sexual recidivism at both 5-year and 10-year follow-up periods (*AUC*s of 0.57 for both).

Unsupported but With Interesting Exceptions

In this category, we placed potential risk factors where the meta-analytic summary showed a small, nonsignificant effect, but a significant result was found in either (a) one large credible study or (b) a study examining subgroups of sexual offenders (see Table 3).

Denial refers to the tendency of sexual offenders to claim that they did not do the sexual criminal acts attributed to them by the courts. Hanson and Morton-Bourgon (2004, 2005) found no overall effect of denial on sexual recidivism, as have subsequent studies (Harkins, Beech, & Goodwill, 2007; Langton et al., 2008; Nunes et al., 2007;

Table 3. Factors That Are Unsupported Overall With Interesting Exceptions

Variable	Mean *d*	95% CI	Q	*N* (k)	Source
Denial	0.02	–0.15, 0.19	11.72	1,780 (9)	A
View of self as inadequate					
Overall	0.06	–.06, 0.22	10.64	1,477 (11)	A + G
U.K. studies	0.67	0.21, 1.13	0.01	225 (2)	G
Canadian, U.S., and New Zealand studies	–0.02	–.18, .15	2.93	1,252 (9)	A – G
Major mental illness					
Overall	0.24	0.11, 0.38	41.06**	2,783 (9)	B
Swedish record study	0.90	0.66, 1.14		1,125 (1)	H
Other studies	–0.03	–0.19, 0.12	0.73	1,268 (8)	B
Loneliness					
Overall	0.09	–.03, 0.21	10.10	2,609 (7)	B, E
Dynamic Supervision Project	0.35	0.08, 0.63		799 (1)	E
Other studies	0.03	–0.10, 0.17	5.79	1,810 (6)	B

Note: A: Hanson and Morton-Bourgon (2005); B: Hanson and Morton-Bourgon (2004); E: Hanson et al. (2007); G: Thornton et al. (2004); H: Långström et al. (2004).
**$p < .01$.

Thornton & Knight, 2007). The more recent studies, however, have found significant interactions across subgroups, such that denial increased the recidivism rate of certain sexual offenders and decreased the recidivism rate of others. The patterns of results, however, have differed across studies. At least some of these differences can be attributed to researchers addressing different questions.

Nunes et al. (2007) found that denial was only related to recidivism for offenders who scored low on the RRASOR (Hanson, 1997), a four-item actuarial risk assessment instrument for sexual offenders. Subsequent analyses found that denial increased the sexual recidivism risk for incest offenders (odds ratio of 2.74) but not for those with unrelated victims (odds ratio of 0.83). Similarly, Harkins et al. (2007) found that denial was a protective factor for high-risk offenders but not low-risk offenders. Langton et al. (2008) reported an opposite pattern. In their study, a linear measure of minimization (assessed after treatment) increased the risk for high-risk offenders and decreased the risk for low-risk offenders. Risk was determined using the RRASOR, the same risk scale used by Nunes et al. (2007).

Thornton and Knight (2007) found denial to be a protective factor for child molesters (most of who would have had extrafamilial victims). Overall, denial was associated with increased recidivism risk for rapists, but this effect largely disappeared after controlling for psychopathy and static risk factors (using the Static-99). The interaction between denial and risk was not specifically examined in their study because their sample had few low-risk offenders.

In summary, the conditions under which denial contributes to recidivism risk for sexual offenders have not been clearly identified. It is likely that some aspects of denial

are genuinely protective, for by denying their offenses, some offenders can be advancing a "redemption script" and distancing themselves from their prior misdeeds (Maruna & Mann, 2006). Denial also can be criminogenic when it is motivated by the crass desire to avoid punishment or by a failure to recognize their transgression as sexual crimes. One hypothesis that follows from this view is that denial would be protective for offenders demonstrating positive behavioral change in other areas (e.g., cooperative with supervision, avoidance of high-risk situations), but denial would increase the risk for sexual offenders who remain committed to deviant lifestyles or otherwise criminogenic influences.

Low self esteem was unrelated to sexual recidivism in Hanson and Morton-Bourgon (2004), but the two studies with British populations both found moderate to strong effects (Thornton, 2002b; Thornton, Beech, & Marshall, 2004). It is not clear whether the variation indicates true cultural differences (i.e., self-esteem is a risk factor for British but not North American offenders) or whether it is based on different approaches to measurement. Both British studies used one particular measure of self-esteem: the Short Self-Esteem Scale (SSES; Webster, Mann, Wakeling, & Thornton, 2007). The SSES involves eight items that essentially measure a dislike of the person one is. In addition to the recidivism studies, Thornton (2002a) found that men sentenced on one occasion only for a sexual offense had higher self-esteem than those sentenced more than once. The SSES also reliably distinguished between sex offenders in different risk bands (Webster et al., 2007).

Major mental illness is defined as severe disorders involving hallucinations, delusions, and other signs of gross impairment with psychological functioning (e.g., schizophrenia, manic depression). In general, major mental illness increases the risk of violence in the general population (Elbogen & Johnson, 2009) but is unrelated to recidivism among individuals already identified as offenders (Bonta, Law, & Hanson, 1998). Severe mental disorders predicted sexual recidivism in Hanson and Bussière's (1998) meta-analysis, but the effect was based on three small studies (combined sample of only 184). Major mental illness was not related to recidivism in most of the studies in Hanson and Morton-Bourgon's (2004) updated meta-analysis ($d = -0.03$, $n = 1{,}268$, $k = 7$), with one exception. Långström, Sjöstedt, and Grann (2004) found a large effect ($d = 0.90$) among Swedish sexual offenders. The Långström et al. (2004) study is noteworthy because of its large, relatively unselected sample and the combined use of records from the health and correctional systems. Consequently, it is possible that major mental illness plays a role in the recidivism process, but the conditions under which it is a relevant risk factor has yet to be clearly articulated.

Loneliness refers to having no friends, having weak connections to others, and feeling rejected by others. It is primarily based on the subjective sense that others do not care rather than the objective fact of having few or no friends (i.e., the loner). Loneliness did not predict recidivism in Hanson and Morton-Bourgon (2004), but subsequently it did predict recidivism in the DSP. The overall meta-analysis of the seven available studies still remains nonsignificant when the DSP findings were included (see Table 1). Given that the DSP findings were significantly different from

Table 4. Factors Unrelated to Sexual Recidivism

Variable	Mean *d*	95% CI	*Q*	*N* (k)	Source
Depression	–0.13	–0.34, 0.08	6.90	850 (7)	B
Poor social skills	–0.07	–0.27, 0.13	8.11	965 (6)	B
Poor victim empathy	–0.08	–0.21, 0.05	0.92	1,745 (5)	A
Lack of motivation for treatment at intake	–0.08	–0.21, 0.05	13.83	1,786 (12)	A

Note: A: Hanson & Morton-Bourgon (2005); B: Hanson & Morton-Bourgon (2004).

those of previous studies, further research is justified to identify conditions under which loneliness may be a relevant risk factor.

Worth Exploring

We do not believe that the factors mentioned so far are an exhaustive list of possibly relevant risk factors. Further research is likely to identify new risk factors and refine the definitions of the factors already shown to empirically predict recidivism. Ongoing developments in theory will suggest risk factors worth exploring, as will the results of case control studies. Examples of such factors include *adversarial sexual orientation*, which has been associated with sexual coercion in university samples (Malamuth et al., 1991); *fragile narcissism*, which has been associated with aggression in response to threats to a grandiose self-image (Bushman & Baumeister, 1998; Papps & O'Carroll, 1998; Stuker & Sporer, 2002); and *sexual entitlement* (Hanson et al., 1994; Hanson et al., 2007). These factors have some evidence supporting their role as risk factors, but the ability of these factors to predict recidivism has not been adequately tested.

Not Risk Factors

There are some plausible factors, however, that have been sufficiently studied to conclude that they have little or no relationship with recidivism. For a variable to be considered unrelated to recidivism, five or more prediction studies must have failed to find a significant relationship, and the estimated effect must be no more than trivial (upper end of confidence limit for *d* was less than 0.15). A further criterion is that the results had to be stable across studies (nonsignificant *Q* and no outliers). Table 4 shows four variables meeting these criteria.

Although *depression* is intrinsically worthy of intervention, it is not related to sexual recidivism. The direction of the relationship is, if anything, negative, such that the most depressed offenders are the least likely to reoffend. This finding is completely consistent with the general correctional literature in which internalizing psychological disorders are not considered criminogenic needs (Andrews & Bonta, 2006; Gendreau et al., 1996).

Social skills deficits have historically been considered one of the major causes of sexual offending and consequently, were important treatment targets in the 1970s and 1980s (Becker, Abel, Blanchard, Murphy, & Coleman, 1978; Crawford & Allen, 1979; McFall, 1990). None of the follow-up studies, however, have found that social skills deficits predicted sexual or violent recidivism. Although the social interactions of sexual offenders can be problematic, these deficits appear to be more specifically related to intimacy deficits and hostile attitudes toward women, rather than to poor dating skills or problems negotiating routine social situations.

Poor victim empathy is of interest because victim empathy is a standard component of most sexual offender treatment programs (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010). It was unrelated to sexual recidivism, however, in the five studies examined by Hanson and Morton-Bourgon (2004). In contrast, poor victim empathy had small relationship with nonsexual violent recidivism (d = .19; three studies) and general recidivism (d = 0.12, k = 5). It is possible that much of what passes as poor victim empathy could be better construed as justifications that offenders used to distance themselves from a deviant identity. It is also plausible that for some individuals poor victim empathy may be a symptom of the more general problem of lack of concern for others (see above).

Lack of motivation for treatment, as assessed pretreatment, did not have any relationship with sexual recidivism in Hanson and Morton-Bourgon's (2004) meta-analysis (d = −0.08). This is a rather surprising finding given that offenders who complete treatment are lower risk than untreated offenders (Hanson, Bourgon, Helmus, & Hodgson, 2009; Hanson et al., 2002; Lösel & Schmucker, 2005), low motivation is related to dropping out of treatment (Beyko & Wong, 2005), and dropping out of treatment is associated with increased recidivism (Hanson et al., 2002). It may be that pressures on offenders to appear motivated may limit the ability of evaluators to identify true motivation at intake. It is also the case that motivation to attend treatment is not synonymous with motivation to stop offending.

Are Any of These Factors Causes of Sexual Recidivism?

Earlier, we proposed two criteria that should be met for a propensity to be considered a psychologically meaningful, causal, psychological risk factor: (a) a plausible rationale that the risk factor is psychological and could be a cause of sexual offending and (b) evidence of an empirical association with recidivism. Ideally, there would also be evidence supporting a causal connection with recidivism for this factor as distinct from the other constructs with which it could be confused and confounded. We believe that the "empirically supported" factors listed in Table 2 meet the second of these two criteria and, therefore, are worthy of being considered risk factors. We also believe that they are promising candidates for psychologically meaningful causal risk factors (the first criterion); considerable more work is required, however, to establish their causal connections with recidivism.

One approach to establishing causal connections is to examine the extent to which deliberate manipulation of the factors results in changes in recidivism potential. To quote Farrington (2007): "The concept of cause implies that within-individual change in a causal factor is followed by within-individual change in an outcome and ideas of prevention and treatment require within-individual change" (p. 126). Don Andrews (1980), for example, provided strong support for procriminal attitudes as a causal risk factor when he demonstrated that experimentally induced reductions in procriminal attitudes were associated with reduced recidivism rates of probationers.

Evidence supporting a causal role for the variables in Table 2 comes from a recent meta-analysis of treatment outcome by Hanson et al. (2009). This meta-analysis found that the treatments targeting criminogenic needs reduced sexual and general recidivism; in contrast, treatments targeting other needs did not. In the Hanson et al. (2009) study, criminogenic needs were defined as those with a significant relationship to recidivism in prior meta-analyses of recidivism predictors (Andrews & Bonta, 2006; Gendreau et al., 1996; Hanson & Morton-Bourgon, 2004, 2005). Even though the Hanson et al. (2009) study did not separate out individual risk factors, the findings suggest that contained within the factors in Table 2 are features and constructs meaningfully related to recidivism potential.

It is quite possible, however, to conceive of causal factors that do not change. Most obviously, many biologically or genetically determined propensities are considered to be lifelong enduring characteristics—present since birth. We expect that most, if not all, of the risk factors we propose here are underpinned by neuropsychological mechanisms (for further information, see Ward & Beech, 2006) as well as social and psychological mechanisms. It is not clear that all of the factors in our list would be expected to be changed by deliberate intervention. For instance, the scientific community has yet to establish consensus concerning the mutability of some deviant sexual preferences, such as pedophilia (Seto, 2008). Even if a factor is immutable with current technologies, treatment can still help offenders learn to manage or compensate for the propensity. Community risk management systems can monitor the degree to which the risk factor is currently manifested or seek to modify the offender's environment so that he is less severely exposed to the stimuli that trigger the operation of the propensity. Consequently, almost any psychologically meaningful factor can become a target for treatment or risk management.

We believe that the constructs proposed are plausible psychological risk factors, but further theoretical work is needed establish common definitions and a deeper understanding of these factors. In this article, we have assumed some constructs to be substantively similar that other researchers have labeled differently. For instance, we have presented negative social influences as a risk factor in its own right and not as an indicator of antisocial orientation. Similarly, adversarial sexual beliefs are considered to be equivalent to hypermasculinity. Deeper conceptualization of each risk factor would provide coherent and empirically justified accounts of how these risk factors develop and how they cause offending.

The ultimate step in establishing a causal risk factor is eliminating alternate hypotheses that could explain the relationship between the factor and recidivism. This final

step is never fully achieved; the best that can be hoped for is that the conjecture that the factor is a cause of reoffending is the most plausible of available alternatives.

Once risk factors have been identified, further research is needed concerning measurement of the risk factors. How can we tell if someone is hostile? How can we identify at what point hostility becomes problematic or clinically significant? And even if thresholds can be identified, how can we then reliably identify (particularly in adversarial contexts) when someone has changed to the extent that their risk is now reduced?

Many of the factors identified here as empirically supported are also to be found in the prediction literature for general criminal behavior (e.g., impulsivity, poor problem solving, hostility, unstable relationships). There are some factors, however, that are likely to be uniquely associated with sexual (not general) recidivism (e.g., sexual preferences for children or violence, multiple paraphilias, emotional congruence with children). Although antisocial attitudes are usually considered to be related to general offending, they take a specific form in relation to sexual offending that would not be replicated in non-sexual offenders. It is also possible that the relative weighting of risk factors differs for sexual offenders compared with non-sexual offenders.

Given that research has focused almost exclusively on identifying factors that raise the risk of recidivism, researchers and practitioners should also consider strengths and protective factors, that is, factors that reduce risk of recidivism (Maruna & LeBel, 2003). Although strengths can be simply the opposite of or absence of risk factors, strengths and risk factors can co-occur (e.g., both positive and negative social influences). Furthermore, there is some research indicating that considering strengths as well as deficits can independently contribute to risk prediction (Griffin, Beech, Print, Bradshaw, & Quayle, 2008).

Conclusions

Assessment and treatment for sexual offenders should focus on empirically established causal risk factors. In this review, we propose a definition of psychologically meaningful causal risk factors as propensities and outline the types of evidence required to identify them. Although the causal role of such factors has yet to be established, we believe that the causal factors for sexual recidivism will ultimately be drawn from variables similar to those included in our list. We believe that it is these variables that should be emphasized in treatment.

Our review has established that none of the so far identified psychological risk factors has a strong relationship to sexual offending. This has a number of implications. First, evaluators should avoid being overinfluenced by the presence of any single risk factor, however floridly manifested. Second, only relatively comprehensive assessment of a range of psychological risk factors will make it possible for this kind of assessment to have useful predictive power. Third, this is precisely the kind of situation (a relatively large number of risk factors, each making only a small contribution to prediction) in which mechanical integration of risk factors can be expected to outperform human judgment (Kahnemann & Klein, 2009).

Understanding the causal mechanism of sexual recidivism remains an important research goal. Treatment programs can contribute to the advancement of knowledge in this area by routinely examining the extent to which changes on factors targeted in their programs are associated with subsequent recidivism. Future developments of risk assessment tools should strive to measure risk and protective factors embedded within plausible (and testable) models of offender recidivism risk.

Authors' Note

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The Recidivism Rates of Female Sexual Offenders Are Low: A Meta-Analysis

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Abstract

This study examined the recidivism rates of female sexual offenders. A meta-analysis of 10 studies (2,490 offenders; average follow-up 6.5 years) showed that female sexual offenders have extremely low rates of sexual recidivism (less than 3%). The recidivism rates for violent (including sexual) offences and for any type of crime were predictably higher than the recidivism rates for sexual offences but still lower than the recidivism rates of male sexual offenders. These findings indicate the need for distinct policies and procedures for assessing and managing the risk of male and female sexual offenders. Risk assessment tools developed specifically for male sexual offenders would be expected to substantially overestimate the recidivism risk of female sexual offenders.

Keywords

female sexual offenders, recidivism, meta-analysis

Although tremendous advances have been made in the understanding of the recidivism rates of adult male sexual offenders, similar knowledge is still extremely limited for female sexual offenders. Like men, women convicted of sexual offenses are subject to social control policies (e.g., Canadian Dangerous Offender Provisions, U.S. Sexually Violent Predator laws). Without an empirical basis for risk assessment, the

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assessment of these women remains as problematic as the assessment of male sexual offenders was 20 years ago. Reliable estimates of the recidivism base rates of female sexual offenders would be a valuable aid to applied decision makers. Providing these estimates is the primary goal of this study.

Prevalence of Sexual Offending by Women

The prevalence rate of female sexual offending is difficult to ascertain. Some authors believe that sexual offending by females is relatively common but that its extent is unknown because of the lack of reporting or because these women tend to be diverted from the criminal justice system (Vandiver & Walker, 2002). Others suggest that sexual offending by women is likely to be underidentified because of societal and cultural stereotypes of female sexual behavior, including professional biases (Denov, 2003, 2004; Giguere & Bumby, 2007).

In efforts to provide more systematic information about the prevalence of female sexual offenders, in comparison with male sexual offenders, Cortoni and Hanson (2005; Cortoni, Hanson, & Coache, 2009) estimated the proportion of sexual offenders who are women from two general sources of information. The first source of information was official police or court reports that detailed the gender of the offender. The second source of information was victimization surveys. For both sources, information was available for Australia, Canada, New Zealand, the United Kingdom, and the United States. Results from the updated 2009 review were consistent with the earlier 2005 findings. Based on official records, the proportion of all sexual offenders who were female ranged from 0.6% in New Zealand to 8.7% for nonrape sexual offenders in the United States. When these numbers were averaged across all countries in the study, women constituted 4.6% of all sexual offenders. Based on victimization studies, the proportion of sexual offenders who were female ranged from 3.1% for New Zealand to 7.0% for Australia, an average of 4.8%.

In summary, available data indicate that women constitute approximately 5% of all sexual offenders. To place this number in a more concrete societal context, it is useful to estimate their proportion in real terms. To establish an overall international figure of the prevalence of child sexual abuse, Pereda, Guilera, Forns, and Gómez-Benito (2009) conducted a meta-analysis of its prevalence in 22 countries. Their results showed that nearly 8% of men and 20% of women had been sexually victimized prior to age 18. If 4% to 5% of all these victims were sexually abused by women, this would mean that 1.4% of all child victims were sexually abused by women. These findings indicate that sexual offending by women is significant enough to warrant systematic attention.

It is important to note, however, that despite the increased recent attention paid to sexual offending by women, we cannot say that sexual offending by women is actually a growing phenomenon. For example, in Canada, between 1994 and 2003, the yearly rate of women accused of sexual assault has consistently been between 1% and 2% of all accused of sexual offences (Statistics Canada, 2007). Instead, sexual offending by women appears to have been a long underrecognized issue, which is finally coming to

the forefront in the field. The increased attention to female sexual offenders motivates the need for empirical evidence to inform the assessment, treatment, and management of these women.

The Importance of Base Rates

The evaluation of risk of recidivism requires knowledge of static and dynamic risk factors that have been empirically linked to sexual offending. Much is known about risk factors among male sexual offenders (e.g., Hanson & Morton-Bourgon, 2005), but very little is known about the factors linked to sexual offending among women (Hedderman, 2004; Kemshall, 2004). To establish this knowledge, systematic information about the recidivism rates of the population is required.

Base rates are the proportion of the population that exhibits the phenomenon of interest. Understanding the base rates of recidivism is fundamental to the evaluation of risk of future offending (Hanson & Bussière, 1998; Quinsey, Lalumière, Rice, & Harris, 1995). Recidivism rates vary according to factors such as jurisdictions, types of crimes being measured, length of time of follow-up, and how they were measured. Among male sexual offenders, research has shown that recidivism rates, with a follow-up period of 5 years, are 13.5% for new sexual offenses, 25.5% for violent (including sexual) offenses, and 36% for any type of recidivism (Hanson & Morton-Bourgon, 2004).

After years of neglect, research into the recidivism rates of female sexual offenders has started to receive attention. Cortoni and Hanson's (2005) review found that the recidivism rates of female sexual offenders are generally low. The number of female offenders included in that review, however, was small (total of 380); a number of large sample studies have appeared since that review was complete. Also, Cortoni and Hanson (2005) did not provide a meta-analytic summary of recidivism rates, such that it was impossible to know whether the variability across studies was significant. Consequently, the current study provides an updated, meta-analytic review of the empirical literature concerning the recidivism rates of female sexual offenders.

Method

Selection of Studies

Studies included conference presentations, government reports, official recidivism data drawn from websites or through direct communication with government agencies, and reports of unpublished studies obtained directly from the researchers. Recidivism studies were included if they identified the gender of the offenders and provided a follow-up period. As necessary, clarifications of the data were obtained by directly contacting the authors of the studies included in this review. For example, to ensure accurate coding of recidivism rates of the Sandler and Freeman (2009) and the Vandiver (2007) studies, we verified whether reported violent reoffense rates included sexual

offenses or not. There were times, however, that such verifications were impossible. In these circumstances, only clearly identifiable recidivism rates were included in the study. As a result, not all types of recidivism were present in every study.

For this review, recidivism was defined as being arrested, charged, convicted, or incarcerated for a new offense. Sexual recidivism included a new charge, conviction, or reincarceration for a sexual offence. Violent recidivism was defined as a new violent charge, conviction, or incarceration for a new violent offense (including sexual offences). Any recidivism was defined as any new charge, conviction, or incarceration. Consequently, the categories of recidivism are cumulative rather than mutually exclusive.

The search yielded two published studies (Broadhurst & Loh, 2003; Sandler & Freeman, 2009), two government reports (Hanson, Harris, Scott, & Helmus, 2007; Minnesota Department of Corrections, 2007), four conference presentations (Peterson, Colebank, & Motta, 2001; Vandiver, 2007; Wijkman, Zoutewelle-Terovan, & Bijleveld, 2009; Williams & Nicholaichuk, 2001), and two official sources of recidivism data (Holley & Ensley, 2003, Florida State, United States; Home Office, 1998-2003, United Kingdom). Table 1 provides a summary of these studies; additional comments about these studies are provided below.

Broadhurst and Loh (2003) examined the probability of rearrest for sexual offenders in the state of Western Australia between 1984 and 1994. Recidivism for the female sexual offenders was reported in Footnote 1 (p. 134).

Hanson et al.'s (2007; Harris & Hanson, 2003) *Dynamic Supervision Project* was a prospective study designed to test the validity of a system of risk assessment for sexual offenders on community supervision (probation or parole). Assessments were conducted between 2001 and 2004, with recidivism information provided on an ongoing basis by the officers supervising the cases (up to March 2007). The full study examined 997 sexual offenders from Canada and two U.S. states, of which 6 were female (1 from New Brunswick, 2 from Iowa, and 3 from Newfoundland).

In 2003, Holley and Ensley produced a government recidivism report on inmates released from Florida prisons between 1995 and 2001.

Home Office Reports to the U.K. Parliament: The Home Office provides information on the reconviction rates of offenders released from prisons in England and Wales. The data used in this review cover the period from 1994 to 1999.

The Minnesota Department of Corrections published a report in 2007 on the recidivism rates of sexual offenders released from a Minnesota Correctional Facility between 1990 and 2002.

The women in Peterson et al. (2001) had been or continued to be in treatment for their sexually offending behavior. Recidivism was coded from official Kentucky Court records.

Sandler and Freeman (2009) examined the recidivism patterns and risk factors of registered sexual offenders in the State of New York. The study included by far the largest sample ever reported in a recidivism study of female sexual offenders ($N = 1{,}466$). Recidivism was coded from computerized criminal history files in New York State between January 1, 1986, and December 31, 2006.

Table 1. Summary of Recidivism Studies

Source	*N*	Country	Recidivism Type	Mean Follow-Up (Years)	Recidivism Rates		
					Sexual, % (*N*)	Violent, % (*N*)	Any, % (*N*)
Broadhurst and Loh (2003)	43	Western Australia	Arrest	5.7	0	9.3 (4)	—
Hanson et al. (2007)	6	Canada and Iowa	Arrest	3.3	0.0	16.6 (1)	16.6 (1)
Holley and Ensley (2003)	74	United States—Florida	Conviction	5	—	—	12.2 (9)
Home Office Statistics (1998-2003)	81	United Kingdom	Conviction	2	1.2 (1)	1.2 (1)	11.1 (9)
Minnesota Department of Corrections (2007)	41	United States—Minnesota	Arrest	8.4	4.8 (2)	—	—
Peterson et al. (2001)	115	United States—Kentucky	Conviction	5.5	0	—	26.1 (30)
Sandler and Freeman (2009)	1,466	United States—New York State	Arrest	5	1.8 (19)	5.2% (54)	26.6 (277)
Vandiver (2007)	471	United States—Texas	Arrest	12	10.8 (51)	14.8 (70)	45.0 (212)
Wijkman et al. (2009)	132	Netherlands	Conviction	10.3	1.5 (2)	6.8 (9)	24.2 (32)
Williams and Nicholaichuk (2001)	61	Canada	Charges	7.6	2.3 (2)	11.5 (7)	32.8 (20)

Note: "—", no information available.

Vandiver (2007) conducted a follow-up of the 2001 cohort of registered sexual offenders in Texas. Recidivism was coded from criminal records and included any registerable sexual offense in the State of Texas. These offenses include compelling prostitution, offenses related to possession or distribution of child pornography, kidnapping, and board/court ordered registration (Donna Vandiver, personal communication, October 14, 2008).

Wijkman et al. (2009) conducted a latent class analysis to investigate specialization versus generalization in the patterns of criminal behavior of 132 female sexual offenders. Data were coded from complete official criminal convictions records of the women from 12 years to August 2008 (Catrien Bijleveld, personal communication, February 3, 2009).

Williams and Nicholaichuk (2001) conducted a follow-up of 72 female sexual offenders who received federal sentences (2 years or more) in Canada between 1972 and 1998. Because of deportation or continued incarceration, recidivism data could be obtained only for 61 of the cases. Recidivism was coded from Royal Canadian Mounted Police records, a national database that contains all charges and convictions on every offender in Canada.

Aggregation of Findings

The basic effect size indicator was p, the proportion of recidivists (i.e., the number of recidivists divided by n, the sample size). Although raw proportions are easily interpreted, they have certain limitations as effect size indicators for meta-analysis. Using the standard formula, the variance of p is estimated as $p(1 - p)/n$ (Fleiss, Levin, & Paik, 2003). This variance is small in two quite different circumstances: (a) when the same size is very large and (b) when sample size is so small that there are no recidivists. This formula also assumes that the variance decreases as the proportions approach zero, which has the effect of giving the most weight to studies with the smallest recidivism rates.

Given the problems with analyzing raw proportions from different studies, variance stabilization transformations are recommended (Cohen, 1988; Eisenhart, 1947; Fleiss et al., 2003). The most common variance stabilization transformation for proportions is the arcsine transformation, which we will denote by $\check{A}$, defined as $\check{A} = 2 \arcsin\sqrt{P}$, with a variance of $1/n$. In other words, the variance of $\check{A}$ depends only on the sample size and not on the size of the proportion. Consequently, analyses were conducted using both the raw proportions and the transformed proportions. All results were reported as proportions, however, because $\check{A}$ in its original units (radians) is not easily interpreted.

To analyze studies in which there were no recidivists for certain categories (Broadhurst & Loh, 2003; Hanson et al., 2007; Peterson et al., 2001), the recidivism rate (p) was estimated as $1/4n$ (i.e., Bartlett's adjustment, see Eisenhart, 1947; Cohen, 1988).

The magnitude and consistency of recidivism rates across studies were calculated using both fixed-effect and random-effects models (Hedges & Vevea, 1998). Each approach asks slightly different questions and neither approach has won universal

acceptance (Whitehead, 2002). On a conceptual level, the conclusions of the fixed-effect analyses are restricted to the particular set of studies included in the meta-analysis. In contrast, the random-effects model aims for conclusions that apply to the population of studies of which the current sample of studies is a part. In practical terms, the random-effects model includes an additional between-study error term representing the unexplained variation across studies (a constant). Compared with the fixed-effect model, the random-effects model has higher variance estimates (wider confidence intervals), and the differences in sample size across the studies is given less importance. Consequently, the random-effects model gives relatively more weight to small studies than does the fixed-effect model (approximating unweighted averages).

When the assumptions are violated, the fixed-effect model is too liberal and the random-effects model is too conservative (Overton, 1998). The results of the random-effects and fixed-effect models converge as the amount of between-study variability decreases. When the variation between studies is less than would be expected by chance ($Q <$ degrees of freedom, using Cochran's Q statistic; Hedges & Olkin, 1985), both approaches yield identical results. To test the generalizability of fixed effects across studies, the Q statistic was used:

$$Q = \sum_{i=1}^{k} w_i (p_i - P.)^2,$$

where p_i is the observed proportion in each of k studies and $p.$ is the weighted average. The Q statistic is distributed as a χ^2 with $k - 1$ degrees of freedom (k is the number of studies).

A significant Q statistic indicates that there is more variability across studies than would be expected by chance. In such cases, further examinations of the data were conducted to establish whether an outlier could be identified. An individual finding was considered to be an outlier if (a) it was an extreme value (highest or lowest), (b) the Q statistic was significant, and (c) the single finding accounted for more than 50% of the value of the Q statistic. When an outlier was detected, the results are reported with and without the exceptional case.

Fixed-effect estimates of recidivism rates were calculated using the formula and procedures presented in Hedges (1994). Random-effects estimates were calculated using Formulae 10, 12, and 14 from Hedges and Vevea (1998). Hand calculations or SPSS syntax was used for all analyses. Both fixed-effect and random-effects models were estimated for both the raw proportions (p) and the transformed proportions ($\check{A}$).

Results

A total of 2,490 offenders with an average follow-up time of 6.5 years were included in this review. Sexual, violent, and any recidivism were examined separately in the analyses. Table 2 presents the weighted averages of recidivism rates across studies. Table 3 and Figure 1 show the results of the meta-analysis of both raw and transformed proportions.

Table 2. Weighted Average Recidivism Rates of Female Sexual Offenders

	Type of Recidivism			Average Follow-Up (Years)
	Sexual	Violent	Any	
All studies	3.19% (77/2,416)	6.46% (146/2,260)	24.52% (590/2,406)	6.5
Without Vandiver (2007)	1.34% (26/1,945)	4.25% (76/1,789)	19.54% (378/1,935)	5.9
Male sexual offenders[a]	13.7%	25.0%	36.9%	5.5

Note: *N* = 20,000; Hanson and Morton-Bourgon (2004).

Table 3. Random and Fixed Effects Estimates of Recidivism

		Random		Fixed				
		%	95% C.I.	%	95% C.I.	*Q*	*N*	*k*
Sexual	*P*	2.43	0.82, 4.03	1.24	0.81, 1.68	52.86**	2,416	9
	W/o Van	1.00	0.56, 1.45	1.00	0.56, 1.45	6.92	1,945	8
	$\breve{A}$	2.33	0.47, 5.55	2.43	1.86, 3.09	80.34**	2,416	9
	W/o Van	1.28	0.83, 1.83	1.28	0.83, 1.83	5.63	1,945	8
Violence	*P*	7.57	3.40, 11.75	4.41	3.57, 5.25	55.62**	2,260	6
	W/o Van	4.64	2.13, 7.15	3.65	2.78, 4.52	12.00*	1,789	5
	$\breve{A}$	7.43	3.17, 13.29	5.81	4.89, 6.82	68.50**	2,260	6
	W/o Van	5.54	2.87, 9.01	4.08	3.21, 5.05	13.33*	1,789	5
Any	*P*	23.82	14.47, 33.17	22.35	20.73, 23.97	130.93**	2,406	8
	W/o Van	19.79	15.00, 24.59	18.96	17.22, 20.70	18.61*	1,935	7
	$\breve{A}$	23.30	14.40, 33.59	23.89	22.21, 25.61	136.38**	2,406	8
	W/o Van	20.17	15.50, 25.28	19.40	17.66, 21.19	18.12*	1,935	7

Note: *P* = raw proportions; w/o Van = without Vandiver (2007); $\breve{A}$ = arcsine transformed proportions; CI = confidence interval; *k* = number of studies.
*$p < .05$. **$p < .01$.

Sexual Recidivism Estimates

For sexual recidivism, the observed recidivism rates ranged from 0% to 10.8%, with a median value of 1.5%. In the nine studies reporting sexual recidivism rates involving 2,416 female sexual offenders, there were 77 sexual recidivists (3.19%). Fixed-effect analyses of the raw proportions and the transformed proportions produced estimates of 1.24% and 2.43%, respectively. Random-effects analyses produced estimates of 2.43% and 2.33%. The analyses showed a greater variability of recidivism among studies than would be expected by chance, and Vandiver (2007) was identified as an outlier. Once Vandiver was removed, the variability between studies was no more than would be expected by chance ($Q < df$; see Table 3). Without Vandiver,

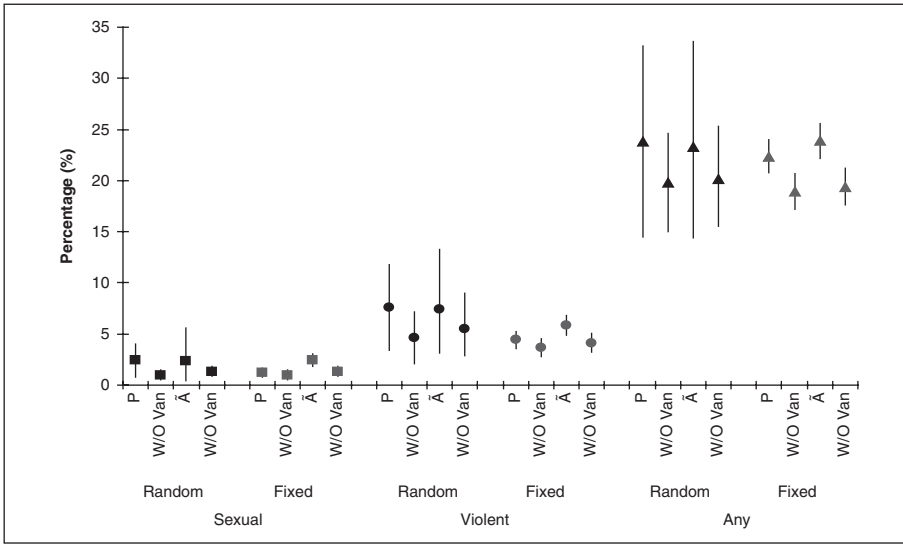

Figure 1. Percentages and confidence intervals of aggregated estimates of recidivism: Random and fixed effects

fixed-effect and random-effects estimates were the same: 1.00% for the raw proportions and 1.28% for the transformed proportions.

Violent Recidivism Estimates

For violent recidivism, of the seven studies involving 2,260 female sexual offenders, there were 146 violent recidivists (6.46%). The observed violent recidivism rates ranged from 1.2% to 16.6%, with a median value of 9.3%. Fixed-effect analyses of the raw proportions and the transformed proportions produced estimates of 4.41% and 5.81%, respectively. Random-effects analyses produced estimates of 7.57% and 7.43%. There was greater variability in the violent recidivism rates across studies than would be expected by chance, and Vandiver (2007) was again identified as the outlier. When the fixed-effect analyses were repeated without the Vandiver study, variability among studies dropped considerably but remained significant (Q = 12.00 and 13.33, respectively, $df = 4$, $p < .05$; see Table 3). Without Vandiver, the fixed-effect analyses of the raw proportions and the transformed proportions were 3.65% and 4.08%, respectively. Random-effects estimates were 4.64% and 5.54%, respectively.

Any Recidivism Estimates

For any recidivism, of the eight studies involving 2,406 female sexual offenders, there were 590 recidivists (24.42%). The observed rate for recidivism ranged from 11.1% to

45.0%, with a median value of 23.5%. Fixed-effect analyses of the raw proportions and the transformed proportions produced estimates of 22.35% and 23.89%, respectively. Random-effects analyses produced estimates of 23.82% and 23.30%. There was greater variability across studies than would be expected by chance, with Vandiver (2007) being the sole outlier. When the fixed effects analysis was repeated without the Vandiver study, variability among studies dropped considerably but remained significant, $Q = 18.61$ (raw proportions)] and 18.12 (transformed proportions), $df = 6$, $p < .01$; see Table 3. Without Vandiver, the fixed-effect analyses of the raw proportions and the transformed proportions were 18.96% and 19.40%, respectively. Random-effects estimates were 19.79% and 20.17%, respectively.

Discussion

This meta-analytic review found that the recidivism rates of female sexual offenders were much lower for all types of crime than the comparable rates for male sexual offenders. Specifically, the women had extremely low rates of sexual recidivism (between 1% and 3%), regardless of the studies included or the method of analysis. Violent (including sexual) recidivism rates were higher but still low: Depending on whether fixed or random effects were examined, violent recidivism rates ranged from 4% to 8%. In contrast, rates for any type of recidivism were higher, ranging from 19% to 24%. These results provide clear evidence that female sexual offenders, once they have been detected and sanctioned by the criminal justice system, tend not to reengage in sexually offending behavior. Most female sexual offenders are not convicted of any new crimes, and of those who are, they are 10 times more likely to be reconvicted for a nonsexual crime than a sexual crime (≈20% vs. ≈2%).

The low recidivism rates of the female sexual offenders are consistent with previous findings showing that, compared with men, women are less likely to be involved with any type of crime (Barker, 2009; Blanchette & Brown, 2006; Kong & AuCoin, 2008; Langan & Levin, 2002). Depending on the jurisdictions, women constitute approximately 17% to 23% of all adult offenders, although they constitute only about 10% of all violent offenders and 5% of all sexual offenders (Blanchette & Brown, 2006; Cortoni et al., 2009). Similarly, women also have lower recidivism rates than males. For offenders released from the Correctional Service of Canada during the 1990s, the 2-year reconviction rate for male offenders ranged between 41% and 44%, compared with rates of 23% to 30% for the female offenders (Bonta, Rugge, & Dauvergne, 2003). The rate of violent recidivism for the women was half that observed for the men in the Correctional Service of Canada samples (6.7% vs. 13.2%). In the United States, 39.9% of the women had been reconvicted for a new offense versus 47.6% of the men in a 3-year follow-up of 272,111 offenders, including 23,674 women (Langan & Levin, 2002).

Women's involvement in crime is generally low. The reasons for this are unclear—but the fact is well established (e.g., Blanchette & Brown, 2006), and it is particularly true of female sexual offenders (Giguere & Bumby, 2007). Despite low numbers,

women are increasingly coming to the attention of the criminal justice system for sexual offenses, thereby increasing the need for appropriate assessment practices. The accumulating evidence suggests that females have particular vulnerabilities that are linked to their sexually offending behavior. Specifically, social and psychological alienation, along with extensive histories of victimization, are particularly common among female sexual offenders (Comack & Brickey, 2007; Gannon, Rose, & Ward, 2008; Johansson-Love & Fremouw, 2006; Pollock, Mullings, & Crouch, 2002; Sommers & Baskin, 1993; Wijkman & Bijleveld, 2008). For these women, it is likely that their offending is related to early experiences of severe physical and sexual abuse in combination with biological (e.g., genetic factors; Quinsey, Skilling, Lalumière, & Craig, 2004) and social learning variables (e.g., socialization; Campbell, Muncer, & Bibel, 2001). The precise etiological mechanisms mediating the relationship between victimization and subsequent offending are unknown, as of yet.

In the overall collection of studies included in this meta-analysis, there was greater variability than would be expected by chance. Much of this variability could be explained by the high recidivism rates observed by Vandiver (2007). Vandiver's (2007) study was the only one in which the sexual recidivism rates were virtually identical for the male and female sexual offenders (11.4% vs. 10.8%, respectively). Vandiver (2007) counted as sexual recidivism any offense that led to the registration of the woman as a sexual offender, as defined by the State of Texas. This definition not only included the sexual offences typical of males, such as child molestation, but also included other types of offences, such as compelling prostitution, kidnapping, and Court or Board ordered registration (D. Vandiver, personal communication, October 14, 2008). The inclusion of prostitution-related offenses likely inflated the rate of sexual recidivism among the female sexual offenders as this type of offences was only present for the women in the study. Consistent definitions facilitate cumulative knowledge. In the male sexual offender literature, there have been sustained efforts to adopt consistent definitions of what constitutes a sexual crime (e.g., Hanson & Morton-Bourgon, 2004; Harris, Phenix, Hanson, & Thornton, 2003; Quinsey et al., 1995). In the current study, both the Vandiver (2007) and the Sandler and Freeman (2009) data sets included females who were actually only convicted of prostitution-related offenses. In contrast, males with only prostitution-related offenses are typically not viewed as sexual offenders. Future research on female sexual offenders would do well to consider standardizing the definitions of sexual offending by women. In particular, researchers should separate prostitution-related offences committed by females from sexual offences involving sexual acts directed toward victims unable or unwilling to consent (i.e., the sexual offences typical of contemporary samples of male sexual offenders).

This study demonstrated the value of meta-analysis in summarizing the recidivism rates across studies. Although it is possible to create averages by simply dividing the aggregated total of recidivists by the aggregated total sample size, meta-analysis provides estimates of the stability of the results. Evaluators and policy makers can have the most confidence in results that are consistent across studies. When there is

meaningful variation across studies, meta-analysis can identify statistical outliers and moderator variables. Furthermore, meta-analysis will have an essential role in the identification of recidivism risk factors for female sexual offenders. Given the low recidivism rates, very large samples are needed to identify factors that distinguish the recidivists from the nonrecidivists, samples that can most easily be obtained by accumulating female sexual offenders from different settings.

Implications for Applied Risk Assessment

The low base rates of sexual recidivism among female sexual offenders means that risk assessment tools for male sexual offenders will overestimate the recidivism risk of female sexual offenders. Consequently, they should not be used in applied decision making. Given that general (i.e., nonsexual) recidivism is much more common among female sexual offenders than sexual recidivism, evaluators should consider the use of tools validated to assess risk of general and violent (nonsexual) recidivism among these women (e.g., Level of Service Inventory–Revised; Andrews & Bonta, 1995). Even the use of general risk assessment tools, however, requires an understanding of the general research on risk factors and recidivism among female offenders (e.g., Blanchette & Brown, 2006; Folsom & Atkinson, 2007; Holtfreter & Cupp, 2007; Manchak, Skeem, Douglas, & Siranosian, 2009).

If the evaluation question specifically concerns the risk for sexual recidivism (e.g., Sexual Violent Predator laws in the United States), then the risk factors must be so blatant that they overcome the presumption of low risk for sexual recidivism implied by the observed base rates. The risk factors for sexual recidivism among females are unknown but could plausibly include the same three general factors generally identified for males (i.e., sexual deviancy, antisociality, intimacy deficits). Research to date, however, indicates that the ways in which these factors manifest themselves in female sexual offenders are different from the typical patterns found in male sexual offenders (see Cortoni, in press, for a review). In addition, the extent to which these factors actually play a role in sexual recidivism among women remains an open question.

Authors' Note

The views expressed are those of the authors and are not necessarily those of Public Safety Canada.

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Assessment, Treatment, and Supervision of Individuals with Intellectual Disabilities and Problematic Sexual Behaviors

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The Association for the Treatment of Sexual Abusers is an international, multi-disciplinary organization dedicated to preventing sexual abuse. Through research, education, and shared learning ATSA promotes evidence-based practice, public policy, and community strategies that lead to the effective assessment, treatment, and management of individuals who have sexually abused or are at risk to abuse.

ATSA is an association of individuals from around the world committed to achieving a high level of professional excellence. ATSA promotes the philosophy that empirically based assessment, practice, management, and policy strategies will: enhance community safety, reduce sexual recidivism, protect victims and vulnerable populations, transform the lives of those caught in the web of sexual violence, and illuminate paths to prevent sexual abuse.

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EXECUTIVE SUMMARY

Professionals providing treatment, supervision, and management to adult persons who have sexually offended recognize the unique needs of those individuals who have concomitant intellectual disabilities and problematic sexual behaviors (IDPSB). Problematic sexual behaviors are defined in this context as sexually offensive conduct that places either the client or others at risk for harm or social prejudice. The prevalence of persons with IDPSB varies between studies, but the results suggest that persons with IDPSB are over-represented in the criminal justice system. As a result, many practitioners providing assessment and treatment services to adults who have committed sexual offenses will at some point encounter persons with IDPSB. In this document, the following areas related to persons with IDPSB are explored:

- Standardized assessment
- Promising and effective treatment interventions
- Specialized supervision considerations.

Standardized Assessment for Persons with IDPSB

Policy and practice guidelines are emergent regarding persons who have sexually abused. In particular, issues remain with respect to best practices in the assessment, treatment, and case management of adults with IDPSB. In order to accurately provide treatment for this population, a comprehensive assessment is required specific to the individualized needs of clients, including an identification of risk factors. Problems have been noted in cases where standardized assessment measures originally designed for persons who are not intellectually disabled are used with persons with IDPSB. This document provides suggestions regarding appropriate assessment strategies—including risk assessment instruments—and emphasizes the necessity of proper identification of intellectual disability status. Failure to accurately identify deficits in cognitive abilities serves to decrease the potential for accurate assessment and, hence, effective case management.

Promising and Effective Treatment Interventions for Persons with IDPSB

Research has suggested that treatment for persons who have sexually abused can decrease sexual offense recidivism (Hanson, Bourgon, Helmus, & Hodgson, 2009; Lösel & Schmucker, 2005). However, in order for treatment to be effective, it must be individualized to meet the needs of the client, and no one treatment model meets the needs of all persons with IDPSB. This paper addresses the problems inherent in some of the more popular treatment models, most of which were developed primarily for clients who are not intellectually disabled. In addition, this paper offers suggestions regarding treatment modifications applicable to adult persons with IDPSB.

Specialized Supervision Considerations for Persons with IDPSB

Persons with IDPSB often receive community support services through local developmental disabilities agencies for adults. Yet, professionals who work with clients who have intellectual disabilities often do not possess knowledge or expertise related to sexually problematic behavior. Appropriate supervision and case management require cooperation and collaboration between the criminal justice system and social service entities. This document discusses two aspects of effective work with persons with IDPSB: chaperone training and the use of standardized risk assessment measures.

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Assessment, Treatment, and Supervision of Individuals with Intellectual Disabilities and Problematic Sexual Behaviors

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INTRODUCTION

The assessment and treatment of persons with intellectual disabilities and problematic sexual behaviors (IDPSB) is part of the overall scope of practice for members of ATSA who work with individuals adjudicated for the commitment of sexual crimes, as well as those persons who have not been adjudicated but who are receiving treatment or services for their sexual behavior problems. This introduction will briefly outline the various sections of the informational packet, as well as introduce the overall topic of the assessment and treatment of persons with IDPSB. In the context of this review, problematic sexual behaviors are those in which inappropriate, maladaptive, or dysfunctional sexual conduct places the client or others at risk for harm.

Persons with IDPSB who become involved with the criminal justice system experience a variety of disadvantages compared to persons with problematic sexual behaviors who do not have intellectual disabilities (ID), including social isolation, greater incidence of mental illness, and higher than average exposure to poverty (Hayes, 2012). In addition, a number of studies have shown that persons with ID have low levels of knowledge about sexuality (see Lunsky, Frijters, Griffiths, Watson, & Williston, 2007) and experience greater problems negotiating consent for sexual interactions than persons without ID (although these issues can improve with appropriate interventions—see Dukes & McGuire, 2009). Persons with ID who live in institutional settings may have their sexual rights diminished by policies or practices (see Aunos & Feldman, 2002) that often differ from prison, civil commitment, and community settings for reasons that may involve protection of the person with ID from others or vice versa. Aunos and Feldman (2002) noted in their review that disapproval of intimacy among persons with ID increased with greater degrees of intimacy between clients. It is commonly known that sexual interactions between persons with IDPSB in some custodial settings may increase the likelihood of new restrictions, charges, or prosecution, especially where issues of consent are raised. Given the known difficulties of some persons with ID in terms of sexuality and establishing consent, sexual interactions between persons with IDPSB are frequently poorly considered (and understood) attempts to establish intimacy based on a desire for social acceptance and possibly friendship. The issues of "what is allowed" and why limits exist regarding sexual expression may require greater explanation so that persons with IDPSB will have a better understanding of what is expected of them with respect to sexual expression.

Some countries (e.g., Australia, Canada, the United States, and the United Kingdom) have established policies and practices regarding specialized treatment programs for persons with IDPSB, some of which were based on the seminal work of Haaven and colleagues (Haaven, Little, & Petre-Miller, 1990). Since that time, treatment programs for persons with IDPSB have been greatly expanded in terms of

theoretical and practical approaches, including cognitive-behavioral interventions (e.g., Blasingame, 2005), self-regulation applications of the relapse prevention model (e.g., Keeling, Rose, & Beech, 2006), and an integrative treatment workbook that incorporates current principles of effective treatment for persons who have sexually offended (e.g., relapse prevention and the Good Lives Model—see Lindsay, 2009). All or most of these programs adhere to aspects of the Risk-Need-Responsivity (RNR) model of Andrews and Bonta (2010) but, given that the risks, treatment needs, and learning styles of persons with IDPSB often differ markedly from those of persons without intellectual disabilities, additional modifications have been necessary.

A study by Jones (2007) noted that the overall international prevalence of persons with IDPSB can vary between 2% and 40% of the total number of persons with adjudicated sexual offense histories, depending on how ID is defined or measured. However, if one looks at standardized IQ testing methodologies, then the issue of prevalence becomes clearer, especially when we consider the apparent over-representation of persons with IDPSB in the criminal justice system. Taking into account the standard error of measurement of most standardized IQ tests, an individual generally needs to score two or more standard deviations below the mean of 100 IQ points to be eligible for a diagnosis of intellectual disability. Therefore, the normal distribution of IQ would suggest that less than 3% of all individuals would score 70 points or less on a standardized IQ test. The vast majority of prevalence studies of adjudicated persons with IDPSB offer percentages 10 to 15 times higher than that suggested by the normal distribution, again suggesting an overall over-representation of persons with IDPSB in the criminal justice system (Guay, Ouimet, & Proulx, 2005; Petersilia, 2000).

The development of tools for assessing treatment needs and risk has not evolved at the same pace as the development of treatment programs, but there are a number of developments detailed in this document. This informational packet will provide examples of "best practices" when working with persons with IDPSB, an area that may seem highly specialized to some practitioners. However, if one looks only at adjudicated persons with IDPSB, as noted above, it is estimated that up to a third or more of the total number of individuals with adjudicated sexual offense histories also have an intellectual disability (Jones, 2007). Hence, it is very likely that anyone working with persons convicted of sexual offenses will encounter persons with IDPSB at some point in the course of his or her work. Thus it is essential that practitioners be informed about effective assessment and treatment options for this unique group of clients to ensure that efforts to reduce reoffense risk are as effective as possible. Readers will notice that this document is, by its brevity, not all inclusive, but there are many resources noted in the body of this packet that will provide additional information to practitioners. It is beyond the scope of this informational packet to be exhaustive on any one topic, and this certainly may be said of each section herein. It is hoped that each section will pique readers' interest to the relevant issues in working with adult persons with intellectual disabilities and problematic sexual behavior, in addition to providing references and resources that will help enrich their knowledge and practice repertoire.

ASSESSMENT

OVERVIEW The initial assessment of persons with IDPSB will be dependent on the nature of the referral question. Many initial assessment referrals will be concerned with issues such as whether the person being assessed has an intellectual disability, what the individual's risk level for future sexual violence may be, or whether the person has a concurrent mental disorder. This section will address the assessment of treatment needs regarding sexual behavior; however, it is also important to ensure that attention is paid to specific referral issues.

DIAGNOSTIC ISSUES Persons with ID are variously described in the current assessment and treatment literature as mentally retarded, learning disabled, developmentally delayed, and intellectually disabled. In the present document, we follow the lead of the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (American Psychiatric Association [APA], 2013), which has dropped the term "mental retardation" used in DSM-IV-TR (APA, 2000) and adopted the more internationally accepted term "intellectual disability" that the DSM-5 notes is the "equivalent term for the *ICD-10* diagnosis of 'intellectual developmental disorders.'" A person may be diagnosed with an intellectual disability using DSM-5 if that person meets three diagnostic criteria (p. 33):

1. **Criterion A:** The person has "deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing" (p. 33). DSM-5 explains in detail how this criterion may be comprehensively assessed using IQ tests (see page 37).
2. **Criterion B:** The person has "deficits in adaptive functioning that result in failure to meet developmental socio-cultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community" (pp. 33, 37–38).
3. **Criterion C:** The person experiences the "onset of intellectual and adaptive deficits during the developmental period" (p. 33).

DSM-IV-TR differentiated the degree of mental retardation according to IQ ranges. In DSM-5, the coding of current severity of intellectual disability is "defined on the basis of *adaptive functioning and not IQ scores*" (emphasis added), because it is adaptive functioning that determines the "level of supports" that the individual will require (p. 33). DSM-5 provides a three-page table describing at length how someone in the mild, moderate, severe, and profound levels of intellectual disability would differ in the conceptual, social, and practical domains, with clear examples for children, adolescents, and adults within each domain and across levels (pp. 34–36). For new and experienced practitioners alike, the DSM-5 section on intellectual disability is a very useful piece of applied scholarship.

ASSESSMENT OF TREATMENT NEEDS

1. **Sexual Interests:** Given the importance of sexual deviations as a risk issue, the assessment of sexual interests, particularly sexual preferences, is an important pre-treatment issue. Many authors acknowledge

that sexual preference and sex drive are also issues for persons with IDPSB, given evidence of persistent offending noted in some clients (e.g., Lindsay, 2009). Having a good understanding of sexual interests and preferences is important in determining treatment planning. Unfortunately, assessment options for persons with IDPSB have not been well founded in the research, as noted in the following.

Some authors (e.g., Keeling, Beech, & Rose, 2007) recommend using the *Multiphasic Sex Inventory II* (MSI II—Nichols & Molinder, 2000) to assess sexual interests. The Grade 7 reading level of this instrument may be problematic for persons with IDPSB, and the tests are lengthy (560 items); however, it is available on audiotape for persons with learning or reading difficulties. Unfortunately, the MSI II has not been validated with persons with IDPSB. Penile plethysmography (PPG—see Freund & Blanchard, 1989) is often used to assess sexual preferences in persons who have sexually offended; however, issues of validity and reliability of PPG with persons with IDPSB remain, despite a lengthy history of its use with this group (see Wilson & Burns, 2011). A promising development in this area is the *Abel–Blasingame Assessment System for Individuals with Intellectual Disabilities* (ABID—Abel & Blasingame, 2005). The ABID is a viewing time and questionnaire method for the assessment of sexual interests that has been validated on a large sample of persons with IDPSB (Blasingame, Abel, Jordan, & Weigel, 2011). Although validated tools for assessment are relatively scarce, having a systematic inquiry into the client's sexual interests can provide useful information, over and above reviewing documentation as part of the assessment.

2. **Attitudes Supportive of Offending:** There is a range of options for assessing attitudes and beliefs related to sexuality, victims, and offending for persons with IDPSB. The *Questionnaire on Attitudes Consistent with Sex Offending* (QACSO—Broxholme & Lindsay, 2003) is a well-validated instrument for the assessment of attitudes supportive of offending for persons with IDPSB. The QACSO has good psychometric support for use with persons with IDPSB, although the lack of North American research samples is potentially problematic for widespread adoption without cross-validation. This instrument assesses attitudes regarding a variety of offending areas, including sex with children, dating abuse, voyeurism, and homosexual assault.

   Some of the measures of offense-supportive attitudes have been based on instruments designed for persons who have sexually offended who do not have an intellectual disability. The *Abel–Becker Cognition Scale* (ABCS—Abel, Becker, & Cunningham-Rathner, 1984) has been adapted for persons with IDPSB (see Kolton, Boer, & Boer [2001], as reported by Keeling, Beech, and Rose, 2007).

3. **Sexual Knowledge:** The literature regarding persons who have sexually offended who are not intellectually disabled suggests that low levels of sexual knowledge are not predictive of reoffending; however, there is some cause to believe that this may not be the case for persons with IDPSB (see Lunsky et al., 2007). Part of this is likely due to the fact that many persons with ID do not have the same educational opportunities regarding sexuality (Wilson & Burns, 2011). The *Assessment of Sexual Knowledge* (ASK—Galea, Butler, Iacono, & Leighton, 2004) is an instrument that examines sexual knowledge, as well as cognitive distortions related to sexual offending for persons with IDPSB. Another tool in this area with very good psychometric properties is the *Socio-Sexual Knowledge and Attitudes Assessment Tool–Revised* (SSKAAT-R—Griffiths & Lunsky, 2003; Lunsky et al., 2007).

Many instruments addressing sexual knowledge in persons with IDPSB are subject to criticisms regarding small sample sizes, item transparency, or lack of replication—potentially leading to problems in reliability and validity.

4. **Socio-Affective Functioning:** This area of assessment refers to how well a client is able to relate to others socially and emotionally (e.g., social inadequacy, anger, loneliness). Many of these issues may be explored by clinical interview, but there are also many instruments available in this area for use with persons with IDPSB.

   Instruments with acceptable psychometric properties for use in this area with persons with IDPSB include the *UCLA Loneliness Scale–Revised* (Russell, 1996) and the *Relationship Questionnaire* (Bartholomew & Horowitz, 1991). A study by Williams, Wakeling, and Webster (2007) studied six instruments adapted for use with persons with IDPSB. These included the *Sex Offender's Self-Appraisal Scale* (Bray & Foreshaw, 1996), the *Sex Offender's Opinion Test* (Bray, 1997), and four instruments adapted for use with persons with IDPSB by Her Majesty's Prison Service (UK), including the *Adapted Victim Empathy Consequences Task*, the *Adapted Relapse Prevention Interview*, the *Adapted Self-Esteem Questionnaire*, and the *Adapted Emotional Loneliness Scale*. Other than the last instrument, these adapted assessments were based on instruments designed by Thornton (see Williams et al. [2007] for the original and adapted references); all were found to have reasonable psychometric properties; and all but the last instrument showed expected pre/post-treatment changes.

   The *Novaco Anger Scale* (Novaco, 2003) has ample data for use with persons with intellectual disabilities in general, but there is less data support for use of this instrument with persons with IDPSB in particular.

5. **Self-Management:** Deficits in planning, problem solving, and the ability to regulate impulses are related to offending risk. Relevant instruments include the *Adapted Relapse Prevention Interview* (see Williams et al., 2007), the *Social Problem Solving Inventory–Revised* (D'Zurilla, Nezu, & Maydeu-Olivares, 2002), and the *Barratt Impulsiveness Scale* (11th edition—Patton, Sanford, & Barratt, 1995).

RISK ASSESSMENT Persons with intellectual disabilities often do not have—or, at times, are not allowed to have—the same range of life experiences as those who are not intellectually disabled. These differences require sensitive application of differential diagnostics and risk assessment processes, which can present significant challenges for evaluators. Evaluating risk posed by clients with intellectual disabilities sometimes requires a degree of creativity. As noted above, many of the tools traditionally used in evaluating sexual offense risk were created for use with non-intellectually disabled, male adult clients. For this reason, traditional tools may not be very helpful with some clients, but may still be useful with others. Thankfully, the research and practice literature regarding intellectual disability and problematic sexual behavior is starting to grow, to the extent that there are now more tools designed specifically for this clientele.

The last 15 to 20 years have been witness to considerable growth in the methods and technologies available to professionals seeking to evaluate the risk for reoffense posed by persons who have engaged in sexually abusive behavior, regardless of disability status. Whereas historical evaluators were

forced to rely on anecdotal research reports and unstructured clinical judgment (see Monahan, 1981), contemporary assessors now have a variety of tools available to assist in anticipating future offending.

There is good reason to propose that these new tools have improved our ability to assess and manage risk and that their use may also help explain the significant decreases in observed rates of sexual reoffending (see Finkelhor & Jones, 2004; Helmus, 2009; Wilson, Cortoni, Picheca, Stirpe, & Nunes, 2009). However, the *majority* of the most popular tools in our business were developed for the *majority* of clients—male adults with histories of sexual offending. This means that assessment, treatment, and management professionals working with other groups, such as females, juveniles, and individuals with mental illness or intellectual disabilities, have been at something of a disadvantage—at least until recently. In this short review, we will consider the processes and tools available to clinicians attempting to assess the level of risk that persons with IDPSB pose to the community.

The Risk-Need-Responsivity model (Andrews & Bonta, 2010) provides practitioners with a set of overarching principles regarding risk potential, treatment/criminogenic need areas, and individual client characteristics and learning styles. The risk principle is particularly pertinent, in that a comprehensive risk assessment will provide significant guidance regarding client placement, treatment need, and ongoing case management concerns. In conducting assessments—particularly risk assessments—we must gather as many details as we can about the individual who committed the offense, his or her circumstances, and any other relevant details that will help us understand what happened, why it happened, and what the chances are that it might happen again. Risk assessment data are also used to compose risk management plans (see Supervision section).

To adequately and comprehensively assess risk of reoffending, it is important to consider a wide variety of factors and variables, both historical and contemporary. As with other populations, persons who sexually offend are unlikely to present risk in only one area; that is, they often pose a risk to engage in other antisocial or dysfunctional actions. In order to gather sufficient information to make useful judgments about risk, a number of domains and procedures should be considered. When obtaining assessment information from these sources, it is worth considering that all self-reports include some degree of bias due to different demand situations of the persons offering the data. This is why accessing multiple sources of information is an important part of increasing the reliability of assessment processes. The following sources may be considered:

- A structured interview between the person who has committed the offense and the individual performing the assessment
- Self-reports, from both victims (or victim statements, when available) and client
- Collateral contacts (family, friends)
- Police reports, prior criminal justice reports, etc.
- Other official documents, such as court transcripts, judge's reasons for sentencing, pre-sentence reports, etc.

- Any prior mental health reports, psychological tests, actuarial risk assessment measures, results of sexual preference/interest testing, etc.
- Actuarial risk assessment instruments (ARAIs) and measures of dynamic risk/criminogenic need.

PARAPHILIAS AND SEXUAL DEVIANCE Anomalies in sexual preference and behavior are generally known as paraphilias (e.g., pedophilia, exhibitionism, sexual sadism—see APA, 2013). In two influential meta-analyses, Hanson and associates (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005; see also Mann, Hanson, & Thornton, 2010) identified sexually deviant interests as being a particularly robust predictor of future offending. Blasingame (in press) suggested that psychosexual variations may be assessed using penile plethysmography, measures of attention or viewing behavior, self-report questionnaires, or clinical interviews. Blasingame also notes that application of these methods to persons with intellectual disabilities requires a degree of adaptation of the procedures involved. For example, some commentators have questioned the applicability of traditional measures of sexual interest and arousal with persons with intellectual disabilities (see Wilson & Burns, 2011)—especially given that many of these procedures were standardized on non-intellectually disabled persons. The *Abel–Blasingame Assessment System for Individuals with Intellectual Disabilities* (ABID—Abel & Blasingame, 2005; see also Blasingame et al., 2011) is an information-gathering system designed specifically for individuals with very low cognitive functioning. In addition to a viewing time protocol, the ABID includes a number of self-report questionnaires administered by the evaluator, all of which assist in providing information regarding client sexual interests and preferences.

ACTUARIAL RISK ASSESSMENT INSTRUMENTS (ARAIs) The following are examples of static ARAIs in current common use:

- *Static-99R* (Helmus, Thornton, Hanson, & Babchishin, 2012)
- *Mn-SOST-3* (Duwe & Freske, 2012)
- *Sex Offender Risk Appraisal Guide* (SORAG—Quinsey, Harris, Rice, & Cormier, 2005).

Additionally, dynamic ARAIs are available, such as:

- *Structured Risk Assessment–Forensic Version* (SRA-FV—Thornton, 2002)
- *Violence Risk Scale: Sexual Offender Version* (VRS-SO—Olver, Wong, Nicholaichuk, & Gordon, 2007)
- *Sexual Offender Treatment Intervention and Progress Scale* (SOTIPS—McGrath, Lasher, & Cumming, 2012)
- *Stable-2007* (Hanson, Harris, Scott, & Helmus, 2007).

Structured professional judgment frameworks are also available (e.g., *Sexual Violence Risk-20* [SVR-20—Boer, Hart, Kropp, & Webster, 1997] and the *Assessment of Risk and Manageability for Individuals with Developmental and Intellectual Limitations who Offend–Sexually* [ARMIDILO-S—Boer et al., 2012]), in addition to a multitude of specialized indices designed to assess important aspects of clients' cognitive and behavioral presentations as well as historical factors (see Appendix in Wilson & Burns, 2011). At present, there is no static ARAI specifically produced for persons with IDPSB, and there is only a small amount of research reporting on the utility of existing scales with this population.

One early report (Tough, 2001) suggested that the *Rapid Risk Assessment of Sex Offender Recidivism* (RRASOR—Hanson, 1997) performed slightly better than the popular *Static-99R* (Hanson & Thornton, 2000; Helmus, 2009); however, subsequent cross-validation research has suggested that the latter—as well as the *Static-2002R*—is likely to provide more accurate ratings in this population (Hanson, Sheahan, & VanZuylen, 2013). It is reasonable to expect that other static ARAIs (e.g., *Violence Risk Appraisal Guide/Sex Offense Risk Appraisal Guide* [VRAG/SORAG]—Quinsey et al., 2005; *Risk Matrix-2000* [RM-2000]—Thornton et al., 2003) would also provide assistance in anchoring risk judgments; however, additional research is required (see Lindsay et al., 2008). The concept of "anchoring" risk judgments with static ARAIs comes from the literature showing that clinical judgment is often too subjective to provide a solid foundation (Monahan, 1981). Research demonstrating the value added by "objective" processes (see Quinsey et al., 2005) shows that the majority of the variance in risk assessment of persons who have sexually offended is likely to be tapped by actuarial methods focusing on static/historical variables. Notwithstanding research supporting the use of static ARAIs, some researchers have questioned the validity of such indices for use with persons with intellectual disabilities (e.g., Wilcox, Beech, Markall, & Blacker, 2009). Practitioners in the field frequently note that persons with intellectual disabilities seem to be at a disadvantage in regard to some of the factors included in *Static-99R* (e.g., "Ever Lived with a Lover"—see Hanson et al., 2013). This is due, in part, to the likelihood that persons with intellectual disabilities will face greater challenges in regard to dating and may more often be found in group housing environments with peers of the same gender. Overall, additional research will be required, but at the present time there is support for the judicious use of static ARAIs in anchoring risk judgments made about persons with intellectual disabilities and problematic sexual behavior.

Regarding the potential for violence and general reoffending, there are other static and/or dynamic ARAIs that may be used. For example, the *Level of Service Inventory–Revised* (LSI-R—Andrews & Bonta, 1995) is a tool commonly used for evaluation of general risk potential, whereas the VRAG (Quinsey et al., 2005) is a helpful predictor of engagement in violence, including in regard to persons with intellectual disabilities (see Lofthouse et al., 2013). Although not strictly a measure of risk to engage in violence, there is support for the proposition that those clients who present with highly entrenched antisocial values and attitudes (e.g., psychopathy as measured by the *Psychopathy Checklist–Revised* [PCL-R]—see Hare, 2003) are at greater risk in this domain (see Quinsey et al., 2005). Research has shown that this construct of highly entrenched antisociality is also applicable for persons with intellectual disabilities (Morrissey, Mooney, Hogue, Lindsay, & Taylor, 2007).

MEASURES OF DYNAMIC RISK/CRIMINOGENIC NEED The field of risk management for persons who have sexually offended has seen a recent surge in the popularity of measures of dynamic risk potential. Whereas static actuarial scales measure risk markers that are largely historical in nature (i.e., what the client *has done*), dynamic scales focus on predictors based largely on personality, values and attitudes, and other changeable lifestyle elements (i.e., who the client *is*). Contemporary research suggests that comprehensive risk assessment protocols are more accurate when they consider both these aspects (see Harris & Tough, 2004; Mann et al., 2010). For non-intellectually disabled clients, the SRA-FV (Thornton, 2002), VRS-SO (Olver et al., 2007), and *Stable-2007* and *Acute-2007* (Hanson et al., 2007) enjoy relative degrees of favor, depending on jurisdiction.

Currently, research is ongoing as to how to conduct useful dynamic assessments with the IDPSB population. Boer, Haaven, and associates (2012; see also Boer, McVilly, & Lambick, 2007; Boer, Tough, & Haaven, 2004) have been working to establish the ARMIDILO-S as a useful structured professional judgment tool for measuring dynamic risk specifically in persons with intellectual disabilities. Additionally, the *Treatment Intervention and Progress Scale for Sexual Abusers with Intellectual Disability* (TIPS-ID—see McGrath, Livingston, & Falk, 2007) is similar to the ARMIDILO-S in terms of the risk factors considered, and both instruments serve as a structured approach when evaluating dynamic, changeable characteristics within the individuals' psychosocial and contextual environment (Blasingame, in press). Recently, McGrath has suggested that a separate dynamic risk assessment tool designed specifically for persons with IDPSB may be unnecessary due to overlap between factors for persons with and without ID, but the use of the TIPS-ID is recommended for case management decisions (Blasingame, in press).

Of the measures of dynamic risk noted above specific to clients with intellectual disabilities, the ARMIDILO-S has been subject to recent investigation as to its predictive and clinical utility. This instrument follows the dynamic risk framework suggested by Hanson and Harris (2001), and many of the items are similar in concept to those included in the *Stable-2007* and *Acute-2007* (Hanson et al., 2007). The ARMIDILO-S employs structured professional judgment to rate dynamic risk, and it incorporates a static actuarial risk rating (i.e., scored externally and separately to the ARMIDILO-S, such as the Static-99R). It includes several items grouped in four categories of risk factors (client-stable, client-acute, environment-stable, and environment-acute). Of particular assistance, these factors may be considered as being either risk enhancing or protective.

The ARMIDILO-S has demonstrated predictive accuracy ratings ranging from moderate to good (see Blacker, Beech, Wilcox, & Boer, 2011; Lofthouse et al., 2013). Lofthouse et al. (2013) suggested that the ARMIDILO-S outperformed both the Static-99 and VRAG in ability to predict sexual recidivism, whereas Blacker and associates (Blacker et al., 2011) suggested that it also outperformed the RRASOR (Hanson, 1997) and the RM-2000-V (Thornton et al., 2003). However, it is important to note that these studies (Lofthouse et al. [2013] and Blacker et al. [2011]) have particularly small sample sizes, which calls into question current perspectives on the overall stability and predictive utility of the ARMIDILO-S. More research is required before anything definitive may be said about the potential utility of this tool over existing ARAI measures.

SUMMARY AND RECOMMENDATIONS Before using specialized testing, it is critical to identify whether the client being assessed is intellectually disabled. Failure to identify a client as a person with ID may result in that person receiving inadequate or inappropriate services, not benefitting from the treatment received, and not appropriately managing whatever risks the client poses or experiences. In addition, practitioners will need to remember a few important points:

1. Evaluators will need to consider the intellectual challenges faced by clients, specifically:
    a. General and functional illiteracy
    b. Problems with memory
    c. Problems with receptive and expressive language
    d. Diminished social abilities (especially for those with issues on the autism spectrum).

2. It is important to reduce reliance on verbal materials and processes.
    a. The use of diagrams and pictures can be helpful.
    b. Where verbal materials are unavoidable, information is best acquired using processes that are simplified, concrete, and repetitive.
3. Persons with intellectual disabilities typically have much less knowledge and education regarding many aspects of life, including sexuality. Therefore, education in this area is important.
4. External/environmental factors exert greater influence on persons in care settings (e.g., hospitals, group homes, etc.)

Best practice in risk assessment is to be as comprehensive and holistic as possible. Evaluators must also take care to use tools validated on or specifically produced for use with the client population being assessed. Given the nascent status of the research literature regarding persons with IDPSB, this has been something of a challenge to both evaluators and clinicians. Nonetheless, much like their neurotypical peers, persons with intellectual disabilities can learn to manage their sexual behavior problems and, as such, they deserve appropriate assessment, treatment, and post-release supervision—all of which require tools and processes specific to their clinical and risk management needs.

TREATMENT

HISTORY During the "deinstitutionalization" movement of the 1950s and 1960s in the United States, there was increased attention to persons with IDPSB. The first article outlining advanced practices in addressing persons with IDPSB was by Murphy and colleagues (Murphy, Coleman, & Haynes, 1983). Two programs starting in the late 1970s—one in Canada (Griffiths, Quinsey, & Hingsburger, 1989) and one in the United States (Haaven et al., 1990)—outlined the first programming descriptions for persons with IDPSB. These early programs relied heavily on research and intervention strategies developed for non-intellectually disabled male adults who had sexually offended. Although it may have been expedient to borrow from this existing literature, the ultimate answer to addressing this issue lies in a comprehensive understanding of the characteristics and nature of persons with IDPSB. Over the past 20 years, there has been a significant increase in the body of research on this subject. Two books (Lindsay, 2009; Lindsay, Taylor & Sturmey, 2004) provide a comprehensive collection of research on this topic.

TREATMENT PRINCIPLES AND MODELS There is no single treatment model that addresses all of the unique characteristics of this population. With respect to persons with IDPSB, there is a consensus in the field that best practice approaches are drawn from a variety of principles and theoretical models. Two books in particular (Lindsay, 2009; Wilson & Burns, 2011) provide useful descriptions and overviews of various theories and models of treatment for both non-intellectually disabled clients and persons with IDPSB.

In the 1980s, the Relapse Prevention model (RP—Pithers, Marques, Gibat, & Marlatt, 1983) became the predominant treatment model for persons who had sexually offended. RP is a self-management, skill-based approach to preventing risky behavior from escalating to a criminal sexual offense. In the

past, most programs for persons with IDPSB used the RP model as a framework for treatment, even though there were limitations to its use with this population. Persons with IDPSB have been observed to experience difficulty in identifying subtleties of risk situations, in addition to learning sequential chains of events (Haaven, 2006). Over time, RP has been used less frequently as an overarching model of change in sexual abuse treatment. However, the central concepts of identifying precursors to risk and implementing corresponding avoidance strategies continue to be helpful components in comprehensive approaches to treatment. The RP model provides a useful framework for staff to develop external supports around a person with IDPSB's pattern of risk situations, and it serves as a tool for staff intervention in the community.

Counterfeit deviance (Hingsburger, Griffiths, & Quinsey, 1991) is one of a number of hypotheses that attempt to explain the origin and manifestation of problematic sexual behaviors in persons with ID. The central hypothesis is that sexual behavior in some persons with IDPSB may seem as if it may be driven by deviant interests (which may also be unlawful) or arousal but, when all the circumstances are considered, the reason for the behavior is less deviant. In this regard, it is important to distinguish between paraphilic (i.e., sexually deviant) behaviors and unlawful behaviors. For example, many persons with IDPSB live in environments where there is little opportunity for privacy, including when engaging in personal sexual behavior. Some individuals in these circumstances engage in "public masturbation"; however, this behavior may be more a function of the situational restrictions than being indicative of sexually deviant intentions (e.g., exhibitionism). Although several studies have questioned the validity of the counterfeit deviance hypothesis (Lunsky et al., 2007; Michie, Lindsay, Martin, & Grieve, 2006; Talbot & Langdon, 2006), it does bring attention to a couple of important points. First, persons with IDPSB may lack an awareness of the extent to which their acts are socially unacceptable (Lindsay, 2009) and, second, it is important to address environmental factors, especially regarding the degree to which they may increase risk for sexual offending.

The Risk/Need/Responsivity model The Risk/Need/Responsivity model (RNR—Andrews & Bonta, 2010) of effective interventions integrates a psychology of criminal conduct into an understanding of how to reduce recidivism while increasing clients' prosocial capacities. This model has been applied to persons with IDPSB, although no research has been conducted specific to this population. The three core principles are as follows:

- *Risk:* Intensity of services provided should be matched to the level of risk posed by the client.
- *Need:* Treatment targets should be clearly linked by research to reoffending, and treatment planning should be individualized to the specific criminogenic profile of the client.
- *Responsivity:* Use of effective methods (e.g., primarily those that are cognitive-behavioral and skills-based) ensures that treatment is adjusted to the learning style and clinical presentation and unique qualities of the individual, thereby maximizing the therapeutic alliance between client and treatment provider and resulting in increased motivation.

The Old Me/New Me model The Old Me/New Me model (Haaven, 2006; Haaven & Coleman, 2000) identifies six principles that guide treatment for persons with IDPSB: develop a positive self-identity, increase self-efficacy, increase capability to meet basic needs, manage dynamic risk factors, focus on

approach goals, and develop capacity to establish and maintain wrap-around supports in the community. Central to the model is the use of the terms "Old Me" and "New Me." The labeling of appropriate and inappropriate thoughts and behaviors is a narrative used to describe and discuss the internal struggle that goes on between the "Old Me" and "New Me" when managing risk and life decisions.

The Pathways/Self-Regulation model The Pathways/Self-Regulation model (Ward & Hudson, 1998) is based on self-regulation theory, in which persons with IDPSB engage in goal-directed behavior impacted by internal and external circumstances and events that direct this behavior. Persons with IDPSB may offend by following one of four pathways that have been identified in the model. The pathways represent two types of goals—avoidant and approach—and two types of regulation—passive and active. Two studies (Keeling et al., 2006; Lindsay, Steptoe, & Beech, 2008) suggest that the vast majority of persons with IDPSB use approach pathways versus avoidance pathways, which somewhat limits the utility of the model. As more discrimination of pathways for persons with IDPSB is identified, this model may have increased utility.

The Good Lives Model The Good Lives model (GLM—Yates, Prescott, & Ward, 2010) is a comprehensive extension of the Old Me/New Me model. It focuses on the client developing a balanced, prosocial personal identity and goal-seeking to develop a life that is healthy, self-determined, and free of risk for offending. It is assumed that if clients develop skills, beliefs, and values to prosocially obtain primary human goods or valued outcomes, they are less likely to reoffend as a means of meeting those primary needs (Yates et al., 2010). What makes this model different from others listed here is that it seeks to prescriptively identify prosocial replacement goals and behaviors for the clients' criminogenic needs that are motivating the offending behavior.

Most professionals view the models above as appropriate for use with persons with IDPSB. The following are common components of "best practice" treatment interventions drawn from the models detailed above:

- Use cognitive-behavioral approaches that are skill-based.
- Match intensity of treatment programming to risk level.
- Ensure that treatment programs principally target the problem areas most related to offending.
- Individualize treatment plans to the specific criminogenic needs of the client.
- Increase motivation through attention to responsivity.
- Intervene in offending patterns.
- Focus on personal identity, increasing self-efficacy and approach goals.
- Develop compensatory strategies specific to offending pathways.
- Address environmental influences and concerns.
- Increase basic skills for community engagement.
- Develop wrap-around risk management supports within the community.

TREATMENT MODIFICATIONS There are more similarities than there are differences in treatment methods used with persons with IDPSB and those used with persons with similar histories who are not intellectually disabled (Coleman & Haaven, 2001). Adjustments are necessary when adapting treatment principles and strategies for persons with IDPSB from models for treating persons without IDPSB, owing to the former's unique developmental issues, vulnerabilities, and skill deficits.

Responsivity has always been a central focus for clinicians working with persons with IDPSB, especially in regard to learning style, cognitive ability, and life circumstances. Group and/or individual therapy is usually required with this population (Haaven, 2006). In group therapy, the facilitator needs to maintain a heightened awareness of information discussed so as not to introduce new or inappropriate imagery. Persons with IDPSB need to be aware of the consequences of their actions, many of which have often been overlooked; however, focusing solely on consequences can have a negative impact on motivation. Clinicians have historically relied on contingency programming (e.g., token, level systems, etc.) and consequential learning to motivate persons with IDPSB in treatment. Motivating persons with IDPSB requires a wide range of strategies, and it is important to maintain attention on the therapeutic alliance and use of motivational interviewing principles (Miller & Rollnick, 2002). Additional useful strategies are increasing attention to the design of positive structured living environments, focusing on strengths before focusing on challenges, providing frequent progress reviews to the client, fostering prosocial group cohesion, making self-disclosure a motivating process, and focusing on developing a prosocial and empowered self-identity (Haaven, 2006).

Many programs focus on identifying and interrupting offending behavior cycles (relapse prevention). In this regard, several interventions have been designed specifically for persons with IDPSB (see descriptions and frameworks in *Developmentally Disabled Persons with Sexual Behavior Problems* by Blasingame [2005], *Footprints: Steps to a Healthy Life* by Hansen and Kahn [2005], *Healthy Choices* by Horton and Frugoli [2001], *The Treatment of Sex Offenders with Developmental Disabilities* by Lindsay [2009], and *Intellectual Disability and Problems in Sexual Behaviour: Assessment, Treatment, and Promotion of Healthy Sexuality* by Wilson and Burns [2011]). Haaven (2006) suggested that, for some individuals, learning about their offending patterns can be useful, but it is not always necessary to teach a specific chain of events (or cycle) to reoffense. Instead, the individual can match specific, behavioral high-risk situations with corresponding interventions. Learning one's "cycle" in a group therapy setting often does not generalize well for application in the community; generalization requires significant rehearsal in various community settings and situations.

Commitment and active engagement in the community (work, play, and personal attachments) and societal norms and values are important treatment focuses for persons with IDPSB. Involvement in the community is reflected in the Old Me/New Me model and GLM, but Lindsay (2005) was the first to elucidate the theoretical importance. The focus needs to be on physical and material surroundings that increase quality of life and, most importantly, on prosocial influences and full community integration (Lindsay, 2009).

Central treatment targets for this population include meeting unmet basic needs and addressing dynamic risk factors (criminogenic needs—see Haaven, 2006; Yates et al., 2010). Common basic skill areas for focus in treatment programming are:

- Communications
- Sexual education (consent, appropriate touch, and healthy expression of sexuality)
- Seeking help
- Moral reasoning (right from wrong)
- Leisure activities
- Other skills identified as important in community integration.

Basic skill training should be presented within the context of relationship development and community integration (Haaven, 2006).

The dynamic risk factors identified for individual persons with IDPSB are the primary focus of treatment, in keeping with the need principle. Common risk factors addressed in treatment are general self-regulation, relationships and intimacy deficits, distorted attitudes, and sexual self-regulation. Self-regulation to manage emotional impulses is addressed primarily by identification and management of feeling states, with additional focus on impulse management strategies, including problem solving. Relationship-building skills should be a central focus throughout the treatment process, with other basic life skills introduced within that context (Blasingame, 2005; Haaven, 2006). Distorted attitudes and deviant sexual self-regulation are addressed primarily by learning avoidance strategies, cognitive restructuring, and implementing appropriate replacement behaviors (e.g., promotion of approach goals). Where there are psychiatric conditions (e.g., paraphilias, hypersexuality) that lead to elevated sexual arousal, pharmacological interventions may be indicated. Behavioral conditioning approaches (aversive conditioning, masturbatory reconditioning, etc.) appear to have limited effect with this population (Wilson & Burns, 2011).

Cognitive restructuring is an area in which significant adaptations often need to be made, as persons with IDPSB may be limited in their ability to mediate cognitions (Wilner & Goodev, 2005). These individuals frequently experience limited ability to recognize feeling states and are even more limited in their ability to introduce new cognitions to change their feeling states and behavior. Other cognitive restructuring options are introducing thought-stopping techniques, correcting distortions (false beliefs), and storytelling to create success imagery (Blasingame, 2005; Haaven, 2006).

Addressing denial is an area in which differing approaches are used with this population. Generally, current practice is to not remove persons with IDPSB who are in denial from treatment (Haaven, 2006). The self-disclosure process ranges from providing specific details of the offending behavior within a group setting to providing very limited details and only doing so within individual counseling.

The focus on positive, prosocial identity is a central component of the Old Me/New Me model and GLM. The Old Me/New Me model emphasizes the importance of taking an active, prescriptive approach in supporting persons with IDPSB in developing identities of their own.

IMPORTANT POINTS TO REMEMBER There are several areas to highlight regarding treatment of persons with IDPSB. Treatment must be relevant to the individual—it must make sense and its goals must be those that clients actually would want to achieve. Treatment approaches should ensure that skills generalize to various settings and conditions. Healthy sexuality and realistic opportunities for sexual expression must be of central focus and not just another skill module offered (Wilson & Burns, 2011). Engagement with the community and connectedness with others need to be central throughout the treatment process. Finally, Blasingame (2005; in press) suggested that treatment effectiveness requires comprehensive, user-friendly risk management systems in the community involving collaboration of all parties including, when applicable, group home staff.

SUPERVISION/CASE MANAGEMENT

Like all other aspects of addressing the special concerns of persons with IDPSB, the designation of appropriate levels of community supervision for this population should be informed by a comprehensive assessment of the individual's particular treatment and risk management needs. These needs must be integrated into a tailored plan of supervision, with support and services designed to minimize the recurrence of problematic sexual behaviors (PSB) while increasing public safety. This is true whether (a) the person with IDPSB has been charged or convicted for a sexual offense and is involved in the criminal justice system, (b) the individual with an ID has engaged in but has never been criminally adjudicated for PSB and is being served in the social service system, or (c) the person with IDPSB is connected to both the correctional and developmental disability service systems.

While it is important to recognize that persons with IDPSB may be both similar to and different from persons without IDPSB in important ways, it is equally if not more important to appreciate how differently they may be viewed by the distinct but necessarily overlapping service agency systems that are tasked with the supervision of persons with IDPSB in the community. For instance, police officers responsible for sexual offender registration and notification duties, or probation and parole officers, may have a general appreciation that persons with IDPSB can be more concrete and slower in their thinking and may need more time to process and respond to information and directions. However, criminal justice professionals providing community supervision services may not fully appreciate essential but more nuanced issues associated with individuals with ID that may impede effective communication and supervision service delivery. These may include, but are by no means limited to the following (see Cumming & Buell, 1997):

- The needs of many persons with IDPSB for specificity and repetition
- The impact of impaired verbal comprehension and reading skills on persons with IDPSB
- Inherent difficulties that persons with IDPSB may have with abstraction and generalization
- A tendency in persons with IDPSB toward an acquiescence bias, and the associated need for professionals to avoid yes/no questioning

- The sensitivity persons with IDPSB can experience regarding criticism
- The often highly circumscribed areas of competence found in persons with IDPSB.

Regarding the final bullet, a law enforcement officer may not recognize the actual low incidence of criminal thinking among the population of persons with ID. As a result, he or she may assign antisocial motives to a deception that is actually generated by fear of disapproval on the part of the individual with ID. This type of miscommunication can result in costly and inappropriate designation of the individual's actions as community supervision violations.

Similarly, well-intending social service and mental health providers who have limited experience with persons with IDPSB often have their own blind spots regarding these types of human service clients (Guidry & Saleh, 2004). Some may tend to infantilize persons with IDPSB, while others may overly pathologize persons with ID, minimizing accountability for their behavior, fostering system dependency, inadvertently colluding with the client's distortions, and ignoring or failing to recognize the client's potential for risk. Still other human service providers respond to persons with IDPSB with the same kind of misguided and uninformed reactivity that the general public has toward the high profile and emotionally evocative cases of sexual offending featured in the news, which support a perspective that all persons who have sexually offended are the same, and that they are all dangerous, untreatable, and at high risk for reoffense. Persons with IDPSB are sometimes erroneously believed to be at even greater risk than other offenders for sexual reoffense and are seen as even more dangerous secondary to their disability, which is assumed to leave them vulnerable to extreme dyscontrol relative to their sexual behavior (Chivers & Mathieson, 2000). As such, social service providers may be prone to under- or over-respond to risk for reoffense in a person with IDPSB. Inaccurately matched responses can result in costly—on many levels—miscalculations of supervisory care needs and misallocation of valuable but limited staff and fiscal resources.

Distinct in their roles, but overlapping in their mandate, the correctional and ID service systems are uniquely bound through their responsibility to appropriately supervise, support, and facilitate the safe management and treatment of persons with IDPSB in the community (Vermont Agency of Human Services, 2005). As such, professionals in both service systems responsible for the development and implementation of adequate community supervision, risk management, and supportive services plans for persons with IDPSB should be fully educated about this special needs population. Training for both sets of professionals should include, but may not be limited to:

- Exposure to the extant evidence-based, basic research regarding what is currently known about persons who have sexually offended, a review of state sexual offender laws and local registration and notification laws and practices, and a review of the role of community supervision (i.e., parole, probation) offices
- Understanding of fundamentals regarding intellectual disabilities, including potential deficits and strengths in cognitive, social, and emotional functioning, the high incidence of abuse and trauma among individuals with ID, the high rate of concurrent psychiatric conditions and traumatic brain injuries (TBI) among individuals with ID, and an explanation of the typical role of ID social service agents providing community care

- Introduction to a growing body of research on persons with IDPSB, including similarities and differences between persons—with or without intellectual disabilities—who have sexually offended and the special considerations in assessment, treatment, and risk management of persons with IDPSB. From this shared base of knowledge, these two typically divergent service systems can work together to collaboratively promote effective supervision and risk management practices for those persons with IDPSB under their watch and care (Vermont Agency of Human Services, 2005).

USE OF THE ARMIDILO-S IN EFFECTIVE SUPERVISION PLANNING As noted, appropriate levels of supervision and accurately targeted safety management plans that match the risk presented by persons with IDPSB are derived from a comprehensive assessment that includes an accurate assessment of risk as observed among persons with IDPSB. As referenced earlier, the ARMIDILO-S is a widely used risk assessment tool specifically designed for use with persons with IDPSB. Recent research has demonstrated a degree of promise regarding use of the ARMIDILO-S in regard to predictive validity (Lofthouse et al., 2013). However, results are preliminary and further research is required before definitive statements can be made regarding relative utility in comparison to other available ARAI tools. In its favor, the ARMIDILO-S includes both stable and dynamic client factors associated with risk for sexual reoffense among persons with IDPSB and allows for consideration of factors as being either risk-increasing or protective, all of which improves case management strategy development.

Additionally and importantly, the ARMIDILO-S represents the first effort of its kind to view persons with IDPSB within the context and influence of the environment within which such clients are embedded. This allows for an empirically based measure and conceptualization of the additional influence of stable and acute environmental factors, particularly the impact of supervisory factors that may function to increase or reduce risk for sexual reoffense in a person with IDPSB. Relevant to the discussion of the effective supervision of persons with IDPSB, the combination of stable and acute client factors with the essential environmental factors provides a particularly helpful template upon which to build an informed and effective supervision and risk management plan.

CHAPERONE TRAINING Another way that effective community supervision of persons with IDPSB can be enhanced is through chaperone training (Center for Sex Offender Management, 2012). These trainings are designed for laypersons, as well as semi-professional and professional staff who are interested in learning effective methods to safely supervise, support, and manage the risk that persons with IDPSB pose in community settings. Participants in these types of training opportunities can include, but are not limited to, non-offending family members and friends, guardians, those who may offer respite to the persons with IDPSB, adult foster care and family home care providers, vocational and recreational support staff, and direct-care residential staff. General goals of chaperone training can include:

- General education regarding persons who have sexually offended and local laws and practices
- Specific training regarding special needs populations, such as persons with IDPSB
- Chaperone training certification
- Ongoing opportunities for support as well as updates to chaperone education and certification.

Chaperones may be included as part of a collaborative team. This approach can serve to widen the invaluable network of supervision and support that surrounds persons with IDPSB as they move throughout the community setting and progress towards increasing safe independence—all of which can serve to enhance the goals of successful community supervision.

SUMMARY & CONCLUSION

In summary, although the area of assessment and treatment for persons with IDPSB is specialized, it is actually relatively commonplace to find such individuals, adjudicated or not, among the clients referred to assessment and treatment specialists working with adult persons who have sexually offended. As is good and ethical practice, if a client is outside of his or her area of expertise, a professional may make a referral to another specialist. However, it is the position of the Association for the Treatment of Sexual Abusers that by being aware of the assessment and treatment options for persons with IDPSB, in conjunction with specialist supervision, effective work may be done with this population to enhance public safety and improve the lives of these clients. It is hoped that this informational packet will provide useful introductory information to this extremely important area of practice.

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Can Current Assessment Tools Accurately Predict Risk Among Sex Offenders with Major Mental Illness?

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Dual Stigma

- Sexual offenders with Major Mental Illness (SOMMI) are often underserved
  - Traditional mental health system lacks expertise in the management of sexual deviance
  - Traditional sex offense-specific treatment programs often do not consider unique psychiatric issues
- "Best practices" is based on research samples that do not include SOMMI
- Tension between what is known/available for this population and risk/treatment needs of population

Prevalence Rates of MMI Among SOs

Study	Sample Type	MMI Rate
Cochrane et al. (2001)	Court clinics across U.S. N=1,710	Psychotic d/os less freq among sex offenders (16%) compared to general offenders (32%)
Becker et al. (2003)	120 sex offenders awaiting trial for civil commitment for SVP in AZ	50% of the Axis I d/os identified were rel to paraphilias and substance use
Langstrom et al. (2004)	1,215 convicted sex offenders in Sweden	-34.4% had a psych hosp at some point -1.4% met criteria for a psychotic disorder

Prevalence Rates of Sex Offenses Among MMI Population

Study	Sample Type	Offense Rate
Wallace et al. (2004)	2,861 patients with Schizophrenia in Australia over a 25-year period	Sex offense convictions = 1.8%
Fisher et al. (Mass Mental Health – Criminal Justice Cohort Study, 2006)	Arrest records during a 9 yr period for all DMH clts (N = 13,978)	Of the 17,000 arrests, only 272 (1.6%) were for sex offenses But 255/272 offenses were for serious charges: Indecent Exposure, Indecent A&B on an adult and child, Rape

Recidivism Rates

- Very few studies
- Hanson & Bussiere (1998) meta-analysis
  - "The large correlation for our 'severely disordered' variable could be almost completely attributed to Hackett's (1971) report that all of his exhibitionists with psychotic symptoms eventually recidivated" (p. 353).
  - Association not found in follow-up meta-analysis (Hanson & Morton-Bourgon, 2004)
- Hanson et al. (2007; DSP)
  - Twice as many MMI subjects re-offended (18%) as compared to the total sample (9%)

What we have learned from the general violence research:

- Inconsistent findings regarding the relationship between MMI and risk for violence in the general pop
  - Bonta et al. (1998) found that the average association between psychosis and violence was small and negative (r=.04) across the 11 studies in their meta-analysis reporting on psychosis (results limited to MDOs released from a correctional setting)
  - Douglas et al. (2009) meta-analysis involving 204 studies: psychosis associated with a 49%-68% increased likelihood for violence.
    - Effect size depends on presence of moderators but MMI found to be a strong risk factor for violence compared to persons without MMI

What we have learned from the general violence research:

- The relationship b/n violence and MMI is strengthened by the presence of other risk factors: psychopathy, ASPD, substance use (Douglas et al., 2009; Fisher et al., 2006; Monahan et al., 2001)
- Positive symptoms of psychosis more strongly related to violence (Douglas et al., 2009)
  - Swanson et al. (2006) reported on 1,410 patients with schizophrenia drawn from 57 mental health sites across 24 states. They found that positive symptoms of schizophrenia were associated with both minor and serious violence, even after controlling for numerous possible confounds and covariates.

Relationship Between SO and MMI

- No comprehensive study like MacArthur Risk Assessment Study for SOMMI
- Very broadband definitions used in SO studies, such as "any mental disorder," are apt to blur important distinctions between specific psychotic syndromes (Douglas et al., 2009)
- Most articles are descriptive with small sample sizes
  - Still provide a good start…

Relationship Between SO and MMI

- Phillips et al. (1999) ➔17 pts with Schizophrenia
  - Sex offending usually postdated onset of psychosis
  - Majority were psychotic at the time of the offense
  - Psychosis was not a direct causal factor but contributed to disinhibited sexual behavior.
- Craissaiti & Hodes (1992) ➔11 pts with psychosis
  - Sex offenses generally non-violent and impulsive
  - No evidence the pts attempted to evade capture
  - Victims mostly adults and known to offender
  - Only 1 pt taken admitted to a hosp following arrest
  - 4 pts had engaged in mast fantasy prior to offending

Relationship Between SO and MMI

- Phillips et al. (1999) ➔15 SOs with Schiz
  - None had a hx of sexual promiscuity
  - Little to no hx of long-term intimate partners
  - Compared to MMI without hx of SO, this group was twice as likely to report an *unimpaired sexual interest*
- Sahota & Chesterman (1998) ➔20 SOMMI pts
  - None had a stable intimate relationship lasting longer than 12 weeks
  - Psychotic break usually occurs at a crucial age period when many pts are dev a sexual identity and establishing intimate sexual relationships

Relationship Between SO and MMI

- Greenall & Jellicoe-Jones (2007) ➔11 cases
  - 3 subjects were psychotic at the time and offenses driven by anger that was exacerbated by psychosis
  - 4 cases primarily driven by psychosis
  - 2 cases were sexually inhibited
  - 2 cases had underlying paraphilias
  - *Concluded: the presence of MMI may exacerbate risk factors by reducing effective self-regulation*

Relationship Between SO and MMI

- Smith & Taylor (1999) ➔ 84 pts with Schiz hosp after conviction for a sex offense
  - 80 pts committed offenses when actively psychotic
  - 4 pts had onset of psychosis following offense

	Direct	Indirect	Coincid-ental	Not present	Total
% Delusions	18%	25%	51%	6%	N=80
% Hallucin-ations	15%	18%	45%	22%	N=80

Relationship Between SO and MMI

- Factors to Consider:
  - Onset of MI sxs in relation to onset of PSBs
  - How do PSBs manifest or change when psychiatrically decompensated?
  - Are PSBs present when psychiatrically stable?
  - How is PSB manifested in this MI individual?

How Relationship Impacts Risk

- Increased MI Sxs =
  - Increased Impulsivity
  - Increased Hypersexuality
  - Decreased Behavioral Controls
  - Decreased Ability to Consider Consequences
  - Decreased Ability to Make Rational Decisions
  - Decreased Ability to Engage in Treatment in a Meaningful Way
  - Decreased Ability to Plan and Influence Others
  - Complicated relationship b/n PI and Grievance Thinking
  - Impaired social and intimacy skills

MI/PSB Case Examples

MI/PSB Case #1: PSBs Due to Psychosis

- 27-year-old male
- Paranoid Schizophrenic Disorder
- Risperdal, Benadryl, Ativan, and Aterax
- Charged with 3 counts Indecent A&B < 14 but found NGI
- Had not been med compliant for several months prior to his offenses
- Offenses related to a fixed delusion that people were actually robots, that he had magical powers, and that he could have "eye sex" with children

MI/PSB Case #2: Hypomanic with Underlying Paraphilia

- 47-year-old male released from prison out of state after serving 15 years for 3 counts of Criminal Sexual Conduct, 1 count Gross Indecency, and 1 count Assault with Intent to Commit Criminal Sexual Conduct
- Victims were all under-aged boys
- Self-reported approximately 100 victims for which he did not get caught
- Recently re-arrested for possession of child porn
- Dx: Bipolar Disorder and Pedophilic Disorder
- Although mania increases hypersexuality, evidence suggests it didn't play a significant role

MI/PSB Case #3: Risk Increases When Psychiatrically Stable

- Paranoid Schizophrenic Disorder
- Prolixin, and Cogentin
- Convicted of Rape and 2 counts Indecent A&B
- When non compliant with meds has engaged in more primitive type of offenses (i.e., leering at women, following women, exposing self). When compliant with meds has engaged in more well organized offenses such as grooming behaviors, getting victim incapacitated (i.e., alcohol), kidnapping, and rape.

MI/PSB Case #3: Risk Decreases When Psychiatrically Decompensated

- Same case
- Less meds = more disinhibited, impulsive, disorganized sexual behavior
- As he gets more psychotic, though, the problematic sexual behaviors decrease
- When acutely psychotic, he is catatonic = Absence of Risk.

Could MMI Symptoms Increase Risk?

- Langstrom et al. (2004) ➔N=1,215 sex offenders
  - 4% had a psych hosp in within the year preceding the index offense
  - Sexual recidivism was found to be associated with psychosis, any psychiatric disorder, and any inpatient care.
  - However, a prior diagnosis of etoh abuse/dep more than *doubled* the odds of a sexual reconviction
  - A personality disorder diagnosis increased the odds by a magnitude of *ten times*

Could MMI Symptoms Increase Risk?

- Olver, Stockdale, & Wormith, 2011 Meta-analysis of attrition (included sex offender, domestic violence, general correctional, and violent nonsexual offender programs)
  - Major mental illness was a mediating variable for recidivism
  - MMI pop (psychotic disorders and BPDs) less likely to complete treatment across all programs. Those who were less likely to complete treatment were more likely to recidivate.
  - However, MMI was not the strongest correlate.
    - Young, single, unemployed, ethnic minority, male, limited formal ed, low SES, hx of prev offenses, high static risk

Could MMI Symptoms Increase Risk?

- Abracen & Looman (2012 ATSA Conference):
- Examined 348 high risk sex offenders. Found that after controlling for risk scores on the Static-99R, only those with a history of psychiatric impairment was found to add incrementally to predict recidivism.

Dynamic Supervision Project (Hanson et al., 2007)

- Only study to date to specifically examine the predictive validity of a dynamic risk measure in the SOMMI population
- Problems:
  - Small N = 61
  - Coded by probation officers
  - Major mental illness defined as: at least one night in a hospital
  - Unknown whether this was due to depression, bereavement, adjustment disorder, personality disorder, malingering, etc…..?

Sexual Recidivism

	Major mental disorder
Recidivists	18% (11/61)
Static-99R	**.744***
Static-2002R	**.727***
STABLE-2007	.595
Static-99R/STABLE-2007	.669
Static-2002R/STABLE-2007	**.709***

Relationship Between SO and MMI

1. Are there risk factors that are unique to the SOMMI population?
2. Do criminogenic needs operate independently of symptoms of a major mental illness?
3. Does the presence of a major mental illness exacerbate pre-existing criminogenic needs?
4. Does the presence of a major mental illness act as a protective factor and serves to moderate the effect of pre-existing criminogenic needs?

SOMMI Study

- Specific Aims:

1. Determine whether the SRA-FV can be scored reliably on the SOMMI population.
2. Develop supplementary scoring guidance and training to facilitate the reliable application of the SRA-FV to the SOMMI population.
3. Develop SOMMI norms for the SRA-FV.
4. Identify groupings of criminogenic needs within the SOMMI population (and whether they have needs that are unique to this population).
5. Explore whether acute symptoms have a moderating or worsening effect on existing criminogenic needs.

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Child Pornography and Likelihood of Contact Abuse: A Comparison Between Contact Child Sexual Offenders and Noncontact Offenders

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Abstract

This study examined a sample of 120 adult males convicted of offences involving indecent images of children (IIOC); 60 had a previous contact child sexual offence (dual offenders) and 60 had no evidence of an offence against a child. Analyses explored socio-demographic characteristics, previous convictions, and access to children. Of the 120 offenders, a subsample of 60 offenders (30 dual offenders and 30 non-contact) were further examined in terms of the quantity of IIOC, types of IIOC, and offending behavior. The study found the two offender groups could be discriminated by previous convictions, access to children, the number, proportion, and type of IIOC viewed. The IIOC preferences displayed within their possession differentiated dual offenders from non-contact IIOC offenders. Within group comparisons of the dual offenders differentiated sadistic rapists from sexual penetrative and sexual touching offenders. The paper suggests there may be a homology between IIOC possession, victim selection, and offending behavior. Implications for law enforcement are discussed in terms of likelihood of contact offending and assisting in investigative prioritization.

Keywords

child pornography, child sexual abuse, risk assessment, sexual abuse, sex offenses, Internet

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Introduction

Offenses relating to indecent images of children (IIOC) have dramatically risen in recent years and are now acknowledged as a global problem (Wolak, Finkelhor, & Mitchell, 2009). From a law enforcement perspective, a key focus is whether an individual using the internet to access IIOC is also committing, or is likely to go on to commit, a contact sexual offense against a child (Eke, Seto, & Williams, 2011). With finite resources, law enforcement agencies may utilize the material that individuals are accessing to assist in prioritizing which investigations take place first (McManus, Long, & Alison, 2011). In order to inform prioritization methods, it was found that prevalence rates regarding the proportion of contact sexual abusers within IIOC samples (from here on referred to as "dual offenders," Wolak et al., 2011) require further understanding. A recent meta-analysis concluded that 12% of IIOC offenders had a historical contact offense against a child, increasing to 55% when using self-report data (Seto, Hanson, & Babchishin, 2011). Prevalence figures for contact offenses within samples of IIOC offenders have ranged from 1% (Endrass et al., 2009) to 84.5%[1] (Bourke & Hernandez, 2009).

When considering all types of criminal convictions, contact child sexual offenders were found to have more previous convictions than IIOC-only offenders (Elliott, Beech, Mandeville-Norden, & Hayes, 2009; Sheldon & Howitt, 2008). Research has reported that criminal histories, particularly those that are violent, have assisted in the prediction of contact sexual recidivism when examining IIOC offenders (Eke et al., 2011; Seto & Eke, 2005, 2008). Moreover, criminal antecedents have reported predictive abilities when examining offense behaviors for stranger rapists (Davies, Wittebrood, & Jackson, 1998), sexual offenders (Wilson & Alison, 2005), and those at risk of committing homicide (Soothill, Francis, & Liu, 2008). Notwithstanding the various prevalence rates noted, it is clear that a proportion of these offenders pose an increased risk of contact sexual abuse, and as such it is important to establish what factors, if any, may help identify them (Eke et al., 2011).

Recent studies have explored the specific relationship between possession of IIOC and contact child sexual offending (McCarthy, 2010; Osborn, Elliott, Middleton, & Beech, 2010). There are various arguments for and against the use of IIOC and the behavioral manifestation of abuse. Buschman, Wilcox, Krapohl, Oelrich, and Hackett (2010) and Sullivan (2002) proposed that the possession of IIOC acts as part of a behavioral pathway that could potentially lead to contact offending. Conversely, Riegel (2004) argued that IIOC use operates as a diversion from, or compensation for, contact offending and that the psychological barriers experienced by noncontact offenders may inhibit them from acting out their deviant sexual fantasies (Babchishin, Hanson, & Hermann, 2011; Elliott et al., 2009). Furthermore, Bourke and Hernandez (2009) proposed a "behavioral extension," in which offenders use IIOC as an extension of their already pedophilic lifestyle.

Table 1. Levels of Child Abuse Imagery.

Level	Description
1	Images depicting erotic posing with no sexual activity
2	Nonpenetrative sexual activity between children, or solo masturbation by a child
3	Nonpenetrative sexual activity between adults and children
4	Penetrative sexual activity involving a child or children, or both children and adults
5	Sadism or penetration of, or by, an animal

Defining IIOC

In the United Kingdom, amendments were made to the primary legislation resulting in the Sexual Offences Act (2003). This provides new guidance on how IIOC should be defined, based on the severity of the content (Sentencing Guidelines Council [SGC], 2007). Table 1 represents the five "types" or "levels" of IIOC (in ascending order) cited by the *Sexual Offences Act 2003: Definitive Guideline* (SGC, 2007, p. 109).

Unlike other typologies (e.g., the Combating Paedophile Information Networks in Europe [COPINE] Scale; see Taylor, Holland, & Quayle, 2001), the levels set out by the Sentencing Guidelines Council do *not* include legal images of children or material that does not depict erotic posing (but nevertheless portrays children either fully clothed or in their underwear). This is because, under U.K. law, such content is not illegal and would not be used for sentencing offenders (Beech, Elliott, Birgden, & Findlater, 2008).

Although Section 142 (1) of the Criminal Justice Act (2003) states the purposes of sentencing for all offenses, including deterrence, punishment, and rehabilitation, the guidance for IIOC offenses adopts a victim-centric approach, focusing on the quantity, levels, and ages of depicted victims (SGC, 2007). The SGC have a range of "nature of activity" (p. 113), which IIOC offenses fall under, from a "large quantity of Level 4 or 5 . . ." (p. 113) to "large amount of Level 1 . . ." (p. 114), with no further guidance as to what constitutes a "large" or "small" amount. Although offenders are sentenced on the quantity of images at the five Sentencing Advisory Panel (SAP) levels (SGC, 2007), this may not accurately assess the risk an offender poses (Carr & Hilton, 2009). Considering this, Beech et al. (2008) stated that there is little research on the relationship between categorization of IIOC and offender risk of reoffending.

Can Offenders Be Differentiated According to Their Use of IIOC?

There is a lack of research examining the differences between dual offenders (those who possess IIOC and who have committed a contact child sexual offense) and non-contact offenders (those who possess IIOC with no evidence of a contact child sexual offense) in terms of their IIOC possession (Glasgow, 2010). In further understanding IIOC possession, it is important to acknowledge trends in availability and content of

IIOC. The Internet Watch Foundation (2008) has reported a continuing severity trend in what is depicted, with 58% of websites showing images at Levels 4 and 5. In 2010, this had further increased to 65.6% (Internet Watch Foundation, 2010). In contrast, other researchers have reported that the "most serious images were the least numerous" (Gallagher, Fraser, Christmann, & Hodgson, 2006, p. 63). When examining how these SAP levels relate to offender risk, Osborn et al. (2010) found that, regardless of the risk level estimated using the Risk Matrix 2000 (RM2000) revised, no offenders sexually reoffended. Moreover, no offenders possessed IIOC at SAP Level 5. Laulik, Allam, and Sheridan (2007) reported that the SAP level had no impact on potential risk of reoffending. However, they found that the majority of their offenders possessed Level 4 or 5 IIOC, thus reducing the variance within the sample. This lack of knowledge in the availability and content of IIOC, and how possession of IIOC at any level relates to risk of harm to children, is a key issue that requires further examination and understanding (Carr & Hilton, 2009).

A recent American study (McCarthy, 2010) examined how IIOC possession relates to risk using a sample of 107 offenders (56 noncontact offenders; 51 dual offenders) convicted of IIOC offenses. McCarthy (2010) found that dual offenders were significantly more likely to possess larger IIOC collections than noncontact offenders. Dual offenders were more likely to be engaging in grooming behaviors than noncontact offenders, such as sending adult pornography to potential victims (this constitutes a different offense within the United Kingdom). Grooming, along with the production and dissemination of IIOC, has featured in various typologies of internet sexual offenders (Beech et al., 2008; McLaughlin, 2000), highlighting the different ways in which IIOC are used. Wolak et al. (2005) concluded that one in five online contact offenders produced their own IIOC themselves or convinced the victim to take photos of themselves or friends. Sheehan and Sullivan (2010) found that, although all their IIOC producers downloaded IIOC prior to producing their own images, their sexual interest in children developed prior to engaging with the internet.

Little has been written explaining why offenders may select certain imagery (Seto, Cantor, & Blanchard, 2006; Seto, Reeves, & Jung, 2010). However, previous research on adult pornography and IIOC possession suggest that individuals seek out material that is most arousing to them and reflects their sexual fantasies (Glasgow, 2010; Howitt, 1995; Seto, Maric, & Barbaree, 2001). Burgess, Hartman, Ressler, Douglas, and McCormack (1986) found that 80% of the sexual murderers in their study claimed their most common sexual fantasy related to their sexually assaultive behavior. Furthering this concept, Quayle and Taylor (2002) concluded that IIOC "preserve a child at the very age and stage of development that is most arousing to the offender" (p. 866). This suggests that the possession of IIOC may indicate the sexual preference of the offender in terms of the gender, age, and sexual action depicted (Seto et al., 2006). Thus, the behaviors exhibited by IIOC offenders may represent potential likelihood factors for contact offending that need to be further examined.

Current Study

The primary purpose of this article is to explore IIOC possession in detail, using a two-stage process. First, it examines whether there are discriminatory differences between dual and noncontact offenders in terms of their IIOC possession. To examine this, the two offender groups were compared across four key areas: (a) sociodemographic characteristics, (b) quantity of IIOC possessed, (c) types of IIOC possessed, and (d) internet activity (e.g., payment for IIOC, grooming behavior). Second, it examines whether the type of image possessed is related to the contact offense committed among dual offenders. Within group analysis of the dual offenders examined (a) the association between severity of contact offense and IIOC possessed, and (b) the relationship between contact offense victim(s) and IIOC victims. Based on previous research, the following hypotheses were tested:

Hypothesis 1: Dual offenders will possess more IIOC than noncontact offenders (McCarthy, 2010).
Hypothesis 2: Dual offenders will be more likely to engage in grooming behaviors than noncontact offenders (McCarthy, 2010)
Hypothesis 3: Dual offenders are more likely to produce (e.g., via webcam, covert filming, or recording their contact offending) their own IIOC than noncontact offenders (Sheehan & Sullivan, 2010; Wolak et al., 2005).

Hypotheses 4 through to 6 are exploratory hypotheses based on theoretical arguments:

Hypothesis 4: Dual offenders will possess higher SAP level IIOC than noncontact offenders (Burgess et al., 1986; Quayle & Taylor, 2002).
Hypothesis 5: Dual offenders will possess IIOC similar to their contact sexual offense victim in terms of age and gender (Burgess et al., 1986; Quayle & Taylor, 2002).
Hypothesis 6: The more serious the contact offense, the more severe the IIOC possessed (e.g., dual offenders will possess IIOC that reflects their sexual action preference: Howitt, 1995; Quayle & Taylor, 2002; Taylor et al., 2001).

Method

Participants

The sample consisted of 120 (60 dual and 60 noncontact) adult male IIOC offenders aged 18 years and older, who were selected through stratified opportunity sampling to ensure an equal amount of both dual and noncontact IIOC offenders. To be categorized as a dual child sexual offender, participants had to have at least one conviction within Table 2 and at least one conviction in Table 3. Noncontact offenders were required to have at least one conviction in Table 2 and no convictions, allegations, or arrests for offenses within Table 3.

Table 2. Definition of Noncontact Offender Convictions.

Offence	Brief Description
Making IIOC (s.1. Protection of Children Act, 1978)	Indecent images of children (IIOC) is downloaded from the internet or photocopied from another image
Taking IIOC (s.1. Protection of Children Act, 1978)	IIOC is taken in person with a camera or remotely by webcam
Distribute IIOC (s.1. Protection of Children Act, 1978)	IIOC is sent via email, posted on a social network/ newsgroup/website
Possession IIOC (s.160 of Criminal Justice Act, 1988)	IIOC is possessed with no requirement to prove any of the above

Table 3. Definition of Dual Offender Convictions.

Offence	Brief Description
Rape (Sexual Offences Act, s.1 & 5)	Intentionally penetrates the vagina, anus, or mouth of a child with his penis
Assault by penetration (Sexual Offences Act, s. 2 & 6)	Intentionally penetrates the vagina or anus of a child with a part of his body or anything else
Sexual assault (Sexual Offences Act, s. 3 & 7)	Intentionally sexually touched a child

It is important to note that offenders were categorized according to their convictions and not their index offenses. Therefore, it is possible that a dual offender had a previous contact offense and a later IIOC offense. Conversely, the IIOC offense may have occurred first followed by a later conviction for a contact offense. Alternatively, the contact and IIOC offense may have resulted in both offenses convicted at the same time.

All 120 offenders were arrested between January 8, 2007 and February 25, 2011. Data collection occurred between May 2009 and August 2011. A subsample of the 120 offenders were selected using a stratified opportunistic sampling method, resulting in 60 offenders (30 dual and 30 noncontact). This subsample was used to analyze IIOC possession and internet offending behavior. They were selected according to whether they had information available on the number and levels of IIOC, and selection continued until equal numbers of dual and noncontact offenders were reached.

Detailed Examination of the Subsample (n = 60)

The number of IIOC possessed per offender ranged from 4 to 199,832, with a median of 787 (M = 15,099.27; SD = 37,196.51).[2] All of the offenders were found in possession of both still images and movies (e.g., the offender with four IIOC had one movie IIOC and three still IIOC). Movies were used as an inclusion criterion as Taylor et al.

(2001) suggest they are the "major contemporary primary source of child pornography" (p. 98). The current study also aimed to explore IIOC possession as a whole and any differences relating to the format of IIOC; therefore still and movie content were examined separately.

It should be noted that those offenders who displayed grooming behaviors could appear in either the dual or noncontact offender group.[3] Some offenders used grooming behaviors with no contact offense committed ($n = 6$), and others displayed grooming behaviors and contact sexually abused a child ($n = 26$).

Procedure

The data were primarily provided by Kent Police but also included cases from other police forces within the United Kingdom. As part of the preparation for prosecution, investigators gather information such as the number and format of IIOC (still image or movie) and the SAP level of the IIOC possessed. This formed one set of data used in the study. Other data such as family circumstances, access to children, years accessing IIOC, previous convictions were coded from case files that included case summaries, suspect, and witness interview transcripts. Content analyses required the researchers to identify the presence or absence of variables such as access to children and the type of access.

Interrater reliability was assessed by comparing the coding of Rater 1 (third author) with Rater 2 (research assistant). For the 120 offenders, a random selection of 74 offenders (62% of sample) resulted in excellent interrater reliability (Pearson's $r = .95$ or higher for continuous variables and Kappa = .96 or higher for categorical variables). For the more detailed examination of the 60 offenders, a set of 42 offenders (70% of sample) were randomly selected for interrater reliability (Pearson's $r = .87$ or higher for continuous variables and Kappa = .88 or higher for categorical variables).

Analysis was guided by previous research suggesting factors to identify and examine. Noncontact and dual offenders were examined and compared across four key areas, outlined in turn below.

Sociodemographic Characteristics (Full Sample, N = 120)

Information, such as the age of offender at time of IIOC arrest, was provided as a specific date within the prosecution file. Details of relationship status and access to children were documented by the investigators as part of the police's intelligence information. When the investigators attended the home of the suspect, more information regarding the living circumstances of the offender and any other potential access to children was gained. Access to children was coded dichotomously. The type of access was also recorded under categories of (a) own children (i.e., biological, foster children), (b) familial access (i.e., the offender was a grandparent or uncle), (c) job access (e.g., school teacher), and/or (d) other access (e.g., volunteered in local children's activities, befriended local children within the area). Details of any previous convictions were coded dichotomously. The types of previous conviction were also

recorded: (a) previous IIOC offense; (b) child sexual offense, from sexual touching to rape; (c) other sexual offense such as adult sexual offenses or voyeurism; and (4) other offenses such as theft, criminal damage.

Quantity of Images Possessed (Subsample, n = 60)

As part of an indecent image investigation, each suspect's computer was digitally forensically examined for any indecent image material and any potential evidence of contact sexual abuse offenses. Any IIOC were identified and quantified by investigators assisted by the Digital Forensics Unit (DFU). DFU identified any potential IIOC that were passed to the IIOC investigators to view and assess the level of IIOC possessed. IIOC were viewed and assessed by specifically trained investigators who categorized each IIOC according to the Sentencing Guidelines seriousness criteria (see Table 1).

Some investigations included large amounts of IIOC, and categorizing of all images would be impractical (e.g., one offender in this sample possessed almost 200,000 IIOC, with 74% of his possession categorized). Therefore, all IIOC were viewed to determine whether the offender had committed direct contact offenses against a child. As a minimum, the first 20,000 IIOC were categorized using SAP levels and 10% of any IIOC above that number. Regarding the data used within this study, all offenders' IIOC had been viewed with an average of 79.6% categorized (SAP levels) by investigators.

Investigators also provided a schedule of the IIOC viewed that gave details regarding the gender, approximate age, and sexual action of a proportion of IIOC possessed. Movies were described in detail. Gender of the IIOC victim was coded as male, female, or both genders. This was gathered from the investigators who viewed the offenders' possession and gave a summary of their findings (e.g., the offender possessed more than 85% male IIOC). The schedule of information was also used to triangulate data sources, examining the gender of victims. If an offender possessed IIOC that depicted more than 80% of a particular gender, this was categorized as his IIOC gender preference. The rationale behind using this cutoff point was to reflect the general trends in the gender of IIOC in circulation, which on average ranges from 69% (Wolak et al., 2011) to 79% (Steel, 2009) of female-depicted IIOC; thus, more than 80% was deemed to reflect a sexual preference for that gender. Anything less than this resulted in the IIOC gender coded as "both genders." For age comparisons, as above, the investigator who viewed the IIOC gave an indication if there was an age preference within their possession. Again, this was confirmed by the researcher examining the schedule of information, which details each individual IIOC. Where IIOC included two or more victims, the median age was taken per IIOC. If an offender possessed IIOC depicting children with ages ranging from 5 years to 14 years, then the average age was calculated as the median (9.5 years) and the age range was 10 years.

Internet Activity (Subsample, n = 60)

Time spent downloading IIOC was measured by evidence of an offenders' first to final date (usually date or arrest) of IIOC possession. This was gathered from a

combination of offender interviews, summary reports provided by the investigator for use in court by the Crown Prosecution Services, and any digital forensic analysis of media possessed by the offender. It is acknowledged that there are limitations in using this methodology as exact dates were not gathered.

Whether an offender had paid for access to IIOC was usually part of the case file, where the offender's banking card details had been captured. In addition, all offender interviews were analyzed regarding the explanation given by offenders for their possession of IIOC. These were subjected to thematic analysis, with four key areas extracted: (a) no comment on possession; (b) positive justification, for example, to catch and report offenders to police; (c) cognitive distortion, for example, downloading IIOC does not harm the child; and (d) admit sexual attraction to IIOC. It is acknowledged that these were general categories based on the interview transcripts. No actual assessment was completed to define "cognitive distortion" other than the offender suggested that the child was somewhat complicit or that they were doing no harm to the child in possessing the IIOC.

The case file also highlighted whether evidence indicating that the offender had produced their own IIOC was recovered. This would normally be charged as taking an IIOC (see Table 2). Therefore, those offenders who took IIOC webcam footage of children were categorized as producers. An offender could be classified as either dual or noncontact and still produce their own IIOC. This is because some offenders who were convicted of taking IIOC were producing IIOC via webcam or covertly filming IIOC ($n = 8$) with no contact offense committed. Other offenders were actively part of the production and abuse that occurred within the IIOC ($n = 14$).

Grooming behavior was categorized dichotomously as well as the grooming method employed (online/offline/both). An offender was categorized as engaging in grooming behavior online if he was communicating online to a child in a way that was sexual or encouraged sexual behavior. This could be chatting in a sexual way and/or arranging/encouraging a child to meet. Offline grooming behavior included evidence that offenders who had access to a child were manipulating his or her trust in some form (whether through financial inducements or befriending a neighborhood child) to achieve sexual satisfaction. Most offenders within the sample who were coded as groomers were not convicted of grooming (Section 15 Sexual Offences Act, 2003). This was because the offense of grooming is notoriously difficult to prosecute and convict (Davidson et al., 2011).

Relationship Between IIOC Possessed by Dual Offenders and Their Contact Offense(s) (Dual Offenders With IIOC Information, n = 30)

Dual offenders were categorized according to the sexual action recorded within their offense using the relevant SAP levels (see Table 1). Those offenders whose contact offense involved sexual touching with no penetration were categorized as Level 3. Penetrative sexual abuse was categorized as Level 4. For those categorized as Level 5, the coding dictionary defined this as any dual offender who had penetrated their victim and exhibited one or more of the following:

- Violent rape, causing physical trauma to victim (e.g., bleeding).
- Physical abuse, such as hitting victim in commission of offense.
- Bondage, tying up victims (e.g., using rope, handcuffs).
- Evidence of enjoyment of pain inflicted (e.g., one offender produced his own IIOC movie where victims were visibly seen to be crying and in pain).

The contact victim information was also recorded (age and gender). This stated the age and gender of the child victims. If an offender committed a contact offense against a child between the ages of 13 and 15, the median age (14 years) was taken with a range of 3 years.

Data Analysis

The data set contained a variety of variables in various formats with different analyses and effect sizes used. Normality tests were conducted for each variable and, according to the results, either nonparametric or parametric tests were run. Differences between dual offenders and noncontact offenders were explored using chi-square tests for categorical data (e.g., previous convictions), Mann–Whitney for interval or continuous variables that were non-Gaussian (e.g., offender group differences in the number of IIOC possessed), or one-way analysis of variance (ANOVA) for interval or continuous type data that were Gaussian (e.g., contact offense group differences in the number of IIOC possessed). For effect size, Cohen's *d* was calculated for continuous/ordinal variables by groups with the dual offender group used as the referent category.[4] Odds ratios (OR)[5] were used for dichotomous variables, *r*s for ranked variables by group, and Cramer's *V* for variables that have more than two categories.

Results

Sociodemographic Characteristics (Full Sample, N = 120)

Table 4 shows the sociodemographic characteristics for the full sample. There were no statistical differences in the age of offenders with both offender groups aged, on average, around 42 years, with no differences in their relationship status, $\chi^2(2, n = 112) = 0.05$, $p > .05$. Differences were found in the living arrangements between the two groups, $\chi^2(5, n = 118) = 11.90$, *ns*. When considering all living arrangements, both offender groups were most likely to live on their own. Examining living arrangements separately found significant differences for those living with a partner and their partner's children, with dual offenders more likely to do so than noncontact offenders, $\chi^2(1, n = 118) = 10.46$, $p < .01$, OR = 14.81, 95% CI = 1.86-118.06. All other living arrangement comparisons were nonsignificant.

Dual offenders were more likely to have any access to children, $\chi^2(1, N = 120) = 11.93$, $p < .01$. The odds of having access to children for the dual offender group was 5.21 higher (95% CI = 1.93-14.07) than the odds of access to children in the

Table 4. Comparative Sociodemographic Characteristics of Dual and Noncontact Offenders for the Full ($N = 120$) and Subsample ($n = 60$).

	Full Sample ($N = 120$)				Subsample Used for Image Comparisons ($n = 60$)			
	All Offenders ($N = 120$)	Dual Offenders ($n = 60$)	Noncontact ($n = 60$)	Significance	All Offenders ($n = 60$)	Dual Offenders ($n = 30$)	Noncontact ($n = 30$)	Significance
Age at arrest	$M = 42.7$, $SD = 11.4$	$M = 42.9$, $SD = 11.9$	$M = 42.5$, $SD = 11.0$		$M = 42.8$, $SD = 11.2$	$M = 43.6$, $SD = 11.4$	$M = 42.0$, $SD = 11.1$	
Relationship status								
Never had, *n* (%)	6 (5.4)	3 (5.0)	3 (5.0)		4 (6.7)	3 (10.0)	1 (3.3)	
Broken relationships, *n* (%)	53 (47.3)	28 (46.7)	25 (41.7)		20 (33.3)	9 (30.0)	11 (36.7)	
Long-term partner, *n* (%)	53 (47.3)	27 (45.0)	26 (43.3)		31 (51.7)	16 (53.3)	15 (50.0)	
Access to children								
Any access, *n* (%)	92 (76.7)	54 (90.0)	38 (63.3)	**	52 (86.7)	29 (96.7)	23 (76.7)	*
Has children, *n* (%)	50 (42.0)	29 (48.3)	21 (35.0)		29 (48.3)	16 (53.3)	13 (43.3)	
Job access, *n* (%)	16 (13.3)	7 (11.7)	9 (15.0)		6 (10.0)	3 (10.0)	3 (10.0)	
Family access	55 (45.8)	31 (51.7)	24 (40.0)		38 (63.3)	21 (70.0)	17 (56.7)	
Other access	28 (23.5)	22 (36.7)	6 (10.0)	***	18 (30.0)	13 (43.3)	5 (16.7)	*
Living arrangements*								
On own, *n* (%)	35 (29.7)	14 (23.3)	21 (35.0)		13 (21.7)	4 (13.3)	9 (30.0)	
Parents, *n* (%)	18 (15.3)	8 (13.3)	10 (16.7)		12 (20.0)	6 (20.0)	6 (20.0)	
Individual not partner, *n* (%)	9 (7.6)	5 (8.3)	4 (6.7)		2 (3.3)	1 (3.3)	1 (3.3)	
Partner, *n* (%)	15 (12.7)	7 (11.7)	8 (13.3)		9 (15.0)	5 (16.7)	4 (13.3)	
Partner & own children, *n* (%)	28 (23.7)	13 (21.7)	15 (25.0)		16 (26.7)	7 (23.3)	9 (30.0)	
Partner & her children, *n* (%)	13 (11.0)	12 (20.0)	1 (1.7)	*	6 (10.0)	6 (20.0)	0 (0.0)	*
Previous convictions								
Any previous, *n* (%)	48 (40.0)	35 (58.3)	13 (21.7)	***	22 (36.7)	16 (53.3)	6 (20.0)	**
Image offences	12 (10.2)	5 (8.3)	7 (11.7)		7 (11.7)	4 (13.3)	3 (10.7)	
Other sexual offences, *n* (%)	7 (5.9)	5 (8.3)	2 (3.3)		4 (6.7)	3 (10.0)	1 (3.3)	
Other nonsexual, *n* (%)	30 (25.4)	22 (36.7)	8 (13.3)	*	11 (18.3)	8 (26.7)	2 (7.1)	*

*$p < .05$. **$p < .01$. ***$p < .001$.

noncontact group, with this access most likely to be "other," $\chi^2(1, N = 120) = 12.31$, $p < .001$, OR = 5.35, 95% CI = 1.98-14.47. Dual offenders were also more likely to have any previous convictions, $\chi^2(1, N = 120) = 16.81$, $p < .001$, OR = 5.06, 95% CI = 2.27-11.27, specifically those that were for nonsexual, $\chi^2(1, N = 120) = 8.14$, $p < .01$, OR = 3.62, 95% CI = 1.45-9.01.

Sociodemographic Characteristics (Subsample, n = 60)

Sociodemographic characteristics for the 60 IIOC are presented alongside the full sample ($N = 120$) in Table 4. As with the full sample, there were no significant differences in the age of offenders when arrested for IIOC possession (dual offenders, $M = 43.6$, $SD = 11.42$; noncontact offenders, $M = 42.0$, $SD = 11.11$). There were also no differences in the relationship status of the offenders, $\chi^2(2, n = 55) = 1.21$, *ns*, or living arrangements when arrested, $\chi^2(5, n = 58) = 8.28$, *ns*, when comparing the two groups. As with the full sample, living arrangements were compared separately. Dual offenders were most likely to live with a partner and their partner's children than were noncontact offenders. Analysis revealed that 2 cells had an expected count less than 5, so an exact significance test was selected for Pearson's chi-square, $\chi^2(1, n = 60) = 6.67$, exact $p = .024$. The odds of having access to children for the dual offender group was 8.8 times higher than the odds of having access to children in the noncontact offender group, $\chi^2(1, n = 60) = 5.19$, $p < .05$, OR = 8.8, 95% CI = 1.01-76.96. This was also present for other access to children, $\chi^2(1, n = 60) = 4.44$, $p < .05$, OR = 3.6, 95% CI = 1.06-12.06.

As with the full sample, there were significant differences between the offender groups when examining any previous convictions, $\chi^2(1, n = 60) = 7.18$, $p < .01$, OR = 4.6, 95% CI = 1.45-14.39. Dual offenders were significantly more likely to have a criminal conviction for nonsexual offenses (e.g., theft) than the noncontact offender group, $\chi^2(1, n = 60) = 3.87$, $p < .05$, OR = 4.7, 95% CI = 0.91-24.62. These results highlight the similarities between the full sample ($N = 120$) and the subsample ($n = 60$) in their sociodemographic characteristics.

Quantity of Indecent Images Possessed (Subsample, n = 60)

The number of IIOC possessed varied greatly for offender groups, and in most cases, were significantly positively skewed, thus requiring nonparametric comparisons to be utilized (Mann–Whitney *U* analysis). Despite using nonparametric comparisons, nontransformed data are presented throughout.

The difference between type of offender and number of IIOC possessed (subsample, n = 60). There was a significant difference between dual and noncontact offenders in relation to the total number of IIOC (both still images and movies combined) possessed, $U = 267.0$, $z = -2.71$, $p < .01$, $d = -0.50$, 95% CI = –.1.01-0.02, indicating that dual offenders had significantly less IIOC than noncontact offenders. A similar pattern emerged when examining still IIOC, $U = 263.0$, $z = -2.44$, $p < .05$, $d = -0.58$, 95% CI =

Table 5. Comparative Indecent Images of Children (IIOC) Possession by Noncontact and Dual Offenders.

	Dual Offenders (n = 30) M/SD	Noncontact (n = 30) M/SD	Cohen's d
Total IIOC**	6,086.40/17.138.56	24,112.13/48.508.50	–.50
Total all Level 1***	982.13/2,446.53	10,730.67/28,016.70	–.49
Total all Level 2**	230.30/608.54	1,386.43/3,744.98	–.43
Total all Level 3*	287.67/660.81	613.27/1,079.99	–.36
Total all Level 4*	244.47/544.92	618.67/1,011.22	–.46
Total all Level 5*	25.43/62.26	82.90/170.02	–.46
Percent all Level 1	41.48/30.94	56.64/28.19	–.52
Percent all Level 2	16.53/18.58	15.05/10.67	.10
Percent all Level 3	13.30/9.32	8.84/7.90	.53
Percent all Level 4	22.74/22.79	20.19/17.23	.13
Percent all Level 5	5.15/8.15	5.99/18.18	–.06
Total still images*	3,386.68/8,500.32	23,193.83/47,880.00	–.58
Total movies*	53.75/108.96	912.57/1,990.70	–.61
Total still Level 1**	1,045.25/2,515.58	10,471.00/27,738.39	–.48
Total still Level 2*	230.93/568.46	1,316.70/3.618.67	–.42
Total still Level 3	305.00/677.85	575.27/951.69	–.33
Total still Level 4	250.07/547.58	543.30/832.89	–.42
Total still Level 5	26.85/63.36	75.37/156.51	–.41
Percent still Level 1	50.02/30.33	63.73/29.07	–.47
Percent still Level 2	15.47/17.61	9.61/8.05	.43
Percent still Level 3*	15.45/12.32	8.09/8.54	.70
Percent still Level 4*	14.81/13.06	7.79/8.27	.64
Percent still Level 5	4.20/10.98	0.77/0.81	.45
Total movies Level 1*	7.04/15.10	258.90/682.36	–.52
Total movies Level 2*	15.82/69.00	69.73/166.16	–.42
Total movies Level 3*	3.21/6.59	38.00/165.21	–.30
Total movies Level 4*	11.86/24.05	75.37/220.47	–.40
Total movies Level 5	1.36/2.59	7.53/25.31	–.35
Percent movie Level 1*	11.60/28.07	33.33/35.56	–.68
Percent movie Level 2	13.91/22.95	15.90/15.01	–.10
Percent movie Level 3	6.53/10.51	7.71/10.13	–.12
Percent movie Level 4	29.69/37.54	26.74/24.72	.09
Percent movie Level 5	6.14/12.43	6.31/18.34	–.01

*$p < .05$. **$p < .01$. ***$p < .001$.

–1.09-0.06, and IIOC in movie format, $U = 266.0$, $z = –2.41$, $p < .05$, $d = –0.61$, 95% CI = –1.13-0.09, with dual offenders possessing significantly less movie images than noncontact offenders, both representing a medium effect size (see Table 5).

The difference between type of offender and SAP level of IIOC possessed (subsample, n = 60). Nonparametric group comparisons revealed that dual offenders possessed significantly less quantities of IIOC at each of the SAP levels when compared to noncontact offenders (Level 1: $U = 194.0$, $z = –3.79$, $p < .001$, $d = –0.49$, 95% CI = –1.00-0.03; Level 2: $U = 228.0$, $z = –3.29$, $p < .01$, $d = –0.43$, 95% CI = –0.94-0.08; Level 3: $U = 293.0$, $z = –2.33$, $p < .05$, $d = –0.36$, 95% CI = –0.87-0.15; Level 4: $U = 285.0$, $z = –2.45$, $p < .05$, $d = –0.46$, 95% CI = –0.97-0.05; Level 5: $U = 288.5$, $z = –2.41$, $p < .05$, $d = –0.46$, 95% CI = –0.97-0.05).

As noncontact offenders were found to have significantly more IIOC in total than dual offenders, the amount offenders possessed at each level was calculated as a percentage to explore offenders' possession across the five SAP levels. There were no differences between offender groups regarding the proportion of IIOC at each of the SAP levels.

As there were differences found between the number of IIOC and not the proportion of IIOC at the SAP levels, still and movie were examined separately to explore whether the format of the IIOC differentiated the offender groups (see Table 5).

Nonparametric group comparisons revealed a significant difference between the two groups of offenders and the number of still images possessed across the SAP levels. Dual offenders were found to possess significantly smaller quantities of Level 1 still IIOC, $U = 214.5$, z = –3.20, $p < .01$, $d = –0.48$, 95% CI = –0.99-0.04, and Level 2 still IIOC, $U = 264.5$, $z = –2.43$, $p < .05$, $d = –0.42$, 95% CI = –0.93-0.09, than noncontact offenders.

As dual offenders were found to have significantly less IIOC in total than noncontact offenders, the IIOC possessed was calculated as a percentage to explore offenders' possession across the five levels. Nonparametric comparisons revealed a significant difference between offender groups when examining proportion of still IIOC at Level 3, $U = 288.0$, $z = –2.06$, $p < .05$, $d = 0.70$, 95% CI = 0.18-1.22, and Level 4, $U = 293.0$, $z = –1.99$, $p < .05$, $d = 0.64$, 95% CI = 0.12-1.16. Figure 1 illustrates that dual offenders possessed a higher proportion of both Level 3 and Level 4 still IIOC compared to noncontact offenders, with analyses revealing a medium to large effect size.

The number of IIOC in movie format was also examined. A significant effect was found for movie IIOC at Level 1, $U = 221.5$, $z = –3.21$, $p < .01$, $d = –0.52$, 95% CI = –1.03, –0.01; Level 2, $U = 237.5$, $z = –2.91$, $p < .01$, $d = –0.42$, 95% CI = –0.93-0.09; Level 3, $U = 275.5$, $z = –2.35$, $p < .05$, $d = –0.30$, 95% CI = –0.81-0.21; and Level 4, $U = 267.0$, $z = –2.45$, $p < .05$, $d = –0.40$, 95% CI = –0.91-0.11, with all indicating that dual offenders possessed a significantly lower number than noncontact offenders. Cohen's d revealed small to medium effect sizes.

As with still images, the total number of movies possessed was also measured as a percentage across the five levels (see Figure 2). Results revealed a significant, medium sized effect for Level 1 IIOC in movie format, $U = 200.0$, $z = –3.42$, $p < .01$, $d = –0.68$, 95% CI = –1.20, –0.16, indicating that dual offenders possessed a lower proportion than noncontact offenders.

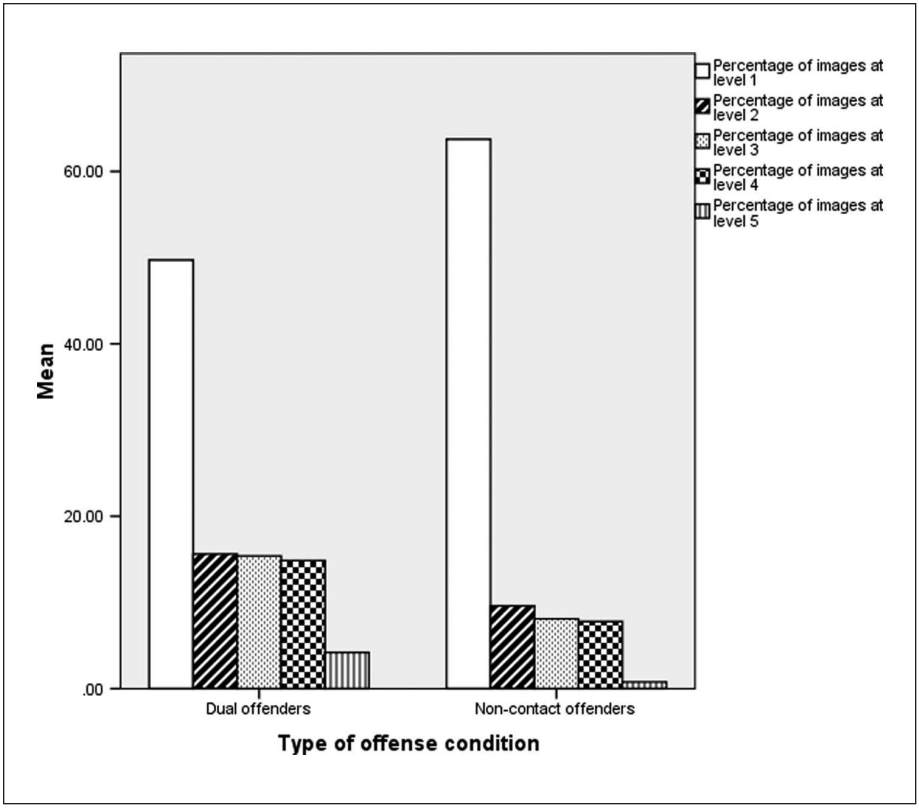

Figure 1. Bar Chart Indicating the Differences Between Dual and Noncontact Offenders and the Proportion of Still Images Possessed at Each SAP level.

Types of Indecent Images Possessed by Offenders (n = 60)

The difference between type of offender and type of IIOC possessed. There were no differences between dual and noncontact offenders regarding either the gender, $\chi^2(2, n = 54) = 3.37$, $p > .05$, or average age, $t(47, n = 49) = 0.28$, $p > .05$, of children within the IIOC possessed. Both groups of offenders appeared to prefer IIOC of female children, with a mean age of 10 years. When the average age range of the children within the images was assessed, a significant difference was found between dual and noncontact offenders, $t(47, n = 49) = 2.96$, $p < .01$, with a large effect size, $d = –0.85$ (95% CI = –1.38, –0.32). Dual offenders possessed IIOC of children within a smaller age range ($M = 5.35$, $SD = 3.83$) in comparison to noncontact offenders ($M = 8.41$, $SD = 3.38$).

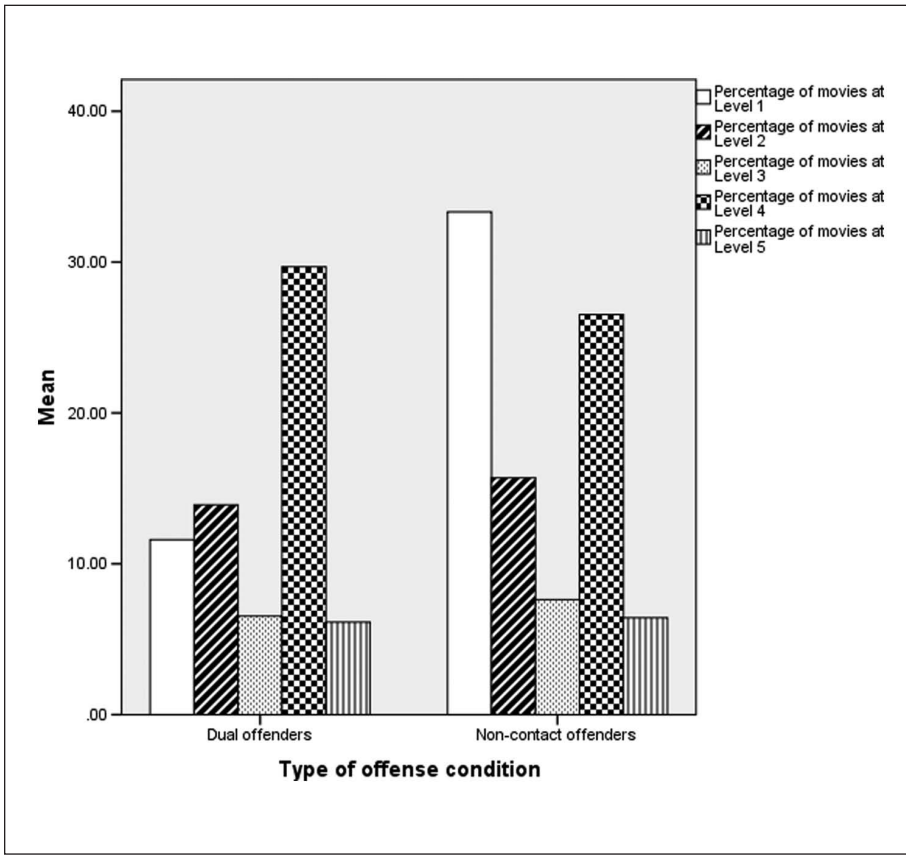

Figure 2. Bar Chart Indicating the Differences Between Dual and Noncontact Offenders and the Proportion of Movie Images Possessed at Each SAP Level.

Internet Activity (n = 60)

Time spent downloading IIOC. A significant effect was found regarding the number of years offenders had been downloading IIOC, $t(40, n = 42) = 2.22$, $p < .05$, $d = –0.71$, 95% CI = –1.23-0.19, with noncontact offenders found to be downloading IIOC for a longer period of time ($M = 5.56$, $SD = 3.31$) than dual offenders ($M = 3.25$, $SD = 3.21$). In addition, a significant positive correlation was found in terms of the total number of movies possessed and time downloading IIOC, $rs = 0.42$, $n = 42$, $p < .01$, suggesting that the longer offenders had been downloading IIOC, the more movies they were likely to possess. This relationship was not found when examining IIOC in still format.

There was a significant positive correlation between years downloading IIOC and amount of still IIOC possessed at Level 4, $r = .48$, $n = 42$, $p < .01$, and Level 5, $r = .50$,

$n = 42$, $p < .01$, suggesting that the longer offenders downloaded IIOC, the more IIOC they possessed at the higher levels. The same pattern was seen for IIOC in movie format, with significant positive correlations found between time spent downloading IIOC and amount of movie IIOC at Level 4, $r = .43$, $n = 42$, $p < .01$, and at Level 5, $r = .31$, $n = 42$, $p < .05$.

A significant positive correlation was found between years spent downloading IIOC and years of contact offending behavior, $r = .59$, $n = 13$, $p < .05$, among dual offenders, suggesting that IIOC may be used in parallel to contact offending.

Payment for IIOC. There was a significant difference in whether offenders had paid for IIOC, $\chi^2(1, n = 57) = 17.47$, $p <. 001$. Noncontact offenders paid for IIOC access in 69% of cases, and only 14.3% of dual offenders paid. The odds of paying for access for IIOC for the noncontact offender group was 13.33 higher than the odds of paying for IIOC in the dual offender group (95% CI = 3.57-49.86).

Explanation during police interview. Offenders were assessed on the explanation given in police interview for their possession of IIOC. The four options were: (a) no comment on possession; (b) positive justification, for example, to catch and report offenders to police; (c) cognitive distortion, for example, downloading IIOC does not harm the child; (4) admit attraction to IIOC. There was a significant difference between offender groups, $\chi^2(3, n = 57) = 9.59$, $p < .05$, Cramer's $V = .41$, in the frequency of responses in these categories. Dual offenders were most likely to give no comment (39.3%), with more than a quarter (28.6%) giving a cognitively distorted view, and 17.9% admitting their attraction to IIOC. In contrast, nearly half of noncontact offenders (48.3%) admitted their attraction and around a quarter provided a positive justification (24.1%).

Producers and groomers. Offenders who produced their own IIOC (whether this was covertly, using a webcam, or recording of abuse) were significantly more likely to be dual offenders, $\chi^2(1, n = 60) = 7.18$, $p < .01$, OR = 4.57, 95% CI = 1.45-14.39. Most of the noncontact offenders in the sample did not produce IIOC (80.0%), whereas 53.3% of the dual offenders did.

Individuals who groomed children were significantly more likely to be dual offenders, $\chi^2(1, n = 60) = 17.47$, $p < .001$. On the basis of odds ratio, we found that the dual offender group were 26.0 times higher (95% CI = 6.53-103.50) than the odds in the noncontact offender group to be engaging in grooming behavior. The majority of dual offenders engaged in grooming behaviors (86.7%) compared to 20% of noncontact offenders. When examining the type of grooming behavior (four categories: 1 = no grooming behavior, 2 = offline grooming only, 3 = online grooming only, 4 = both offline and online grooming) there was also a significant difference, $\chi^2(3, n = 60) = 30.95$, $p < .001$, Cramer's $V = .72$. Not only were dual offenders significantly more likely to engage in grooming behaviors, these were more likely to be offline grooming techniques (73.3%) compared to noncontact (6.7%). In addition, 10.0% of both offender groups engaged in grooming behaviors using online techniques.

Table 6. Categorization of Offences by Dual Offenders Using Sentencing Advisory Panel (SAP) Levels.

Offender Category	Level	SAP Level Description	*n*
Sexual touching	3	Nonpenetrative sexual activity between adults and children	10
Penetrative	4	Penetrative sexual activity involving a child or children, or both children and adults	14
Sadistic rapist	5	Sadism or penetration of, or by, an animal	6
		Total	30

Table 7. Frequency of Gender of Victims Within Indecent Images of Children (IIOC) and Contact Victims.

	Contact Victim Male	Contact Victim Female	Contact Victim Male & Female	Total
IIOC male	5 (100)	0 (0)	0 (0)	5
IIOC female	0 (0)	11 (91.7)	1 (8.3)	12
IIOC male & female	1 (14.3)	4 (57.1)	2 (28.6)	7
Total	6	15	3	24

Note: Percentages are presented within parentheses.

The Relationship Between the IIOC Possessed by Dual Offenders and Their Contact Offense (n = 30)

Dual offenders were categorized according to the sexual action recorded within their offense using the relevant SAP levels (see Table 6).

Dual offenders were compared on total number of still and movie IIOC at each of the five SAP levels, with all producing nonsignificant effects. However, the proportion of still IIOC possessed was found to be significant for Level 1, $F(2, 25, n = 28) = 4.01$, $p < .05$, $r = .49$, with sadistic rapist dual offenders possessing a significantly lower proportion of Level 1 IIOC ($M = 22.37$, $SD = 22.25$) than sexual touching abusers ($M = 61.06$, $SD = 37.34$) and penetrative abusers ($M = 55.14$, $SD = 20.77$). In support of this pattern, those offenders categorized as sadistic rapists ($M = 30.05$, $SD = 12.69$) had a significantly higher proportion of Level 4 IIOC, $F(2, 25, n = 28) = 7.95$, $p < .01$, than sexual touching abusers ($M = 9.6$, $SD = 12.79$) and penetrative dual offenders ($M = 11.38$, $SD = 7.65$) with a large effect size, $d = 1.58$.

Due to the sample not meeting the chi-square assumptions, as 8 cells had an expected count less than 5, chi-square's were not computed. However, the percentages highlighted in Table 7 suggest potential associations between the gender of the children in the IIOC possessed by dual offenders and the gender of their contact victims. These suggest that when dual offenders owned IIOC of mainly males,

they contact offended against male children 100% of the time. Similarly, if the IIOC possessed by offenders were mainly of females, the contact victim was also female in 91.7% of cases. Among offenders who had fairly equal amounts of male and female IIOC, their contact victims were female in 57.1% of cases, male in 14.3%, and both genders 28.6% of the time. The overlap between the IIOC victim and contact child abuse victim matching in terms of gender was calculated at 75%, indicating that the majority of dual offenders possessed IIOC that matched the gender of their contact victim.

When taking the age of the children into account, analysis indicated a significant positive relationship between the average age of children in the IIOC and the average age of contact victims ($rs = .43$, $n = 19$, $p < .05$). This suggests that the higher the average age of the children in the IIOC, the higher the average age of the contact victim (and vice versa).

Discussion

This study sought to examine whether there are differences between dual and noncontact offenders in terms of their IIOC possession and whether the type of images possessed related to the contact offense committed. Significant findings were found for both these aims.

Discriminating Between Dual and Noncontact IIOC Offenders: Image Possession and Anchoring Behavior

The study found that the quantity of IIOC discriminated dual and noncontact offenders, with the latter having significantly more IIOC. McCarthy (2010) also found quantity to be a discriminator, but the pattern of results was in the opposite direction with contact offenders possessing significantly more IIOC than noncontact offenders. However, McCarthy did not distinguish images by seriousness. From the results of the current study what appears to be critical in discriminating dual and noncontact IIOC offenders is the qualitative variation across the five SAP levels and, specifically, where an individual's particular interest lies. Across the five SAP levels it appears that offenders have varying "anchor points." This may be one discriminating feature between those offenders with no current evidence of actual contact abuse with children and those who have. The anchor point appears to represent the prominent interest of an offender; in other words, it may suggest a discernible preference with oscillation to other levels. For example, an offender with a large number of images, but with a significant preference of Level 1 (even though they are in possession of higher levels), may be less likely to engage in child sexual abuse than an offender with fewer total images overall but who possesses a relative preference for higher-level images. Where the preference shifts from Levels 1 and 2 (erotic posing with no sexual activity, and nonpenetrative sexual activity between children) to Level 3 (nonpenetrative sexual activity between children and adults) and Level 4 (penetrative acts committed on

children), this may be psychologically significant. Anchoring in Levels 1 and 2 may reflect a preference for visualizing children without necessarily physically interacting with them. When it comes to Level 3 and Level 4, the preference may be for sexual activity between an adult and a child. Thus, although noncontact offenders had a greater number of IIOC (irrespective of SAP levels) compared to dual offenders, noncontact offenders tended to have a smaller proportion of the higher-SAP-level IIOC (relative to their lower SAP levels) compared to dual offenders.

The sexual fantasies of individuals and how these relate to offending behavior may explain the different "anchoring" preferences. Research in IIOC and adult pornography suggest that individuals seek material that is most specifically arousing to them (Howitt, 1995; Seto et al., 2001; Zillmann & Bryant, 1986), and this could explain the differences between the offender groups. In addition, dual offenders possessed IIOC that depicted children within a more restricted average age range compared to noncontact offenders. If an offender was seeking material of a particular age range (e.g., 5- to 7-year-olds), this may indicate a sexual preference for this age group. Therefore, as posited by Burgess et al. (1986), the sexual fantasies of the offenders may reflect the sexual offending behavior committed, or vice versa.

Discriminating Between Dual Offenders: Image Possession and Anchoring Behavior

The concept that offenders seek material that is specifically arousing to them can be equally applied to the within-group differences for dual offenders. Sadistic penetrative dual sexual offenders possessed a higher proportion of Level 4 IIOC and less Level 1 IIOC than penetrative and sexual touching offenders. This difference could be explained by sadistic offenders having preferences anchored at a higher level, reflecting the severity of their sexually assaultive behavior (Burgess et al., 1986). Furthermore, the gender and age of the IIOC victim was related to the contact victim, suggesting that IIOC anchoring preferences may relate to victim selection. This is consistent with Quayle and Taylor's (2002) conclusion that IIOC "preserve a child at the very age and stage of development that is most arousing to the offender" (p. 866). This homology between images possessed and acts committed by dual offenders are potentially indicative of the way in which the more serious offenders use the internet as a behavioral extension to their offending behavior.

Additional Likelihood Factors for Contact Child Sexual Offending

Although there were anchoring preferences evident within offenders' IIOC possession, other factors existed that also contributed to the likelihood of dual offending. Dual offenders were more likely to have access to children, highlighting the importance of access as a situational enabler to offending. This was most likely to involve "other" access such as befriending children within the neighborhood. Buschman et al. (2010) similarly concluded that access to stranger contact victims within the neighborhood (e.g., children in surrounding areas of their homes) was the most frequent

type of access to victims for contact offenders within their IIOC sample. Not only dual offenders were more likely to have access to children, they were also more likely to groom offline. This supports McCarthy's (2010) finding that dual offenders were more likely to engage in grooming behaviors. As McCarthy's finding related to "online" grooming, this raises the issue of transference from the online environment to the real world. Grooming behavior was also a method by which offenders produced their own imagery. This study found that dual offenders produced IIOC by recording the actual sexual assault of the victim (offline), whereas noncontact offenders recorded the sexual behavior over webcam or covertly. Regardless of the method of production (webcam or contact abuse), dual offenders were more likely to produce IIOC, consistent with Wolak et al.'s (2005) findings. Taking these three factors into consideration, this could suggest that dual offenders are more opportunistic and predatory (Wortley & Smallbone, 2006), or as Neutze, Seto, Schaefer, Mundt, and Beier (2011) state, more aware of risky situations.

Dual offenders were less likely to engage in risky behavior online, such as paying for access to IIOC, and more likely to give a "no comment" interview. This may suggest that dual offenders are more criminogenic. This is supported by the finding that dual offenders were significantly more likely to have a criminal conviction, specifically for a nonsexual offense (e.g., theft). This supports the concept of criminal antecedents having predictive abilities when examining offense behaviors (Davies et al., 1998; Soothill et al., 2008; Wilson & Alison, 2005).

Time Spent Accessing IIOC

For both dual and noncontact offenders, the longer (in years) they downloaded IIOC, the higher amount of IIOC possessed at Levels 4 and 5 for both movie and still IIOC. However, the chronological points at which these Level 4 and Level 5 IIOC were possessed were not recorded. This could suggest that prolonged engagement leads to satiation and habituation, increasing the need for more severe material to reach arousal (Sullivan, 2002; Sullivan & Sheehan, 2002). This is consistent with research on adult pornography (Zillmann & Bryant, 1986). This could also suggest a "trajectory of internet use, moving from less to more frequent use, and less to more deviant material accessed over time" (Glasgow, 2010, p. 91). An alternative explanation maybe that increased engagement with the internet, IIOC, and online communities allows an offender to become more experienced in their search criteria and as such are able to locate higher-level images. However, the finding that noncontact offenders were less likely to possess the higher SAP levels than dual offenders would need further exploration in relation to chronology and pathways of offending.

Limitations

A number of limitations of the current study must be noted. First, this study used a stratified random sample of IIOC offenders, identified and grouped on the basis of their index offenses. This suggests that there are likely to be undetected contact

offenders within the noncontact group, consistent with the findings of Bourke and Hernandez (2009). Thus, any findings in this study should be treated with caution. Although the sample was relatively small, it is also the largest U.K. sample to date that has explored IIOC on these detailed factors. All information was taken from case files and discussions with investigators that were originally gathered for prosecution and investigatory purposes, rather than for use in this study. Every effort was made to verify data using a variety of means.

It is important to note that this research did not gather temporal information on offender's behavior. Consequently, any findings regarding the time downloading IIOC was based on the offender's admission in interview at the time of arrest and any available computer analysis information. Timeline in contact offending behavior was gathered through victim and offender statements as well as any medical documentation provided. As offenders were detected and arrested through different means (dual offenders through reporting by the contact victim and noncontact offenders through another investigation or payment for images), it is acknowledged that the data analyzed may be a snapshot of their offending behavior. As a result they could be at different stages in their offending pathway. With both groups reporting similar ages for IIOC arrest, this may suggest that noncontact offenders are slower to progress, or started offending later in life. This requires further investigation.

By treating the offenders as two distinct groups, it also minimizes the effect of offenders engaged in grooming, inciting, or production of IIOC, as within the current study these offenders could be categorized as either dual or noncontact. Therefore, it is acknowledged that the noncontact offender group is not a homogenous group, as 6 participants displayed grooming behavior, but did not commit a "hands-on" offense against a child. To further strengthen the results of this exploratory article, further work is currently being undertaken with a larger sample that explores other offender groupings. Furthermore, the categorization according to the SAP levels (SGC, 2007) means caution should be used when interpreting results as some countries do not categorize images or use other scales such as COPINE (Taylor et al., 2001).

Finally, offenders were categorized as dual offenders if they had any known contact offense; therefore, the contact offense could have come before, during, or after the IIOC conviction. This reflects the reality of how the information would be received by law enforcement agencies. When IIOC cases are initially detected the police do not always immediately know the identity of the offenders and would therefore be unaware of any previous convictions or the order in which their offenses occurred.

Implications

One of the challenges for law enforcement agencies is the prioritization of investigations of IIOC, with increasing workloads and more severe IIOC available (Internet Watch Foundation, 2008; Wolak et al., 2009). This study was designed pragmatically to investigate factors that may be available to law enforcement to inform decision-making processes and prioritization. It is acknowledged that studies such as this may have

implications for law enforcement agencies (Eke et al., 2011). Any interpretations of the findings of this article should be tentative due to the sample size. However, it has identified several likelihood factors for contact child sexual abuse that may be used to assist in prioritization. This study provides an exploratory starting point in terms of detailed examination of IIOC and how possession relates to the offending behavior. The larger sample identified factors such as living with a partner and their partner's children, previous convictions, and access to children, which could be used to assist with prioritization. More tentatively from this exploratory study, factors such as smaller IIOC possession, higher proportion of Level 3 and 4 still IIOC, lower proportion of Level 1 IIOC movies, smaller age range of IIOC victims, production of IIOC, and evidence of grooming behaviors could also be used for law enforcement prioritization.

Conclusion

This article tested hypotheses proposing that dual offenders and noncontact offenders could be differentiated according to their IIOC possession and offending behavior. The study found differences in previous convictions, access to children, and number, proportion, and type of IIOC viewed. The key finding of this exploratory study was the anchoring preferences displayed that differentiated dual offenders from noncontact offenders as well as sadistic rapists from sexual penetrative and sexual touching offenders. Noncontact offenders anchored on lower-SAP-level IIOC, with no preference in terms of the age, gender, or sexual action. In contrast, dual offenders preferred higher SAP levels and also possessed IIOC within a smaller age range, which tended to match their sexual contact victim in terms of age and gender. Moreover, the more severe the contact child sexual offense committed, the higher the proportion of penetrative IIOC possessed. The increased likelihood of previous convictions suggested dual offenders were more criminogenic, and their increased access to children may support theories of opportunistic and predatory offending. Taken together, this supports the notion that offenders are likely to take deliberate actions to possess IIOC (Taylor et al., 2001) and that these individuals will seek IIOC that reflects their sexual fantasy (Howitt, 1995, Seto et al., 2001). Thus, the anchoring of IIOC may represent the sexually assaultive behavior of dual offenders (Burgess et al., 1986).

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Notes

1. A meta-analysis conducted by Seto, Hanson, and Babchishin (2011) found Bourke and Hernandez (2009) study to be a statistical outlier when examining self-report data.
2. Data were nonnormal: Skewness value = 3.37 indicating data were positively skewed. Kurtosis = 11.99 indicating a leptokurtic distribution with a high probability of extreme scores.
3. As this is an exploratory article, the effect of grooming behavior was examined as a possible discriminatory factor. Further work is currently being undertaken by the authors with a larger sample to discriminate the groomer/inciter group as a separate group of offenders from dual and noncontact offenders.
4. Cohen (1988) defined a small effect size as $d = 0.20$, a medium effect size as $d = 0.50$, and a large effect size as $d = 0.80$.
5. 95% confidence intervals are also provided for all odds ratios with many indicating a broad range of values suggesting low precision.

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Adolescents Who Have Engaged in Sexually Abusive Behavior: Effective Policies and Practices

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Introduction

Sexually abusive behavior by adolescent youth is a serious problem, accounting for more than one-third of all sexual offenses against minors[1] and causing serious harm or even devastating consequences. As such, these youth merit careful professional attention and, at times, legal intervention. The public, its representatives, legal professionals, and clinical practitioners have a common goal of community safety and no more victims. Effective public policies and practices, informed by the most accurate facts, are essential to successfully address this problem.

Historically, professional opinions about adolescents who engaged in sexually abusive behaviors were based on beliefs about adults who committed sex crimes. A sufficient number of studies now exist, however, that show most of these youth do not continue to sexually offend and are not on a life path for repeat offending[2]. The problem of sexually abusive behavior by adolescents differs from adult sex offending; the causes and solutions vary. Because of these differences, particularly rapid and continuing adolescent development and dependence on adults and caregivers, different policies and practices are required. Moreover, adolescents who sexually offend are diverse, e.g., in age and maturity level, learning styles and challenges, and risk factors for reoffending. Effective policies and practices account for differences in risks, needs, and intervention responsivity among these youth[3].

II. Goal of the Document

The goal of this document is to provide relevant information for reducing sexual reoffending by adolescents and promoting effective interventions that facilitate pro-social and law-abiding behaviors. This document is purposefully short in length, summarizes central findings from the research, and outlines some major areas for consideration when working with this population of youth and their families.

III. Definition

In this paper, the term “adolescents” indicates youth ages 13 to 18 years. The term "Adolescents Who Have Engaged in Sexually Abusive Behavior" is used rather than terms like "juvenile sex offenders" to emphasize that these youth are teenagers who are developing and maturing and should not be defined by their abusive behavior[4-6]. For information on younger children with sexual behavior problems, readers are referred to *Report of the ATSA Task Force on Children with Sexual Behavior Problems*[7]. For information on adult sexual offenders, readers are referred to *ATSA Practice Guidelines for the evaluation, treatment and management of adult male sexual abuser*[8]. The reader is also referred to *A Reasoned Approach: Reshaping Sex Offender Policy To Prevent Child Sexual Abuse* (http://www.atsa.com/sites/default/files/ppReasonedApproach.pdf) and *Sexual Abuse as a Public Health Problem (http://www.atsa.com/sexual-abuse-public-health-problem)* for information about the prevention of sexual abuse[9].

The term “sexually abusive behavior” is used to denote all instances of sexually abusive behavior whether or not a specific behavior was reported to authorities and, if reported, whether or not the youth was

adjudicated (as a juvenile or as an adult) and whether or not a finding of guilt ensued. Sexually abusive behavior is differentiated from developmentally normative behaviors and it is important to be aware of both normative sexual development and general adolescent development. The term "sexual recidivism" refers to reports of new sexually abusive behavior, typically recorded in juvenile or criminal justice records.

Overview of Current Research

Prevalence

There are few empirically sound prevalence estimates for adolescent sexually abusive behavior. A Minnesota state survey of 71,594 children in the 9th and 12th grades (approximate ages 14 to 18) included the question "Have you ever forced someone into a sexual act with you?"[10]. In response to this single item, 4.8% of boys and 1.3% of girls responded affirmatively. Several factors were associated with perpetration of forced sex, particularly use of drugs and child sexual abuse victimization. A more recent population-based study of Swedish and Norwegian high school boys (ages 17 to 20) provided similar estimates of perpetration (4% and 5% for the two countries, respectively) and also indicated that prevalence increased among the subset of boys reporting child sexual abuse victimization[11].

Recidivism rates

While the actual rates of sex offending behavior are under-reported, studies support that once detected, most adolescents who have engaged in sexually abusive behavior do not continue to engage in these behaviors[2, 12].

Sexual recidivism estimates for youth who have sexually offended have been reported in scores of studies conducted over decades of research. Caldwell reviewed 63 data sets with sexual recidivism rates for 11,219 youth who had sexually offended and estimated a sexual recidivism rate of approximately 7% across a 5-year follow-up period.[2] Even across decades long follow-up, sexual recidivism rates remain in this low range[13]. It is notable that if these youth reoffend, they are far more likely to do so with nonsexual offenses than with sexual offenses[2].

Risk and protective factors

The most empirically rigorous evidence for risk and protective factors associated with the development of behavior problems is provided by studies that prospectively follow youth from early childhood through adulthood (i.e., longitudinal studies). Several longitudinal studies have identified risk and protective factors associated with general delinquency[14-16]. Data from one of these studies suggests similar factors are associated with both general and sexual offending[17]. Specifically, youth who committed violent sexual offenses were similar to youth who committed nonsexually violent offenses on 64 of 66 factors (e.g. family problems, cognitive abilities). Likewise, results from a study that compiled information from dozens of non-longitudinal studies indicated that male adolescents with sexual offenses and male adolescents with nonsexual offenses were similar on a majority of factors[18]. The factors on which groups differed the most included child sexual abuse victimization and atypical sexual interests. Although most children who are sexually victimized do not go on to commit sexually abusive behavior, adolescents with sexual offenses were more likely to have been sexually victimized than adolescents with nonsexual offenses. These results suggest that preventing child sexual abuse victimization might also help prevent adolescent sexual offending. Relative to adolescents with nonsexual offenses, adolescents with sexual offenses were also more likely to be characterized by atypical sexual interests, such as interest in younger children or forced sex, and this interest was associated with sexual recidivism. Only a minority of adolescents appears to have atypical sexual interests, but if present these interests require appropriate interventions. Additional factors that might be related to recidivism include social skills deficits, social isolation, impulsivity and delinquent attitudes.

The juvenile delinquency literature identifies several protective factors that parallel factors found in

resiliency research related to healthy adolescent development. These include positive family functioning (e.g. adequate supervision, consistent and fair discipline), positive peer social group and availability of supportive adult [19-21]. Other protective factors for delinquency are commitment to school, pro-social/non-criminal attitudes and emotional maturity with resiliency protective factors also including self-regulation and problem-solving skills[19-21].

Assessment

Adolescent sexually abusive behavior is influenced by a variety of risk and protective factors occurring at the individual youth, family, peer, school, neighborhood and community levels[22]. Consequently, policies and practices should include evaluations that consider a range of potentially relevant factors that might be related to the development or possibility of repeated sexually abusive behavior in a given youth and that can guide effective intervention. In order to pursue effective treatment planning, assessments must be comprehensive, combining multiple sources of information from interviews, records reviews, self-report and parent-report using the best strategies and assessment and risk assessment instruments available. While not typically warranted for youth, restrictive and potentially life altering decisions, (e.g., residential placement, "sex offender" registration, community notification, civil commitment) should be based on assessment outcomes.

Physiological testing with adolescents is controversial with strong opposing perspectives regarding the appropriateness and benefit of the use of penile plethysmography, visual response time and the polygraph[22-26]. Overall research support for polygraph and penile plethysmography is lacking and use of these strategies with adolescents raises ethical concerns[22-23]. To date, no research on plethysmography or visual response time measures of atypical sexual interest have included nonoffending youths; thus, "norms" have not been established for use of these instruments with adolescents. In specific cases where the case dynamics, assessment of risk, and the identified risk factors point to significant clinical concerns and issues of high and difficult to manage risk, physiological testing may be worth considering. Based on the lack of empirical data supporting this procedure for youth, such decisions should be made with careful consideration, consultation, and a clearly stated clinically and empirically based rationale to support such a recommendation.

A growing literature base has developed with respect to sexual and nonsexual recidivism risk assessment. Recent publications suggest that existing instruments predict recidivism with better-than-chance accuracy[27-30]. However, to date these instruments are validated only for male adolescents. Of particular note is the fact that even among youth who score high on these instruments, the majority do not commit new sexual offenses. Consequently, it is inappropriate to utilize scores from such instruments to justify whether youth should be subjected to long-term legal requirements such as registration or public notification. When such significant determinations are under consideration, these assessment tools should be used only as one component of a comprehensive assessment protocol. Always, practitioners must take care to ensure against misuse of assessment results and to educate potential users about the current state of the research. Because youth are very much people in development and their circumstances are dynamic, assessment findings have a short "shelf-life" and should be updated every six months or when risk-relevant circumstances change [31,32].

Treatment

Adolescents who sexually abuse vary in their treatment needs. The dominant treatment model combines elements of cognitive-behavioral therapy with relapse prevention and focuses on individual youth-level factors such as responsibility and victim empathy[33,34]. Treatment is typically provided in clinics to groups of youth and often lasts a year or longer. Yet, the field of adolescent treatment is evolving. Studies have repeatedly demonstrated the importance of family involvement in the treatment of adolescents with sexual behavior problems[35-36]. Perhaps as a result more provider agencies now identify as "family-focused" than in prior years, according to national provider surveys[33-34]. There also are indications that some programs are

more closely matching treatment intensity to youth needs and estimated risk levels and de-emphasizing empirically unsupported treatment elements (e.g., requiring youth to journal about sexual thoughts or discuss deviant sexual fantasies during group sessions)[3, 11, 35,36]. Provider surveys also document a reduction in average treatment duration in recent years[33,34]. These changes likely reflect consideration of rapid youth development and improved treatment outcomes for interventions that involve families[35, 36] and that address dynamic risk, needs and responsivity[3].

Public Policy

Since the early 1990s, U.S. states and the federal government have developed and enacted extensive public policies designed to reduce sex offending by managing identified sex offenders with strategies thought to increase community safety. These policies have been applied to adolescents and even children. Children as young as six may face juvenile sex offense prosecution and adolescents charged for the first time may be waived to adult court. Some are civilly committed for an indeterminate amount of time as Sexually Violent Predators.

As of 2011, laws in 35 states require adolescents who have been adjudicated for sexual crimes to register with law enforcement, sometimes for life; 18 of these states disclose juveniles' private information to the public[37]. Some registered youths are also required to comply with residency restrictions prohibiting them from living near schools, parks or other places where children may congregate. Sometimes registered youths are expelled from schools or not allowed to participate in activities that can promote healthy development, such as school clubs, sports, and dances.

Like registered adults, registered youth who do not comply with mandated public registration requirements may be subject to prosecution for a felony and attendant severe consequences, including lengthy incarceration. Such policies not only have detrimental life altering consequences for the youth, but his or her family members as well.

Increasingly, research findings show that registration and public notification policies, especially when applied to youth, are not effective; and may do more harm than good[38]. Such laws may have deleterious effects on pro-social development by disrupting positive peer relationships and activities and interfering with school and work opportunities, resulting in housing instability or homelessness, harassment and ostracization, social alienation and lifelong stigmatization and instability. Such practices are inconsistent with community safety and promotion of pro-social development and, in fact, may actually elevate a youth's risk by increasing known risk factors for sexual and nonsexual offending such as social isolation. Research findings indicate rehabilitative efforts with most youth are effective; and that therapeutic interventions, rather than social control strategies, are likely to be not only more successful but cost-effective as well [39,40].

IV. Summary and Recommendations

Interventions with adolescents who have sexually abused are evolving into evidence-based, holistic approaches that are individualized according to youth and family risk factors, intervention needs, and learning style and capacity. Despite research gaps, this field has seen substantial progress toward facilitating positive development of these youth. Research continues to identify protective and risk factors and appropriate targets for intervention and has guided the field towards a family-involved model that facilitates community safety, promotes healthy and pro-social development and protects youth who have engaged in sexually abusive behaviors, and their families, from unnecessary hardships or punishments.

There remain areas in need of change. First, it is crucial that developmentally appropriate interventions designed for adolescents should be utilized. Sanctions and treatment approaches developed for adults should not be applied to adolescents except in rare cases (e.g., when developmentally appropriate and research supported interventions have failed). Second, risk assessment findings—which are currently often valued far beyond their empirically established limits—need to be appropriately integrated into comprehensive evaluations of risk that properly take into account the youth's social, family, and

environmental contexts. Third, too often therapeutic inventions relegate parents and other members of youths' environments to limited roles, rely on unsupported assessment techniques, place youth in overly restrictive settings and simply last too long.

Now that evidence has identified at least some risk factors associated with reoffending and has developed some evidence-supported treatment interventions, it is time to revise and implement public policies and practices that are based on what works. Adolescents should be assessed to determine which interventions and intervention settings are best suited to which youth. To minimize negative effects associated with out of home and residential settings (e.g., possible negative peer association and influences) and to maximize opportunities for pro-social activities and positive family or other supports, individualized interventions should be offered in settings that offer the least restrictiveness while at the same time providing for community safety.

Effective public policy and practice for adolescents who have engaged in sexually abusive behavior involves a strong rehabilitative focus. At times juvenile justice sanctions may be warranted. Support of a rehabilitative approach is consistent with the more general juvenile justice philosophies in most countries, including the United States and Canada, and recognizes adolescence as a time of hope and opportunity for positive outcomes.

Based on the current literature and research, it is recommended that:

1. Funding be available to support continued research on the etiology, assessment, prevention, effective interventions of adolescents who have engaged in sexually abusive behavior.
2. Risk, need and responsivity principles are adhered to when working with adolescent who have engaged in sexually abusive behavior.
3. Quality, developmentally appropriate assessments that take into account the youth's social, family and environmental context while incorporating relevant risk assessment findings are utilized to formulate an effective, individualized plan for youth who have engaged in sexually abusive behavior.
4. Developmentally appropriate, research informed interventions are utilized with adolescents who have engaged in sexually abusive behavior.
5. Public policies targeting adolescents who have engaged in sexually abusive behavior be consistent with the juvenile justice system's emphasis on rehabilitation versus retribution and based on the best empirical research available.

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Expensive, Harmful Policies that Don't Work or How Juvenile Sexual Offending is Addressed in the U.S.

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Abstract

In this policy paper we briefly review the historical predecessors of modern sex crime legislation. We then review modern policies, focusing on those that have been applied to youth who have sexually offended and for which there is at least some empirical evaluation. These include sex offender civil commitment, registration and public notification. None of the existing research validates the use of these strategies with juveniles and indeed there is growing evidence of harm. As such, we recommend that policies be revised to either exclude juveniles altogether or to mitigate the negative effects of policies when applied to juveniles.

Keywords

Sexually abusive behavior, sexually abusive youth, juvenile sexual offenders, juvenile sexual offending, sexual offense treatment, juvenile public policy, juvenile, sex offender registration

Punishing youth for and suppressing their sexual behaviors is neither new nor rare. However, relative to other democratic countries, particularly Scandinavian countries, the United States approaches the suppression of adolescent sexuality with particularly aggressive zeal. Adolescents are considered incapable of providing consent for sex until they reach a given state's age of consent (typically between 16 and 18 years of age) and these prohibitions frequently include sexual activity with consenting age mates (Sutherland, K., 2003). Moreover, since the early 1980's, the U.S. government has actively promoted and funded abstinence-only-until-marriage sexual education curricula, despite evidence that such programming leaves youth at greater risk for unprotected sex (Dailard, 2006).

The U.S. also takes a heavier hand toward juvenile delinquency than is true of most other democratic countries, only recently prohibiting applications of the death penalty and life imprisonment in juvenile cases, broadly permitting the prosecution of minors as adults, and essentially failing to set a lower age below which children are considered not culpable of delinquent or criminal offending (i.e., some states prosecute children as young as 6 years of age; Muncie, 2008).

Perhaps not surprisingly, the U.S. sets itself apart from other democracies to an even greater extent with policies that conflate adolescent sexual behavior and juvenile delinquency – that is, with policies that respond to a broad range of adolescent sexual behavior as juvenile sexual offending. Although the U.S. is not alone in subjecting juveniles who have sexually offended to far-reaching policies (e.g., at least two Australian states curtail the future career options of youth who have sexually offended), there simply is no other democratic nation in which youth adjudicated as minors for sexual offenses face penalties as severe as those found in the U.S. For this reason, the present policy review limits itself to modern U.S. polices. But first, we begin with some history.

U.S. Sex Crime Legislation: 1880s-1980s

As described previously (Letourneau & Levenson, 2010), the U.S. has experienced three waves of sex crime legislation over the past 100 or so years. The first wave spanned from the late 1800's to the end of World War II, during which time sex offenders, other criminals, and the mentally ill or incapacitated were subjected to indefinite institutionalization and sterilization. These policies were jointly influenced by the fields of sexology and eugenics (Ordover, 2003). Specifically, sexologists promoted the view that even minor forms of sexual misbehavior predicted future sexual violence and homicide (Jenkins, 1998), whereas eugenicists promoted the view that criminal behavior was genetically determined (Ordover, 2003). In combination, these fields shaped a view of sexual offending as intractable, resistant to change, and escalating, convincing policy makers to enact extreme interventions to limit society's immediate exposure to danger from an offender (via institutionalization) and future exposure to danger from an offender's offspring (via forced sterilization). When eugenics became associated with Nazism, forced sterilization of U.S. citizens fell out of favor (Ordover, 2003) and in 1942 its use for punishment was ruled unconstitutional (Skinner v. Oklahoma), although its use for eugenics continued for four more decades. Of relevance to this discussion, sterilizations programs often targeted children, many of whom resided in congregate care facilities such as prisons and reform schools (Owens-Adair, 1922; Silver, 2003-2004). Take for example the case of John H. who at the age of 17, was sterilized while imprisoned in an Oregon State Penitentiary (Owens-Adair, 1922). The reason given for his sterilization was "allowing other prisoners to commit sodomy on his person." The operation was considered a success by the warden, who noted that "at least we have had no further trouble with the boy" (p. 145). These and similar anecdotes were considered to support the positive effects of sterilization, which were heavily promoted by the book's author. Overlooking the homophobic response to male-on-male sodomy for a moment, one wonders just how consensual these experiences were from the perspective of a 17-year-old boy housed with many older, and possibly more violent, prisoners.

The subsequent two waves of sex crime legislation can each be attributed, in part, to specific, highly publicized and gruesome sex crimes that helped fan fears of sex crime epidemics. In Wave II, which spanned, approximately, from the late 1930s through the late 1960s, the public's fears about sex offenders were inflamed following publicity of horrendous crimes committed by Albert Fish against children in the late 1930s (Schwartz, 2011). Fish's crimes and the resulting media also coincided with the rise of forensic psychiatry, which sought to increase its relevance to and influence with the courts by promoting certain forensics-based interventions. Among these was the treatment of so-called "sexual psychopaths" whom, it was argued, required psychiatric intervention rather than incarceration (Lave, 2009; see also Sutherland, E. H., 1950[1]). Between 1937 and 1967, 26 states and the District of Columbia passed so-called sexual psychopath laws, in which sex offenders who were deemed mentally ill and lacking the power to control their sexual impulses could be institutionalized prior to and in lieu of incarceration (for an in-depth review, see Lave, 2009). Pre-incarceration commitment policies fell out of favor relatively quickly when it became clear that the criteria for distinguishing between sexual psychopaths (who needed help) and other sex offenders (who needed punishment) were flawed, and because treatment was viewed as ineffective (Lave, 2009). As in Wave I, juveniles were also subjected to the indefinite commitment policies of Wave II, despite the fact that these policies were predicated on fears about adult sex offenders. Consider the case of Elvry Stoneham. At 12 years of age, he was made a ward of the juvenile court because he was in danger of "leading a lewd and dissolute life" (In re Stoneham, 232 Cal. App. 2d 337). At 17 years of age and following a series of unspecified parole violations, he was returned to the California Youth Authority, which found him to be a mentally disordered sex offender, a prerequisite to involuntary commitment. According to Mr. Stoneham's petition for relief from commitment, he had never been convicted of an actual sexual offense.

1 One hesitates to cite Sutherland as an authority on sex crime policy when, in this same text, he dismisses the possibility of forcible rape as "practically impossible unless the female has been rendered practically unconscious by drugs or injury" (p. 545), an argument eerily similar to recent controversies within the U.S. Republican political party about the likelihood of pregnancy following "legitimate rape" (e.g., see for brief overview the Wikipedia entry at http://en.wikipedia.org/wiki/Rape_and_pregnancy_controversies_in_United_States_elections,_2012).

Modern U.S. Sex Crime Legislation: 1990s-Present

Wave III of sex crime legislation is ongoing and dates to the late 1980s when the public's fears about sex offenders resurfaced, fanned again by sensational media coverage of exceptional cases and belief in a sex crime epidemic. Numerous policies were enacted at local, state and federal levels, including post-incarceration civil commitment for so-called "sexually violent predators" (SVP), sex offender registration, and public notification. In addition to these policies, states and local jurisdictions have attached numerous collateral legal consequences to registration requirements, including residency and employment restrictions, GPS monitoring, and others (Lester, 2006; Levenson & D'Amora, 2007). However, for purposes of this paper we restrict review to those policies with at least one published study evaluating policy effects on juveniles, which (as detailed later) include civil commitment, registration, and notification.

Civil commitment. Modern civil commitment laws date to the horrific case of Earl Shriner who made no secret of his intention to torture and mutilate children upon his release from the Washington State prison in 1987 where he was confined due to his prior abduction and assault of two teenage girls. Prior to this conviction, he had served 10 years in a psychiatric hospital for the murder of a teenage girl and was also known to have choked and assaulted a younger girl. Despite efforts to keep him committed under existing "imminent danger" mental health civil commitment policies, Mr. Shriner was released and subsequently raped, mutilated, and left for dead a 7-year-old boy (LaFond, 2005). The boy did not die and Shriner was rearrested. However, the child's parents and community members were outraged that the state had been unable to prevent this crime from happening in the first place and a grassroots organization urged the governor to develop new policies to address this gap in community safety. In 1990, Washington State passed the first modern sex offender civil commitment policy, which also included components of sex offender registration and public notification[2]. Since then, a total of 21 states, the District of Columbia, and the federal government have enacted civil commitment policies targeting the "worst of the worst," or so-called "sexually violent predators" (National District Attorneys Association, 2012). Policies vary but typically require that, prior to release from confinement, convicted sex offenders undergo evaluation to determine whether they meet a state's criteria of being both mentally disordered and likely to commit violent sexual crimes. If evaluated as such, legal proceedings ensue that will make the final determination as to whether or not the offender will be committed. While committed, offenders are to receive specialized treatment until such time as they are considered to pose little threat to community safety. Commitment is indefinite and release is rare. For example, an audit of Minnesota's civil commitment program, which had been operating for 10 years, revealed that not a single offender had ever been discharged from treatment (Office of the Legislative Auditor, State of MN, 2011).

In many states, youth adjudicated delinquent for sexual offenses are or can be evaluated for civil commitment. A recent example is the case of Thomas S, who, at the age of 10, was adjudicated delinquent as a minor for sexually abusing a younger relative. From ages 12 to 17, he was incarcerated in a South Carolina juvenile detention facility, and when, in 2008, he was finally considered eligible for release by the juvenile parole board, he was automatically evaluated for civil commitment per that state's SVP policy. Despite having just one known victim whom he molested when he himself was very young, Thomas was found to meet criteria as a SVP and subjected to a jury trial to determine commitment. At that initial trial, a representative of the civil commitment facility itself argued against commitment, fearing among other things that Thomas would be targeted by the older, more violent offenders housed in that facility and also because the representative did not feel Thomas' profile fit that of an SVP. Nevertheless, the jury voted to commit. Each year thereafter, the civil commitment facility supported Thomas' petition for release, and in each of three subsequent trials juries voted to continue his commitment. Eventually, Thomas' attorney successfully argued to the state supreme court that he should never have been committed in the first place, due to introduction of non-expert testimony at the first commitment hearing. By the time his release was ordered by the state supreme court in 2013, Thomas had spent five years in the locked, high-security civil commitment facility. Of note, South Carolina's cost for civil commitment averages (US)$63,000 per year, per patient (Smith, 2010), for a total of $315,000 across Thomas' five years of commitment. Estimating the cost of his prior 5-year juvenile incarceration as approximately $75,000 (based on $15,000/year/inmate, the going rate for that state's adult incarceration; see http://www.doc.sc.gov/pubweb/faqs.jsp), then this state "invested" approximately $400,000 in Thomas. This amount, however, likely underestimates true expenses, given that it does not include any legal costs related to arrest, prosecution, probation, or the juried and non-juried trials. Predictably, Thomas' childhood was characterized by parental and non-parental abuse and neglect. Had the state provided Thomas and his family with evidence-based prevention programming – including even several of the costliest prevention programs – it would have spent twenty times less than it did on his incarceration and commitment alone[3].

Sex offender registration and notification. Sex offender registration and notification were components of the Washington State law but, unlike its civil commitment policy, registration and notification were not initially widely adopted by other states. This changed in the mid-1990s when for the first time the U.S. federal government required states to create sex offender registries and, shortly thereafter, required states to provide information on sex offenders to the public. These statues carry the names of the victims in whose memory they were created. In 1989, Jacob Wetterling was abducted by a masked gunman and has never been seen since. His mother founded the Jacob Wetterling Foundation (now the Jacob Wetterling Resource Center), which among other activities urged the state to develop sex offender registration policies on the reasonable assumption that the gunman had likely offended before. The state did so, and the policy was taken up at the federal level as the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act (enacted under the federal Violent Crime Control and Law Enforcement Act of 1994). The federal Wetterling Act established registration requirements for all states and other jurisdictions and permitted public notification. In 1994, Megan Kanka was lured into the nearby home of a convicted sex offender who then raped and murdered her. Convinced that they could have protected their daughter had they known about the offender's presence in their neighborhood, Megan's parents petitioned the state to established a community notification policy in which community members are notified when a convicted sex offender moves into the community. The federal version of "Megan's Law" was enacted in 1996 and amended the Wetterling Act by mandating public notification requirements.

As originally defined by these and related federal statutes, states had considerable leeway in crafting their registration and notification policies, including whether or not to include juveniles. However, the more recent Adam Walsh Act of 2006 (AWA) was developed and implemented specifically to reduce between-state policy variations and, for the first time, required the registration and notification of juveniles adjudicated delinquent by virtue of certain sex crimes. The public notification requirement elicited strong negative reactions from enough quarters that it was eventually dropped from the Act (Docket No. OAG 134; AG Order No.

2 Several states (e.g., California, Minnesota) retained their original sexual psychopath laws, but adopted an updated SVP policy.

3 For example, given Thomas' parents' poverty and substance abuse disorders, early primary prevention/family strengthening strategies such as Nurse Family Partnership for Low Income Women ($9,118) and Early Childhood Education for Low Income 3- and 4-Year Olds ($7,301) might have been worthwhile; given his later school difficulties and delinquency, Multisystemic Therapy ($5,681) might have been helpful. Together, these programs sum to $22,100 (Aos, Lieb, Mayfield, Miller, & Pennucci, 2004).

3150-2010), but juveniles 14 years of age and older who are convicted of certain sexual offenses must still register for 25 years or life, depending upon their offense and offense history. States that refuse to comply with this or other aspects of AWA are penalized by the loss of certain federal funds. A recent review of state policies indicated that 35 states have juvenile registration requirements (not infrequently for life) and 25 states include juvenile registrants' information in online registries (Pitman & Nguyen, 2011), demonstrating that the AWA has significantly increased the scope of juvenile registration (Chaffin, 2008).

Because registration and notification of juveniles is both recent and now commonplace, anecdotes about youth affected by these policies abound. One case that was widely publicized by the New York Times involved "Johnnie" (Jones, 2007). When Johnnie was 11 years old he molested his younger sister. Unsure of what to do, his mother turned to law enforcement for help. They arrested Johnnie, and he was adjudicated and placed in specialized residential sex offender treatment for 16 months. Upon his return to family care, his information as a registered sex offender was made public on his state's online registry. Johnnie's first suicide attempt occurred two weeks later, after classmates began to harass him based on his registration status. He made at least two more suicide attempts, shuttled between family and non-family care, and had to switch schools repeatedly following ongoing harassment.

The costs of registration and notification have not been well documented. However, prior to implementing the Adam Walsh Act registration and notification requirements, several states attempted to quantify these costs, in an effort to determine whether the cost of complying with the Act exceeded the potential loss in federal funds tied to noncompliance. Estimates varied widely. For example, an Ohio fiscal impact evaluation indicated that enacting the Act's registration and notification requirements would result in one-time expenditures of $475,000 and annual expenditures of $85,000, solely to update and maintain the registry. It was also assumed that unspecified but substantial increases would occur in legal and incarceration expenditures related to implementation (127th General Assembly of Ohio, 2007). By comparison, a Virginia fiscal impact statement that included estimated increases in some legal and incarceration costs estimated an outlay of nearly $12,500,000 during the first year of implementation, and nearly $9,000,000 each year thereafter (Department of Planning and Budget, 2008). What is less clear from these and other fiscal impact statements is the per-person cost of registration and notification. Because the Adam Walsh Act increased the frequency of mandatory in-person re-registration, the amount of information collected, the procedures required for verifying the information, the duration of registration requirements, the types of offenses that trigger registration, and the penalties for registration errors and omissions, now to include a minimum one year of incarceration for the first infraction, the per-person costs of the Act's registration and notification requirements are substantial. We argue that these additional costs, though poorly documented, very likely exceed $9,000 per-person, which is the average cost of evidence-based treatment programs targeting juveniles who have sexually offended (Aos, Phipps, Barnoski, & Lieb, 2001).

Do Modern Policies Improve Community Safety?

Modern sex crime policies have, at their core, the aim of reducing the risk of sexual recidivism posed by known offenders. Civil commitment policies aim to reduce recidivism risk by extending the incapacitation and treatment of offenders until such time as they might safely be returned to their communities. Registration policies aim to reduce recidivism by making it easier for law enforcement to scrutinize sex offenders. Notification policies aim to reduce recidivism by empowering regular citizens to scrutinize offenders and report suspicious behaviors. Additionally, it is hoped offenders view registration and notification as increasing the risks of getting caught should they reoffend, thus altering their own personal risk-benefits evaluation of future offending.

The success of these policies rests, in no small part, on the accurate identification of high risk offenders. Additionally, focusing expensive interventions on high risk youth also improves the likelihood of cost effectiveness. Thus, accurate recidivism risk prediction is a necessity. Yet recidivism risk prediction for juveniles is complicated by numerous factors. First and foremost, juvenile sexual recidivism has very low base rates: the fact is that the vast majority of youth adjudicated for a sexual offense will not sexually reoffend, even across decades-long follow-up (e.g., Caldwell, 2010; Letourneau & Armstrong, 2008; Worling, Litteljohn, & Bookalam, 2010; Zimring, Jennings, Piquero, & Hays, 2009). Furthermore, even a highly effective intervention is unlikely to significantly reduce the recidivism rates if those rates are already very low. Undoubtedly, another source of difficulty is the extensive developmental change that occurs during adolescence. Adolescents experience the onset of sexual impulses and the intensification of other appetitive impulses, undergo tremendous changes in social reasoning and susceptibility to social influences, and develop a greater capacity for impulse control and mature social reasoning (Sisk & Foster, 2004; Steinberg, 2004, 2010; Steinberg, Albert, Cauffman, Banich, Graham, & Woolard, 2008; Steinberg, & Monahan, 2007). Thus, risk-taking and inappropriate social behavior are likely to be unstable in adolescence and hence more difficult to predict. Moreover, adolescents who engage in sexual offending behavior constitute a heterogeneous population (Worling, 2001) and the dynamics that produce sexually inappropriate behavior are likely to be diverse and combine in highly individualized ways. Additionally, risk factors may be developmentally sensitive, requiring an age-graded approach to risk assessment (Quinsey, Skilling, Lalumière, & Craig, 2004; Sampson & Laub, 1997).

For these reasons, the accurate identification of high risk youth has been elusive. Even among the sexual recidivism risk instruments that have some support of predictive validity, the support appears to be fueled in large part by the correct identification of non-recidivists, who comprise the majority of all evaluation samples. Thus, fewer than half of youth identified as "high risk" to sexually reoffend actually do so (e.g., Worling, Bookalam, & Litteljohn, 2012). Failure to correctly identify high-risk youth also extends to civil commitment evaluation procedures and registration and notification evaluation procedures, as described below.

Civil Commitment

To our knowledge just one publication rigorously evaluates and fails to support the accuracy of a civil commitment evaluation process designed to identify juvenile sexually violent predators. Caldwell (2013) examined the recidivism rates of youth who met and did not meet one state's commitment criteria. All but three of the 54 youth who met criteria were nevertheless released to the community, as were all of the 144 youth who were eligible for commitment but did not meet criteria. Results of recidivism analyses indicated that, across approximately 5 years of follow-up, youth who met commitment criteria were significantly *less* likely to be charged with subsequent offenses (of any kind) than youth who did not meet criteria, and groups did not differ significantly with respect to charges for violent or sexual offenses. Results did not change appreciably when the three committed youth were included in the analyses with the assumption that each would have committed a sexual offense if released. If youth selected for commitment as sexually violent predators are not, in fact, at any higher risk of recidivism than youth not selected, then including youth in SVP screening procedures and subjecting them to civil commitment does not improve community safety (Caldwell, 2013).

Even with poor detection of high risk youth, is it still possible that the treatment received by civilly commitment youth reduces their recidivism risk? We think not. Even if civil commitment was focused on high-risk juveniles, there are several reasons to doubt its potential treatment effectiveness. Congregate care is detrimental for adolescent offenders in and of itself (Freundlich & Avery, 2005) and any positive effects of interventions delivered in artificial settings are less likely to generalize to real-world settings (Frensch & Cameron, 2002). Further, although not necessarily related to the civ-

il commitment process, residential, group-based juvenile treatment is likely to over-emphasize individual-level factors that may or may not be related to recidivism (e.g., victim empathy) while neglecting to address important risk and protective factors within the many settings in which youth are embedded (family, peer, school, community). Indeed, the only intervention for youth who have sexually offended that is supported by multiple randomized controlled trials, Multisystemic Therapy (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009), is a parent-focused intervention delivered in youths' homes, schools, and other settings (Borduin, Henggeler, Blaske & Stein, 1990; Borduin, Schaeffer & Heiblum, 2008; Letourneau et al., 2009; Letourneau et al., in press). With youth who have sexually offended, MST achieves its positive effects by improving caregiver factors (e.g., appropriate discipline) and addressing peer factors (e.g., reducing association with delinquent peers; Henggeler, Letourneau et al., 2009). Effectively treating youth in specialized residential facilities, sometimes far from their homes and communities, seems, therefore, an unlikely proposition.

The Effects of Registration and Notification

Caldwell and his colleagues also evaluated the ability of federal and state protocols to identify high risk youth (Caldwell, Ziemke, & Vitacco, 2008). To do so, they retrospectively assigned Adam Walsh Act tier designations, as well as scores for three state-developed risk assessment protocols, to juvenile sex and nonsex offenders who had been released from a secure treatment facility for an average of nearly six years. Neither the federal tier system nor any of the state protocols significantly predicted any type of recidivism, with one exception: youth evaluated as meeting the federal requirements for registration were significantly *less* likely to be charged with new violent offenses.

These results were replicated and extended in a study by Batastini and her colleagues (Batastini, Hunt, Present-Koller, & DeMatteo, 2011) in a study of 112 adjudicated juvenile sexual offenders followed for a two-year period post treatment. Sixty-seven of the participants (62%) met the criteria for SORNA Tier 3 registration. Youth who met federal registration criteria (n =67) were no more likely to reoffend, sexually or nonsexually, than youth who did not meet registration criteria (n = 41). In fact, only 2 youth reoffended with a new sexual offense across the 2-year follow up period. These results indicate that federal and several state protocols not only misidentify most low-risk youth as higher risk, but also (in the case of the federal protocol), misidentify higher risk youth as low risk. Thus, the federal strategy might actually result in increased risk to community safety.

Given the inability of federal and state risk assessment protocols to correctly identify youth at higher risk of recidivism, it should not be surprising that the four research studies evaluating the effects of registration and notification on recidivism fail to find any evidence that these policies reduce juvenile recidivism. For example, using data from South Carolina, Letourneau and colleagues completed two evaluations of that state's juvenile registration and notification policy on sexual and nonsexual recidivism. In the first study (Letourneau & Armstrong, 2008) 222 registered and nonregistered male youth were matched on year and type of initial sexual offense, age at offense, race, and prior offenses. Recidivism was assessed across an average 4-year follow-up. The sexual offense reconviction rate was less than 1% (just two events for 222 youth). The nonsexual violent offense reconviction rates did not differ between registered and nonregistered juveniles.

In a second study (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2009b), the sexual and nonsexual recidivism rates of registered male youth (N = 574) and nonregistered male youth (N = 1,275) were compared across an average 9-year follow-up period. Results indicated that registration had no influence on nonsexual violent recidivism. Results also indicated that registration increased the risk of youth being *charged* but not convicted of new sex offenses, and being *charged* but not convicted of new nonviolent offenses. The authors concluded that not only does registration fail to reduce recidivism, it also appears to be associated with increased risk of new charges that do not result in new convictions – possibly indicating a surveillance or "scarlet letter" effect for youth subjected to these policies.

Caldwell and Dickinson (2009) compared the recidivism rates of registered (n = 106) and unregistered (N = 66) juveniles across a 4-year follow-up period. They reported that registration status was unrelated to new sexual or violent charges. Registered youth were significantly less likely to be charged with new non-violent misdemeanor offenses. Follow-up analyses revealed that registered youth were lower risk as evaluated by juvenile risk assessment tools and thus their lower general recidivism rate is attributable to actual risk, versus some deterrent effect of registration.

Registration and notification could still be effective, even in the absence of a recidivism effect, if these policies deterred initial sex crimes. However, the single study that has evaluated this question failed to find any support for a policy effect on general deterrence. Specifically, Letourneau and colleagues (Letourneau, Bandyopadhyay, Armstrong, & Sinha, 2010) examined more than 3,000 juvenile sex offense cases from 1991 through 2004. Trend analyses modeled the effects of South Carolina's initial registration law (which did not include online registration) and subsequent revision (that permitted online registration of registered youth) on first-time sex offenses. If either the original or amended policy deterred first-time juvenile offenses, then rates of first-time sex crimes should have declined following policy enactment. However, results indicated no significant deterrent effect for either the original or the revised registration policy. Thus, neither the threat of registration nor the threat of notification was associated with deterrence of first-time juvenile sex crimes.

The available evidence indicates that juvenile registration and notification policies are not associated with the intended effect of reduce sexual offending. These policies are, however, associated with several unintended effects. One of these is the unfair targeting of registered youth for unnecessary arrest. As noted above, Letourneau and colleagues (Letourneau et al., 2009b) found that South Carolina's registration policy was associated with increased risk of new charges but not new convictions. This effect was strongest for nonviolent offenses. Specifically, registered youth were significantly more likely than nonregistered youth to be charged with relatively minor, misdemeanor offenses (e.g., public order offenses). While it is possible that the burdens related to registration actually increased youth misbehavior, the authors believed it is more likely that these findings reflected a surveillance effect. That is, youth who are required to register with law enforcement agencies, and who thus become known as "registered sex offenders," are likely to be viewed (inaccurately) as more dangerous than youth with the same history of sex offending but without the registration label. This perception may cause law enforcement agents to arrest registered youth for behaviors that do not trigger the arrest of nonregistered youth, and that ultimately do not result in new convictions. Requiring youth to register multiple times per year with law enforcement therefore has a significant negative consequences and not merely an inconvenience.

A second unintended effect of registration and notification is to reduce the likelihood that youth are held accountable for sexual offenses. Two related studies support this unintended effect. In an initial study, Letourneau and colleagues (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2009a) examined the effects of registration and notification on the likelihood that prosecutors would choose to pursue versus drop or dismiss juvenile sex offense charges. Prosecutor decisions and final dispositions were examined for more than 5,500 juvenile sex offense cases across a 15-year time period. Results indicated that prosecutors were significantly less likely to pursue sex offense charges after policy implementation. Specifically, there was a 41% decline in prosecution of these cases following implementation of juvenile registration. The authors interpreted this finding as evidence that prosecutors were trying to protect some youth from that state's lifetime registration and notification requirements.

In the second study, Letourneau and colleagues (Letourneau, Armstrong, Bandyopadhyay, &

Sinha, 2013) examined the effects of registration and notification on the likelihood that juvenile sex offense charges would be pled down to lesser, non-sex offense charges. Examining data from nearly 3,000 youth initially charged with sex offenses, they identified dramatic and significant increases in plea bargains corresponding with enactment of South Carolina's registration policy. Specifically, there was a 124% increase in plea bargains leading to non-sex offense charges from the period predating registration to the period following initial enactment of registration, and another 50% increase in plea bargains following enactment of online registration notification. Thus, even when deciding to pursue juvenile sex offense charges, judicial actors, including prosecutors, defense attorneys, and judges, appear to evidence a protective mindset and permit many youth to plea responsible to charges that will not trigger registration requirements.

The public branding of some youth as registered sex offenders or sexually violent predators is likely to result in a host of other negative collateral consequences to these youth and their family members (Chaffin, 2008). A recent Human Rights Watch report (2013) detailed the results of nearly 300 interviews with people affected by juvenile registration and notification requirements. The collateral consequences attributed to these policies are appalling and included stigma, isolation, shame, and depression. Suicidal ideation was not uncommon and suicide attempts, both completed and not completed, were identified. Reports indicated that youth and their family members had been beaten, shot at, and even murdered. Youth and young adults have been denied access to education, faced frequent moves, and been unable to find or maintain stable employment or housing. Parents, spouses, and even the children of people registered for juvenile offenses, all reported being affected. Many were unable to navigate complicated registration requirements and sustained new, felony-level "failure to register" convictions.

Another publication reported on the issue from the perspective of four mothers whose sons had been required to register after adjudication for offenses committed between the ages of 13-18 (Comartin, Kernsmith, & Miles, 2010). The mothers each reported a strong desire to protect their sons from further harm, but also feeling powerless to help their sons, fearing that new, and even false, allegations might be lodged against their sons. They also described the stigma and shame they and their sons experienced, caused by the public sex offender label and the low self-esteem of their sons. Finally, the mothers reported that they became isolated and that their sons had difficulty finding employment and achieving financial dependence.

Survey research has long documented these types of extra-legal collateral consequences for registered versus unregistered adults (Levenson & Cotter, 2005; Levenson, D'Amora, & Hern, 2007; Mercado, Alvarez, & Levenson, 2008; Sample & Streveler, 2003; Tewksbury, 2004, 2005; Tewksbury & Lees, 2006; Zevitz & Farkas, 2000), but has not yet done so with youth. However, in an ongoing study (Harris & Letourneau, 2013) practitioner perspectives are being evaluated regarding the collateral consequences of juvenile registration and notification. A sample of 219 professionals who provide clinical services to juveniles who have sexually offended has completed the survey to date. Respondents rated whether they disagreed, neither agreed nor disagreed, or agreed that specific negative outcomes were more or less likely to occur to registered versus unregistered youth and (separately) to youth subjected to public notification versus youth not so subjected. With respect to the effects of public notification, a majority of respondents agreed that notification was likely to be associated with 27 of 30 negative outcomes. For example, most practitioners agreed that youth subjected to notification would experience more shame and embarrassment (92%), feel more alone (91%), and be more afraid for their own safety (89%). With respect to registration, a majority of respondents agreed that registration was likely to be associated with 20 of 30 negative outcomes. For example, 87% believed registered youth would have less hope for the future. In the same study, the investigators are also surveying youth who have sexually offended but the current sample size is too small to present even preliminary findings.

Conclusions

The accumulated scientific evidence to date has demonstrated that, when applied to juveniles, sex offender registration and notification and civil commitment laws fail to achieve their stated goal of improving community safety. They fail for several reasons. First, statutory schemes fail to identify youth who are at high risk for sexual recidivism. There is some evidence that they may identify youth who are at lower overall risk for criminal behavior. Second, these policies appear to have no deterrent effect, either on the youth subject to them or on potential future juvenile sexual offenders. Here again, there is some evidence that these laws may actually increase the risk of arrest or offending in some circumstances. Third, these policies appear to reduce the likelihood that juvenile sexual offenders will be fully adjudicated for a sexual offense, resulting in a reduced likelihood that these youth will receive sex offender treatment services. Fourth, these policies have a wide array of damaging collateral effects. The juveniles subject to them face significant obstacles to their successful reintegration into a productive conventional lifestyle. However, what is often overlooked is the fact that the sex offender's employer, cohabitants, neighborhood, and school are often effectively "registered" along with the sex offender in that the addresses of registrants' housing, employers, and schools are often listed on the registry. The collateral damage to those who associate with a registered sex offender has only recently been the subject of systematic study (Human Rights Watch, 2013), which, as noted earlier, identified ongoing and serious negative consequences attributed to public registration.

In addition, these policies carry with them considerable opportunity costs. Maintaining a registration and community notification system is a costly project that will likely increase in cost as the census of those subject to registration grows. Similarly, the cost of indefinite civil commitment of a young sex offender is staggering. In most states, state-of-the-art treatment services with demonstrated effectiveness could be provided to scores of youth and their families for less cost than these demonstrated ineffective and counter-productive programs.

Although the existing research is remarkably consistent in finding these policies ineffective, this should not be taken as an indication that further research has nothing to offer. Specifically, additional research into the collateral consequences of these laws will help to fashion future laws that minimize unintended consequences to juvenile offenders, their families, and members of the community. In addition, more detailed costs-benefits analyses will enable policy makers to fashion more cost-effective alternatives.

Perhaps the most striking aspect of these policies is the degree to which they rest on false assumptions about the persistence and intractability of juvenile sexual misconduct. Sexual violence remains among the most serious social problems in this and most western countries. However, there are few serious adolescent behavioral problems that have proven to be more responsive to treatment and maturation. Further, the extant research into what aspects of adolescent development are most relevant to the development of appropriate sexual behavior, and how best to foster and enhance adaptive sexual behavior, remains in its infancy. Similarly, effective treatment methods have been identified, but much more study is needed to develop methods that are flexible and effective with a variety of youth, and that can be delivered most efficiently, while assuring community safety to the maximum extent possible.

Policy Recommendations

A fundamental characteristic of the policies discussed is the exercise of society's power to enforce convention, through the identification, supervision, and exclusion of those who are identified as abnormal. Indeed, the power of society to establish and enforce the parameters of convention is fundamental to any well-ordered and civil society. Nearly all societies regulate the sexual behavior of adolescents in some way, and the exclusion of sexual violence and coercion is an important sign post of a modern just and egalitarian society.

However, the policies described here rely heavily on the expulsion of out-group "others" from con-

ventional society. In many aspects, these policies appear to enact a modern version of the "stultifera navis" (ship of fools), discussed by the French philosopher Michel Foucault (1965), in which Renaissance era villages would place their unwanted citizens on barges that took them downstream, expelled and forgotten by the "normal" social order of the village. The difficulty of this approach is that members of a modern society cannot simply be shipped away. Society instead retains the costs and consequences of policies designed to subject individuals to constant observation or expulsion.

Fortunately, society also employs mechanisms to enforce convention that serve the purpose of reintegrating those who violate social norms. In the area of juvenile sexual misconduct, treatment and rehabilitation services have demonstrated a clear value advantage over the policies described here. Policies that promote proven treatment strategies and minimize long-term stigmatization of adolescents who are charged with sexual offenses should be adopted. The resources devoted to juvenile sex offender registration and community notification and civil commitment would be far more effective in improving community safety if they were devoted to effective prevention and treatment strategies.

Of importance, however, even within the framework of existing policies several, relatively minor, improvements may mitigate much of the collateral harm caused by these policies. First, with respect to civil commitment, policies should be altered to ensure that offenses committed by minors do not automatically trigger SVP evaluation. Rather, commitment should be considered only in rare cases where a juvenile offender appears to represent an ongoing (i.e., post-treatment) threat of harm to the community and community supervision of sufficient oversight is unavailable. In such cases, commitment decisions should be thoroughly re-evaluated frequently (e.g., every 6 months). With respect to registration and notification, policies should be altered to specifically exclude minors. Failing that, we recommend that, registration for adolescents should be based on a competent individualized risk assessment, not on the characteristics of the offense. The dynamics of adolescent sexual misconduct are far too varied and influenced by situational factors for any simple offense-based scheme to effectively identify higher risk adolescents. Second, adolescent sex offenders should never be subjected to community notification, and in particular should never be placed on public registries. The majority of the serious collateral harm related to adolescent sex offender registration is due to the public nature of the registry. Third, if adolescents are to be registered at all, it should be for a short term, no longer than age 18. The existing evidence is that significant maturationally-driven transitions take place in the later teen years, and the risk of sexual recidivism in an adolescent is greatest over the short- term (Caldwell, 2010; Worling & Curwen, 2000). Fourth, private registries that maintain and publicize sex offender registry information should be eliminated. These registries commonly ignore the removal of individuals from the official public registry and require removed individuals to pay substantial fees for removal from the private registry. Fifth, placement on a registry should be contingent on treatment: that is, youth who complete competent treatment avoid registration, whereas youth who fail effective services (for reasons other than inability to pay for treatment) would then face registration. In placing an individual on a registry, the state is indicating that the individual is a risk to the community. If the state has identified an individual as a risk to community safety, it has an obligation to take reasonable steps to ameliorate that risk. For this reason, placement on a registry should entitle the individual to competent treatment and rehabilitation services. It is well documented that registration often disrupts employment and significantly limits the income of those subject to the registry. At the very least, states should guarantee that all registered youth have access to effective treatment, regardless of their ability to pay for those services.

Lastly, all states should have a reasonable process for individuals to be removed from the registry when it is determined that continued registration does not substantially contribute to community safety. The mechanism for this should be similar to the process for removing individuals from involuntary mental health commitments.

There is no question that sexual violence in society demands a concerted and sustained effort from the state, devoted to improving community safety. The research that has emerged over the past decade has identified effective prevention and treatment programs that do just that. Conversely, while possibly well intentioned, the body of research developed over the past decade has shown that sex offender registration and notification and civil commitment policies, when applied to juveniles, are costly and ineffective, and produce serious unintended collateral harm. They clearly require substantial reform, at a minimum. However, it may be far better to abandon approaches that assume juvenile sexual offenders are intractable and must be isolated and monitored for life altogether. Rather, it may be more effective to begin anew, with a foundation on those measures that have proven effective at improving community safety, and that attempt to reintegrate the individual into a healthy and productive conventional lifestyle.

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What were we thinking? Five erroneous assumptions that have fueled specialized interventions for adolescents who have sexually offended

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Abstract

Since the early 1980s, five assumptions have influenced the assessment, treatment, and community supervision of adolescents who have offended sexually. In particular, interventions with this population have been informed by the assumptions that these youth are (i) deviant, (ii) delinquent, (iii) disordered, (iv) deficit-ridden, and (v) deceitful. There is very little research to support these beliefs, however, and some researchers and clinicians have long pointed out that adolescents who commit sexual crimes are heterogeneous and that there is no typical profile. Indeed, many adolescents who commit sexual crimes display healthy sexual interests, are prosocial in their orientation, are not psychiatrically disordered, can be described by many strengths and protective factors, and are open regarding past sexual crimes and their sexual interests. If the goal of intervention is to help adolescents to prevent future offenses, then it is essential for all involved in their care to be more critical of these erroneous assumptions that have influenced the field for the past several decades.

Keywords

Adolescent sexual offending, sexually abusive behavior, , sexual offense assessment and treatment, juveniles who sexually offend

Since the offending act is an exercise in power and control perpetrated by an anti-social, conduct-disordered, manipulative, deviant person, descriptors of the treatment of choice include confrontation, insistence on accountability for the offending behavior, a punitive rather than therapeutic orientation, and a focus on self-disclosure and the acquisition of strategies to prevent relapse" (Goocher, 1994, p. 244)

With a description of treatment such as the one provided above by Goocher (1994), it would not be surprising to learn that, in some jurisdictions, adolescents who have committed sexual crimes have routinely been removed from their homes – regardless of the nature of their crimes – subjected to polygraph and penile plethysmograph (PPG) examinations, aggressively and repeatedly confronted regarding the details of their past sexual crimes, and asked to engage in punishment-based behavioral procedures – designed for adults – that are intended to alter their presumed deviant sexual arousal. In some parts of the world, such as the U.S., adolescents who offend sexually have also been subjected to registration and community notification laws in the hopes of protecting people from being victimized by these youth (Zimring, 2004).

This has not how professionals have always viewed adolescents who have committed sexual crimes, however. Indeed, in some of the earliest academic reports from the 20th century, it was pointed out that these youth are in fact heterogeneous with respect to many different variables and that there was no singular treatment goal or approach that would universally apply for youth who have engaged in this behavior (e.g., Atcheson & Williams, 1954; Doshay, 1943; North, 1956; Waggoner & Boyd, 1941). This view seemed to change fairly quickly in the early 1980s, however, when it was more widely recognized that many adults who offended sexually began offending sexually as adolescents (e.g. Abel, Mittelman, & Becker, 1985; Longo & Groth, 1983). Given that there were already well-established assessment and treatment procedures developed for adults who offended sexually, many of the early treatment programs for adolescents mimicked adult programs – with a particular focus on the assessment and punishment of deviant sexual arousal and confrontational approaches to extract details of past sexual offenses (Knopp, 1982). This blind application of the adult-based assessment and treatment approaches of the day was likely attributable to the fact that the sexual crimes committed by adolescents looked behaviorally similar in nature to the sexual crimes committed by adults, despite the fact that there are rather obvious and critical developmental differences regarding not only sexual functioning (e.g., Bancroft, 2006; Bukowski, Sippola, & Brender, 1993) but, more importantly, the cognitive process that impact social and emotional functioning (Steinberg, 2010).

It is argued herein that, since the early 1980s, five assumptions have fueled the assessment, treatment, and management of adolescents who have offended sexually. These assumptions are referred to herein as the "5 Ds": (1) deviant, (2) delinquent, (3) disordered, (4) deficit-ridden, and (5) deceitful. Although there have been some shifts in thinking over the past three decades, and there are many locations in the world where youth who have offended sexually are not subjected to polygraphs and PPGs, placed on public registries, or asked to partake in untested, punishment-based procedures to alter sexual interests, these beliefs unfortunately continue to inform clinical practices and laws in many jurisdictions. This is particularly unsettling, however, given that there is very little empirical support for these assumptions.

They Are All Sexually Deviant, Aren't They?

Perhaps the assumption that has had the most influence on the assessment and treatment of adolescents who offend sexually is the notion that they can all be characterized by deviant sexual interests: i.e., sexual interests in prepubescent children and/or sexual violence. A brief perusal of treatment manuals, textbooks, and journal articles written in the 1980s and 1990s would certainly lead one to believe that all adolescents who have offended sexually are sexually deviant. For example, Perry and Orchard (1992) stated that a goal for all adolescents who offend sexually is to "learn more appropriate sexual preferences" (p. 64). Lakey (1994) explained that "other important treatment issues involve changing deviant sexual fantasies and masturbatory practices" (p. 758). Similarly, in their description of treatment, Hunter and Santos (1990) concluded that "insight-oriented approaches for the treatment of these youth are of limited value… key components include the reduction of deviant arousal via satiation therapy and the use of covert sensitization" (p. 240).

Furthermore, in the 1993 National Task Force Report from the National Adolescent Perpetrator Network (National Task Force on Juvenile Sexual Offending), it was pointed out that every sexually abusive youth should understand the role of sexual arousal in their sexual offending and should reduce their deviant sexual arousal. The American Academy of Child and Adolescent Psychiatry (Shaw, 1999) also argued that decreasing deviant sexual arousal is an integral component of treatment for all youth who have offended sexually. It should not be surprising, therefore, that most specialized treatment programs for adolescents in the UK and the Republic of Ireland (Hackett, Masson, & Phillips, 2006), and in Canada and the U.S. (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010), address deviant sexual interests in some fashion.

It should be stressed, however, that there is very little evidence to support the assumption that most adolescents who offend sexually actually have deviant sexual interests. Looking at research where investigators have used the penile plethysmograph (PPG), a tool developed to assess adult male sexual interests (Freund, 1991), Seto, Lalumière, and Blanchard (2000) reported that only 25% of the adolescent males in their investigation demonstrated maximal sexual interest in prepubescent children. With an overlapping and augmented sample, Seto, Murphy, Page, and Ennis (2003) noted that just 30% of adolescent males who had offended sexually responded equally or more to child stimuli during PPG assessments.

In two investigations using clinician ratings, it was also found that a minority of adolescent males who offended sexually could be described as evidencing deviant sexual interests. In the first study (Worling, 2004), structured ratings from several clinicians who used the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR; Worling & Curwen, 2001) were examined, and it was found that only 36% of the participants were rated as having sexual interests in prepubescent children and/or sexual violence. A majority of the adolescents in that investigation were residents in a residential treatment center in the Northern U.S. designed to address the needs of high-risk youth. More recently, in a prospective validation study of the ERASOR (Worling, Bookalam, & Litteljohn, 2012) it was found that only 39% of adolescent males who had offended sexually were rated by a number of different clinicians as demonstrating sexual interest in prepubescent children and/or sexual violence.

There was one investigation in which the authors concluded that 60% of the adolescents studied had deviant sexual fantasies at the outset of the study and that this somehow increased to 90% after 3 months in treatment (Aylwin, Reddon, & Burke, 2005). It is critical to point out, however, that the authors considered it *deviant* if adolescents were fantasizing about the staff in the residence – regardless of the age of the staff and the nature of the sexual fantasy. As such, it is unclear what proportion of self-reported fantasies in that investigation actually involved prepubescent children or sexual violence.

Overall, therefore, the available research indicates that, depending on the sample studied, approximately 60-75% of adolescent males who have offended sexually are, in fact, maximally sexually interested in consensual activities with age-appropriate partners. Although deviant sexual arousal likely plays a role in the etiology and/or maintenance of adolescent sexual offending for *some* adolescents, there are obviously other factors to consider such as intimacy deficits, antisociality, and access and opportunity, for example. This is not to minimize the role of deviant sexual interests altogether, as it is clear that some adolescents who have offended sexually are clearly sexually interested in prepubescent children and/or sexual violence, and there is evidence to suggest that deviant sexual interest is a risk factor for adolescent sexual recidivism (Worling & Långström, 2006).

In their meta-analysis, Seto and Lalumière (2010) found that, relative to adolescents who committed nonsexual crimes, adolescents who offended sexually were more likely to be characterized by "atypical sexual interests." It is important to point out, however, that there was significant heterogeneity in effect sizes in their analysis and that this factor was made up of several diverse variables, including prior sexually abusive behaviors, sexual preoccupation, and cross-dressing, for example. Furthermore, although the moderate effect size informs us that adolescents who offend sexually are more likely to have "atypical sexual interests" relative to adolescents who offend nonsexually, it does not give us any indication of the absolute level of "atypical sexual interest" in either group.

Do All Sexually Abusive Youth Demonstrate Deviant Interests?

During the second year of my career in this field, in the late 1980s, I had the good fortune to learn some valuable lessons from an adolescent client. In particular, I was working with an adolescent who had sexually abused two younger female siblings. After a number of months during which we had worked on goals such as awareness of the impact of sexual offending, repairing the sibling relationships, increasing his sense of responsibility/accountability, enhancing his interpersonal intimacy with peers, enhancing his relationship with his mother (his father was not involved in his life), and reducing the impact of his early childhood trauma, I unfortunately assumed that I should perhaps address his presumed deviant interest in children. I taught him the finer points of covert sensitization, as outlined in various contemporary texts (e.g., Carey & McGrath, 1989; Maletzky, 1991), and the youth managed to produce an audiorecording of a single session for our next meeting. In particular, his recording included a 3 minute sexual offense script, a 3 minute punishment script, and then a 3 minute reward/relaxation script. While listening to the audio recording, not only was I suddenly horrified to think that I had actually asked this 16-year-old to make a recording of his deviant sexual thoughts, but I started to wonder about potential problems related to privacy and security of the recording. I also wondered about the fact that this homework assignment could perhaps unwittingly reinforce deviant fantasies. Fortunately for both of us, I also noticed that the youth's recorded voice sounded quite inauthentic during the first few minutes. When I asked him about this during our next meeting, he informed me that he was actually inventing a sexual fantasy regarding a young child, as he has never been sexually aroused by young children. He added that he felt that we had a good working relationship, and he was afraid that I would terminate his therapy if he did not make up a deviant sexual interest in prepubescent children and told me that he actually never had such an interest.

I was very fortunate that this adolescent taught me three important lessons early on in my career: (a) the therapeutic alliance is incredibly important, (b) not all adolescents who have offended against young children are sexually aroused by young children, and (c) treatment techniques designed for adults have the potential for iatrogenic harm when applied to adolescents. I was also fortunate that the program that I have worked at for the past 25 years started out as a treatment program for adolescent survivors of sexual abuse – not as a treatment program for adult males who offended sexually. As such, most of the assessment and treatment approaches that were utilized there – even in the 1980s and 1990s – were sensitive both to adolescent development and trauma.

The Treatment of Adolescent Sexual "Deviancy"

In my recent review of the literature (Worling, 2012), I pointed out that punishment-based approaches are the most common treatment described in the literature for addressing deviant sexual arousal. The majority of these behavioral treatments were actually developed for use with adult males, and there are many questions regarding their use with adolescents. Take masturbatory satiation (Marshall, 1979), for example. With this procedure, an adult client is instructed first to masturbate to a nondeviant sexual fantasy. He or she is then instructed to immediately attempt to masturbate to one of his or her deviant sexual fantasies. The assumption underlying this approach is that the masturbatory behavior immediately following climax is going to be unpleasant and, as such, the individual will gradually associate his or her deviant sexual fantasy with a significantly diminished drive state (Maletzky, 1991). Given that the refractory period for adolescent males can be extremely short (Bancroft, 2009), it is possible that this procedure could actually serve to *strengthen* an adolescent's deviant fantasies. It is also crucial to point out that there are no controlled investigations of the effectiveness of this treatment for youth aged 12 to 18.

Another treatment approach designed to extinguish deviant sexual arousal among adult males is aversive behavioral rehearsal (Wickramasekera, 1976). This technique has also been called "shame aversion therapy" (Serber, 1970), and clients engaged in this treatment are taught to pair their deviant sexual fantasies with intense shame and/or anxiety. Presently, approximately 15% of treatment programs in the USA for adolescents who have offended sexually employ this technique (McGrath et al., 2010). Not only is there is no empirical support for this technique with adolescents, but there is a general consensus amongst professionals that shame actually *inhibits* treatment effectiveness for individuals who have offended sexually by increasing defensiveness and social withdrawal (e.g., Association for the Treatment of Sexual Abusers, 2001; Bumby, Marshall, & Langton, 1999; Jenkins, 2005; Proeve & Howells, 2002; Ward, Day, Howells, & Birgden, 2004; Worling, Josefowitz, & Maltar, 2011). Other punishment-based techniques designed for adult males who have offended sexually, such as covert sensitization (Cautela, 1967), minimal arousal conditioning (Jensen, 1994), and olfactory aversion (Colson, 1972), are also still utilized with adolescents to reduce their deviant sexual arousal (McGrath et al., 2010), despite the fact that there are no controlled investigations of their efficacy with this age group – or of their potential for iatrogenic harm.

In addition to techniques designed to punish deviant sexual interests, there are also some behavioral procedures that have been developed to enhance nondeviant sexual interests. Procedures such as orgasmic conditioning (Maletzky, 1991) or orgasmic reconditioning (Marquis, 1970), for example, require the individual to masturbate to nondeviant fantasies and/or imagery. As in the case of punishment-based procedures, however, there have been no controlled investigations of the positive (or negative) impact of these approaches with adolescents, despite the fact that some programs continue to utilize them (McGrath et al., 2010).

Of course, there are also a number of ethical concerns regarding the use of any behavioral techniques with adolescents to alter sexual interests. For example, is it ever appropriate to use masturbation in treatment for adolescents who have offended sexually? How can treatment materials and homework tasks be safeguarded during treatment? How can a therapist ensure compliance when a client is utilizing masturbatory procedures? At what age can a youth truly consent to these procedures? Given that adolescents are still developing and refining their sexual interest and identities (Bancroft, 2006), how can one safeguard against potential iatrogenic harm? What about the possibility that we might inadvertently be encouraging an adolescent to create and reinforce deviant sexual scripts?

Another popular approach in the treatment of deviant sexual is thought stopping, or urge suppression (e.g., Hunter, 2011; Kahn & Lafond, 1988). With this technique, the adolescent is taught procedures to push a deviant sexual thought out of conscious awareness by thinking of an aversive experience or by picturing a distractor such as a stop sign, for example. In their reviews of the literature regarding the effectiveness of thought stopping, Johnston, Ward, and Hudson (1997) and Shingler (2009) pointed out that there is often an ironic rebound effect such that thoughts that are consciously suppressed in psychological treatment approaches actually tend to intrude more frequently, and more intensely, than had the thought-suppression intervention not been used in the first place.

An alternative to teaching adolescents strategies to suppress deviant sexual thoughts and urges is to teach clients mindfulness-based approaches where they can learn simply to notice the thoughts and to let the thoughts pass without acting on them. Some may believe that this is a novel application of mindfulness-based cognitive therapy; however, this treatment approach was actually a component of some of the earliest specialized treatment programs (e.g., Steen & Monnette, 1989). Although there has not yet been any research regarding the effectiveness of this approach with adolescents who have offended sexually, there have been supporting findings using mindfulness-based cognitive therapy with adolescents to cope with stress (e.g., Biegel, Brown, Shapiro & Schubert, 2009) and impulsivity (e.g., Semple, Lee, Rosa, & Miller, 2010). Singh et al. (2011) recently employed a multiple-baseline investigation with a small sample of adult males with an intellectual disability who had offended sexually against children, and they demonstrated that mindfulness-based approaches impacted significantly on deviant sexual arousal. Given that mindfulness-based approaches do not involve punishment, masturbation, or shame, and that there is no evidence to suggest that they would result in a rebound effect, they are likely to be more readily embraced by both clients and therapists relative to punishment and thought-stopping procedures, and particularly if they can be supported with empirical evidence.

Medication is also used by a number of treatment programs to reduce deviant sexual arousal for adolescents (McGrath et al., 2010); however, there has yet to be a double-blind trial of any medication for this purpose. In their review, Bradford and Federoff (2006) stressed that there may be undesirable side effects if adolescents are prescribed medications that have been used to control sexual behaviors in adults. They also pointed out that most regulatory bodies do not currently recognize the use of medication to reduce deviant sexual interests.

Alternative Approaches to Treating Deviant Sexual Interests in Adolescents

Given that (a) most adolescents who have offended sexually do not evidence deviant sexual interests, (b) there is no clear empirical support regarding treatment techniques aimed at reducing deviant sexual arousal for adolescents, and (c) there are significant ethical concerns regarding the use of thought-stopping procedures and behavioral approaches to shape sexual interests, an alternative approach to address deviant interests, if present, is to build skills for sexual health (Worling, 2012). In other words, given the relative plasticity of sexual arousal patterns during adolescence (Bancroft, 2006), there is a very real possibility that nondeviant sexual interests can be strengthened if adolescent clients see the possibility of forming emotionally and sexually intimate relationships in their future. Some of the elements that are necessary to achieve this goal include prosocial sexual attitudes, positive knowledge regarding human sexuality, self-regulation and decision-making skills, increased self-efficacy, and hope in a healthy future. It should be stressed that many of these elements have long been addressed in specialized treatment for adolescents who have offended sexually (e.g., Steen & Monnette, 1989). Some adolescents who display deviant sexual interests may also have significant barriers to achieving interpersonal intimacy, such as social anxiety, or dysfunctional beliefs regarding interpersonal relationships. In addition to skill building, therefore, it is also important to reduce barriers such as these.

In answer to our first question, then, it should be clear that adolescents who have offended sexually are not all sexually deviant. Indeed, from the extant research, it would appear that most of these youth are most sexually interested in consenting activities with age-appropriate partners. Naturally, some adolescents will evidence deviant sexual interests, and this is a risk factor for continued sexual offending. Despite the fact that many treatment programs utilize behavioral techniques to alter sexual interests, there is no evidence that they are actually effective with adolescents. More importantly, there is a danger that these techniques could be harmful. For an adolescent who demonstrates sexual interest in young children and/or in sexual violence, it may be best to use mindfulness-based approaches while simultaneously building the skills necessary for a healthy sexual future.

They Are All Just Delinquent, Aren't They?

Is it not the case that adolescents who have offended sexually have broken the law and, therefore, that they should simply be viewed as delinquent or antisocial youth? Is there really a need for specialized assessment and treatment approaches? Do we not need simply to apply generic tools and approaches designed for antisocial youth? There are some (e.g., Letourneau & Miner, 2005; Milloy, 1998; Zimring, 2004) who argue that there is little that is unique to adolescents who have offended sexually and, thus, they question the wisdom of tailoring assessment or treatment specifically for youth who have committed sexual crimes. In support of this argument, it is often pointed out that there is research to suggest that there are few, if any, differences between youth who offend sexually and youth who offend nonsexually (e.g., Caldwell, Ziemke, & Vitacco, 2008). For example, Lewis, Shankok, and Pincus (1979) reported no significant differences on a host of variables and test scores when they compared a sample of 17 adolescents who had offended sexually with 61 adolescents who had offended violently. Similarly, McCraw and Pegg-McNab (1989) found no differences in personality scores when they compared 45 adolescents who offended sexually to 45 adolescents with nonsexual charges. Recidivism statistics (e.g., Caldwell, 2007) have also been used to point out that, when adolescents who have offended sexually are charged with new crimes following treatment, they are more often charged with nonsexual crimes. It is essential, however, to be mindful of the fact that most survivors of a sexual crime never report their victimization to authorities (e.g., Brennan & Taylor-Butts, 2008).

In an effort to determine if there is anything that differentiates adolescents who commit sexual crimes from those who commit nonsexual crimes, Seto and Lalumière (2010) conducted a meta-analysis with studies where investigators compared youth with sexual offenses to youth with nonsexual offenses. In support of the argument that adolescents who offend sexually are not particularly unique, there were certainly a number of variables where there were no significant differences be-

tween groups, such as antisocial attitudes, family relationship problems, heterosocial skills deficits, general psychopathology, and nonabusive sexual experiences. These findings would support the generalist argument that adolescent sexual offending is simply a product of some underlying antisocial process. However, Seto and Lalumière also found many important differences between the groups. For example, youth who offended sexually were significantly more likely than youth who offended nonsexually to be characterized by atypical sexual interests, socially isolation, increased exposure to sexual media, a lower self-esteem, elevated anxiety, and a history of sexual, physical, and emotional abuse. Furthermore, those youth with nonsexual offenses were more likely than those who offended sexually to associate with delinquent peers, use illegal drugs/alcohol, and have a more extensive criminal history. These aggregate findings certainly support the argument that adolescents who have sexually offended are significantly different from those who offend nonsexually on a number of important dimensions.

Of course, it is not argued here that all adolescents who offend sexually share the characteristics outlined by Seto and Lalumière in their meta-analysis. Some adolescents who offend sexually will share many markers of general delinquency, such as antisocial attitudes, diverse criminal history, substance use, academic underachievement, poor self-regulation, etc. However, there are many other adolescents who have offended sexually who show very few markers of antisociality – aside from their sexual offending behaviors. Indeed, researchers have found that there are distinct subgroups of adolescents who offend sexually where antisociality is one of the key variables that differentiates the groups (Smith, Monastersky, & Deisher, 1987; Richardson, Kelly, Graham, & Bhate, 2004; Worling, 2001). In these three investigations, it was found that there was one subgroup where an antisocial orientation was the predominant characteristic; however, there were several other subgroups where antisociality was not prevalent. Indeed, in each of these investigations where subgroups were formed on the basis of personality test data, researchers found that there were subgroups where a prosocial orientation was predominant.

Research regarding risk assessment is also supportive of the notion that there are key characteristics that differentiate adolescents who offend sexually from the more general population of adolescents in conflict with the legal system. Although a number of risk factors for sexual recidivism, such as impulsivity, antisociality, and social isolation, are also found in tools designed to predict general, adolescent criminal recidivism (e.g., Hoge & Andrews, 2011), there are several risk factors unique to continued sexual offending, such as deviant sexual interests, deviant sexual attitudes, and sexual preoccupation, for example (Worling & Långström, 2006). There have been a number of risk assessment tools developed specifically to address the risk of sexual recidivism for adolescents, such as the ERASOR (Worling & Curwen, 2001), the Juvenile Sex Offender Assessment Protocol (J-SOAP-II; Prentky & Righthand, 2003), the Juvenile Risk Assessment Tool (J-RAT; Rich, 2007), and the Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (JSORRAT-II; Epperson, Ralston, Fowers, DeWitt, & Gore, 2006). It has been found that measures designed specifically to predict adolescent sexual recidivism perform better relative to more generic measures of criminal and/or violent behavior in youth (Viljoen, Mordell, & Beneteau, 2012).

It is not being argued here that adolescents who sexually offend are prosocial save their sexual crimes. Rather, there are simply no data to support the assumption that they are all antisocial, or even that most of them can be described as characteristically delinquent. As in the case of deviant sexual interests discussed above, it is important for those working with adolescents who have sexually offended to determine whether or not an antisocial orientation is present in each case. If an adolescent who has offended sexually does have many markers of delinquency (e.g., affiliation with delinquent peers, substance use, procriminal attitudes), then treatment and management efforts should obviously be aimed at addressing these issues. Otherwise, this would not be necessary, and there could possibly be iatrogenic harm if prosocial youth are required to participate in interventions designed to target criminogenic factors for antisocial youth.

They Are All Psychiatrically Disordered, Aren't They?

It must be a natural assumption for the layperson that a teenager who has committed a sexual crime must have a psychiatric disorder of some kind, and particularly if the youth has offended sexually against a young child. Why else would he or she have committed such a heinous act? Surely it is not the case that "normal" adolescent males and females would ever commit sexual crimes? There must be some mental disorder that leads a teen to commit a sexual crime.

Becker, Kaplan, Cunningham-Rathner, and Kavoussi (1986) reported on the psychiatric diagnoses given by one practitioner to 19 adolescent males referred to a state psychiatric institute as a result of incest offenses. It was found that 14 of the adolescents had some type of psychiatric diagnosis, with 12 of these youth qualifying for a diagnosis of Conduct Disorder. The next most common diagnosis was Attention Deficit Hyperactivity Disorder (ADHD), and this was identified for five (26%) of the participants. Galli et al. (1999) similarly reported on psychiatric diagnoses given to 22 adolescent males who had offended sexually and who had been recruited from residential treatment programs. As in Becker et al. (1986), Conduct Disorder was diagnosed for most of the participants (16 of 17). However, 100% of the participants in this investigation were also diagnosed with Pedophilia, and 71% (12/22) were diagnosed with ADHD. This result contrasts sharply with Mazur and Michael (1992) in their follow-up investigation with 10 adolescents who had offended sexually, where they found that none of the participants met diagnostic criteria for a paraphilia. Likewise, in their review of adolescents seen at a psychiatric hospital in Canada, Saunders and Awad (1988) stressed that "the vast majority of adolescent sexual offenders do not fit the criteria of paraphilia" (p. 575).

The prevalence and nature of psychiatric diagnoses for this population appear to vary considerably depending on the sample that is selected and the diagnostic processes that are employed. Furthermore, very few, if any, authors have reported on the reliability/validity of the diagnostic tools that have been utilized, most investigations have relied on a single diagnostician, and samples of adolescents have been very small. It is also unclear in most of this research whether or not diagnosticians have been blind to the criminal status of the youth.

In the meta-analysis completed by Seto and Lalumière (2010), there was little evidence to suggest that adolescents who offend sexually can be described using specific psychiatric diagnoses, relative to other adolescents involved in the criminal justice system. Although the authors of the small studies cited above describe adolescents who offend sexually as highly conduct disordered, there was no evidence to suggest that those who offend sexually are any more antisocial than those adolescents who commit nonsexual crimes. Indeed, as noted above, Seto and Lalumière found that those adolescents who offended *nonsexually* were significantly more likely to have markers of antisociality, such as a more extensive criminal history, associations with delinquent peers, and drug/alcohol use. Furthermore, although adolescents who offended sexually are more likely to exhibit heightened anxiety (not necessarily an anxiety disorder, per se) and low self-esteem, there were no differences between groups with respect to general psychopathology.

Once again, as in the case of both deviant sexual interests and delinquency, there is no empirical support for the notion that adolescents who offend sexually are all psychiatrically disordered. Adolescent sexual offending is a behavior that reflects a choice that the youth has made; it is not a function of a disorder, a disease, a condition, or an illness. Of course, there may well be a psychiatric diagnosis for some youth who have offended sexually, and the ability to accurately describe a mental disorder should lead to more appropriate and effective treatment. For example, given the increased prevalence of sexual, physical, and emotional abuse relative to youth who have offended nonsexually, it would not be surprising to learn that some adolescents who have offended sexually experience Posttraumatic Stress Disorder. Likewise, given that there is a subgroup where a delinquent orientation is predominant, there will be some adolescents who offend

sexually where a diagnosis of Conduct Disorder is clearly evident, and particularly for those youth who end up in correctional settings.

They Are All Just Deficit-Ridden, Aren't They?

After reading many assessment reports prepared at various agencies throughout North America since the 1980s, one might certainly believe that adolescents who offend sexually can be described only by the long list of deficits that have been catalogued during an assessment. This is, perhaps, a result of a focus on risk, disorder, and deviance that has pervaded this work. Of course, this may also have been the result of the nature of the crime, as it may be particularly difficult for some evaluators to look for strengths and assets in individuals who have committed sexual crimes.

This focus on deficits has been prevalent in professional publications for several decades, and the most commonly cited characteristic of adolescents who offended sexually is that they have a deficit with respect to social skills. For example, in their treatment guidelines, Groth, Hobson, Lucey, & St. Pierre (1981) stated that "juvenile sexual offenders need instruction in regard to developing effective social skills and communication skills with age mates" (p. 266). Similarly, Stops and Mays (1991) pointed out "that adolescent sex offenders have at their core, deep-seated feelings of inferiority, inadequacy, a lack of self-confidence, and immaturity" (p. 101). Although the assumption that adolescents who offend sexually are deficient in their social skills was very often forwarded in the 1980s and 1990s (e.g., Bagley & King, 1990; Burnett & Rathbun, 1993; Graves, Openshaw, & Adams, 1992; Groth & Loredo, 1981; Saunders, Awad, & Levene, 1984; Stenson & Anderson, 1987; Stevenson & Wimberley, 1990), a time when many treatment programs were being developed, there are still some authors who make this assumption (e.g., Hunter, 2011). Not surprisingly, treatment manuals have been replete with instructional exercises for ameliorating this supposed deficit in social skills. Of course, social skill deficits are no more prevalent in populations of adolescents who commit sexual crimes relative to adolescents who offend nonsexually (Seto & Lalumière, 2010), and there are subgroups of adolescents who have offended sexually who are actually quite skilled socially (Richardson et al., 2004; Smith et al., 1987; Worling, 2001).

Perhaps another reason that clinicians have focused so heavily on risks and deficits is a result of the fact that most of the research has been focused on these topics, at the expense of a focus on strengths, protective factors, and resiliency. This is not unique to the field of sexual offending, as research into general criminal behavior has been aimed almost exclusively on the identification of factors that predict risk rather than on the identification of protective factors that predict desistence from reoffending. This preoccupation with risk-only factors in risk assessment tools, which also influenced my original efforts (Worling & Curwen, 2001), has likely resulted in inaccurate judgments by evaluators and therapists (e.g., Miller, 2006; Rogers, 2000). Farrington (2007) has stressed that researchers should enhance the accuracy of violence risk assessments by also identifying factors that are predictive of desistence.

Unfortunately, there have been very few investigations designed to identifying protective factors for adolescent sexual recidivism. In 1998, Bremer developed the Protective Factors Scale to assist with placement decisions for youth who had offended sexually; however, this tool has not been subjected to empirical scrutiny. There has, on the other hand, been some initial work regarding the identification of protective factors for general youth violence. Preliminary, multi-site research from the Centers for Disease Control and Prevention (Hall, Simon, Lee, & Mercy, 2012) suggests that factors such as academic achievement, prosocial peer relationships, positive family management, and attachment to school may operate to reduce the onset of general youth violence. These authors stress, however, that firm conclusions regarding protective factors cannot be drawn at this time given the paucity of research at this point.

The Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2006) is a widely-used, risk assessment tool that contains 24 risk and 6 protective factors. Although there is preliminary evidence from investigations with adolescents to suggest that these protective factors are related to desistence in general criminal recidivism (Rennie & Dolan, 2010) and violent recidivism (Lodewijks, Ruiter, & Doreleijers, 2010), the SAVRY protective factors are not related to desistence of adolescent sexual recidivism (Schmidt, Campbell, & Houlding, 2011; Spice, Viljoen, Latzman, Scalora, & Ullman, 2012). This suggests that there are unique protective factors that are predictive of desistence for adolescent sexual reoffending. This is not surprising given that there are unique risk factors for adolescent sexual recidivism (Worling & Långström, 2006). Possible protective factors for adolescent sexual recidivism include factors that are both sexual offense-specific (e.g., prosocial sexual interests, prosocial sexual attitudes, and prosocial sexual environment) and sexual offense-related (e.g., compassion for others, emotional intimacy with peers, and positive problem-solving skills) (Worling, 2013).

A Shift in Focus: Strengths and Protective Factors

In addition to the recent empirical quest to identify protective factors for adolescent sexual recidivism (e.g., Spice et al., 2013; Worling & Langton, 2013), there has also been a more conscious shift towards strength-based approaches; in part, perhaps, as a result of the Good Lives Model (Ward, 2002; Ward & Stewart, 2003). According to this model, the goal of treatment is to provide the individual with the means to achieve primary human goods, which are conditions that would allow one to achieve an enhanced sense of well-being and purpose, such as happiness, creativity, spirituality, and knowledge, for example. This model has recently been examined with specific reference to adolescents who have offended sexually (Chu, Hoh, Zeng, & Teoh, 2013); however, it is important to stress that a strength-based approach has been advocated for many years in work with this population.

More specifically, despite the unfortunate focus on deviance, disorder, deficit, and deceit that has plagued the field, many programs have also simultaneously stressed the need to build positive self-regulation skills (Lee & Olender, 1992), social skills (Margolin, 1983), positive sexual knowledge (Becker, 1990), and healthy family relationships (Steen & Monnette, 1989), for example. Indeed, Rich (2006) remarked that the need to enhance relationship skills, self-regulation, self-agency, and decision making has long been part of treatment programs that have taken a more holistic and integrated view of youth who have sexually offended in contrast to those programs that have had a more myopic focus on the sexual offending.

In sum, it is obviously not the case that adolescents who sexually offend can be described only by their deficits. It may be, once again, that the nature of the crime has propelled researchers and clinicians to focus almost exclusively on deficits rather than on assets and protective factors. Alternatively, this orientation may be more reflective of the assumption that these youth are inherently deviant, delinquent, disordered, and deceitful. Efta-Breitbach and Freeman (2004) remarked that, although some current treatment goals are consistent with a strength-based approach that would foster resilience in adolescents who have offended sexually, there is dire need to more methodically understand and promote resilience and competence and focus on strengths and positive behaviors.

They Are All Deceitful, Aren't They?

In speaking about treatment for adolescents who commit sexual offenses, Margolin (1983) remarked that "the need to control others pervades the offender's every social interaction. The most prominent symptom of this compulsion to control is his [sic] proclivity to lie" (p. 3). In a similar vein, Perry and Orchard (1992) stated that "adolescent sex offender work is very demanding and stressful. Clinicians are working with clients who attempt to deny, minimize, or rationalize the extent of their problems" (p. 29). According to Barbaree and Cortoni (1993), "the first stage in treatment targets denial and minimization and successful completion of this stage is a prerequisite to successful treatment" (p. 255).

It should not be surprising, therefore, that there is typically a call for clinicians and probation officers to be diligent in their efforts to confront the denial and minimization of these adolescents to ensure

that they will come clean with the details of their past sexual crimes and/or their current sexual deviance (e.g., Bethea-Jackson & Brissett-Chapman, 1989; Ferrara & McDonald, 1996; Kahn & Lafond, 1988; Lakey, 1994; National Task Force on Juvenile Sexual Offending, 1993; Sermabeikian & Martinez, 1994; Shaw, 1999; Way & Balthazor, 1990). This demand for adolescents to acknowledge all details of their past sexual offending and current sexual deviance is likely based, at least in part, on the prevailing sentiment that one must first acknowledge a problem before it can be treated. Of course, it may also reflect the difficulty that some practitioners have separating the person from the behavior; the need to use aggressive confrontation, shame, and punitive approaches may simply reflect anger towards the youth for the criminal sexual behavior.

Without minimizing the significant harm that can result for the survivor and his or her family, it is important to note that a sexual crime is likely to lead to significant shame, embarrassment, and guilt for the adolescent who has offended – in addition to significant personal, family, legal, and social consequences. It would be unusual, therefore, to expect any individual to readily provide a detailed account of past sexually abusive behaviors and/or current deviant sexual thoughts and fantasies – especially at the outset of a relationship with another individual. As such, minimization and denial are likely a natural phenomenon connected to the nature of the crime, rather than a pathological characteristic of the adolescent who has offended sexually.

Given this push for adolescents who have offended sexually to confess all of the details of their past sexual crimes, it should not be surprising to find that many authors have advocated for therapists to use confrontational approaches in treatment to break through denial and minimization (e.g., Baird, 1991; Burnett & Rathbun, 1993; Goocher, 1994; Groth et al., 1981; Hird, 1997; National Task Force on Juvenile Sexual Offending, 1993; Perry & Orchard, 1990; Sermabeikian & Martinez, 1994; Smets & Cebula, 1987). In their review of the literature, however, Marshall et al. (2003) pointed out that a confrontational approach is actually likely to *increase* defensiveness and resistance for individuals who have offended sexually. Marshall et al. suggested instead that the best approach to address minimization and denial in treatment is to supportively challenge individuals when necessary rather than to use a confrontational approach. They also noted that research points to the fact that therapeutic interventions are actually more effective when the therapist is empathic, warm, genuine, and rewarding.

Getting to the "Truth"

The view that adolescents who offend sexually lie and deceive is perhaps best exemplified in the U.S. where 50% of treatment programs presently use the polygraph (McGrath et al., 2010). McGrath et al. pointed out that this represents a marked increase in the use of the polygraph in recent years, as only 22% of treatment programs for adolescents who offended sexually used the polygraph in the U.S. in 1996. Chaffin (2011) has stressed that the polygraph is seldom used with youth in the U.S. who commit nonsexual crimes, and that there are actually very few countries outside of the U.S. where the polygraph is utilized with any adolescents. Chaffin (2011) and Prescott (2012) have outlined a number of significant concerns regarding the use of the polygraph with adolescents who have offended sexually. In addition to the complete lack of empirical support for the reliability and validity of the approach, they also underscore the significant potential for harm to the adolescent including the coercive nature of a polygraph examination and the replication of an abusive experience, the increased likelihood of false confessions in an effort to satisfy program requirements, and the dubious ethics that result from the use of an interrogation procedure with youth in compulsory treatment.

The argument that is often forwarded in support of the utility of the polygraph is that this procedure will result in the identification of survivors of sexual abuse who have previously been unknown to authorities. There have been only two published studies with adolescents where this issue has been examined. In the first paper, Emerick and Dutton (1993) reported that adolescents disclosed an average of almost one (M=0.98) new victimized individual as a result of a polygraph examination. In a similar investigation, Van Arsdale, Shaw, Miller, and Parent (2012) also found that adolescents who had offended sexually disclosed an average of almost one (M=0.73) new survivor of sexual abuse based on a polygraph examination. Although some might argue that these data support the use of the polygraph with this population, this result should be contrasted with research supporting the fact that adolescents are more likely to disclose new information within the context of a trusting therapeutic relationship. For example, Baker, Tabacoff, Tornusciolo, and Eisenstadt (2001) found that adolescents in specialized treatment disclosed an average of 3.3 new victimized individuals during the course of discussions with their treatment providers. Prescott (2012) also emphasized the fact that survivors of sexual abuse should be free to disclose when and how they choose and that some may not wish to be identified via the results of a polygraph examination.

With this pressure for youth to acknowledge details of past sexual crimes, it is also important to highlight the fact that there is presently no empirical evidence to support the notion that it is necessary for future sexual health for adolescents to acknowledge all of the details of all past sexual crimes. This is not, of course, to suggest that adolescents need not take responsibility for their sexual offending behaviors. Most practitioners would agree that it is important for an adolescent to acknowledge that he or she has offended sexually and that it is ideal if they can be open regarding the identity of the people whom they have abused and take responsibility for how they have harmed others. However, there is just no scientific rationale for impelling youth to confess all of the details of all of their sexual crimes.

Perhaps this focus on deception and denial has also somehow been related to the assumption that adolescents who are denying their past sexual offending are also at higher risk of reoffending sexually. A number of risk-assessment guidelines (e.g., Prentky & Righthand, 2001; Ross & Loss, 1988) list denial of sexually abusive behaviors as a risk factor; however, there is no research to support the notion that denial at the point of assessment is predictive of sexual recidivism for adolescents (Worling & Långström , 2006; but also see Rich, 2009). Indeed, there is actually some evidence to suggest that those adolescents who offend sexually and who are categorically denying past offenses may actually be at a reduced risk of reoffending sexually relative to those adolescents who are acknowledging their crimes (Kahn & Chambers, 1991; Långström & Grann, 2000; Worling, 2002).

Honesty by Self-Report in Treatment

The notion that individuals who offend sexually are naturally prone to deception and dishonesty is perhaps best contradicted by the available research regarding the assessment of deviant sexual interests. A layperson would naturally assume that individuals who have offended sexually would be reluctant to be open regarding a sexual interest in prepubescent children and/or sexual violence; however, authors of the available research suggest otherwise. For example, with a sample of men who offended sexually against children, Laws, Hanson, Osborn, and Greenbaum (2000) found that self-reported sexual interests obtained via a card-sort procedure were more accurate that penile plethysmograph (PPG) data in identifying the gender of victimized individuals. In a similar study, Day, Miner, Sturgeon, and Murphy (1989) found that self-report data from a questionnaire regarding sexual thoughts, feelings, and behaviors could accurately classify men according to the gender of their children whom they abused.

Looking at research with adolescents, Seto et al. (2000) reported that the self-report of a majority of youth acknowledging a sexual interest in children during an interview was subsequently supported by objective PPG examination. Similarly, Worling (2006) found that self-report indices and procedures were able identify those adolescents who sexually abused children. Using a self-report questionnaire, Daleiden, Kaufman, Hilliker, and O'Neil (1998) also reported that adolescents who offended sexually disclosed significantly more deviant sexual behaviors relative to both adolescents who offended nonsexually and adolescents with no criminal histories. These studies each lend support for the idea that adolescents in treatment for sexually abusive behavior are able to engage honestly and that

self-report is a valuable and viable means by which to learn about the sexual behaviors and interests of youth in treatment.

To answer to our final question, then, it is not always the case that adolescents who offend sexually lie and deny. Indeed, it would appear that many of these youth are able to identify previously undisclosed sexual crimes within the context of a trusting therapeutic relationship, and many are also forthcoming with respect to their sexual interests when evaluators use structured, self-report procedures. There is also no compelling evidence to suggest that it is necessary for adolescents to disclose all of the details of their past sexually abusive behaviors, or that denial is predictive of continued sexual offending. When adolescents are struggling to acknowledge information that is likely to lead to shame, embarrassment, and significant personal, legal, and familial consequences, it is important that professionals employ supportive rather than confrontational approaches.

■ Conclusion

Interventions with adolescents who have committed sexual crimes have been influenced for the past several decades by the belief that these youth are inherently sexually deviant, delinquent, disordered, deficit-ridden, and/or deceitful. This is likely related, in part, to the rather blind application of the adult-based techniques and approaches that were popular in the 1980s. It should be no surprise, therefore, that many of these adolescent have been removed unnecessarily from their homes, confronted aggressively regarding the details of their past sexual crimes, wired up to physiological measurement devices that have questionable scientific merit, and subjected to untested interventions designed to alter presumed deviant sexual interests.

There are likely some professionals who believe that the nature of the crime merits such an aggressive and punitive approach, that these youth have forfeited many of their human rights as a result of choosing to commit a sexual crime, and that we should not be particularly concerned about subjecting these youth to assessment and treatment techniques that have little to no scientific credibility. However, there is considerable danger if we let these assumptions persist and thereby influence our responses to adolescent sexual offending. Indeed, as outlined in this paper, these assumptions can lead to questionable interventions that may actually increase the risk of continued sexual offending. Take, for example, untested behavioral interventions designed to decrease deviant arousal that could inadvertently establish and strengthen novel, deviant sexual scripts; or consider a polygraph interrogation that could result in heightened fear, false confessions, and/or an unnecessarily protracted stay in a specialized residential program.

There will obviously be some adolescents who have offended sexually who display deviant sexual interests, and those who are also antisocial, deceitful, disordered, and who have a number of significant deficits. However, it is clear from the available research that there are many adolescents who commit sexual crimes who have age-appropriate sexual interests and who are prosocial, forthcoming regarding past offending and current sexual interests, without psychiatric disorder, and who have many strengths and putative protective factors. As a result, it is critical that professionals examine the unique strengths, risks, and needs of each adolescent and tailor treatment and supervision, if necessary, accordingly (Worling & Langton, 2012). Furthermore, it is important that we choose assessment and treatment approaches that have been developed with sensitivity to adolescent cognitive, social, and emotional development. Of course, it is also essential that we select approaches that have an empirical basis and that do not risk iatrogenic harm.

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Adolescent Development and Juvenile Justice

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Abstract

Although justice system policy and practice cannot, and should not, be dictated solely by studies of adolescent development, the ways in which we respond to juvenile offending should be informed by the lessons of developmental science. This review begins with a brief overview of the history, rationale, and workings of the American juvenile justice system. Following this, I summarize findings from studies of brain, cognitive, and psychosocial development in adolescence that have implications for the treatment of juveniles in the justice system. The utility of developmental science in this context is illustrated by the application of these research findings to three fundamental issues in contemporary justice policy: the criminal culpability of adolescents, adolescents' competence to stand trial, and the impact of punitive sanctions on adolescents' development and behavior. Taken together, the lessons of developmental science offer strong support for the maintenance of a separate juvenile justice system in which adolescents are judged, tried, and sanctioned in developmentally appropriate ways.

Contents

INTRODUCTION

Few issues challenge a society's ideas about both the nature of human development and the nature of justice as much as serious juvenile crime. Because we neither expect children to be criminals nor expect crimes to be committed by children, the unexpected intersection between childhood and criminality creates a dilemma that most people find difficult to resolve. Indeed, the only ways out of this problem are either to redefine the offense as something less serious than a crime or to redefine the offender as someone who is not really a child (Zimring 1998).

For most of the twentieth century, American society has most often chosen the first approach—redefining the offense—and has treated most juvenile infractions as matters to be adjudicated as delinquent acts within a separate juvenile justice system designed, at least in theory, to recognize the special needs and immature status of young people and to therefore emphasize rehabilitation over punishment. Indeed, for much of the past century, states believed that the juvenile justice system was a vehicle to protect the public by providing a system that responds to children who are maturing into adulthood. States recognized that conduct alone—that is, the alleged criminal act—should not be dispositive in deciding when to invoke the heavy hand of the adult criminal justice system. They recognized that by providing for accountability, treatment, and supervision in the juvenile justice system—and in the community whenever possible—they promoted short-term and long-term public safety.

During the last two decades of the twentieth century, there was a dramatic shift in the way juvenile crime was viewed by policy makers and the public. Rather than choosing to define offenses committed by youth as delinquent, society increasingly opted to deal with young offenders more punitively in the juvenile justice system or to redefine them as adults and try them in adult criminal court. This trend was reflected in the growing number of juvenile offenses adjudicated in adult criminal court, where adolescents are exposed to a far more adversarial proceeding than in juvenile court; in the increasingly punitive response of the criminal justice system to juvenile offenders who are found guilty; and in what some observers have referred to as the "criminalization" of the juvenile justice system itself through increased use of punishment, rather than rehabilitation, as a legitimate juvenile justice goal (Feld 1993).

This transformation of juvenile justice policy and practice raises difficult, but important, questions for psychologists interested in the development and well-being of young people.

These questions are variations of the more general question of whether adolescents are fundamentally different from adults in ways that warrant the differential treatment of juveniles who break the law. In particular:

- Do adolescents have the psychological capabilities necessary to function as competent defendants in adult court?
- Should juveniles accused of crimes be held to the same standards of blameworthiness as adults and punished in the same ways as adult criminals who have committed similar crimes?
- How does exposing juveniles to especially punitive sanctions affect their behavior, development, and mental health?

These questions provide this review's focus. More broadly, the purpose of this review is to integrate developmental psychological considerations into moral, legal, political, and practical analyses of juvenile crime. Because addressing this issue necessitates at least a rudimentary understanding of the rationale and workings of the juvenile justice system, I begin not with a discussion of the science of adolescent development, but rather with a short history of juvenile justice in America and a brief overview of the process through which individuals are adjudicated within the system.

Following this brief introduction to American juvenile justice, I then summarize findings from recent studies of adolescent development that bear on whether adolescents differ from adults in ways that have implications for justice system policy and practice. Because not all aspects of adolescent development are pertinent to how young people are, or should be, treated in the justice system, I limit my discussion to studies that are especially relevant to these issues. Readers interested in a broader and more comprehensive treatment of adolescent development are encouraged to consult several recent reviews of this literature (Collins & Steinberg 2006, Smetana et al. 2006) as well as a recently updated handbook on adolescent psychology (Lerner & Steinberg 2009). I then look specifically at what we know about adolescents' competence to stand trial, criminal culpability, and response to various types of sanctions and interventions.

Competence to stand trial: the ability of a defendant to understand the court proceeding, reason with relevant facts, and assist counsel

Criminal culpability: the extent to which an individual is judged to be responsible for a crime

JUVENILE JUSTICE IN AMERICA: AN OVERVIEW

The Origins of the Juvenile Justice System

Economic recessions in the early nineteenth century pushed children out of work in America's new factory system during the industrial revolution. Concerns about poor children on the street led to the creation of institutional care for children. In New York City, the Society for Prevention of Pauperism in 1824 became the Society for the Reformation of Juvenile Delinquents, and in 1825 opened the nation's first House of Refuge. Boston followed a year later and Philadelphia in 1828. These Houses of Refuge were designed to maintain class status and prevent unrest (Krisberg & Austin 1993, Platt 1977).

In 1899, Jane Addams and her Hull House colleagues established what is generally accepted as the nation's first juvenile court. Juvenile court judges, in the early part of the twentieth century, were authorized to investigate the character and social background of both predelinquent and delinquent children. They examined personal motivation as well as criminal intent, seeking to identify the moral reputation of problematic children (Platt 1977). Ben Lindsey, of Denver, was the juvenile court judge whose practice most closely matched the rhetoric of the emerging juvenile court:

> We should make it our business to study and know each particular case, because it will generally demand treatment in some little respect different from any other case.... (a) Is the child simply mischievous or criminal in its tendencies? (b) Is the case simply an exceptional or isolated instance in which a really good boy or girl has gone wrong for the first time because too weak to resist a strong temptation? (c) Is the child a victim of incompetent

Transfer: one mechanism through which juveniles' cases are referred to criminal (adult) court

Disposition: in the juvenile justice system, the outcome of an adjudication; comparable to a sentence in criminal court

> parents? Does the home or parent need correction or assistance? (d) What of environment and association, which, of course, may embrace substantively all of the points of study? How can the environment be improved? Certainly by keeping the child out of the saloon and away from evil examples. (e) Is the child afflicted with what we call "the moving about fever" – that is, is he given to playing "hookey" from school, or "bumming" and running away, showing an entire lack of ambition or desire to work and settle down to regular habits? [Ben B. Lindsey, "The Boy and the Court," *Charities* 13 (January 1905):352; cited in Platt (1977)]

Julian Mack, Chicago's second juvenile court judge, similarly described the ideal juvenile court proceeding:

> The problem for determination by the judge is not Has this boy or girl committed a specific wrong but What is he, how has he become what he is, and what had best be done in his interest and in the interest of the state to save him from a downward career. It is apparent at once that the ordinary legal evidence in a criminal court is not the sort of evidence to be heard in such a proceeding. (Mack 1909)

It is beyond the scope of this article to discuss the likely causes of the transformation of the juvenile justice system away from the rehabilitative ideal espoused by its founders and toward the more punitive regime that exists today (but see Scott & Steinberg 2008 for a discussion). However, it is worth noting that the early rhetoric on the rationale and purpose of the juvenile court is significant in two ways that bear on contemporary debates about justice system policy and practice. First, it is clear that the founders of the juvenile justice system began from the premise that adolescents are developmentally different from adults in ways that should affect our interpretation and assessment of their criminal acts. The questions raised by Judges Lindsey and Mack are relevant to the most vexing challenges that practitioners face today in determining (*a*) whether an adolescent's antisocial behavior is due to transient immaturity or contextual disadvantage, as opposed to deep-seated criminal character and (*b*) how best to construct a response to a juvenile's delinquent or criminal acts that will decrease the likelihood of recidivism. The difference between now and then, however, is that at the time of the court's founding, there was no science available to inform consideration of either issue. Owing to the dramatic increase in empirical research on normative and nonnormative adolescent development that began in the late 1970s, there has been a remarkable expansion of the scientific knowledge relevant to each of these matters.

Critical Decision Points Along the Juvenile Justice Pipeline

Juvenile justice is regulated mainly by state law, which makes it difficult to generalize about the system in ways that apply universally. Despite whatever differences exist across jurisdictions in policies and practices, however, the points of decision are essentially similar: referral, intake, detention, transfer, adjudication, disposition, and release (see Steinberg & Schwartz 2000).

Referral. Entrance into the pipeline begins with a referral to the juvenile justice system or a police arrest. Depending upon the state, a child may be too young or too old for the juvenile justice system. Children who are too young are most often diverted from the system or sent to the branch of juvenile court that has jurisdiction over neglected and abused children. Children who are too old are tried as adults. A juvenile may also be charged with an offense that results automatically in adult prosecution. If the juvenile is charged as an adult, most states allow for judges, after a hearing, to decide that the case should be transferred to juvenile court if the public interest requires it, or if the juvenile can prove that he or she is amenable to treatment in the juvenile justice system.

Intake. If the child enters the juvenile justice system after being arrested, referred by a private petitioner (such as a school or next-door neighbor), or transferred from criminal court, there will be an intake decision. Should the case proceed, or should the juvenile be diverted? If the latter, should it be an informal diversion, without further involvement by the juvenile court, or should the child be sent to a program, such as a community panel or teen court (and returned to juvenile court if he or she fails to obey a community-ordered disposition)? Some cases are diverted to other systems, such as the mental health system. Some cases are dropped entirely because intake officers decide that this particular combination of youth and offense does not belong in the juvenile justice system. Many factors thus enter into the decision to divert a case: The youth's age, prior history, the seriousness of the offense, and the youth's explanation or attitude will affect the intake decision.

Detention. If the intake officer decides that the case should proceed to a hearing, the officer must decide whether the child should be sent home (with or without supervision) or should be detained, either in a maximum-security detention center or in a detention alternative. Juveniles and their parents will need to explain to an intake officer how pretrial supervision will occur, and they will have to convince the officer that the juvenile will appear for trial. If the child is detained, there will be a court appearance within 24–72 hours. Most states call this first court appearance a detention hearing. Here a judge or referee will decide whether to continue the detention status. This is usually the first time that the child meets his or her attorney. Here the child must be able to discuss with counsel the circumstances of the arrest and out-of-court issues related to the detention decision (such as school attendance or the presence of an interested adult in the juvenile's life).

Transfer. Most persons under the age of 18 who are tried as adults are done so because of statutory exclusion of their case from the juvenile justice system. State law may exclude them because of their age—in New York, for example, a 16-year-old will be tried as an adult for any offense. Every state excludes some offenses from juvenile court jurisdiction if a child is of a certain age (for example, a state can decide that 15-year-olds who are charged with armed robbery will have their cases begin in adult criminal court). Some states permit prosecutors to file the juvenile's case directly in the adult system, where the juvenile may or may not have an opportunity to have the case transferred to juvenile court. Every state also allows judges to transfer children of a certain age—usually 14, but in some instances, even younger—to criminal court if they are charged with an offense as serious as a felony. States usually must prove that the juvenile is "not amenable to treatment" in the juvenile justice system. At transfer hearings, it is important that the juvenile is able, for example, to discuss with counsel his or her recent placement history and its reason for failure. He or she should be able to understand options, such as proposed placements, counseling programs, or plea agreements.

Adjudication. If the child continues to be detained within the juvenile justice system, an adjudicatory hearing (comparable to the trial in criminal court) must be held within 10–30 days. (Although this is the general rule, in some states juveniles charged with high-profile crimes such as murder will have a longer time to wait until their trials.) Demands on juveniles at adjudicatory hearings are many. They will include the need to understand the nature of the charges against them and to consult with counsel. They will have to weigh the costs and benefits of entering an admission (guilty plea). They should be able to help counsel identify potential witnesses, know whether an alibi or other defenses are available, and consult with counsel during cross-examination of state witnesses.

Disposition. If the juvenile admits to the offense, or if the juvenile court finds by proof beyond a reasonable doubt that the child has committed the offense, the court will proceed to disposition (sentence). Juveniles are

expected to assist counsel in presenting disposition options to the juvenile court. Assistance might include suggesting dispositions or helping the attorney and experts develop client-specific dispositions. Juvenile dispositions historically have been aimed at providing treatment, rehabilitation, or supervision in a way that best serves the needs of the juvenile, although in recent years some legislatures also have included incapacitation for public safety as a valid rationale. Under any of the models, the juvenile court will have a range of discretion. In some states, the juvenile court has wide latitude, from ordering that a child return home under supervision (probation) to placing a child in maximum-security institutions, known as training schools, reform schools, or youth development centers. In other states, which use a "youth authority" model, the court will either order probation or, if placement is warranted, transfer custody of the child to the youth authority, which will then determine the appropriate level of care.

Release. Most juvenile court dispositions are for indeterminate periods of time. However, dispositions cannot be for a longer period than an adult would serve for a similar crime in the criminal justice system. The court will usually review the juvenile's case every six to nine months. Sometimes the reviews are formal hearings, whereas in other instances they are informal reviews of reports provided by probation officers or institutional staff. Many juveniles in placement, particularly those with mental health needs or who have been placed in inappropriate placements, end up being returned to juvenile court for a new disposition. Most often, those juveniles are placed in detention pending a new placement plan. When juveniles are released from institutions, they are placed on aftercare probation, which is analogous to parole. A juvenile who is on probation or on aftercare probation status can have that status revoked, or "violated," for new offenses or for violating the terms of probation, such as associating with gang members, truancy, or missing curfew. A violation of probation may lead to rearrest, detention, and another hearing, the outcome of which may be a new disposition.

The Relevance of Developmental Science to Decision Making in the Justice System

Although there are few decision points in the pipeline where the developmental status of the juvenile is taken into account explicitly, at each decision juncture, information about the juvenile's stage of development should play an important role in the outcome of the decision. A juvenile's developmental status is relevant with respect to the adjudication process because a just and fair hearing requires the competent participation of the individual in his or her defense. As noted earlier, at both the adjudication and transfer hearings, certain competencies are expected to be in place, including those that potentially affect the juvenile's ability to understand the charges, assist counsel, and enter pleas (Scott & Grisso 2005). To the extent that these competencies are based on capabilities that develop over the course of childhood and adolescence, an accurate understanding of how and along what timetable these capabilities develop is crucial to deciding whether an individual possesses the skills necessary to participate in the process.

Under the law, characteristics of the offender and the circumstances of the offense can mitigate criminal responsibility and lessen the punishment that is ordered by the court. A crime that is committed impulsively is punished less severely than one that is premeditated, as is a crime that is committed under coercive pressure from others. Familiarity with the expected developmental timetables of phenomena such as self-control, foresight, and susceptibility to peer pressure is therefore important for making determinations of culpability. In theory at least, an offender who, by virtue of developmental immaturity, is impulsive, shortsighted, and easily influenced by peers should be punished less harshly than one who is better able to control himself, anticipate the future consequences of his behavior, and resist the

antisocial urgings of his friends (Steinberg & Scott 2003).

Finally, decision makers in the system often must assess the youngster's potential for change and risk for future offending when making transfer or disposition decisions (Mulvey & Leistico 2008). Such determinations of developmental plasticity are especially important at transfer hearings, because a youngster who is or seems hardened and unlikely to profit from rehabilitation is more likely to be charged as an adult than is one who is or is seen as malleable and amenable to intervention. Similarly, a juvenile who is deemed to be at high risk of recidivism, either because of a long prior record of offending or other characteristics associated with continued and/or dangerous criminal behavior (e.g., failure to respond to prior attempts at rehabilitation, a history of uncontrollable violence, or likelihood of inadequate adult supervision in the community), will be more likely to be sent to institutional placement.

In order to make well-informed decisions about the treatment of juveniles who have entered the juvenile justice pipeline, therefore, policy makers, practitioners, and mental health professionals need to be familiar with the developmental changes that occur during childhood and adolescence in the capabilities and characteristics that are relevant to competence, culpability, and likely response to treatment. Legislators need this information in order to create age-related laws and statutes that are developmentally appropriate and scientifically reasonable; if, for example, we know that the ability to understand charges or enter pleas does not generally develop until a certain age, it makes little sense to draw age boundaries that would subject developmentally incompetent individuals to court proceedings that necessitate their participation in order to satisfy ordinary due process requirements. Judges need this information in order to make wise and fair decisions in the courtroom; if we know that the capacity to regulate one's own behavior is unlikely to be present before a certain age, it is important that this information be taken into account at the time of sentencing or disposition. Mental health professionals need this information in order to perform accurate assessments and make appropriate treatment recommendations; individuals at different stages of development may need very different sorts of interventions. And attorneys need this information in order to practice law more effectively; prosecutors may consider a juvenile's developmental status in deciding when it is appropriate to charge an individual as an adult, and defense attorneys need to know how best to interact with clients who may not fully understand their situation. Understanding the nature of psychological development during adolescence, therefore, will likely improve policymaking, judicial decision making, forensic evaluation, and legal practice.

BRAIN, COGNITIVE, AND PSYCHOSOCIAL DEVELOPMENT IN ADOLESCENCE

When lawmakers focus on juvenile justice policy, the distinction between adolescence and adulthood, rather than that between childhood and adolescence, is of primary interest. However, most studies of adolescent development have compared adolescents with children, and only in recent years has scientific interest focused intensely on the psychological transition between adolescence and adulthood, largely in response to new research showing continued brain maturation through the end of the adolescent period. This work has provided support for the uniqueness of adolescence as a stage of life that is also distinct from adulthood with respect to several aspects of brain and psychosocial development.

Adolescent Brain Development

Although most of the developmental research on cognitive and psychosocial functioning during adolescence involves psychological studies, recent work in developmental neuroscience is beginning to shed light on the neural underpinnings of psychological development across adolescence and adulthood. In the past several years, a new perspective on risk taking

Socioemotional system: the brain system governing the processing of social and emotional information and the experience of reward and punishment

Cognitive control system: the brain system governing executive function, including deliberative thinking, impulse control, foresight, and the evaluation of risk and reward

(including antisocial risk taking) during adolescence has emerged, one that is informed by advances in developmental neuroscience (Casey et al. 2008, Steinberg 2008). According to this view, risky behavior in adolescence is the product of the interaction between changes in two distinct neurobiological systems: a socioemotional system, which is localized in limbic and paralimbic areas of the brain, including the amygdala, ventral striatum, orbitofrontal cortex, medial prefrontal cortex, and superior temporal sulcus; and a cognitive control system, which is mainly composed of the lateral prefrontal and parietal cortices and those parts of the anterior cingulate cortex to which they are interconnected (Steinberg 2007).

According to this dual-systems model, adolescent risk taking is hypothesized to be stimulated by a rapid and dramatic increase in dopaminergic activity within the socioemotional system around the time of puberty, which is presumed to lead to increases in reward seeking. However, this increase in reward seeking precedes the structural maturation of the cognitive control system and its connections to areas of the socioemotional system, a maturational process that is gradual, unfolds over the course of adolescence, and permits more advanced self-regulation and impulse control. The temporal gap between the arousal of the socioemotional system, which is an early adolescent development, and the full maturation of the cognitive control system, which occurs later, creates a period of heightened vulnerability to risk taking during middle adolescence (Steinberg 2008). As one writer has characterized it, the process may be akin to "starting the engines without a skilled driver behind the wheel" (Dahl 2001).

Neurobiological evidence in support of this dual-systems model is rapidly accumulating. A growing literature, derived primarily from rodent studies but with implications for human development, indicates that the remodeling of the dopaminergic system within the socioemotional network involves an initial postnatal rise and then, starting in preadolescence, a subsequent reduction of dopamine receptor density in the striatum and prefrontal cortex; this pattern is more pronounced among males than females (Sisk & Foster 2004, Sisk & Zehr 2005, Teicher et al. 1995). As a result of this remodeling, dopaminergic activity in the prefrontal cortex increases significantly in early adolescence and is higher during this period than before or after. Because dopamine plays a critical role in the brain's reward circuitry, the increase, reduction, and redistribution of dopamine receptor concentration around puberty, especially in projections from the limbic system to the prefrontal area, is likely to increase reward-seeking behavior and, accordingly, sensation seeking.

There is equally compelling neurobiological evidence for changes in brain structure and function during adolescence and early adulthood that facilitate improvements in self-regulation that permit individuals to modulate their inclinations to seek rewards, although this development is presumed to unfold along a different timetable and to be independent of puberty (see Paus 2005 for a summary). Because of synaptic pruning and the continued myelination of prefrontal brain regions, resulting in improved connectivity among cortical areas and between cortical and subcortical areas, there are improvements over the course of adolescence in many aspects of executive function, such as response inhibition, planning, weighing risks and rewards, and the simultaneous consideration of multiple sources of information. There is also improved coordination of affect and cognition, reflected in improved emotion regulation, which is facilitated by the increased connectivity between regions associated with the socioemotional and cognitive control systems.

The development of the cognitive control system, which is manifested chiefly in improved connectivity across brain regions, must be distinguished from the well-publicized maturation of the frontal lobes because of synaptic pruning. Although both processes result in improved thinking abilities, they occur at different times in adolescence and have different implications for cognitive development. Whereas increases in connectivity take place throughout adolescence and well into adulthood, the decline in gray matter density that reflects synaptic

pruning takes place in preadolescence and early adolescence and is more or less complete by age 16. Consequently, performance on tasks that activate the frontal lobes continues to improve through middle adolescence but not beyond age 16 on tasks of moderate difficulty (Conklin et al. 2007, Crone & van der Molen 2004, Hooper et al. 2004, Luna et al. 2001). In contrast, adult-like performance on more demanding cognitive tasks, especially those that require coordination between and among multiple cortical and subcortical brain regions, is not attained until later in development.

The upshot of this developmental neuroscience is that changes in the socioemotional system at puberty may promote reckless, sensation-seeking behavior in early and middle adolescence, while the regions of the prefrontal cortex that govern cognitive control continue to mature over the course of adolescence and into young adulthood. This temporal gap between the increase in sensation seeking around puberty and the later development of mature self-regulatory competence may combine to make adolescence a time of inherently immature judgment. Thus, despite the fact that in many ways adolescents may appear to be as intelligent as adults (at least as indexed by performance on tests of information processing and logical reasoning), their ability to regulate their behavior in accord with these advanced intellectual abilities is more limited. As the next section makes clear, research on adolescent cognitive and psychosocial development is consistent with this neurobiological profile.

Adolescent Cognitive Development

The application of information about normative adolescent development to policy and practice in the justice system necessitates differentiating between cognitive and psychosocial development, which appear to follow different developmental trajectories (Steinberg 2008). Briefly, on relatively less-demanding tasks that are mainly or exclusively cognitive in nature, and where improvement in adolescence is likely due to synaptic pruning of the frontal lobes, adolescents evince adult levels of competence by age 16. In contrast, on more challenging tasks that involve the coordination of affect and cognition, and on many measures of psychosocial maturity, performance continues to improve well into young adulthood, most likely because this improvement is mediated by improved connectivity across brain regions, a relatively later development. As I discuss below, this temporal disjunction has created a great deal of confusion with regard to where we should draw the legal boundary between adolescence and adulthood, because different developmental literatures suggest different chronological ages.

The most important cognitive capacities involved in decision making are understanding (i.e., the ability to comprehend information relevant to the decision) and reasoning (i.e., the ability to use this information logically to make a choice). These capacities increase through childhood into adolescence. Between late childhood and middle adolescence (roughly between the ages of 11 and 16), individuals show marked improvements in reasoning (especially deductive reasoning) and in both the efficiency and capacity of information processing (Hale 1990, Kail 1997, Keating 2004, Overton 1990). Research has demonstrated conclusively that, as a result of gains in these areas, individuals become more capable of abstract, multidimensional, deliberative, and hypothetical thinking as they develop from late childhood into middle adolescence (Kuhn 2009). These abilities reach an asymptote sometime around 16, and by this age, teens' capacities for understanding and reasoning in making decisions, at least in controlled experiments, roughly approximate those of adults. This comparability between middle adolescents and adults is not limited to basic cognitive abilities such as memory or verbal fluency or to performance on tasks of logical reasoning. Studies of capacity to grant informed consent to receive medical treatment or participate as a research subject, for example, show little improvement beyond age 16 (Belter & Grisso 1984, Grisso & Vierling 1978, Gustafson & McNamara 1987, Weithorn & Campbell 1982).

The notion that adolescents and adults demonstrate comparable capacities for understanding and reasoning should not be taken to mean that they also demonstrate comparable levels of maturity of judgment, however. As my colleagues and I have argued elsewhere, maturity of judgment is affected both by cognitive capabilities as well as psychosocial ones, and although the former show adult levels of maturity by 16, the latter do not (Steinberg et al. 2009). As a result, adolescents may be less able to deploy their cognitive capacities as effectively as adults in exercising judgment in their everyday lives when decisions are influenced by emotional and social variables. The development of these psychosocial factors is described in the next section.

Adolescent Psychosocial Development

New perspectives on adolescent "cognition-in-context" emphasize that adolescent thinking in everyday settings is a function of social and emotional, as well as cognitive, processes, and that a full account of youthful judgment must examine the interaction of all of these influences (Scott et al. 1995, Steinberg & Cauffman 1996). Even when adolescent cognitive capacities approximate those of adults, youthful decision making may still differ from that of adults due to psychosocial immaturity. Indeed, research indicates that psychosocial maturation proceeds more slowly than cognitive development and that age differences in judgment may reflect social and emotional differences between adolescents and adults that continue well beyond mid-adolescence. Of particular relevance to the present discussion are age differences in susceptibility to peer influence, future orientation, reward sensitivity, and the capacity for self-regulation. Available research indicates that adolescents and adults differ significantly with respect to each of these attributes.

Peer influence. Substantial research evidence supports the conventional wisdom that teens are more oriented toward peers and responsive to peer influence than are adults (Steinberg & Monahan 2007). Resistance to peer influence increases between adolescence and adulthood as individuals begin to form an independent sense of self and develop greater capacity for autonomous decision making. Studies of age differences and age changes in resistance to peer influence suggest somewhat different patterns vis-à-vis antisocial versus neutral or prosocial peer pressure prior to middle adolescence (with resistance to antisocial influence decreasing during this time, especially among boys, but resistance to other forms of peer influence increasing), but similar patterns after age 14 (with resistance to all forms of peer influence increasing). Because the main justice policy and practice questions concern differences between adolescents and adults, especially during the latter part of the adolescent period, it is this increase in resistance to peer influence from age 14 on that is of particular interest.

Recent studies of the neural underpinnings of resistance to peer influence in adolescence indicate that improvements in this capacity may be linked to the development of greater connectivity between cortical and subcortical regions, which likely facilitates the better coordination of affect and cognition (Grosbras et al. 2007, Paus et al. 2008), although it should be noted that this conclusion is based on studies of individual differences in brain morphology and function among same-aged adolescents who differ in their self-reported resistance to peer pressure and not to cross-sectional or longitudinal studies that link age differences in resistance to peer influence to age differences in brain structure or function. Nevertheless, it is reasonable to speculate that the social and arousal processes that may undermine logical decision making during adolescence, when connectivity is still maturing, do not have the same impact during adulthood. One recent behavioral study found, for instance, that adolescents, college undergraduates, and adults performed similarly on a risk-taking task when performing the task alone, but that the presence of same-aged friends doubled risk taking among the adolescents and increased it 50% among the undergraduates, but had no

impact on the adults (Gardner & Steinberg 2005).

Peer influence affects adolescent judgment both directly and indirectly. In some contexts, adolescents might make choices in response to direct peer pressure, as when they are coerced to take risks that they might otherwise avoid. More indirectly, adolescents' desire for peer approval and consequent fear of rejection affects their choices even without direct coercion. The increased salience of peers in adolescence likely makes approval seeking especially important in group situations. Thus, it is not surprising, perhaps, that adolescents are far more likely than are adults to commit crimes in groups (Zimring 1998). Peers also may provide models for behavior that adolescents believe will assist them to accomplish their own ends. For example, there is some evidence that during early and middle adolescence, teens who engage in certain types of antisocial behavior, such as fighting or drinking, may enjoy higher status among their peers as a consequence. Accordingly, some adolescents may engage in antisocial conduct to impress their friends or to conform to peer expectations; indeed, in one of the most influential accounts of so-called adolescence-limited offenders (that is, individuals who commit crimes during adolescence but not before or after), imitation of higher-status peers is hypothesized to be a prime motivation for antisocial behavior (Moffitt 1993).

Future orientation. Future orientation, the capacity and inclination to project events into the future, may also influence judgment because it affects the extent to which individuals consider the long-term consequences of their actions in making choices. Over the course of adolescence and into young adulthood, individuals become more future oriented, with increases in their consideration of future consequences, in their concern about the future, and in their ability to plan ahead (Greene 1986, Nurmi 1991, Steinberg et al. 2008b).

There are several plausible explanations for this age gap in future orientation. In part, adolescents' weaker future orientation may reflect their more limited life experience (Gardner 1993). To a young person, a short-term consequence may have far greater salience than one five years in the future. The latter may seem very remote simply because five years represents a substantial portion of her life. There is also evidence linking the differences between adolescents and adults in future orientation to age differences in brain structure and function, especially in the prefrontal cortex (Cauffman et al. 2005).

Adolescence-limited offenders: antisocial individuals whose offending begins and ends during adolescence

Reward sensitivity. Research evidence also suggests that, relative to adults, adolescents are more sensitive to rewards and, especially, to immediate rewards, a difference that may explain age differences in sensation seeking and risk taking (Galvan et al. 2007, Steinberg et al. 2008a). Although it had once been believed that adolescents and adults differ in risk perception, it now appears that age differences in risk taking are more likely mediated by age differences in reward sensitivity than by age differences in sensitivity to the potential adverse consequences of a risky decision (Cauffman et al. 2008, Millstein & Halpern-Felsher 2002). Thus, adolescents and adults may perceive risks similarly (both in the lab and in the real world) but evaluate rewards differently, especially when the benefits of the risky decision are weighed against the costs. So, for example, in deciding whether to speed while driving a car, adolescents and adults may estimate the risks of this behavior (e.g., being ticketed, getting into an accident) similarly, but adolescents may weigh the potential rewards (e.g., the thrill of driving fast, peer approval, getting to one's destination sooner) more heavily than adults, leading to lower risk ratios for teens—and a higher likelihood of engaging in the (rewarding) activity. Thus, what distinguishes adolescents from adults in this regard is not the fact that teens are less knowledgeable about risks, but rather that they attach greater value to the rewards that risk taking provides (Steinberg 2004).

The heightened salience of rewards to adolescents, relative to adults, is seen in age

differences in performance on the Iowa Gambling Task, in which subjects are given four decks of cards, face down, and are instructed to turn over cards, one at a time, from any deck. Each card has information about how much money the subject has won or lost by selecting that card. Two of the decks are "good," in that drawing from them will lead to gains over time, and two of the decks are "bad"; drawing from them will produce net losses. Because a few cards in the "bad" decks offer very high rewards, though, a person who is especially sensitive to rewards will be drawn to the "bad" decks, even if he or she keeps losing money as a result. At the beginning of the task, people tend to draw randomly from all four decks, but as the task progresses, normal adults pick more frequently from the good decks. Children and younger adolescents (as well as adults with damage to the ventromedial prefrontal cortex) do poorly on this task (Crone et al. 2005, Crone & van der Molen 2004, Hooper et al. 2004). Performance improves with age, with the most dramatic improvement taking place during middle adolescence. This likely reflects a decrease in susceptibility to choosing based on the prospect of an immediate, attractive reward. Further evidence that adolescents tend to value immediate rewards more than adults do is seen in age differences in performance on tests of delay discounting, in which individuals are asked to chose between a smaller immediate reward (e.g., receiving $600 tomorrow) and a larger delayed one (e.g., receiving $1000 in one year) (Steinberg et al. 2008b). Heightened reward sensitivity, indexed by self-report or task performance, is especially pronounced during early and middle adolescence, when reward circuitry in the brain is undergoing extensive remodeling. There is some evidence from both human and animal studies that this may be linked to pubertal maturation (Dahl 2004).

Self-regulation. In addition to age differences in susceptibility to peer influence, future orientation, and reward sensitivity, adolescents and adults also differ with respect to their ability to control impulsive behavior and choices. Thus, the widely held stereotype that adolescents are more reckless than adults is supported by research on developmental changes in impulsivity and self-management over the course of adolescence (Galvan et al. 2007, Leshem & Glicksohn 2007). In general, studies show gradual but steady increases in the capacity for self-direction through adolescence, with gains continuing through the high school years and into young adulthood. Similarly, impulsivity, as a general trait, declines linearly between adolescence and adulthood (Steinberg et al. 2008a).

An illustration of behavioral research that sheds light on age differences in impulse control is the study of performance on a task known as the Tower of London. In this test, the subject is presented with an arrangement of colored balls, stacked in a certain order, and several empty vertical rods onto which the balls can be moved. The subject is then presented with a picture of a different configuration of balls and asked to turn the original configuration into the new one by moving one ball at a time, using the fewest number of moves (Berg & Byrd 2002). This task requires thinking ahead, because extra moves must be used to undo a mistake. In several studies, our research group found that early and middle adolescents performed similarly to adults when the problem presented was an easy one (i.e., one that could be solved in two or three moves), but that they did not plan ahead as much as late adolescents and young adults on the harder problems; unlike the older subjects, the younger individuals spent no more time before making their first move on the complex problems than they did on the simple ones (Steinberg et al. 2008a). These findings are consistent with casual observations of teenagers in the real world, which also suggest that they are less likely than are adults to think ahead before acting.

Taken together, these findings from self-report and behavioral studies of psychosocial development indicate that individuals become more resistant to peer influence and oriented to the future, and less drawn to immediate rewards and impulsive, as they mature from adolescence to adulthood. Although the science of

adolescent brain development is still in its infancy, findings indicate that much of this maturation continues well beyond the age by which individuals evince adult levels of performance on tests of cognitive capacity. As I discuss in the next section, the continued maturation of cognitive competence through age 16 and the continued maturation of psychosocial competence into young adulthood have important implications for how we view and respond to the criminal behavior of juveniles.

JUVENILE JUSTICE ISSUES INFORMED BY DEVELOPMENTAL SCIENCE

Criminal Culpability of Youth

The adult justice system presumes that defendants who are found guilty are responsible for their own actions, should be held accountable, and should be punished accordingly. Because of the relative immaturity of minors, however, it may not be justified to hold them as accountable as one might hold adults. If, for example, adolescents below a certain age cannot grasp the long-term consequences of their actions or cannot control their impulses, one cannot hold them fully accountable for their actions. In other words, we cannot claim that adolescents "ought to know better" if, in fact, the evidence indicates that they do not know better, or more accurately, cannot know better, because they lack the abilities needed to exercise mature judgment. It is important to note that culpability cannot really be researched directly. Because an individual's culpability is something that is judged by someone else, it is largely in the eye of the beholder. What can be studied, however, are the capabilities and characteristics of individuals that make them potentially blameworthy, such as their ability to behave intentionally or to know right from wrong.

I use the term "culpability" in this review as a shorthand for several interrelated phenomena, including responsibility, accountability, blameworthiness, and punishability. These notions are relevant to the adjudication of an individual's guilt or innocence, because an individual who is not responsible for his or her actions by definition cannot be guilty, and to the determination of a disposition (in juvenile court) or sentence (in criminal court), in that individuals who are found guilty but less than completely blameworthy, owing to any number of mitigating circumstances, merit proportionately less punishment than do guilty individuals who are fully blameworthy.

The starting point in a discussion of criminal culpability is a principle known as penal proportionality. Simply put, penal proportionality holds that criminal punishment should be determined by two criteria: the harm a person causes and his blameworthiness in causing that harm. The law recognizes that different wrongful acts cause different levels of harm through a complex system of offense grading under which more serious crimes (rape, for example) are punished presumptively more severely than less serious crimes (shoplifting, for example). Beyond this, though, two people who engage in the same wrongful conduct may differ in their blameworthiness. A person may be less culpable than other criminals—or not culpable at all—because he inadvertently (rather than purposely) causes the harm, because he is subject to some endogenous deficiency or incapacity that impairs his decision making (such as mental illness), or because he acts in response to an extraordinary external pressure—a gun to the head is the classic example. Less-blameworthy offenders deserve less punishment, and some persons who cause criminal harm deserve no punishment at all (Scott & Steinberg 2008).

The concept of mitigation plays an important role in the law's calculation of blame and punishment, although it gets little attention in the debate about youth crime. Mitigation applies to persons engaging in harmful conduct who are blameworthy enough to meet the minimum threshold of criminal responsibility but who deserve less punishment than a typical offender would receive. Through mitigation, the criminal law calculates culpability and punishment along a continuum and is not limited to the options of full responsibility or complete

Penal proportionality: the principle in American criminal law linking the severity of punishment for a crime to the criminal's culpability

Mitigation: in criminal law, the lessening of criminal responsibility

excuse. Indeed, criminal law incorporates calibrated measures of culpability. For example, the law of homicide operates through a grading scheme under which punishment for killing another person varies dramatically depending on the actor's blameworthiness. Thus, the actor who kills intentionally is deemed less culpable if he does so without premeditation because his choice reveals less consideration of the harmful consequences of his act, and the actor who negligently causes another's death is guilty of a less serious crime than one who intends to kill. A person who kills in response to provocation or under extreme emotional disturbance may be guilty only of manslaughter and not of murder. Under standard homicide doctrine, mitigating circumstances and mental states are translated into lower-grade offenses that warrant less punishment.

What makes the conduct of one person less blameworthy than that of another person who causes the same harm? Generally, a person who causes criminal harm is a fully responsible moral agent (and deserves full punishment) if, in choosing to engage in the wrongful conduct, he has the capacity to make a rational decision and a "fair opportunity" to choose not to engage in the harmful conduct. Under this view, the actor whose thinking is substantially impaired or whose freedom is significantly constrained is less culpable than is the typical offender and deserves less punishment—how much less depends on the extent of the impairment or coercion. Under American criminal law, two very different kinds of persons can show that their criminal conduct was less culpable than that of the offender who deserves full punishment—those who are very different from ordinary persons due to impairments that contributed to their criminal choices and those who are ordinary persons whose offenses are responses to extraordinary circumstances or are otherwise aberrant conduct (Scott & Steinberg 2008).

Although it seems paradoxical, adolescents, in a real sense, belong to both groups. In the first group are individuals with endogenous traits or conditions that undermine their decision-making capacity, impairing their ability to understand the nature and consequences of their wrongful acts or to control their conduct. In modern times, this category has been reserved mostly for offenders who suffer from mental illness, mental disability, and other neurological impairments. The criminal law defenses of insanity, diminished capacity, extreme emotional disturbance, and involuntary act recognize that psychological and biological incapacities can undermine decision making in ways that reduce or negate the culpability of criminal choices.

Individuals in the second group are ordinary persons whose criminal conduct is less culpable because it is a response to extraordinary external circumstances: These cases arise when the actor faces a difficult choice, and his response of engaging in the criminal conduct is reasonable under the circumstances, as measured by the likely response of an ordinary law-abiding person in that situation. Thus, under standard self-defense doctrine, a person who kills a threatening assailant is excused from liability if a reasonable person in his place would have felt that his life was in danger. Similarly, the defenses of duress, necessity, and provocation are available to actors who can explain their criminal conduct in terms of unusual external pressures that constrained their ability to choose.

In the preceding section, I described aspects of psychological development in adolescence that are relevant to youthful choices to get involved in criminal activity and that may distinguish young offenders from their adult counterparts. Although youths in mid-adolescence have cognitive capacities for reasoning and understanding that approximate those of adults, even at age 18 adolescents are immature in their psychosocial and emotional development, and this likely affects their decisions about involvement in crime in ways that distinguish them from adults. Teenagers are more susceptible to peer influence than are adults and tend to focus more on rewards and less on risks in making choices. They also tend to focus on short-term rather than long-term consequences and are less capable of anticipating future consequences, and they are more impulsive and volatile in their emotional responses. When we consider these

developmental factors within the conventional criminal law framework for assessing blameworthiness, the unsurprising conclusion is that adolescent offenders are less culpable than are adults. The mitigating conditions generally recognized in the criminal law—diminished capacity and coercive circumstances—are relevant to criminal acts of adolescents and often characterize the actions of juvenile offenders. This does not excuse adolescents from criminal responsibility, but it renders them less blameworthy and less deserving of adult punishment.

Although in general lawmakers have paid minimal attention to the mitigating character of adolescents' diminished decision-making capacities, some legislatures and courts have recognized that immature judgment reduces culpability. Most notably, in its consideration of the constitutionality of the juvenile death penalty, the Supreme Court has focused on this rationale for mitigation. In *Roper v. Simmons*, the 2005 case that abolished the juvenile death penalty, the Court adopted the developmental argument for mitigation that follows from the research reviewed above. Justice Kennedy, writing for the majority, described three features of adolescence that distinguish young offenders from their adult counterparts in ways that mitigate culpability—features that are familiar to the reader at this point. The first is the diminished decision-making capacity of youths, which may contribute to a criminal choice that is "not as morally reprehensible as that of adults" because of its developmental nature. The Court pointed to the tendency of adolescents to engage in risky behavior and noted that immaturity and an "underdeveloped sense of responsibility" often result in "impetuous and ill-considered decisions" by youths. Second, the Court pointed to the increased vulnerability of youths to external coercion, including peer pressure. Finally, the Court emphasized that the unformed nature of adolescent identity made it "less supportable to conclude that even a heinous crime was evidence of irretrievably depraved character." Adolescents are less blameworthy than are adults, the Court suggested, because the traits that contribute to criminal conduct are transient, and because most adolescents will outgrow their tendency to get involved in crime as they mature. Although the Court did not elaborate, we have seen that each of these attributes of adolescence corresponds to a conventional source of mitigation in criminal law (*Roper v. Simmons* 2005).

***Roper v. Simmons*:** the U.S. Supreme Court case that abolished the juvenile death penalty

Does this argument apply to the conduct of immature adults? Although most impulsive young risk takers mature into adults with different values, some adult criminals are impulsive, sensation-seeking risk takers who discount future consequences and focus on the here and now. Are these adolescent-like adults also less culpable than other adult offenders and deserving of reduced punishment? I think not. Unlike the typical adolescent, the predispositions, values, and preferences that motivate the adult offenders are not developmental but characterological, and they are unlikely to change merely with the passage of time. Adolescent traits that contribute to criminal conduct are normative of adolescence, but they are not typical in adulthood. In an adult, these traits are often part of the personal identity of an individual who does not respect the values of the criminal law and who deserves punishment when he or she violates its prohibitions (Scott & Steinberg 2008).

Competence of Adolescents to Stand Trial

Before discussing adolescents' competence to stand trial, it is worth underscoring the distinction between competence and culpability—two very different constructs that are often confused, even by those with expertise in criminal law. Competence to stand trial refers to the ability of an individual to function effectively as a defendant in a criminal or delinquency proceeding. In contrast, determinations of culpability focus on the defendant's blameworthiness in engaging in the criminal conduct and on whether and to what extent he will be held responsible. Although many of the same incapacities that excuse or mitigate criminal responsibility may also render a defendant incompetent, the two issues are analytically distinct and

***Dusky v. United States*:** the U.S. Supreme Court case that established criteria for competence to stand trial

***In re Gault*:** the U.S. Supreme Court case that determined that juveniles adjudicated in juvenile court were entitled to many of the same procedural protections as adults adjudicated in criminal court

Developmental incompetence: a lack of competence to stand trial due to normal cognitive or psychosocial immaturity, as opposed to mental illness or disability

separate legal inquiries, and they focus on the defendant's mental state at two different points in time (the time of the crime and the time of the court proceeding).

The reason that competence is required of defendants in criminal proceedings is simple: When the state asserts its power against an individual with the goal of taking away his liberty, the accused must be capable of participating in a meaningful way in the proceeding against him. If a defendant is so mentally ill or disabled that he cannot participate adequately, then the trial lacks fundamental fairness that is required as a part of due process under the Fourteenth Amendment to the U.S. Constitution (Scott & Grisso 2005).

In 1960, the Supreme Court announced a legal standard for trial competence in *Dusky v. United States* that has since been adopted uniformly by American courts. According to *Dusky*, when the issue of a defendant's competence is raised in a criminal trial, the court's determination should focus on "whether the defendant has sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding—and whether he has a rational, as well as factual, understanding of the proceedings against him." Thus, there are two parts to the competence requirement: The defendant must be able to consult with her attorney about planning and making decisions in her defense, and she must understand the charges, the meaning, and purpose of the proceedings and the consequences of conviction (Scott & Grisso 2005).

The requirement that criminal defendants be competent to stand trial had no place in delinquency proceedings in the traditional juvenile court. In a system in which the government's announced purpose was to rehabilitate and not to punish errant youths, the procedural protections accorded adult defendants—including the requirement of adjudicative competence—were thought to be unnecessary. This all changed with *In re Gault*, which led to an extensive restructuring of delinquency proceedings to conform to the requirements of constitutional due process. Today, it is generally accepted that requirements of due process and fundamental fairness are satisfied only if youths facing charges in juvenile court are competent to stand trial.

Until the 1990s, the issue of juveniles' trial competence involved a straightforward incorporation into delinquency proceedings of a procedural protection that was relevant to a relatively small number of mentally impaired adult defendants, where it was assumed to apply similarly to a small number of mentally incapacitated youths. The regulatory reforms that began in the late 1980s changed the situation by increasing the punishment stakes facing many young offenders and by eroding the boundary between the adult and juvenile systems. The importance of this issue was not recognized immediately, however. As legislatures across the country began to enact laws that dramatically altered the landscape of juvenile crime policy, the procedural issue of whether developmentally immature youngsters charged with crimes might be less able to participate in criminal proceedings than are adult defendants—what is referred to in this article as developmental incompetence—was not central to the policy debates.

Given that developmental incompetence largely escaped the attention of courts and policy makers until recently, it is worth asking directly whether the constitutional prohibition against criminal adjudication of incompetent defendants must be applied to this form of incapacity. The answer is surely "yes." The competence requirement is functional at its core, speaking to questions about the impact of cognitive deficiencies on trial participation. Functionally it makes no difference if the defendant cannot understand the proceeding she faces or assist her attorney, whether due to mental illness or to immaturity (Scott & Grisso 2005). In either case, the fairness of the proceeding is undermined. In short, the same concerns that support the prohibition against trying criminal defendants who are incompetent due to mental impairment apply with equal force when immature youths are subject to criminal proceedings. In the context of the recent changes in juvenile

justice policy, it has become important to have a better understanding of how the capacities of children and adolescents to participate in criminal proceedings compare with those of adults. In pursuit of this end, I first examine the specific abilities that are required for adjudicative competence under the legal standard. I then turn to the research directly comparing the abilities of juveniles and adults.

Three broad types of abilities are implicated under the *Dusky* standard for competence to stand trial: (*a*) a factual understanding of the proceedings, (*b*) a rational understanding of the proceedings, and (*c*) the ability to assist counsel (Scott & Grisso 2005). Courts applying the standard are directed to weigh each factor, but otherwise they exercise substantial discretion in deciding how much competence is enough. Examining each component of competence under the *Dusky* standard and considering how the capacities of juvenile defendants are likely to compare with those of adults is instructive.

Factual understanding focuses on the defendant's knowledge and awareness of the charges and his understanding of available pleas, possible penalties, the general steps in the adjudication process, the roles of various participants in the pretrial and trial process, and his rights as a defendant. Intellectual immaturity in juveniles may undermine factual understanding, especially given that youths generally have less experience and more limited ability to grasp concepts such as rights. Juveniles also may be more likely than are adults to have extensive deficits in their basic knowledge of the trial process, such that more than brief instruction is needed to attain competence.

The rational understanding requirement of *Dusky* has been interpreted to mean that defendants must comprehend the implications, relevance, or significance of what they understand factually regarding the trial process. Deficits in rational understanding typically involve distorted or erroneous beliefs that nullify factual understanding. For example, an immature defendant may know that he has a right to remain silent, yet believe that the judge can take this "right" away at any time by demanding a response to questions. (When asked what he thought the "right to remain silent" meant, my 12-year-old son said, "It means that you don't have to say anything until the police ask you a question.") Intellectual, emotional, and psychosocial immaturity may undermine the ability of some adolescents to grasp accurately the meaning and significance of matters that they seem to understand factually.

Finally, the requirement that the defendant in a criminal proceeding must have the capacity to assist counsel encompasses three types of abilities. The first is the ability to receive and communicate information adequately to allow counsel to prepare a defense. This ability may be compromised by impairments in attention, memory, and concentration, deficits that might undermine the defendant's ability to respond to instructions or to provide important information to his attorney, such as a coherent account of the events surrounding the offense. As I noted above, these capacities continue to improve through age 16, according to studies of cognitive development. Second, the ability to assist counsel requires a rational perspective regarding the attorney and her role, free of notions or attitudes that could impair the collaborative relationship. For example, a young defendant may develop a belief that all adults involved in the proceeding are allied against him, perhaps after seeing defense attorneys and prosecutors chatting together outside the courtroom. Third, defendants must have the capacity to make decisions about pleading and the waiver or assertion of other constitutional rights. These decisions involve not only adequate factual and rational understanding, but also the ability to consider alternatives and make a choice in a decision-making process. Immature youths may lack capacities to process information and exercise reason adequately in making trial decisions, especially when the options are complex and their consequences far reaching.

As juveniles' competence to stand trial began to emerge as an important issue in the mid-1990s, the need for a comprehensive study comparing the abilities of adolescents

and adults in this realm became apparent. Before this time, a few small studies had looked at particular capacities in juveniles that were important at different stages in the justice process. However, no comprehensive research had compared the specific capacities of juveniles and adults that are directly implicated in assessments of adjudicative competence. In response to that need, the MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice sponsored a large-scale study of individuals between the ages of 11 and 24—half of whom were in the custody of the justice system and half of whom had never been detained—designed to examine empirically the relationship between developmental immaturity and the abilities of young defendants to participate in their trials (Grisso et al. 2003). The study also probed age differences in psychosocial influences on decision making in the criminal process.

Based on participants' responses to a structured interview that had been used in previous studies of competence to stand trial among mentally ill adults, and for which norms had been established to define clinically significant "impairment," the researchers found that competence-related abilities improve significantly between the ages of 11 and 16. On average, youths aged 11 to 13 demonstrated significantly poorer understanding of trial matters, as well as poorer reasoning and recognition of the relevance of information for a legal defense, than did 14- and 15-year-olds, who in turn performed significantly more poorly than individuals aged 16 and older. There were no differences between the 16- and 17-year-olds and the young adults. The study produced similar results when adolescents and adults were categorized according to their scores above and below the cut-off scores indicating impairment. Nearly one-third of 11- to 13-year-olds and about one-fifth of 14- and 15-year-olds, but only 12% of individuals 16 and older, evidenced impairment at a level comparable to mentally ill adults who had been found incompetent to stand trial with respect to either their ability to reason with facts or understand the trial process. Individual performance did not differ significantly by gender, ethnicity, or, in the detained groups, as a function of the extent of individuals' prior justice system experience. This last finding is important because it indicates that there are components of immaturity independent of a lack of relevant experience that may contribute to elevated rates of incompetence among juveniles.

A different structured interview was used to probe how psychosocial influences affect decision making by assessing participants' choices in three hypothetical legal situations involving a police interrogation, consultation with a defense attorney, and the evaluation of a proffered plea agreement. Significant age differences were found in responses to police interrogation and to the plea agreement. First, youths, including 16- to 17-year-olds, were much more likely to recommend waiving constitutional rights during an interrogation than were adults, with 55% of 11- to 13-year-olds, 40% of 14- to 15-year-olds, and 30% of 16- to 17-year-olds choosing to "talk and admit" involvement in an alleged offense (rather than "remaining silent"), but only 15% of the young adults making this choice. There were also significant age differences in response to the plea agreement. This vignette was styled so as not to clearly favor accepting or rejecting the state's offer, which probably accounted for the fact that young adults were evenly divided in their responses. In contrast, 75% of the 11- to 13-year-olds, 65% of the 14- to 15-year-olds, and 60% of the 16- to 17-year-olds recommended accepting the plea offer. Together, these results suggest a much stronger tendency for adolescents than for young adults to make choices in compliance with the perceived desires of authority figures (Grisso et al. 2003).

Analysis of participants' responses to the vignettes also indicated differences between the youngest age group and older subjects in risk perception and future orientation. Participants were asked to explain their choices, including their perceptions about positive and negative consequences of various options; questions probed the subjects' assessment of the

seriousness of risks (the perceived negative consequences) and the likelihood of risks materializing. Analyses indicated age differences for all of these dimensions of "risk perception," with the 11- to 13-year-olds less able to see risks than 16- to 17-year-olds and young adults. Similarly, in comparison with older adolescents, fewer 11- to 13-year-olds mentioned the long-range consequences of their decisions, which suggests that future orientation differences exist that are consistent with those described above.

The study's findings are consistent with those of earlier studies that examined various dimensions of youths' functioning in the justice system. For example, an important study of youths' and adults' capacities to understand Miranda rights in the early 1980s found that, compared with adults in the criminal justice system, 14-year-olds in juvenile detention were less able to understand the meaning and importance of *Miranda* warnings (Grisso 1981). Other studies using smaller samples also have found age differences across the adolescent years with regard to knowledge of legal terms and the legal process in delinquency and criminal proceedings (e.g., Cooper 1997). Finally, a series of studies found significant age differences across the adolescent years in "strategic thinking" about pleas; older adolescents were more likely than younger subjects to make choices that reflected calculations of probabilities and costs based on information provided (e.g., Peterson-Badali & Abramovitch 1993).

In light of what is known about psychological maturation in early and mid-adolescence, these findings are not surprising. Indeed, given the abilities required of defendants in criminal proceedings, it would be puzzling if youths and adults performed similarly on competence-related measures. This research provides powerful and tangible evidence that some youths facing criminal charges may function less capably as criminal defendants than do their adult counterparts. This does not mean, of course, that all youths should be automatically deemed incompetent to stand trial any more than would a psychiatric diagnosis or low IQ score. It does mean, however, that the risk of incompetence is substantially elevated in early and mid-adolescence; it also means that policy makers and practitioners must address developmental incompetence as it affects the treatment of juveniles in court (Scott & Grisso 2005).

It is important to emphasize that the pattern of age differences in studies of legal decision making more closely resembles that seen in studies of cognitive development (where few age differences are apparent after 16) than in studies of psychosocial development (where age differences are observed in late adolescence and sometimes in young adulthood). This suggests that determinations of where to draw a legal boundary between adolescence and adulthood must be domain specific. In matters in which cognitive abilities predominate, and where psychosocial factors are of minimal importance (that is, in situations where the influence of adolescents' impulsivity, susceptibility to peer pressure, reward sensitivity, and relatively weaker future orientation is mitigated), adolescents older than 15 should probably be treated like adults. In situations in which psychosocial factors are substantially more important, drawing the boundary at an older age is more appropriate. This is why my colleagues and I have argued that it is perfectly reasonable to have a lower boundary for adolescents' autonomous access to abortion (a situation in which mandatory waiting periods limit the impact of impulsivity and shortsightedness and where consultation with adults likely counters immaturity of judgment) than for judgments of criminal responsibility (because adolescents' crimes are often impulsive and influenced by peers) (Steinberg et al. 2009).

Impact of Punitive Sanctions on Adolescent Development and Behavior

As noted above, the increasingly punitive orientation of the justice system toward juvenile offenders has resulted in an increase in the number of juveniles tried and sanctioned as adults and in the use of harsher sanctions in responding to the delinquent behavior of juveniles who have been retained in the juvenile justice

Life-course-persistent offenders: antisocial individuals whose offending begins before adolescence and persists into adulthood

Age-crime curve: in criminology, the relation between age and crime, showing that the prevalence of criminal activity increases between preadolescence and late adolescence, peaks around age 17, and declines thereafter

system. Research on the impact of adult prosecution and punishment and on the use of punitive sanctions more generally suggests, however, that these policies and practices may actually increase recidivism and jeopardize the development and mental health of juveniles (Fagan 2008). Consequently, there is a growing consensus among social scientists that policies and practices, such as setting the minimum age of criminal court jurisdiction below 18 (as about one-third of all states currently do), transferring juveniles to the adult system for a wide range of crimes, including nonviolent crimes, relying on incarceration as a primary means of crime control, and exposing juvenile offenders to punitive programs such as boot camps, likely do more harm than good, cost taxpayers much more than they need spend on crime prevention, and ultimately pose a threat to public safety (Greenwood 2006).

In order to understand why this is the case, it is important to begin with a distinction between adolescence-limited and life-course-persistent offenders (Moffitt 1993). Dozens of longitudinal studies have shown that the vast majority of adolescents who commit antisocial acts desist from such activity as they mature into adulthood and that only a small percentage—between five and ten percent, according to most studies—become chronic offenders. Thus, nearly all juvenile offenders are adolescent limited. This observation is borne out in inspection of what criminologists refer to as the age-crime curve, which shows that the incidence of criminal activity increases between preadolescence and late adolescence, peaks at about age 17 (slightly younger for nonviolent crimes and slightly older for violent ones), and declines thereafter. These findings, at both the individual and aggregate level, have emerged from many studies that have been conducted in different historical epochs and around the world (Piquero et al. 2003).

In view of the fact that most juvenile offenders mature out of crime (and that most will desist whether or not they are caught, arrested, prosecuted, or sanctioned), one must therefore ask how to best hold delinquent youth responsible for their actions and deter future crime (both their own and that of others) without adversely affecting their mental health, psychological development, and successful transition into adult roles. If the sanctions to which juvenile offenders are exposed create psychological disturbance, stunt the development of cognitive growth and psychosocial maturity, and interfere with the completion of schooling and entrance into the labor force, these policies are likely to exacerbate rather than ameliorate many of the very factors that lead juveniles to commit crimes in the first place (mental illness, difficulties in school or work, and, as reviewed above, psychological immaturity).

It is clear that sanctioning adolescents as adults is counterproductive. One group of researchers examining this question compared a group of 2700 Florida youths transferred to criminal court, mostly based on prosecutors' discretionary authority under Florida's direct-file statute, with a matched group of youths retained in the juvenile system (Bishop & Frazier 2000). In another study, the researchers compared 15- and 16-year-olds charged with robbery and burglary in several counties in metropolitan New York and in demographically similar counties in New Jersey. The legal settings differed in that New York juveniles age 15 and older who are charged with robbery and burglary are automatically dealt with in the adult system under that state's legislative waiver statute, whereas in New Jersey, transfer is rarely used, and the juvenile court retains jurisdiction over almost all youths charged with these crimes (Fagan 1996).

The New York-New Jersey study found that youths convicted of robbery in criminal court were rearrested and incarcerated at a higher rate than those who were dealt with in the juvenile system, but that rates were comparable for burglary, a less serious crime. The study also examined the number of days until rearrest and found a similar pattern; the youths sentenced for robbery in criminal court reoffended sooner than did their juvenile court counterparts. Recidivism was not affected by sentence length; longer sentences were not more

effective at reducing recidivism than were shorter sentences. Results of the Florida study also support the conclusion that juvenile sanctions may reduce recidivism more effectively than criminal punishment. This study measured only rearrest rates and found lower rates for youths who were retained in juvenile court than for youths who were transferred. The follow-up period in this study was relatively brief—less than two years. During this period, transferred youth were more likely to be rearrested, committed more offenses per year, and reoffended sooner than did juveniles in the juvenile system. As in the New York-New Jersey study, longer sentences did not have a deterrent effect.

Within the juvenile system, of course, there is wide variation in the types and severity of sanctions to which offenders are exposed. Some youths are incarcerated in prison-like training schools, whereas others receive loosely supervised community probation—neither of which is effective at changing antisocial behavior. An important question therefore is, what can the juvenile system offer young offenders that will be effective at reducing recidivism? A detailed discussion of the enormous literature evaluating the effects of various sanctions and interventions is beyond the scope of this review, and this literature has been summarized many times (Greenwood 2006, Lipsey 1999). Here I highlight a few main points.

Until the 1990s, most researchers who study juvenile delinquency programs might well have answered that the system had little to offer in the way of effective therapeutic interventions; the dominant view held by social scientists in the 1970s and 1980s was that "nothing works" to reduce recidivism with young offenders. Today the picture is considerably brighter, in large part due to a substantial body of research produced over the past 15 years showing that many juvenile programs, in both community and institutional settings, have a substantial crime-reduction effect; for the most promising programs, that effect is in the range of 20% to 30%. An increased focus on research-based programs and on careful outcome evaluation allows policy makers to assess accurately the impact on recidivism rates of particular programs to determine whether the economic costs are justified. In a real sense, these developments have revived rehabilitation as a realistic goal of juvenile justice interventions.

In general, successful programs are those that attend to the lessons of developmental psychology, seeking to provide young offenders with supportive social contexts and to assist them in acquiring the skills necessary to change problem behavior and to attain psychosocial maturity. In his comprehensive meta-analysis of 400 juvenile programs, Lipsey (1995) found that among the most effective programs in both community and institutional settings were those that focused on improving social development skills in the areas of interpersonal relations, self-control, academic performance, and job skills. Some effective programs focus directly on developing skills to avoid antisocial behavior, often through cognitive behavioral therapy. Other interventions that have been shown to have a positive effect on crime reduction focus on strengthening family support, including Multisystemic Therapy, Functional Family Therapy, and Multidimensional Treatment Foster Care, all of which are both effective and cost effective (Greenwood 2006). It is also clear from these reviews that punitive sanctions administered within the juvenile system have iatrogenic effects similar to those seen in studies of juveniles tried as adults. Punishment-oriented approaches, such as "Scared Straight" or military-style boot camps, do not deter future crime and may even inadvertently promote reoffending. Nor do these programs appear to deter other adolescents from offending (Greenwood 2006).

The dearth of evidence supporting the effectiveness of tough sanctions in deterring youthful criminal activity becomes less puzzling when we consider the response of young offenders to harsh punishment in light of developmental knowledge about adolescence discussed earlier. Teenagers on the street deciding whether to hold up a convenience store may simply be less capable than adults, due to their

psychosocial immaturity, of considering the sanctions they will face. Thus, the developmental influences on decision making that mitigate culpability also may make adolescents less responsive to the threat of criminal sanctions (Scott & Steinberg 2008).

In addition, adolescence is a formative period of development. In mid and late adolescence, individuals normally make substantial progress in acquiring and coordinating skills that are essential to filling the conventional roles of adulthood. First, they begin to develop basic educational and vocational skills to enable them to function in the workplace as productive members of society. Second, they also acquire the social skills necessary to establish stable intimate relationships and to cooperate in groups. Finally, they must begin to learn to behave responsibly without external supervision and to set meaningful personal goals for themselves. For most individuals, the process of completing these developmental tasks extends into early adulthood, but making substantial progress during the formative stage of adolescence is important. This process of development toward psychosocial maturity is one of reciprocal interaction between the individual and her social context. Several environmental conditions are particularly important, such as the presence of an authoritative parent or guardian, association with prosocial peers, and participation in educational, extracurricular, or employment activities that facilitate the development of autonomous decision making and critical thinking. For the youth in the justice system, the correctional setting becomes the environment for social development and may affect whether he acquires the skills necessary to function successfully in conventional adult roles (Steinberg et al. 2004).

Normative teenagers who get involved in crime do so, in part, because their choices are driven by developmental influences typical of adolescence. In theory, they should desist from criminal behavior and mature into reasonably responsible adults as they attain psychosocial maturity—and most do, especially as they enter into adult work and family responsibilities. Whether youths successfully make the transition to adulthood, however, depends in part on whether their social context provides opportunity structures for the completion of the developmental tasks described above. The correctional environment may influence the trajectories of normative adolescents in the justice system in important ways. Factors such as the availability (or lack) of good educational, skill building, and rehabilitative programs; the attitudes and roles of adult supervisors; and the identity and behavior of other offenders shape the social context of youths in both the adult and the juvenile systems. These factors may affect the inclination of young offenders to desist or persist in their criminal activities and may facilitate or impede their development into adults who can function adequately in society—in the workplace, in marriage or other intimate unions, and as citizens.

SUMMARY AND CONCLUDING COMMENTS

The overarching question I pose in this article is whether research on adolescent development indicates that adolescents and adults differ in ways that warrant their differential treatment when they violate the law. More specifically, I ask how this research informs debate about three fundamental questions that continue to challenge the justice system: (*a*) Should adolescents be held to adult standards of criminal culpability and, accordingly, exposed to the same punishment as adults; (*b*) Do adolescents possess the necessary capabilities to function as competent defendants in an adversarial court proceeding; and (*c*) How are juvenile offenders affected by the sorts of punitive sanctions that became increasingly popular during the past several decades?

It is now incontrovertible that psychological development continues throughout adolescence and into young adulthood in ways that are relevant to all three questions. Although basic cognitive competence matures by the time individuals reach age 16, many of the social and emotional capacities that influence adolescents'

judgment and decision making, especially outside the psychologist's laboratory, continue to mature into late adolescence and beyond. Compared to individuals in their mid to late twenties, adolescents even as old as 18 are more impulsive, less oriented to the future, and more susceptible to the influence of their peers. In addition, because adolescence is also period during which individuals are still acquiring the psychological capacities they will need to successfully transition into adult work and family roles, it is important that the sanctions to which juvenile offenders are exposed not adversely affect their development. Recent research on the neural underpinnings of these developments does not change the portrait of adolescent immaturity painted by behavioral research, but it does add detail and support to the argument that makes the story more compelling. It is one thing to say that adolescents don't control their impulses, stand up to peer pressure, or think through the consequences of their actions as well as adults; it is quite another to say that don't because they can't.

Because American criminal law clearly provides that diminished judgment mitigates criminal responsibility, it is reasonable to argue that adolescents are inherently less blameworthy than their elders in ways should affect decisions about criminal punishment; as a class, adolescents are inherently less blameworthy than adults. The picture that emerges from an analysis of the capacities necessary for competence to stand trial is not the same, however. Here the relevant research indicates that some adolescents (generally, those 16 and older) have adult-like capabilities but that others (generally those 15 and younger) may not. Research on the impact of punitive sanctions on adolescent development and behavior, although not explicitly developmental in nature, indicates that trying adolescents as adults or exposing them to especially harsh sanctions does little to deter offending and may indeed have iatrogenic effects.

Although justice system policy and practice cannot, and should not, be dictated solely by studies of adolescent development, the ways in which we respond to juvenile offending should at the very least be informed by the lessons of developmental science. Taken together, the lessons of developmental science offer strong support for the maintenance of a separate juvenile justice system in which adolescents are judged, tried, and sanctioned in developmentally appropriate ways. Using developmental science to inform juvenile justice policy is not a panacea that will solve the problem of youth crime. Adolescents will always get in trouble, sometimes very serious trouble, and some will continue to offend, despite the state's best efforts to respond to their crimes in ways that will deter future offending. At the same time, the future prospects of some youths will be harmed by a system that holds them to adult levels of accountability for their crimes under our transfer rules. No one policy regime will yield good outcomes for all young offenders, but looking to developmental research to guide our decision making provides a solid framework for policies and practices that will enhance public safety in the long run by promoting healthy adolescent development.

SUMMARY POINTS

1. During the past two decades, policies and practices concerning the treatment of juvenile offenders in the United States became increasingly punitive, as evidenced by the increase in the number of juveniles tried as adults and the expanded use of harsh sanctions within both the juvenile and criminal justice systems. This was a break from the traditional model of juvenile justice, which emphasized rehabilitation rather than punishment as its core purpose, that had prevailed for most of the twentieth century.

2. In order to make well-informed decisions about the treatment of juveniles who have entered the juvenile justice pipeline, therefore, policymakers, practitioners, and mental health professionals need to be familiar with the developmental changes that occur during childhood and adolescence in the capabilities and characteristics that are relevant to their competence to stand trial, their criminal culpability, and their likely response to treatment.
3. Brain maturation continues well into young adulthood, and although individuals, on average, perform at adult levels on tests of basic cognitive ability by the time they are 16, most do not attain adult-like levels of social and emotional maturity until very late in adolescence or early in adulthood. Compared to adults, adolescents are more susceptible to peer influence, less oriented to the future, more sensitive to short-term rewards, and more impulsive.
4. This research on adolescent brain, cognitive, and psychosocial development supports the view that adolescents are fundamentally different from adults in ways that warrant their differential treatment in the justice system. An analysis of factors that mitigate criminal responsibility under the law indicates that adolescents are inherently less culpable than are adults and should therefore be punished less severely. In addition, studies of competence to stand trial indicate that those who are under 16 are more likely to be incompetent than are adults, raising questions about the appropriateness of trying younger adolescents in criminal court.
5. Studies of the impact of punitive sanctions on adolescent development and behavior, including prosecuting and sanctioning adolescents as adults, indicate that they do not deter adolescents from breaking the law and may in fact increase recidivism. In contrast, family-based interventions have been shown to be both effective and cost effective.

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The author is not aware of any biases that might be perceived as affecting the objectivity of this review.

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Office of Justice Programs Innovation • Partnerships • Safer Neighborhoods *www.ojp.usdoj.gov*

Juveniles Who Commit Sex Offenses Against Minors

David Finkelhor, Richard Ormrod, and Mark Chaffin

The Office of Juvenile Justice and Delinquency Prevention (OJJDP) is committed to improving the justice system's response to crimes against children. OJJDP recognizes that children are at increased risk for crime victimization. Not only are children the victims of many of the same crimes that victimize adults, they are subject to other crimes, like child abuse and neglect, that are specific to childhood. The impact of these crimes on young victims can be devastating, and the violent or sexual victimization of children can often lead to an intergenerational cycle of violence and abuse. The purpose of OJJDP's Crimes Against Children Series is to improve and expand the Nation's efforts to better serve child victims by presenting the latest information about child victimization, including analyses of crime victimization statistics, studies of child victims and their special needs, and descriptions of programs and approaches that address these needs.

Although those who commit sex offenses against minors are often described as "pedophiles" or "predators" and thought of as adults, it is important to understand that a substantial portion of these offenses are committed by other minors who do not fit the image of such terms. Interest in youth who commit sexual offenses has grown in recent years, along with specialized treatment and management programs, but relatively little population-based epidemiological information about the characteristics of this group of offenders[1] and their offenses has been available. The National Incident-Based Reporting System (NIBRS) offers perspective on the characteristics of the juvenile sex offender population coming to the attention of law enforcement.

Key findings from this Bulletin include the following:

- Juveniles account for more than one-third (35.6 percent) of those known to

[1] This Bulletin follows the common convention of referring to these youth as "offenders." However, very few of the youth described with this label in the National Incident-Based Reporting System data are convicted as adults would be. Many were only alleged to have engaged in illegal behavior, and, if subject to justice system action, were adjudicated delinquent rather than convicted of a crime. Thus, the term "juvenile offender" should not imply shared status with convicted adult offenders, legally or otherwise.

A Message From OJJDP

The victimization of youth by adult sex offenders has been an ongoing concern for some time. Although all crimes constitute an assault on civilization, the criminal violation of children is particularly disturbing.

In recent years, there has been increased public interest in the incidence of sexual victimization of youth by other youth. This should not be surprising considering that youth constitute more than one in four sex offenders and that juveniles perpetrate more than one in three sex offenses against other youth.

Research on juvenile sex offenders goes back more than half a century; however, little information about these young offenders and their offenses exists.

This Bulletin draws on data from the Federal Bureau of Investigation's National Incident-Based Reporting System to provide population-based epidemiological information on juvenile sex offending.

It is OJJDP's hope that the findings reported in this Bulletin and their implications will help inform the policy and practice of those committed to addressing the sexual victimization of youth and strengthening its prevention and deterrence—considerations that are critical to success. Their efforts to protect youth from victimization, or from becoming victimizers themselves, have our support and commendation.

police to have committed sex offenses against minors.

- Juveniles who commit sex offenses against other children are more likely than adult sex offenders to offend in groups and at schools and to have more male victims and younger victims.
- The number of youth coming to the attention of police for sex offenses increases sharply at age 12 and plateaus after age 14. Early adolescence is the peak age for offenses against younger children. Offenses against teenagers surge during mid to late adolescence, while offenses against victims under age 12 decline.
- A small number of juvenile offenders—1 out of 8—are younger than age 12.
- Females constitute 7 percent of juveniles who commit sex offenses.
- Females are found more frequently among younger youth than older youth who commit sex offenses. This group's offenses involve more multiple-victim and multiple-perpetrator episodes, and they are more likely to have victims who are family members or males.
- Jurisdictions vary enormously in their concentration of reported juvenile sex offenders, far more so than they vary in their concentration of adult sex offenders.

Background

Research on juvenile sex offenders goes back more than 50 years, but most of what is known comes from a surge of interest in the subject that began in the mid-1980s (Chaffin, Letourneau, and Silovsky, 2002), culled primarily from populations of youth in sex offender treatment programs. Juvenile sex offender treatment programs saw a 40-fold increase between 1982 and 1992 (Knopp, Freeman-Longo, and Stevenson, 1992). Accordingly, the number of published research articles on juvenile sex offenders increased from a handful prior to the mid-1980s to more than 200 studies currently. Dissemination of information about these offenders has included federally funded efforts from sources such as the Center for Sex Offender Management and the National Center on the Sexual Behavior of Youth. Professional societies such as the Association for the Treatment of Sexual Abusers have also published policy and practice guidelines.

Most of the clinical sample studies on which current knowledge is based have focused on the clinical characteristics of offenders, treatment issues, risk predictors, and recidivism rates (Becker, 1998). The clinical literature has generally considered teenage and preteen offenders as different offender types: teenage sex offenders are predominately male (more than 90 percent), whereas a significant number of preteen offenders are female (Silovsky and Niec, 2002). Most offenses described in the clinical literature involve teenage offenders acting alone with young children as victims. Many specialized intervention systems are designed with this type of behavior in mind.

Early thinking about juvenile sex offenders was based on what was known about adult child molesters, particularly adult pedophiles, given findings that a significant portion of them began their offending during adolescence. However, current clinical typologies and models emphasize that this retrospective logic has obscured

The National Incident-Based Reporting System (NIBRS)

The U.S. Department of Justice is replacing its long-established Uniform Crime Reports (UCR) system with a more comprehensive National Incident-Based Reporting System (NIBRS). Whereas UCR monitors only a limited number of index crimes and gathers few details on each crime event (except in the case of homicide), NIBRS collects a wide range of information on victims, offenders, and circumstances for a greater variety of offenses. Offenses tracked in NIBRS include violent crimes (e.g., homicide, assault, rape, robbery), property crimes (e.g., theft, arson, vandalism, fraud, and embezzlement), and crimes against society (e.g., drug offenses, gambling, prostitution). Moreover, NIBRS collects information on multiple victims, multiple offenders, and multiple crimes that may be part of the same episode.

Under the new system, as under the old, local law enforcement personnel compile information on crimes coming to their attention and the information is then aggregated at State and national levels. For a crime to count in the system, law enforcement simply needs to report and investigate the crime. The incident does not need to be cleared, nor must an arrest be made, though unfounded reports are deleted.

NIBRS holds great promise, but it is still far from a national system. The Federal Bureau of Investigation (FBI) began implementing the system in 1988, and State and local agency participation is voluntary and incremental. By 1995, jurisdictions in 9 States had agencies contributing data; by 1997, the number was 12; and by 2004, jurisdictions in 29 States submitted reports, providing coverage for 20 percent of the Nation's population and 16 percent of its crime. At the beginning of 2004, only 7 States (Delaware, Idaho, Iowa, South Carolina, Tennessee, Virginia, and West Virginia) had participation from all local jurisdictions, and only 5 cities with a population greater than 500,000 (Columbus, OH; El Paso, TX; Memphis, TN; Nashville, TN; and Milwaukee, WI) were reporting. The crime experiences of large urban areas are thus particularly underrepresented. The system, therefore, is not yet nationally representative, nor do its data represent national trends or national statistics. Nevertheless, the system is assembling large amounts of crime information and providing rich detail about juvenile offending and victimization that was previously unavailable. The patterns and associations these data reveal are real and represent the experiences of a large number of youth. For 2004, the 29 participating States* reported more than 4,037,000 crime incidents, with at least 14,000 involving an identified juvenile sex offender. As more jurisdictions join the system, new patterns may emerge.

More information about NIBRS data collection can be found at these Web sites:
(1) www.fbi.gov/ucr/ucr.htm#cius
(2) www.ojp.usdoj.gov/bjs/nibrs.htm
(3) www.jrsa.org/ibrrc

* In 2004, participating States included Arizona, Arkansas, Colorado, Connecticut, Delaware, Georgia, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Nebraska, New Hampshire, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, and Wisconsin.

important motivational, behavioral, and prognostic differences between juvenile sex offenders and adult sex offenders and has overestimated the role of deviant sexual preferences in juvenile sex crimes. More recent models emphasize the diversity of juvenile sex offenders, their favorable prognosis suggested by low sex-offense-recidivism rates, and the commonalities between juvenile sex offending and other juvenile delinquency (Letourneau and Miner, 2005).

Clinical studies also underscore a diversity of behaviors, characteristics, and future risk. For example, the sexual behaviors that bring youth into clinical settings can include events as diverse as sharing pornography with younger children, fondling a child over the clothes, grabbing peers in a sexual way at school, date rape, gang rape, or performing oral, vaginal, or anal sex on a much younger child. Offenses can involve a single event, a few isolated events, or a large number of events with multiple victims. Juvenile sex offenders come from a variety of social and family backgrounds and can either be well functioning or have multiple problems. A number have experienced a high accumulated burden of adversity, including maltreatment or exposure to violence; others have not. In some cases, a history of childhood sexual abuse appears to contribute to later juvenile sex offending (Lambie et al., 2002), but most sexual abuse victims do not become sex offenders in adolescence or adulthood (Widom and Ames, 1994). Among preteen children with sexual behavior problems, a history of sexual abuse is particularly prevalent.

In addition to a diversity of backgrounds, diversity in motivation is evident. Some juvenile sex offenders appear primarily motivated by sexual curiosity. Others have longstanding patterns of violating the rights of others. Some offenses occur in conjunction with serious mental health problems. Some of the offending behavior is compulsive, but it more often appears impulsive or reflects poor judgment (Becker, 1998; Center for Sex Offender Management, 1999; Chaffin, 2005; Hunter et al., 2003).

Similarly, clinical data point to variability in risk for future sex offending as an adult. Multiple short- and long-term clinical followup studies of juvenile sex offenders consistently demonstrate that a large majority (about 85–95 percent) of sex-offending youth have no arrests or reports for future sex crimes. When previously sex-offending youth do have future arrests, they are far more likely to be for nonsexual crimes such as property or drug offenses than for sex crimes (Alexander, 1999; Caldwell, 2002; Reitzel and Carbonell, 2007). These empirical findings contrast with popular thought and widely publicized anecdotal cases that disproportionately portray incidences of sex crime recidivism. Nevertheless, a small number of sex-offending youth are at elevated risk to progress to adult sex offenses. To identify those who are more likely to progress to future offending, researchers have developed actuarial risk assessment tools that have demonstrated some predictive validity; efforts to refine these tools are underway (Parks and Bard, 2006; Righthand et al., 2005; Worling, 2004).

Unfortunately, research on juvenile sex offenders beyond clinical populations has been more limited. Few studies have surveyed representative youth populations to ascertain population-based rates of juvenile offending (e.g., Elliott, Huizinga, and Menard, 1989). Juvenile sex offenses reported to authorities yield official crime report data, but these data typically contain limited information about the nature of the incidents involved. As more detailed crime report data become available, and as researchers study these data in conjunction with clinical sample data, the information gained will assist prevention and intervention planning substantially.

Using NIBRS Data To Investigate Juvenile Sex Offenders

The information presented in this Bulletin about juvenile sex offenders is based on data collected by the National Incident-Based Reporting System (NIBRS) for 2004 (see discussion of the National Incident-Based Reporting System on page 2). At present, NIBRS is the only available source of geographically diverse and uniformly collected crime data that provides detailed descriptions of juvenile sex offenders, their victims, and the crime incidents they initiate. The offenders and incidents recorded by NIBRS represent only those that come to the attention of police.

The basic unit of data organization in NIBRS is the crime incident. An incident is defined as "one or more offenses committed by the same offender, or group of offenders acting in concert, at the same time and place" (U.S. Department of Justice, Federal Bureau of Investigation, 2004:191). Thus, a single sex offense incident can be characterized by additional offenses beyond a sex offense or even multiple sex offenses, by multiple offenders, and by multiple victims. Most sex offense incidents, however, are not so complex.

For this Bulletin, the basic unit of measure is the individual sex offender, although NIBRS links each offender to broader incident characteristics, such as the number of offenders present, victim age and identity, incident location, and time of day. Although juveniles sometimes commit sex crimes against adults, the majority (96.2 percent) of those known to police target other juveniles. These offenders, juveniles who commit sex offenses against minors, are of particular interest to this analysis. Unless stated otherwise in this Bulletin, "sex offender" (both juvenile and adult) refers to those committing sex offenses against minors.

For purposes of analysis, juvenile victims are defined as persons younger than 18; juvenile offenders are defined as persons of ages 6 through 17. (Although NIBRS records include a small number of children younger than 6 years of age, the notion of very young children committing sex crimes is problematic, so these children were excluded from this analysis.) An adult is defined as a person 18 years of age or older. It is also important to note that the offender ages recorded in NIBRS reflect the ages of the youth at the time the incidents are reported, not the ages at the time the incidents occurred, which are different in 19 percent of cases.

This Bulletin makes some comparisons between an individual offender and an individual victim (e.g., age difference, gender similarity or difference).

[continued on page 4]

Juvenile and Adult Sex Offenders Known to Police

Juvenile sex offenders comprise more than one-quarter (25.8 percent) of all sex offenders and more than one-third (35.6 percent) of sex offenders against juvenile victims (the group that is the focus of this Bulletin). As a percentage of all juvenile offenders, they do not constitute a large

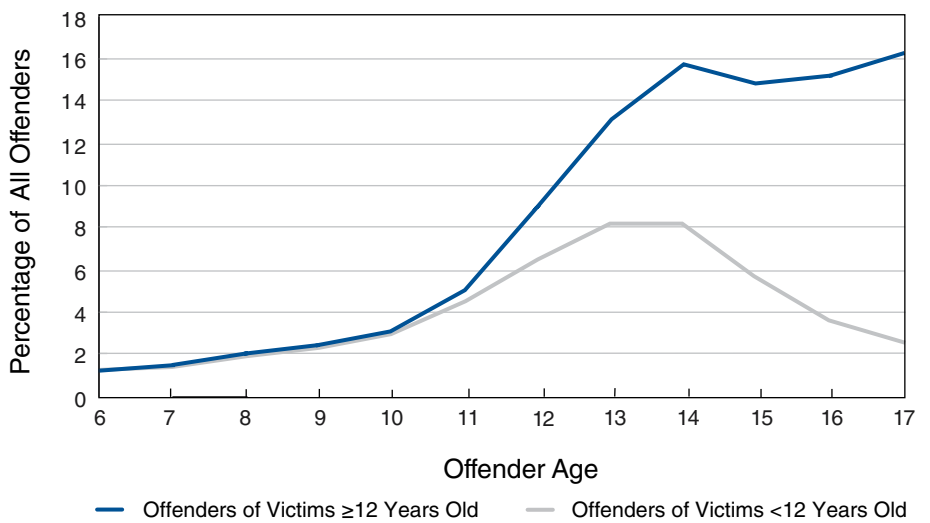
Using NIBRS Data To Investigate Juvenile Sex Offenders (continued)

For offenders in incidents with multiple victims (12.8 percent of juvenile offenders), this Bulletin uses the youngest victim for these comparisons.

NIBRS data identify a number of specific sex offenses and classify them as either forcible (rape, sodomy, sexual assault with an object, fondling) or nonforcible (incest, statutory rape) sex offenses. It defines a forcible sex offense as "any sexual act directed against another person, forcibly and/or against that person's will; or not forcibly or against the person's will where the victim is incapable of giving consent" (U.S. Department of Justice, Federal Bureau of Investigation, 2004:191). A person may be incapable of giving consent because of temporary or permanent mental or physical incapacity or because of youth. Furthermore, NIBRS guidelines direct that "the ability of the victim to give consent must be a professional determination by the law enforcement agency" (U.S. Department of Justice, Federal Bureau of Investigation, 2004:191). A nonforcible sex offense is defined as "unlawful, nonforcible sexual intercourse" (U.S. Department of Justice, Federal Bureau of Investigation, 2004:192).

Although NIBRS attempts to standardize crime definitions, individual police officers and jurisdictions may categorize similar episodes in very different ways for NIBRS purposes, so the distinctions among various sex offense categories may be less clear than the names might imply. Although statutes do describe illegal sexual behavior that could easily be classified as nonforcible (e.g., showing pornography or making sexual suggestions to a child) and other behaviors that are clearly forcible (e.g., rape), how law enforcement might categorize less straightforward cases (e.g., physically noncoercive fondling between youth of widely disparate ages) may be less reliable. For this Bulletin, "sex offender" refers to a person who has committed either a forcible or nonforcible sex offense, although the majority of juvenile sex offenders (90.5 percent) reported in NIBRS committed a forcible sex offense.

Figure 1: Age Distribution of Juvenile Sex Offenders, by Victim Age



Note: *N* = 13,471 juvenile offenders.

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

group—juvenile sex offenders account for only 3.1 percent of all juvenile offenders and 7.4 percent of all violent juvenile offenders. If other jurisdictions in the country were assumed to be the same as the NIBRS jurisdictions, one would extrapolate approximately 89,000 juvenile sex offenders known to police throughout the United States in 2004.

Known juvenile offenders who commit sex offenses against minors span a variety of ages. Five percent are younger than 9 years, and 16 percent are younger than 12 years (figure 1). The rate rises sharply around age 12 and plateaus after age 14. As a proportion of the total, 38 percent are between ages 12 and 14, and 46 percent are between ages 15 and 17. The vast majority (93 percent) are male.

Juveniles who commit sex offenses against minors are different from adults who commit sex offenses against minors on a number of crucial dimensions captured by NIBRS (table 1, page 5). Juveniles are more likely to offend in groups (24 percent with one or more co-offenders versus 14 percent for adults). They are somewhat more likely to offend against acquaintances (63 percent versus 55 percent). Their most serious offense is less likely to be rape (24 percent versus 31 percent) and more likely to be sodomy (13 percent versus 7 percent) or fondling (49 percent versus 42 percent). They are more likely to have a male victim (25 percent versus 13 percent).

Sex offenses committed by juveniles very often occur in the home, although somewhat less often than their adult counterparts (69 percent versus 80 percent) but are more likely to occur in a school (12 percent versus 2 percent). Their offenses occur somewhat more in the afternoon (43 percent versus 37 percent for adults) than in the evening (25 percent versus 28 percent) or at night (5 percent versus 9 percent).

Juvenile sex offenders are also much more likely than adult sex offenders to target young children as their victims. The proportion of victims younger than the age of 12 is 59 percent for juvenile sex offenders, compared with 39 percent for adult sex offenders. Figure 2 (page 6) shows how adult sex offenders concentrate their offenses against victims age 13 and older. In contrast, the age range of victims of juvenile sex offenders is more dispersed, and 16-

and 17-year-old victims actually represent a surprisingly small proportion. Juvenile sex offenders are less likely to target other juveniles who are older than they are. Figure 2 also shows that children younger than age 12 have about an equal likelihood of being victimized by juvenile and adult sex offenders, but adult offenders predominate among those who victimize teens.

Juvenile sex offenders more commonly target other juveniles who are somewhat younger than they are, signaling a clear relationship between the age of juvenile sex offenders and the age of their victims (figure 3, page 6). When juvenile sex offenders are themselves 6 to 9 years old, the mean age of their victims is between 5 and 7. When juvenile sex offenders are age 15 to 17, the mean age of their victims is between 11 and 13. However, when victims are younger than age 12, there is a marked peak for offending by 13- to 14-year-olds, and then a dramatic decline in the targeting of these young victims by youth age 15 and older (figure 1). Youth age 15 and older primarily target postpubescent victims.

This relationship between offender age and victim age also varies by victim gender, as shown in figures 4 (page 8) and 5 (page 10). When the victims are boys, a majority are younger than age 12, and there is also a marked peak reflecting 12- to 14-year-old sex offenders targeting 4- to 7-year-old boys. When the victims are girls, by contrast, there is a greater link between the rise in age of the offender and the victim, and the peak is among 15- to 17-year-olds targeting 13- to 15-year-old girls. This suggests that when teen offenders target boys, they tend to focus on much younger and sexually immature boys rather than their peers, whereas when older teen offenders target girls, they tend to focus more on sexually mature females. This finding may stem from the fact that juvenile offenders may find it easier to dominate girls and younger boys than to dominate older boys. However, it could also be that older male victims of teenage offenders are particularly reluctant to report their victimizations to police compared with teenage female victims.

Table 1: Characteristics of Juveniles and Adults Who Commit Sex Offenses Against Minors

	Sex Offenders (%)	
Characteristic	**Juvenile (*N* = 13,471)**	**Adult (*N* = 24,344)**
Multiple offenders in incident	23.9	13.5
Two offenders	14.4	9.1
Three or more offenders	9.5	4.4
Victim identity (youngest victim)		
Family	25.0	31.9
Acquaintance	63.2	54.8
Stranger	2.5	4.4
Victim was also offender	0.8	0.0
Unknown	8.4	9.0
Sex offense (most serious)		
Rape	24.0	30.6
Sodomy	12.5	6.5
Sex assault with object	4.7	4.4
Fondling	49.4	42.1
Nonforcible sex offense	9.5	16.3
Female offender	7.3	5.4
Victim gender		
Any female victim in incident	78.8	88.2
Any male victim in incident	24.7	13.4
Incident location		
Residence/home	68.8	79.6
School/college	11.9	1.6
Store/building	3.8	4.8
Outside	7.1	6.7
Other/unknown	8.3	7.3
Incident time of day		
Morning (6 a.m. to 12 p.m.)	26.7	25.1
Afternoon (12 p.m. to 6 p.m.)	43.0	37.3
Evening (6 p.m. to 12 a.m.)	25.2	28.3
Night (12 a.m. to 6 a.m.)	5.2	9.2
Arrest in incident	30.5	34.1

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

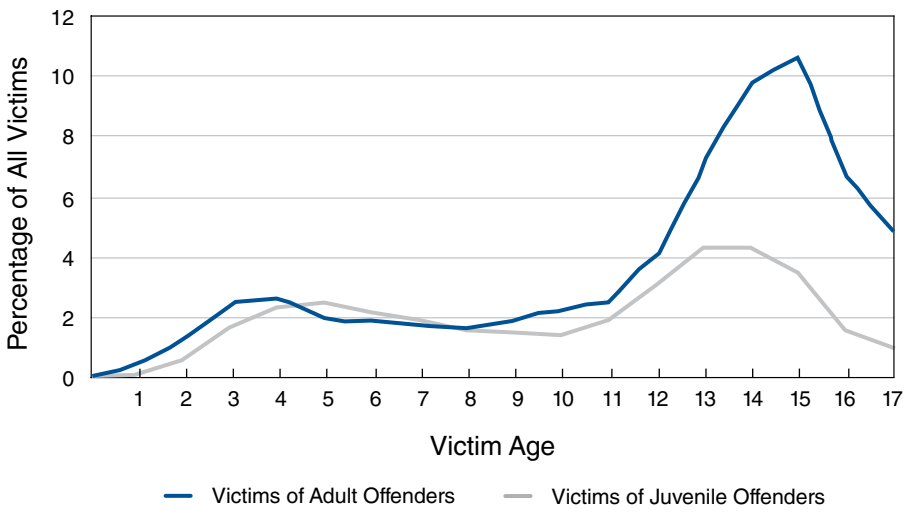
Younger Juvenile Sex Offenders

Although most juvenile sex offenders are teenagers, about 16 percent of those who come to police attention are younger than age 12. This group has been of particular interest to clinicians, educators, and public safety officials, who have been reluctant to regard them in the same delinquency-oriented framework that has applied to older offenders. Professionals commonly use other terms, such as "children with sexual behavior problems," to describe this group. What proportion of these children come to police attention is unclear because these cases may be handled exclusively within other systems, such as the child protection system or schools. However, the group of younger juvenile offenders who come to police attention does manifest certain characteristics that differentiate them from older offenders (table 2, page 7).

Offenders younger than age 12 are somewhat more likely than offenders age 12 or older to be female and to offend in multiple offender and multiple victim episodes. Younger offenders are also somewhat more likely than older offenders to

offend against family members and in a residential environment. Younger offenders are more likely than older offenders to target male victims (37 percent versus 20 percent) and younger victims closer to their own age. Their most serious offense is more likely to be fondling and less likely to be rape. Police are considerably less likely to arrest younger offenders than older offenders in the wake of a report (17 percent versus 33 percent).

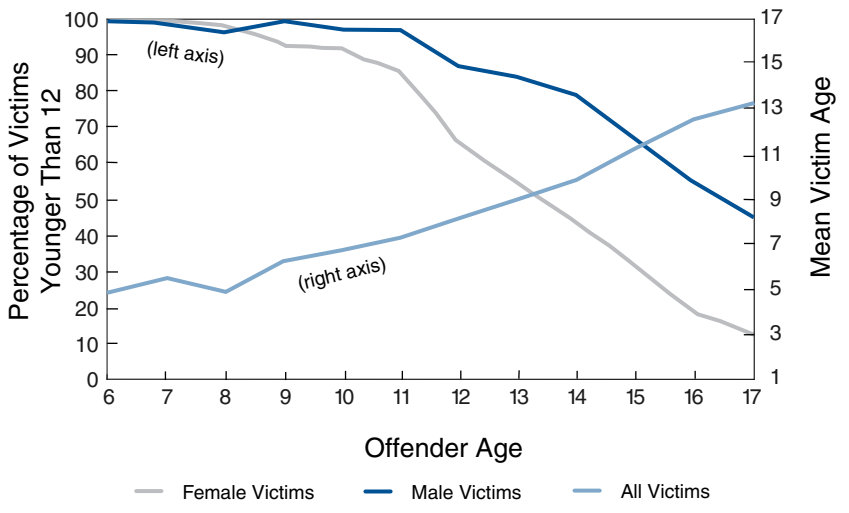
Figure 2: Age Distribution of Juvenile Sex Victims, by Offender Age



Note: *N* = 37,815 juvenile victims, 13,471 (36 percent) with juvenile offenders and 24,344 (64 percent) with adult offenders. For offenders with multiple victims, age of youngest victim is shown.

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

Figure 3: Juvenile Sex Victim Age, by Juvenile Offender Age



Note: *N* = 13,471 juvenile offenders. For offenders with multiple victims, age of youngest victim is shown.

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

Female Juvenile Sex Offenders

Female juvenile sex offenders are another group who have attracted a particular interest among clinicians and law enforcement officials. They constitute only a small proportion (7 percent) of all juvenile sex offenders in the NIBRS database, but they have several features that distinguish them from male juvenile sex offenders (table 3, page 9).

Female offenders are younger than their male counterparts. Of the female offenders, 31 percent were younger than 12, compared with only 14 percent of male offenders. Female offenders were considerably more likely than male offenders to offend in conjunction with others (36 percent versus 23 percent) and in conjunction with adults (13 percent versus 5 percent). They were also more likely to be involved in incidents with multiple victims than were male offenders (23 percent versus 12 percent) and to be considered by investigators to be victims at the same time they were offending.

Female offenders are somewhat more likely to offend in a residence or home and less likely to offend at a school. They were more likely than male offenders to have male victims (37 percent versus 21 percent) and victims younger than age 11 (60 percent versus 43 percent).

Reporting Juvenile Sex Offenses

Concern about juvenile sex offenders is a relatively recent phenomenon. Some communities have mobilized quite energetically in recent years to identify and intervene with such youth, conducting extensive training among law enforcement, child protection staff, and educators and establishing specialized treatment programs. In other communities, however, concern about the problem has been slow to develop. Thus, the spectrum of community activity surrounding juvenile sex offenders ranges from very slight in some jurisdictions to exaggerated or disproportionate in other jurisdictions.

This variability in community response is reflected in the data from NIBRS jurisdictions, which differ considerably in the

concentration of juvenile sex offenders in their caseloads. Some jurisdictions may have unusually high concentrations of juvenile sex offenders. In NIBRS jurisdictions with populations greater than 5,000 (classified as "city" type jurisdictions) and that have at least 10 juvenile violent offenders, juvenile sex offenders constitute 6 percent of the total number of juvenile violent offenders overall. However, a considerable number of jurisdictions have particularly high concentrations of juvenile sex offenders. For example, of the identified NIBRS jurisdictions, 8 percent have concentrations of juvenile sex offenders that are three times that of the median jurisdiction (i.e., more than 25 percent of the jurisdiction's juvenile violent offenders are sex offenders). In contrast, just 4 percent of the identified NIBRS jurisdictions have concentrations of adult sex offenders that are triple the rate for the median jurisdiction.

Table 2: Characteristics of Juvenile Sex Offenders Who Victimize Minors, by Age of Offender

	Juvenile Sex Offenders (%)	
Characteristic	**Younger (age < 12 years) (*N* = 2,104)**	**Older (age ≥ 12 years) (*N* = 11,367)**
Multiple offenders in incident	29.0	23.0
Adult offender in incident	2.6	5.7
Female offender	14.6	5.9
Multiple victims in incident	16.0	12.1
Victim identity (youngest victim)		
Family	31.6	23.8
Acquaintance	56.0	64.5
Stranger	1.6	2.7
Victim is also offender	1.0	0.8
Unknown	9.7	8.2
Incident location		
Residence/home	73.0	68.1
School/college	10.8	12.1
Store/building	2.9	4.0
Outside	5.0	7.4
Other/unknown	8.2	8.3
Victim gender (youngest victim)		
Male	36.6	19.9
Female	63.4	80.1
Age of youngest victim (years)		
0–6	57.1	21.0
7–10	31.2	15.5
11–14	10.9	43.2
15–17	0.8	20.2
Sex offense (most serious)		
Rape	11.0	26.4
Sodomy	15.4	11.9
Sex assault with object	7.2	4.2
Fondling	61.3	47.2
Nonforcible sex offense	5.1	10.5
Injury in incident		
None	88.8	86.9
Minor	9.6	10.6
Major	1.6	2.5
Incident time of day		
Morning (6 a.m. to 12 p.m.)	28.9	26.3
Afternoon (12 p.m. to 6 p.m.)	45.6	42.5
Evening (6 p.m. to 12 a.m.)	22.7	25.7
Night (12 a.m. to 6 a.m.)	2.8	5.6
Arrest in incident	16.5	32.9

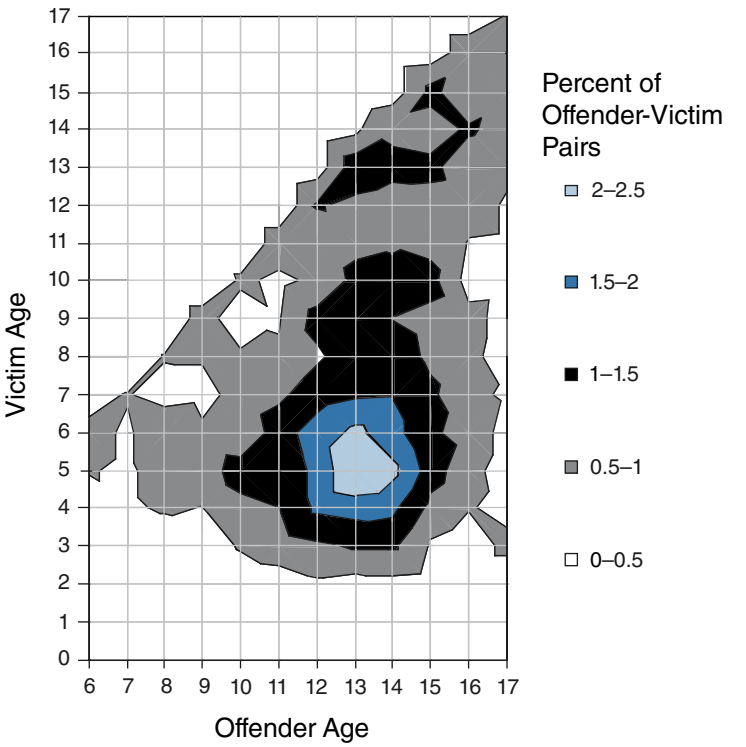
Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

There is also evidence of a tendency in other jurisdictions for juvenile sex offenders to represent a disproportionately small proportion of all juvenile violent offenders. In 29 percent of the identified NIBRS jurisdictions, the concentration of juvenile sex offenders equals half the median concentration (a low proportion) for the group of NIBRS jurisdictions identified above. In contrast, only 19 percent of the identified NIBRS jurisdictions have a similarly low concentration of adult sex offenders. That is, in contrast to the situation with adult sex offender concentrations, more jurisdictions have either a very high concentration of juvenile sex offenders or a concentration that is particularly low, reflecting, perhaps, contrasting levels of interest in this offender group. Table 4 (page 10) suggests that large jurisdictions are particularly likely to have low concentrations of juvenile sex offenders among their juvenile violent offender population. It is also possible that these jurisdictions have higher rates of violent nonsexual juvenile offending, which lowers the relative percentage of juvenile sex offenders.

Implications

These findings suggest a number of implications for policy and practice. First, the statistics clearly highlight the fact that juveniles continue to constitute a substantial proportion—more than one-third—of those who commit sexual offenses against minors. This proportion is comparable to that found in reports from other samples and from earlier periods (Davis and Leitenberg, 1987; Snyder and Sickmund, 1999). Thus, any effort to prevent or intervene in sexual assault and child molestation must address the risk that juvenile sex offenders pose. Prevention and deterrence messages should be directed to youthful audiences in schools, youth organizations, on the Internet, on youth-oriented media, and even in families. Victimization prevention messages delivered to potential victims and their caregivers should be broadened to include information about

Figure 4: Juvenile Sex Offenders Versus Male Juvenile Victims



Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

the risk of sexual abuse not only from adults but also from juveniles.

In addition, perpetration prevention programs that have been targeted primarily toward at-risk adult populations need to begin earlier (Ryan, 1997), with youth younger than age 12, the age at which these findings suggest an escalation in offending occurs. Given the sharp increase in sex offense rates at this age, prevention messages delivered to boys prior to early adolescence may be essential to consider. The prevention messages for these preteens may need to focus on their risk for victimizing much younger children (ages 4–7). Families and institutions may need to stay vigilant about contexts that involve pairings of young teenage boys with much younger children. This is not to suggest that all young teenage boys pose a high risk for molesting children. Very few juveniles of any age commit sex offenses. Rather, it is simply that the risk of offending against children during this developmental period appears to be relatively higher than at other ages. Therefore, some increased vigilance may be appropriate. This might include taking additional care to check references when considering young teenage babysitters and exercising closer supervision or monitoring of interactions.

Different preventive priorities seem important for older teenagers. Given the older age profile for victims of older teenagers, prevention messages may need to shift as youth enter middle adolescence. Prevention messages for these older teenagers may be better focused on the dynamics of date and teenager-on-teenager rape. The Centers for Disease Control and Prevention (CDC) have developed a multilevel public health primary-perpetration prevention model that includes suggested prevention activities at the individual, relationship, community, and societal levels (Centers for Disease Control and Prevention, 2004), including a focus on juvenile perpetration prevention.

To ensure adequate intervention with the large proportion of juveniles among the sex offender population, police, prosecutors, and probation and parole officials need adequate training and resources to respond effectively and sensitively to juvenile sex offenders. They must conduct investigations and manage juvenile offenders in a way that best prevents reoffending. Fortunately, several intervention strategies have proven effective in reducing recidivism among teenage sex offenders, and communities should acquaint themselves with these approaches (Borduin and Schaeffer, 2001; Reitzel and Carbonell, 2007; Letourneau et al., 2009). Good results have also been reported across a number of short-term interventions with juvenile offenders younger than age 12 (Chaffin et al., 2008). Researchers found that one brief treatment for preteens reduced the risk of future sex offenses to levels comparable with those of children who had no history of inappropriate sexual behavior (Carpentier, Silovsky, and Chaffin, 2006).

Analysis of the study data also highlights certain features of juvenile sex offenders that policymakers should take into account. First, the findings emphasize the diversity among juveniles who commit sex offenses. This population clearly includes older and younger youth, males and females, those who offend against much younger children, those who offend against peers, those who offend alone, and those who offend in groups, among other diverse characteristics. This diversity indicates the need to avoid stereotypes about juvenile sex offenders and to develop prevention and response strategies that can accommodate many of these various types of youth and offenses. Similarly, public policies must reflect the diversity among juvenile sex offenders by adopting more nuanced and flexible procedures rather than broad mandates.

The analyses reiterate many findings from the clinical sample literature, notably, that individuals known to the victim, including family members, are those who most often commit sexual assaults; that around 90 percent of known teen offenders are male; and that preteens with sexual behavior problems include a higher percentage of girls. Given the natural reluctance to consider family members and other trusted persons among those who may pose a danger, these findings underscore the need for information about prevention to emphasize that risk can include family members or other well-known persons.

The findings show that young boys are highly vulnerable to offenses by other

juveniles. Parents, schools, or prevention programs that have focused on limiting or supervising contact between female children and older male juveniles or adults must revise their messages to include examples involving young male victims, and perhaps even female perpetrators. Because boys younger than 12 are particularly at risk, it is important to give them prevention information that addresses the possibility of sexual misbehavior at the hands of older boys. Adults should be equally vigilant in protecting young boys as in protecting young girls.

Table 3: Characteristics of Juvenile Sex Offenders Who Victimize Minors, by Gender of Offender

	Juvenile Sex Offenders (%)	
Characteristic	**Female (*N* = 979)**	**Male (*N* = 12,450)**
Offender age (years)		
6–8	10.6	4.4
9–11	20.6	10.0
12–14	38.3	37.9
15–17	30.4	47.7
Multiple offenders in incident	36.1	22.9
Adult offender in incident	12.6	4.6
Multiple victims in incident	22.9	12.0
Victim identity (youngest victim)		
Family	26.4	24.9
Acquaintance	57.0	63.8
Stranger	0.6	2.6
Victim was also offender	6.3	0.4
Unknown	9.7	8.3
Incident location		
Residence/home	77.2	68.2
School/college	6.5	12.4
Store/building	4.8	3.8
Outside	4.3	7.3
Other/unknown	7.2	8.4
Victim gender (youngest victim)		
Male	36.6	21.4
Female	63.4	78.6
Age of youngest victim (years)		
0–6	39.8	25.6
7–10	20.2	17.8
11–14	26.0	39.2
15–17	13.9	17.4
Type of sex offense		
Forcible	91.0	90.4
Nonforcible	9.0	9.6
Injury in incident		
None	87.6	87.0
Minor	11.5	10.5
Major	0.9	2.5
Incident time of day		
Morning (6 a.m. to 12 p.m.)	27.4	26.6
Afternoon (12 p.m. to 6 p.m.)	41.5	43.1
Evening (6 p.m. to 12 a.m.)	27.0	25.1
Night (12 a.m. to 6 a.m.)	4.0	5.2
Arrest in incident	26.7	30.9

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

Another significant finding is that juvenile offenders are more likely than adult offenders to commit illegal sexual behavior in groups. This finding mirrors recent work in other countries that also has shown that juveniles commit more sex crimes in groups (Kjellgren et al., 2006). Although some of these group-involved juveniles may have offended on their own, the findings suggest that peer influences play as much of a role in juvenile sexual delinquency as they do in nonsexual delinquency, underscoring the need for prevention efforts to look beyond individual pathology and consider male adolescent peer cultures. It may be possible to devise interventions that would help inoculate some malleable, but less delinquency prone, youth to resist such peer influence. Such efforts could be extensions of some of the work in the field to promote more prosocial actions by "bystanders" with regard to date rape (Banyard, Moynihan, and Plante, 2007).

Data from police reports also show that, overall, older offenders tend to choose older victims. Juveniles who commit sexual offenses tend to do so against their age mates or somewhat younger children. In fact, offenses against young children actually decline across offender age, as offenders move from early to middle adolescence. This contradicts an assumption behind some sex offender treatment that a fixed attraction to young children (i.e., pedophilia) is the sole or even predominant motivation for juvenile sex offenses. The relationships between victim and offender age found in this study may suggest developmental hypotheses for the clinical assessment of juveniles. To the extent that epidemiologically rarer events correspond to greater individual deviancy, cases of older teenagers victimizing much younger children might raise relatively more concern and pose higher future risk than cases where younger teenagers victimize young children. Because it is more common for younger teenagers than older teenagers to engage in illegal sexual behavior with younger children, this scenario may reflect comparatively lower levels of individual pathology.

Juvenile sex offenders known to law enforcement appear to commit a greater number of group-involved cases and teenager-on-teenager cases than one might

expect from studies of clinical populations in which a typical offender is a single teenager victimizing a younger child. Although the clinical literature on juvenile sex offenders has not emphasized teenager-on-teenager sexual assault, the NIBRS data suggest that this problem is very prevalent among middle- and late-adolescent males. It is possible that the juvenile justice system processes group-involved and teenager-on-teenager cases differently or that these offenders are less likely to receive services. How the system handles youth and how well current juvenile justice programming addresses their needs may need further examination. Peer assaults and date rapes have sometimes received less attention than the sexual abuse of young children by teenagers. However, peer assaults and date rape may be easier to prevent because the power differential or developmental difference between offender and victim in these cases is less than that between a teenager and a much younger victim. Because juvenile sexual assaults are more likely than adult assaults to occur at school or during afterschool hours, efforts to prevent juvenile assaults might benefit from actions focused on these settings.

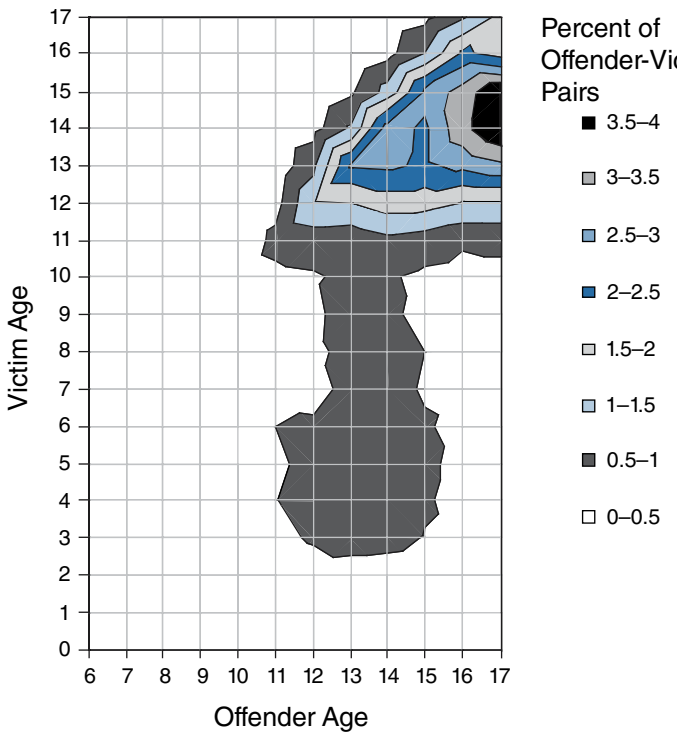
Table 4: Juvenile Sex Offenders as a Percentage of All Juvenile Violent Offenders, by Agency Size

		Quartile (%)	
Agency population*	**Percent**	**Lower**	**Upper**
Less than 50,000	7.3	1.9	11.5
50,000–100,000	6.3	3.2	9.5
100,000–300,000	6.7	4.1	11.9
More than 300,000	4.7	3.4	12.1

*Table includes only agencies classified by NIBRS as cities (population more than 5,000) and which reported at least 10 juvenile violent offenders (*N* = 1,010 agencies).

Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

Figure 5: Juvenile Sex Offenders Versus Female Juvenile Victims



Source: U.S. Department of Justice, Federal Bureau of Investigation, National Incident-Based Reporting System, 2004.

This analysis found considerable variation across jurisdictions and communities in the proportion of juvenile offenses that were sexual in nature. There are a number of possibilities, including real differences in prevalence rates, different rates of overall crime or crime reporting, or differential willingness to report or investigate juvenile sex offenses in particular, that might explain this finding. Observation suggests real variation in community approaches to juvenile sex offending. In some communities, officials handle juvenile sex offense cases more within the child protection system than within the criminal justice system. Exclusive handling of a case within the child welfare system may occur more often when a young child commits the offense or when the offense occurs within the family, possibly causing these types of cases to be underrepresented in NIBRS data.

If the variation is indeed due to differences in community practice, it may merit additional study, particularly to test whether more aggressive or more criminal-justice-oriented approaches to the problem have advantages over less aggressive approaches or ones that emphasize other institutions such as child protective services or mental health agencies. Some communities have clearly made this problem a law enforcement priority. Although there are many reasons to think that such a priority could have benefits for the community and victims and result in a reduction of sex offending, these are propositions that researchers must evaluate. On the other hand, questions have been raised about whether particularly harsh or stigmatizing community policies—for example placing juveniles on public sex offender registries or excluding these youth from normal social interactions—may have unintended negative consequences, such as deterring reporting, decreasing juvenile justice

system involvement in cases, or hindering youths' prosocial developmental that may lead to increased crime risk (Letourneau and Armstrong, 2008).

Conclusion

The issue of juvenile sex offenses against minors, like most issues involving sex crimes and minors, will continue to attract considerable controversy and debate. Such debates can often continue unresolved or with questionable policy outcomes in the absence of good epidemiology and other research about the problem and its dynamics. The NIBRS dataset, which is growing to encompass an ever larger number of jurisdictions nationwide, is one resource that can help provide some empirical perspective and should continue to be analyzed for the insights it can offer.

For Further Information

This Bulletin presents information taken from the *National Incident-Based Reporting System, 2004*.

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