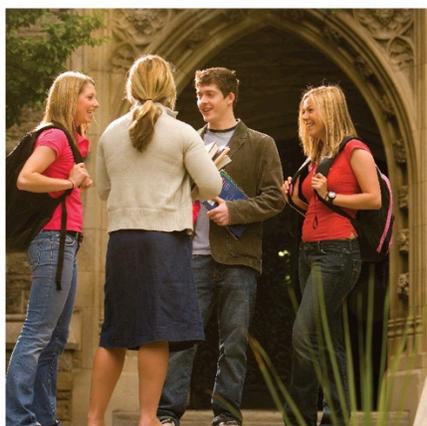
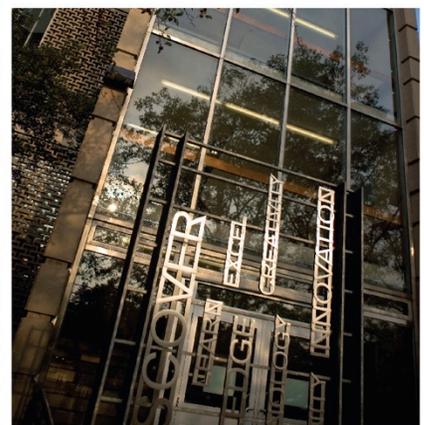
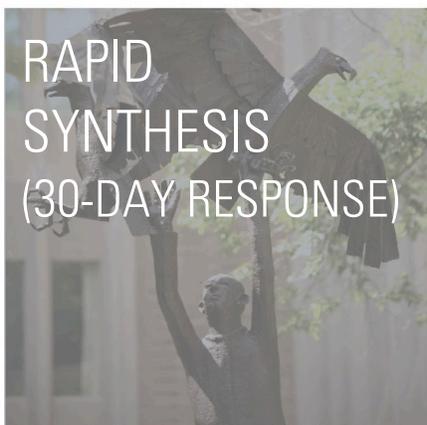




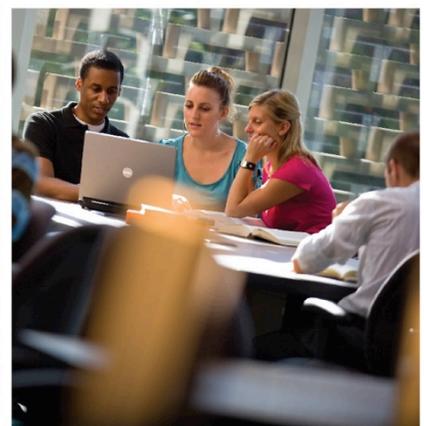
CHANGING SEXUAL OFFENDER  
BEHAVIOUR AND ASSESSING  
RISK FOR REOFFENDING



RAPID  
SYNTHESIS  
(30-DAY RESPONSE)



13 MARCH 2015



EVIDENCE >> INSIGHT >> ACTION



**Rapid Synthesis:  
Changing Sexual Offender Behaviour and Assessing Risk for Reoffending**

13 March 2015

#### McMaster Health Forum

For concerned citizens and influential thinkers and doers, the McMaster Health Forum strives to be a leading hub for improving health outcomes through collective problem solving. Operating at regional/provincial levels and at national levels, the Forum harnesses information, convenes stakeholders, and prepares action-oriented leaders to meet pressing health issues creatively. The Forum acts as an agent of change by empowering stakeholders to set agendas, take well-considered actions, and communicate the rationale for actions effectively.

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#### Timeline

Rapid syntheses can be requested in a three-, 10- or 30-business day timeframe. This synthesis was prepared over a 30-business day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on McMaster Health Forum's Rapid Response program webpage (<http://www.mcmasterhealthforum.org/policymakers/rapid-response-program>).

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#### Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the rapid synthesis. The funder played no role in the identification, selection, assessment, synthesis or presentation of the research evidence profiled in the rapid synthesis.

#### Merit review

The rapid synthesis was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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## KEY MESSAGES

### Questions

- How effective are remediation/rehabilitation models in changing sexual offender behaviour both in general and specifically for physicians?
- How effective are models for identifying the risk of sexual offenders for reoffending, both in general and specifically for physicians?

### Why the issue is important

- In December 2014, the Ontario Minister of Health appointed a task force “to review the *Regulated Health Professions Act, 1991*, which governs all regulated health professions in the province, to ensure it is effective in preventing and dealing with sexual abuse of patients by regulated health professionals.”
- The scope of the review being conducted by the task force includes identifying: 1) how current legislation can ensure that processes dealing with issues involving sexual abuse are sensitive, accessible and timely; and 2) best practices from jurisdictions around the world that are leaders in dealing with this issue.
- Given their role in addressing sexual abuse by physicians and the necessity to understand the risk of reoffending, the College of Physicians and Surgeons of Ontario requested this rapid synthesis to identify best practices in these areas.

### What we found

- We found 11 systematic reviews and 21 primary studies relevant to the questions.
- Of these, only one older study focused specifically on physicians by providing a comparison of characteristics of physician sexual offenders as compared to other sexual offenders, which found few differences between physician sexual offenders and sexual offenders in general, and it concluded that a physician-specific risk assessment procedure was not required.
- Remediation/rehabilitation models for changing sexual offender behaviour
  - Several theories have emerged within the literature for conceptualizing the rehabilitation process for sexual offenders, including the trans-theoretical model of behaviour change, which uses stage-based measures of change, and schema therapy, which looks at the underlying schemas that generate distorted beliefs that contribute to the onset of sexual offending and influence reoffending.
  - Three medium-quality reviews and one low-quality review found sexual offender treatment to have an overall positive effect on reducing recidivism rates.
  - Some research suggests that treatment focused on the attainment of ‘good lives’ can be more effective than treatment focusing exclusively on managing risk for reoffending.
  - One high-quality review, two medium-quality reviews and one low-quality review found cognitive-behavioural therapy to be the most commonly used and effective treatment approach for sexual offenders.
  - Several therapist characteristics (e.g., empathy, sincerity, friendliness, warmth, genuineness, confidence and directness) are associated with increased effectiveness of treatment.
- Models for identifying the risk of sexual offenders for reoffending
  - One medium-quality and three low-quality systematic reviews included information about risk factors for sexual offenders to reoffend (i.e., recidivism) and found:
    - overall sexual offender recidivism is low (13.4% in a sample of 23,393); and
    - risk factors include failure to complete treatment, sexual preoccupation, any deviant sexual interest, offence-supportive attitudes, emotional congruence with children, lack of emotionally intimate relationships with adults, lifestyle impulsivity, general self-regulation problems (e.g., impulsivity, recklessness and unstable employment), poor cognitive problem-solving, resistance to rules and supervision, grievance/hostility, and negative social influences.
  - A recent medium-quality review identified 15 sexual offender risk assessment tools and all produced at least a moderate effect size for predicting sexual recidivism, except for one (the Minnesota Sex Offender Screening Tool-Revised).
  - In assessing risk for reoffending, it is important to be aware of the strong possibility of socially desirable responses.

## **QUESTIONS**

- How effective are remediation/rehabilitation models in changing sexual offender behaviour both in general and specifically for physicians?
- How effective are models for identifying the risk of sexual offenders for reoffending, both in general and specifically for physicians?

## **WHY THE ISSUE IS IMPORTANT**

In December 2014, the Ontario Minister of Health appointed a task force “to review the *Regulated Health Professions Act, 1991*, which governs all regulated health professions in the province, to ensure it is effective in preventing and dealing with sexual abuse of patients by regulated health professionals.”(4, emphasis in original) The specific scope of the review being conducted by the task force includes:

- “ways that the current legislation can best ensure that every interaction by patients and witnesses with health regulatory colleges in relation to issues involving sexual abuse and colleges’ processes are sensitive, accessible and timely; and
- the identification of best practices from leading jurisdictions around the world.”(4)

Given their role in addressing sexual abuse by physicians and the necessity to understand the risk of reoffending, this rapid synthesis was requested by the College of Physicians and Surgeons of Ontario to identify best practices in these areas

## **WHAT WE FOUND**

We found 11 systematic reviews and 21 primary studies and non-systematic reviews relevant to the questions. Of these, seven reviews and 11 studies addressed the first question about remediation/rehabilitation models in changing sexual offender behaviour, and five reviews and 10 primary studies addressed the second question about models for identifying the risk of sexual offenders for reoffending (one systematic review included information relevant to both questions). None of the reviews specifically addressed physicians and only one older study focused on physicians by providing a comparison of characteristics of physician sexual offenders to other sexual offenders. In addition, most of the evidence we identified emanates from a criminological perspective, with participants drawn directly from penal institutions and/or secure hospital settings, and use criminal charges and conviction rates as outcomes measured.

### **Remediation/rehabilitation models for changing sexual offender behaviour**

The reviews and primary studies that we identified for this question provide evidence about models of change for sexual offenders (i.e., for conceptualizing the rehabilitation process for sexual offenders), the overall effectiveness of remediation/rehabilitation models for sexual offenders, evidence related to specific

#### **Box 1: Background to the rapid synthesis**

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum’s Rapid Response program. Whenever possible, the rapid synthesis summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

Rapid syntheses can be requested in a three-, 10- or 30-business-day timeframe. An overview of what can be provided and what cannot be provided in each of these timelines is provided on the McMaster Health Forum’s Rapid Response program webpage (<http://www.mcmasterhealthforum.org/policymakers/rapid-response-program>)

This rapid synthesis was prepared over a 30-business day timeframe and involved four steps:

- 1) submission of a question from a health system policymaker or stakeholder (in this case, the College of Physicians and Surgeons of Ontario);
- 2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
- 3) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
- 4) finalizing the rapid synthesis based on the input of at least two merit reviewers.

remediation/rehabilitation models (including cognitive-behavioural therapy), and factors that contribute to the effectiveness of these models.

### *Models of change*

Several theories have emerged within the literature for conceptualizing the rehabilitation process for sexual offenders, including the trans-theoretical model of change, schema therapy, the Good Lives Model, and the Risk Management Model.

The trans-theoretical model of behaviour change uses stage-based measures of change, with the stages being pre-contemplation, contemplation, action, maintenance, relapse and termination.(9;10) It has been used with spousal abusers and demonstrated that individuals proceed through distinct stages in the rehabilitation process, and that tailoring interventions to offenders' "readiness" may reduce attrition and improve program performance. Drawbacks to this approach include the transparency of scale items (resulting in a high correlation with social desirability), and possible insensitivity to subtle changes in offenders.(9) Overall it has been demonstrated that this model of behaviour change has some utility as an overarching framework for conceptualizing behaviour change and designing treatment interventions for sexual offenders.(10)

Another approach looks at the underlying schemas that generate distorted beliefs which in turn contribute to the onset of sexual offending and influence sexual recidivism. A schema is defined as a network of learned associations that guide attention, inform perceptions and save mental energy by providing shortcuts to interpreting incoming stimuli.(11) As such, schema therapy is an intervention that involves four stages of therapy: cognitive (teaching basic cognitive techniques to identify and contradict schema-driven thoughts); interpersonal (where the clinician and group further challenge identified schema-driven thoughts); experiential (having offenders role-play past experiences to recognize how their schemas have developed and to guide their subsequent processing of social and environmental information); and behavioural (practising new adaptive schemas in real life using behavioural experiments). In one non-systematic review of the literature, authors suggest that when assessing and treating sexual offenders' cognition, therapists should target the underlying schemas that generate distorted beliefs rather than focusing on post-offence rationalizations.(11)

More broadly, research suggests that treatment focused on the attainment of 'good lives' can be more effective than treatment focusing exclusively on managing recidivism risk. While the former is based on the Good Lives Model, in which clinicians work to explicitly construct a conception of good lives to guide the rehabilitation of each offender, the latter is rooted in the Risk Management Model in which the primary aim of rehabilitating offenders is to avoid harm to the community rather than to improve the offenders' quality of life.(12) Authors of another non-systematic review suggest that an exclusive focus on risk, as purported by the Risk Management Model, can lead to overly confrontational and negative therapeutic encounters, a lack of rapport between offenders and clinicians, and fragmented and mechanistic treatment delivery.(12) It is suggested that the aims of sexual offender treatment should be the attainment of 'good lives', which is

### **Box 2: Identification, selection and synthesis of research evidence**

We searched PubMed using several strategies. First, we searched using the term sexual recidivism and limited the results using the filter for reviews. Second, we conducted related articles searches using two highly relevant articles (1;2) that we identified from the first search. Lastly, we conducted a related articles search for a relevant high-quality systematic review (3) and refined the results to those indexed with sex offenses/prevention & control MeSH subheading or sex offenses/psychology MeSH major topic heading.

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the questions posed for the rapid synthesis.

For each review we included in the synthesis we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using the AMSTAR quality appraisal tool (see the Appendix for more detail), and the proportion of the included studies that were conducted in Canada. For primary research (if included), we documented the focus of the study, methods used, a description of the sample, the jurisdiction(s) studied, key features of the intervention, and key findings. We then used this extracted information to develop a synthesis of the key findings from the included reviews and primary studies.

achieved by enhancing hope, increasing self-esteem, developing approach goals, and working collaboratively with the offenders. It is important to note that the authors' conclusions are based on literature outside of sexual offending.(12)

A similar parallel can be drawn between treatment-as-management and treatment-as-rehabilitation approaches. Treatment-as-management is an approach that emphasizes risk management on a continuum from treatment to incapacitation.(13) Alternatively, the treatment-as-rehabilitation approach supports holistic treatment in supporting offenders to lead a productive and stable life.(13) Authors of a non-systematic review argue that the more popular treatment-as-management approach violates offender rights because it is ineffective and unethical.(13) The review cites research evidence that highlights anti-therapeutic consequences of the approach that increase the risk to reoffend, which include unemployment, homelessness, shame, depression and anxiety, disconnection from social supports, and inadequate treatment.(13) As an alternative, they suggest delivering treatment-as-rehabilitation, an approach supported by international human rights law and universal professional ethics. The review concludes that an effective and ethical community-offender balance is more probable when sexual offenders are treated with the respect and dignity that all human beings have a right to claim.(13)

#### *Effectiveness of remediation/ rehabilitation models for sexual offenders*

The existing body of literature on remediation/rehabilitation models for sexual offenders suggests that they have an overall positive effect on reducing rates of recidivism.(5;6) A medium-quality systematic review of controlled outcome evaluations of organic and psychosocial sexual offender treatment shows that overall, 11.1% of treated offenders compared to 17.5% of controls showed sexual recidivism (a 37% difference).(6) Another medium-quality review of sexual offender treatments found a 22% reduction in recidivism in treated individuals.(7) It has also been shown that treated offenders demonstrate slower times to sexual re-offence, and lower scores on sexual and violent recidivism severity metrics after controlling for risk.(8)

#### *Specific remediation/ rehabilitation interventions*

With respect to specific remediation/rehabilitation interventions, several have been shown to be more effective than others. A recent medium-quality systematic review of sexual offender treatment found treatments for adolescents compared to adults, surgical castration, hormonal medication compared to psychological treatment, and community treatment compared to institutional treatments had the largest positive effects for reducing recidivism.(7) In addition to this review, two other medium-quality but older reviews similarly report that physical treatments, including surgical castration and hormonal medication, have larger effects than psychosocial interventions on recidivism.(5-7) Despite the demonstrated effectiveness of physical interventions, there is a reluctance to endorse their use given ethical and practical concerns. These considerations include concerns as to whether these treatments serve to punish rather than to treat, or whether their use is a violation of offenders' human rights.(1) As noted in a recent high-quality systematic review, there appears to be a shift away from the psychodynamic approaches and towards behavioural and cognitive-behavioural interventions.(3)

In addition to the specific treatments above, cognitive-behavioural therapy was assessed by several reviews and primary studies. Findings from two older systematic reviews (one of medium quality and the other of low quality) found that therapies using cognitive-behavioural treatment (CBT) had the largest effect sizes compared to other therapies.(5;16) In addition, the medium-quality review found that CBT was the most common treatment approach (46%), and the only approach that consistently showed a positive impact.(5)

In addition to changing global thinking processes generally, addressing cognitive distortions and their underlying attitudes and belief structures is an important part of CBT for sexual offenders.(17) As highlighted in a non-systematic review, cognitive distortions have been found to be strongly correlated with lack of empathy, and treatment aimed at increasing empathy also reduces cognitive distortions.(17) Furthermore, targeting victim-specific empathy as an alternative to general empathy may be more relevant to sexual offenders. For instance, the same non-systematic review outlines that there is some evidence to suggest that

those who have sexually abused children demonstrate significantly greater empathy deficits toward victims of their own sexual offences, as compared to levels of empathy toward the victims of others' sexual offences or empathy in a non-sexual context.(17)

Several studies also highlight shortcomings of CBT approaches for sexual offenders. Relapse prevention, for example, is a CBT approach developed originally for addictive behaviours, which has since been modified for treating sexual offenders. Authors of one study argue that current renditions of this approach fail to account for the many distinctions between addictive behaviours and sexual offenders.(18) Another primary study suggests that most current CBT/relapse prevention (RP) programs have six sets of shortcomings: a “one size fits all” approach; a primarily cognitive approach; a disregard for the role of therapeutic processes; an exclusive focus on past history, particularly past offence history, and on developing a set of avoidance strategies for each client; a failure to build the skills, attitudes and self-regard necessary to develop a better life; and an absence of concern about emotional issues.(19) Authors of the study describe the evaluation of the Rockwood sexual offender treatment program, which they have operated in a Canadian prison for more than 15 years. Of the 534 treated sexual offenders who had been released into the community for an average of 5.4 years, only 3.2% had sexually re-offended, compared to an expected rate of 16.8%. This yields an effect size of 1.0, which is four times greater than the effect size reported in meta-analyses of similar studies.(19) Authors highlight that unlike any other program reported in the literature, the Rockwood program has been successful in treating psychopaths and those suffering from other personality disorders.(19) The authors propose that, like the Rockwood program, existing CBT/RP approaches should incorporate more behavioural exercises, take a more motivational approach instead of a confrontational approach, and shift the focus away from the client's past and the consequential development of avoidance plans and toward increasing skills, attitudes and self-regulation to facilitate the achievement of a more fulfilling life.(19)

With respect to treatment settings, two recent systematic reviews (one of medium quality and another of low quality) found consistent evidence that community-based treatment is more effective than institutional treatment.(7;14) A non-systematic review that we identified specifically highlighted the effectiveness of therapeutic communities, which it defined as consciously designed social environments and programs within a residential or day unit in which social and group processes are harnessed with therapeutic intent.(15) The review concluded that there are consistent research findings supporting the effectiveness of therapeutic communities, particularly with respect to substance abuse-related offending and personality disorder (although these conclusions should be considered cautiously given that the findings are from a non-systematic review).(15)

Despite the evidence above, conclusions from one recent high-quality review and an older low-quality review both underscore the need for more randomized control trials evaluating sexual offender treatment, while also regarding the ethical implications of providing treatment to one group and denying treatment to another.(3;22) In addition, the recent high-quality review also found that few studies provide information about the primary outcome – sexual offending – and instead measure other outcomes that may be associated with future offending (e.g. anger, social skills), which may limit applicability of the findings.(3) Furthermore, an older medium-quality review called for more high-quality outcome studies that address specific subgroups of sexual offenders and more detailed process evaluations on various treatment characteristics and components.(5)

#### *Factors that contribute to the effectiveness of remediation/rehabilitation models*

Factors that we identified from the reviews and primary studies that contribute to the effectiveness of sexual offender treatment include therapist characteristics, treatment non-completion, and the presence of psychopathy. Several therapist characteristics have been associated with treatment effectiveness, including empathy, sincerity, respect, friendliness, warmth, genuineness, confidence, directness and interest in the client. In addition, effective therapists communicate clearly, are self-aware, are able to appropriately self-disclose, reward and encourage, deal aptly with frustration and other challenges, ask open-ended questions, and are appropriately challenging.(17;20) Overall, one older low-quality review found that using more qualified therapists results in better outcomes.(16)

Treatment non-completion can have a significant influence on treatment effectiveness, and research has been done on predictors of this phenomenon. A recent medium-quality systematic review that examined factors associated with treatment non-completion found that antisocial personality disorder and certain features of the disorder (impulsivity, lying and aggressive behaviours) were the only factors consistently and significantly related to treatment non-completion.(21)

Lastly, sexual offender treatment does not appear particularly effective in reducing recidivism rates among psychopaths. Specifically, an older low-quality systematic review found that treatment is not effective in lowering recidivism for psychopaths to levels exhibited by non-psychopaths.(22) However, findings are inconsistent as some psychopaths show the same sexual recidivism rates as non-psychopaths post-treatment, whereas other psychopaths do not. (22)

### **Models for identifying the risk of sexual offenders for reoffending**

Of the five systematic reviews and 10 primary studies that we found to be relevant to identifying the risk of sexual offenders for reoffending, only one study published in 1999 focused specifically on physicians,(24) and the rest focused on identifying risk factors for sexual offenders to reoffend (i.e., recidivism) and/or risk assessment tools. The study focused on physicians assessed risk factors associated with committing sexual offences and found few differences between physician sexual offenders and sexual offenders in general, except that neuropsychological impairment and endocrine abnormalities in the physician group were much greater than would be expected in the sexual offender population generally.(24) As a result, the authors concluded (despite a small sample size) that a physician-specific risk assessment procedure is not required.(24)

#### *Risk factors for sexual offenders to reoffend*

Four of the systematic reviews we identified included information about risk factors for sexual offenders to reoffend (i.e., recidivism). A recent but low-quality review updated a meta-analysis of risk factors for sexual recidivism and identified a range of risk factors that they categorized as: 1) empirically supported (those with more than a 5% difference between groups); 2) promising (where at least one study found the factor to have significant predictive value); 3) unsupported but with interesting exceptions (where effects are small and not significant, but with at least one large credible study finding a significant effect): and 4) those with little or no relationship to sexual recidivism.(14) Empirically supported risk factors included sexual preoccupation, any deviant sexual interest, offence-supportive attitudes, emotional congruence with children, lack of emotionally intimate relationships with adults, lifestyle impulsivity, general self-regulation problems (e.g., impulsivity, recklessness and unstable employment), poor cognitive problem-solving, resistance to rules and supervision, grievance/hostility, and negative social influences.(14) Promising risk factors included hostility toward women, Machiavellianism, callousness/lack of concern for others, and dysfunctional coping.(14) Those factors that were empirically unsupported but with interesting exceptions included denial, major mental illness and loneliness. Lastly, those identified as not being risk factors included depression, poor social skills, poor victim empathy, and lack of motivation for treatment at intake.(14)

In addition to this review, an older low-quality review found that based on a sample of 23,393, overall sexual offender recidivism was low (13.4%). However, the review found higher rates of recidivism among certain sub-groups, which were best predicted using measures of sexual deviancy (defined as previous sexual offending, sexual interest in children, and where current or past victim was a male) and general criminological factors (including age and total prior offences).(25) The same review as well as another older but medium-quality review also found that offenders who failed to complete treatment were at higher risk for reoffending than those who completed treatment.(5;25) Lastly, a recent but low-quality review, found that recidivism rates of female sexual offenders were much lower for all types of crime than the comparable rates for male sexual offenders.(26) As the review further highlights, this finding has implications for the use of risk assessment tools, as tools developed specifically for male sexual offenders are likely to substantially overestimate the recidivism risk of female sexual offenders.(26)

In addition to the systematic reviews, we have identified key findings from primary studies related to risk factors for sexual recidivism. Two studies found evidence that rates of recidivism appear to decrease with age.(27;28) One of these studies was conducted in Sweden and found that there were significant differences in the rates of reconviction of sexual offenders in different age bands, with those aged 55 years reoffending 6.1% of the time as compared to those aged under 25 reoffending 10.7% of the time.(27) The authors also noted that these findings are similar to those in criminal justice and secure hospital settings in the United States, Canada and the United Kingdom, and that the age trend appeared to be more pronounced for any violent (including sexual) reoffending.(27) The second study indicated that previous studies have consistently demonstrated an overall inverse relationship between sexual offenders' age at the time of their release from incarceration and their sexual recidivism risk.(28) However, the study pointed out that age-at-release from incarceration is an inferior measure as compared to age-at-first-offence given the strong correlation between the latter and sexual recidivism, and that length of sentences vary by jurisdiction.

We also identified the following findings related to risk factors for sexual offender recidivism from primary studies and non-systematic reviews:

- minimal difference in the recidivism rates has been found in low-risk offenders who admitted the abuse as compared to those who denied the abuse, but denial was found to be consistently associated with decreased recidivism among high-risk offenders;(29)
- increased protective strengths (as measured by the Inventory of Offender Risk, Needs, and Strengths) were found to be significantly associated with decreased levels of general, violent and sexual recidivism;(30)
- higher-risk offenders were found to have fewer protective factors when compared with low-risk offenders and, as the level of protective strengths increased, the levels of both static risk and dynamic need/risk decreased;(30)
- social functioning deficits among sexual offenders include deficits in the areas of intimacy and attachment, self-confidence in relationships, self-esteem, social contact (resulting in loneliness), and coping with stress;(17)
- self-esteem is significantly lower in sexual offenders than in matched controls, and improved self-esteem following treatment is significantly correlated with changes in other risk factors such as empathy, intimacy, loneliness and deviant sexual preference;(17)
- the number of felony convictions has been identified as a significant predictor of recidivism involving sex-related offences;(31) and
- victim gender has been found to be unrelated to sexual offender recidivism after completion of a treatment program.(32)

### **Risk assessment tools**

A recent medium-quality review identified 15 sexual offender risk assessment tools (see Appendix 1 for the names of the tools identified).(33) All of the tools reviewed produced at least a moderate effect size for predicting sexual recidivism, except for one tool (the Minnesota Sex Offender Screening Tool-Revised) which had a lower effect size. The two risk assessment tools with the largest effect size (indicating good predictive validity) were the Violence Risk Scale-Sexual Offender (VRS-SO) version and the Structured Risk Assessment (SRA) framework. However the review cautions that these tools have not been as extensively peer reviewed in comparison to the other tools that were included in the review. The review further cautions that these two tools may have been subject to developer bias given that one of the two VRS-SO studies was conducted by the developers of the tool, and both the SRA studies were conducted by the developer of that tool.(33)

A non-systematic review (34) suggests that a multidimensional model of risk is more accurate in predicting the risk of sexual recidivism in order to account for the two main dimensions related to sexual recidivism risk (sexual deviance and psychopathy/general criminality) that were identified by one of the reviews described above.(25) Results from the reviewed studies support the idea that risk assessments that cover both dimensions and assess each dimension independently from the other are the most accurate. The review specifies that the sexual deviance can be assessed using measures such as the penile plethysmograph, Rapid

Risk Assessment of Sex Offense Recidivism, diagnosis of pedophilia, having had solely child sexual assault victims, and having had a male victim. The second dimension could then be assessed by the Static-99 (the most widely used sexual offender risk assessment instrument in the world), the Minnesota Sex Offender Screening Tool-Revised, the Psychopathy Checklist-Revised-R, the Violence Risk Appraisal Guide, the Sex Offender Risk Appraisal Guide, having antisocial personality disorder, and ever having an adult female sexual assault victim. Furthermore, measures from one dimension have consistently shown a lack of statistical relationship to measures from the other dimension. In addition, the review noted that adding more measures from a dimension already assessed does not seem to add to the accuracy of prediction.(34) This type of multidimensional approach is also supported from the results of a primary study that we identified, which indicates that assessments of risk may be more accurate if they are designed to assess specific subcategories of sexual offenders (such as those who offend against children or adults), rather than having a generic actuarial risk instrument for sexual offenders.(35)

In assessing risk for reoffending, it is important to be aware of the strong possibility of socially desirable responding (SDR) among sexual offenders. Compared to violent offenders, sexual offenders show higher levels of SDR, with those who have sexually abused children being most likely to provide SDR.(23) Choosing an appropriate tool to measure SDR can also be a challenge given that a wide variety of scales have been developed and it is unclear whether the different scales are measuring the same construct. This lack of standardization makes the interpretation and integration of results across studies difficult.(23)

In addition to these tools, some countries have implemented formal systems to identify and manage high risk offenders. For example, the Canadian National Flagging System (NFS) seeks to assist lawyers to more successfully prosecute high-risk violent offenders, prevent high-risk violent offenders from falling through jurisdictional gaps, and encourage prosecutors to use the dangerous offender and long-term offender provisions in appropriate cases.(36) The study suggests that the NFS may serve as an early warning system for high-risk offenders.(36)

## REFERENCES

1. Ho DK, Ross CC. Cognitive behaviour therapy for sex offenders. Too good to be true? *Crim Behav Ment Health* 2012;22(1):1-6.
2. Ho DK. Ineffective treatment of sex offenders fails victims. *BMJ* 2015;350.
3. Dennis JA, Khan O, Ferriter M, Huband N, Powney MJ, Duggan C. Psychological interventions for adults who have sexually offended or are at risk of offending. *Cochrane Database of Systematic Reviews* 2012;(12):Art. No.: CD007507. DOI: 10.1002/14651858.CD007507.pub2.
4. Government of Ontario. New Minister's Task Force to Review Legislation to Prevent Sexual Abuse of Patients. Government of Ontario 2014 December 16; Available from: URL: <http://news.ontario.ca/mohlhc/en/2014/12/new-ministers-task-force-to-review-legislation-to-prevent-sexual-abuse-of-patients.html>
5. Lösel F, Schmucker M. The effectiveness of treatment for sexual offenders: A comprehensive meta-analysis. *Journal of Experimental Criminology* 2005;1(1):117-46.
6. Schmucker M, Losel F. Does sexual offender treatment work? A systematic review of outcome evaluations. *Psicothema* 2008;20(1):10-9.
7. Kim B, Benekos PJ, Merlo AV. Sex offender recidivism revisited: Review of recent meta-analyses on the effects of sex offender treatment. *Trauma Violence Abuse* 2015;[Epub ahead of print].
8. Olver ME, Nicholaichuk TP, Gu D, Wong SC. Sex offender treatment outcome, actuarial risk, and the aging sex offender in Canadian corrections: A long-term follow-up. *Sexual Abuse* 2013;25(4):396-422.
9. Serin RC, Mailloux DL. Assessment of sex offenders: Lessons learned from the assessment of non-sex offenders. *Annals of the New York Academy of Sciences* 2003;989:185-97.
10. Tierney DW, McCabe MP. The utility of the Trans-theoretical Model of Behavior Change in the treatment of sex offenders. *Sexual Abuse* 2005;17(2):153-70.
11. Beech AR, Bartels RM, Dixon L. Assessment and treatment of distorted schemas in sexual offenders. *Trauma Violence Abuse* 2013;14(1):54-66.
12. Marshall WL, Ward T, Mann RE, Moulden H, Fernandez YM, Serran G et al. Working positively with sexual offenders: Maximizing the effectiveness of treatment. *Journal of Interpersonal Violence* 2005;20(9):1096-114.
13. Birgden A, Cucolo H. The treatment of sex offenders: Evidence, ethics, and human rights. *Sexual Abuse* 2011;23(3):295-313.
14. Mann RE, Hanson RK, Thornton D. Assessing risk for sexual recidivism: Some proposals on the nature of psychologically meaningful risk factors. *Sexual Abuse* 2010;22(2):191-217.
15. Ware J, Frost A, Hoy A. A review of the use of therapeutic communities with sexual offenders. *International Journal of Offender Therapy and Comparative Criminology* 2010;54(5):721-42.
16. Walker DF, McGovern SK, Poey EL, Otis KE. Treatment effectiveness for male adolescent sexual offenders: A meta-analysis and review. *Journal of Child Sexual Abuse* 2004;13(3-4):281-93.
17. Yates PM. Treatment of adult sexual offenders: A therapeutic cognitive-behavioural model of intervention. *Journal of Child Sexual Abuse* 2003;12(3-4):195-232.
18. Wheeler JG, George WH, Marlatt GA. Relapse prevention for sexual offenders: Considerations for the "abstinence violation effect". *Sex Abuse* 2006;18(3):233-48.

19. Marshall WL, Marshall LE, Serran GA, O'Brien MD. Sexual offender treatment: A positive approach. *The Psychiatric Clinics of North America* 2008;31(4):681-96.
20. Moulden HM, Firestone P. Therapist awareness and responsibility in working with sexual offenders. *Sexual Abuse* 2010;22(4):374-86.
21. Larochelle S, Diguier L, Laverdiere O, Greenman PS. Predictors of psychological treatment noncompletion among sexual offenders. *Clinical Psychology Review* 2011;31(4):554-62.
22. Doren DM, Yates PM. Effectiveness of sex offender treatment for psychopathic sexual offenders. *International Journal of Offender Therapy and Comparative Criminology* 2008;52(2):234-45.
23. Tan L, Grace RC. Social desirability and sexual offenders: A review. *Sexual Abuse* 2008;20(1):61-87.
24. Langevin R, Glancy GD, Curnoe S, Bain J. Physicians who commit sexual offences: Are they different from other sex offenders? *Canadian Journal of Psychiatry* 1999;44(8):775-80.
25. Hanson RK, Bussiere MT. Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology* 1998;66(2):348-62.
26. Cortoni F, Hanson RK, Coache ME. The recidivism rates of female sexual offenders are low: A meta-analysis. *Sexual Abuse* 2010;22(4):387-401.
27. Fazel S, Sjostedt G, Langstrom N, Grann M. Risk factors for criminal recidivism in older sexual offenders. *Sexual Abuse* 2006;18(2):159-67.
28. Doren DM. What do we know about the effect of aging on recidivism risk for sexual offenders? *Sexual Abuse* 2006;18(2):137-57.
29. Harkins L, Beech AR, Goodwill AM. Examining the influence of denial, motivation, and risk on sexual recidivism. *Sexual Abuse* 2010;22(1):78-94.
30. Miller HA. Protective strengths, risk, and recidivism in a sample of known sexual offenders. *Sexual Abuse* 2015;27(1):34-50.
31. Grossman LS, Martis B, Fichtner CG. Are sex offenders treatable? A research overview. *Psychiatric Services* 1999;50(3):349-61.
32. Studer LH, Aylwin AS. Male victims and post treatment risk assessment among adult male sex offenders. *International Journal of Law and Psychiatry* 2008;31(1):60-5.
33. Tully RJ, Chou S, Browne KD. A systematic review on the effectiveness of sex offender risk assessment tools in predicting sexual recidivism of adult male sex offenders. *Clinical Psychology Review* 2013;33(2):287-316.
34. Doren DM. Toward a multidimensional model for sexual recidivism risk. *Journal of Interpersonal Violence* 2004;19(8):835-56.
35. Craig LA, Browne KD, Stringer I. Comparing sex offender risk assessment measures on a UK sample. *International Journal of Offender Therapy and Comparative Criminology* 2004;48(1):7-27.
36. Blais J, Bonta J. Tracking and managing high risk offenders: A Canadian initiative. *Law and Human Behavior* 2014;[Epub ahead of print].

## APPENDICES

The following tables provide detailed information about the systematic reviews and primary studies identified in the rapid synthesis. The ensuing information was extracted from the following sources:

- systematic reviews – the focus of the review, key findings, last year the literature was searched and the proportion of studies conducted in Canada; and
- primary studies – the focus of the study, methods used, study sample, jurisdiction studied, key features of the intervention, and the study findings (based on the outcomes reported in the study).

For the appendix table providing details about the systematic reviews, the fourth column presents a rating of the overall quality of each review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered “high scores.” A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8).

All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

**Appendix 1: Summary of findings from systematic reviews about remediation/rehabilitation models for sexual offenders, and models for identifying the risk of sexual offenders for reoffending**

Question addressed	Focus of systematic review	Key findings	Year of last search/publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
Remediation/rehabilitation models in changing sexual offender behaviour	Effects of sexual offender treatment on recidivism (7)	<p>Meta-analyses were included in the review if they: 1) conducted a meta-analysis (quantitative research synthesis) of formally developed and evaluated sexual offender treatments targeting recidivism; 2) were focused on a defined target population of adolescent and adult sexual offenders; and 3) examined outcome variables of sexual recidivism, violent recidivism, or any recidivism.</p> <p>Meta-analyses of sexual offender treatments suggest a 22% reduction in recidivism following treatment. In comparing existing sexual offender treatments against criteria from the Promising Practices Network, authors conclude that they are proven or promising strategies.</p> <p>Sexual offender treatments for adolescents compared to adults, surgical castration and hormonal medication compared to psychological treatment, and community treatment compared to institutional treatments, have a larger effect in reducing recidivism.</p> <p>Chemical (e.g. hormonal medication) and surgical treatments (e.g. surgical castration) have significantly larger effects compared to the psychological treatments that show significant but small effect size. However, there is a reluctance to endorse them, given certain ethical and practical considerations (e.g. concern as to whether these treatments serve to punish rather than treat, or violate offenders' human rights).</p> <p>Given that community treatment has been shown to be more effective than institutional treatment, authors suggest that a review of existing sentencing statutes and policies might be appropriate.</p>	2015	6/11 (AMSTAR rating from the McMaster Health Forum)	Not reported in detail

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Question addressed	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Psychological interventions for adults who have sexually offended or are at risk of offending (3)	<p>Ten studies involving data from 944 adult male sexual offenders were included within this review.</p> <p>Few of these studies provided information about the primary outcome of this review – sexual reoffending. This was largely because studies did not collect data for a sufficiently long period outside prison or the treatment setting. Furthermore, many studies relied on other outcome measures (e.g. anger or social skills) chosen by investigators in the hope that they were associated in some way with future offending, although it has not been proven that these connections reliably predict reoffending.</p> <p>The review confirms the impression of a move away from psychodynamically-informed therapies to more strictly behavioural therapies and cognitive-behavioural-type therapies.</p> <p>Authors emphasize the need for more randomized control trials. They acknowledge that randomization may be considered unethical, politically unacceptable or both. However, they warn that without such evidence, the area will fail to progress.</p>	2012	11/11 (AMSTAR rating from the McMaster Health Forum)	1/10
	Predictors of non-completion of psychological treatment among sexual offenders (21)	<p>This paper reviews 18 studies that reported on the extent of non-completion from psychological treatment programs for sexual offenders.</p> <p>The rates of treatment non-completion (TNC) among sexual offenders vary greatly between studies, ranging from 15% to 86%. Authors conclude that results of the 18 studies reviewed differ to the point where it is difficult to draw clear conclusions about the variables related to the phenomenon. In general, the lack of consensus in the literature on TNC among sexual offenders appears to be the result of the conceptual and methodological heterogeneity of the studies. Among the studies reviewed, authors highlight methodological flaws and discrepancies in: 1) the composition of the samples studied; 2) the nature of the treatment programs; 3) the definition of treatment non-completion; 4) the variables studied; 5) the instruments used; and 6) the methods of statistical analysis.</p> <p>Only antisocial personality disorder and certain features of antisocial personality disorder (impulsivity, lying and aggressive behaviours) appear to</p>	2011	5/10 (AMSTAR rating from the McMaster Health Forum)	Not reported in detail

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Question addressed	Focus of systematic review	Key findings	Year of last search/publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		<p>be related consistently and significantly to TNC. Authors suggest that that TNC among sexual offenders might be reduced if clinicians were to make the necessary adjustments to the responsivity needs of high-risk sexual offenders in their treatment programs.</p>			
	<p>Effectiveness of sexual offender treatment for psychopathic sexual offenders (22)</p>	<p>A total of 10 studies were included. To be included, each study had to include a recidivism outcome measure for treated participants with a Psychopathy Checklist-Revised (PCL-R) score.</p> <p>Based on a qualitative analysis of the included studies, there were two consistencies across all reviewed studies. 1) Sexual offender treatment does not appear effective in lowering <i>serious</i> recidivism for psychopaths to levels exhibited by non-psychopaths. This result was found in samples from all treatment programs. 2) Although treated psychopaths' <i>sexual</i> recidivism rates were variable relative to non-psychopaths' rates, there were repeated indications that some psychopaths can show the same sexual recidivism rates as non-psychopaths post-treatment, whereas other psychopaths do not. Three studies each suggested that some psychopaths showed sexual recidivism rates similar to those of non-psychopaths from the respective treatment programs, whereas other psychopathic participants clearly showed higher rates. However, the differentiating characteristics between psychopaths who benefited and those who did not were clearly not the same across the studies, so each result awaits replication.</p> <p>Authors highlight a consistent absence of untreated comparison groups in all studies, which result in correlational findings as opposed to tests of significance between experimental conditions. The few significance tests found in the reviewed research typically showed null results, and authors suggest that this could be due to small sample sizes instead of true support for the null hypothesis.</p>	<p>2008</p>	<p>1/10 (AMSTAR rating from the McMaster Health Forum)</p>	<p>9/10</p>
	<p>Outcome evaluations of sexual offender treatments (6)</p>	<p>This study reviewed controlled outcome evaluations of psychosocial and organic sexual offender treatment. Overall, 11.1% of treated offenders and 17.5% of controls showed sexual recidivism (37% difference).</p> <p>Findings indicate that sexual offender treatment can significantly reduce recidivism rates. The size of the effect is small to moderate, however, the evidence is based on studies that mostly apply a weak methodological standard.</p>	<p>2008</p>	<p>4/10 (AMSTAR rating from the McMaster Health Forum)</p>	<p>17/69</p>

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Question addressed	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		<p>Studies on surgical castration showed the strongest effect; however, this was confounded with methodological and offender characteristics. Results indicate that cognitive-behavioural treatment was the most common treatment approach (46%), and the only approach that consistently demonstrated a positive impact.</p> <p>Authors call for more high-quality, controlled evaluations on the entire range of sexual offender treatments, such that clear conclusions can be drawn about the effectiveness of existing approaches.</p>			
	<p>Effectiveness of treatment for sexual offenders (5)</p>	<p>Sixty-nine studies containing 80 independent comparisons between treated and untreated sexual offenders were reviewed.</p> <p>The majority of studies confirmed an overall positive and significant effect of sexual offender treatment. Treated offenders showed six percentage points or 37% less sexual recidivism than controls. Sexual offender treatment also has an effect on general recidivism, however, unspecific offender programs have no impact on sexual recidivism.</p> <p>Physical treatments (surgical castration and hormonal medication) showed larger effects than psychosocial interventions. However, this difference was partially confounded with methodological and offender variables. For example, sexual offenders receiving surgical castration are a highly selected and motivated group, and they apply for this very intensive intervention voluntarily. As such, the treatment groups are probably at lower risk of reoffending than the control groups.</p> <p>Considering the ethical, legal and medical implications of castration, alongside the very low rate of sexual recidivism in castrated offenders, authors suggest that societies should not abandon this approach immediately, but instead perform a differentiated assessment of the pros and cons.</p> <p>A regression analysis shows that only three modes of treatment have a significant impact: hormonal, behavioural and cognitive-behavioural. The results of the first two types of program are more confounded with methodological and other study characteristics than those of the latter. After controlling for such variables, only the cognitive-behavioural orientation shows an independent treatment effect.</p>	<p>2005</p>	<p>6/11 (AMSTAR rating from the McMaster Health Forum)</p>	<p>17/69</p>

*Changing sexual offender behaviour and assessing risk for reoffending*

Question addressed	Focus of systematic review	Key findings	Year of last search/publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		<p>Higher recidivism was found among treatment dropouts, and as a result, studies that include dropouts in the treatment group have smaller effects. The high risk of recidivism in dropouts emphasizes that this group is a core problem in offender rehabilitation and controlled evaluation.</p> <p>Authors call for more high-quality outcome studies that address specific subgroups of sexual offenders and more detailed process evaluations on various treatment characteristics and components.</p>			
	Treatment effectiveness for male adolescent sexual offenders (16)	<p>This review is a meta-analysis of 10 studies, including seven published journal articles and three unpublished dissertations. Only studies measuring outcomes involving recidivism, self-report measures of deviant sexual attitudes and behaviours, or level of arousal in relation to deviant sexual stimuli, were included.</p> <p>Authors emphasize the distinction between treatment efficacy (demonstrated when studies utilize random clinical trials in which participants are randomly assigned to either a treatment or comparison group) and treatment effectiveness (refers to whether or not a treatment can be demonstrated to work in clinical practice). There are relatively few studies of treatment efficacy available in the treatment literature for male adolescent sexual offenders.</p> <p>Results suggest that treatments for male adolescent sexual offenders appear generally effective. There was a small amount of variance due to error, which suggests that the results were largely due to treatment effects. Studies which used self-report measures of outcome obtained a 6% higher effect size than studies which used measures of arousal in response to deviant stimuli, and a 22% higher effect size than studies using actual recidivism rates. Studies using cognitive-behavioural therapy had the largest effect sizes, and studies using more qualified therapists had better outcomes.</p>	2004	2/11 (AMSTAR rating from the McMaster Health Forum)	Not reported in detail
Models for identifying the risk of sexual offenders for reoffending	Effectiveness of sexuals offender assessment tools in predicting sexual recidivism of adult male sexual offenders (33)	<p>Fifteen sexual offender risk assessment tools were identified and reviewed.</p> <p>All of the reviewed tools produced at least a moderate effect size in relation to predictiveness of sexual recidivism, apart from the Minnesota Sex Offender Screening Tool which was slightly lower. The two risk assessment tools that produced the largest effect size (indicating good predictive validity) were the Violence Risk Scale: Sexual Offender Version (VRS-SO) and Structured Risk Assessment (SRA). However authors caution that these tools have not been as extensively peer reviewed in comparison to the other</p>	2013	7/10 (AMSTAR rating from the McMaster Health Forum)	13/43

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Question addressed	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		<p>tools considered in the review, and may have been subject to developer bias. One of the two VRS-SO studies was conducted by the developers of the tool, and both the SRA studies were conducted by the developer of that tool.</p> <p>In addition, the VRS-SO demonstrated the highest mean quality score, and the SRA was found to have an average mean quality score. However the small number of studies examining these particular tools limits these findings.</p>			
	<p>Recidivism rates for female sexual offenders (26)</p>	<p>Recidivism studies were included if they identified the gender of the offenders and provided a follow-up period. Ten studies were identified, including 2,490 offenders in total, with average follow-up of six and a half years.</p> <p>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.</p> <p>It was found that female sexual offenders, once they have been detected and sanctioned by the criminal justice system, tend not to re-engage in sexually offending behaviour. 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 non-sexual crime than a sexual crime (~20% vs. ~2%).</p> <p>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.</p> <p>Authors suggest that 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.</p> <p>Given that general (i.e., non-sexual) recidivism is much more common among female sexual offenders than sexual recidivism, authors suggest that evaluators should consider the use of tools validated to assess risk of general</p>	<p>2010</p>	<p>3/10 (AMSTAR rating from the McMaster Health Forum)</p>	<p>Not reported in detail</p>

*Changing sexual offender behaviour and assessing risk for reoffending*

Question addressed	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Assessing psychologically meaningful risk factors for sexual recidivism (14)	<p>and violent (non-sexual) recidivism among these women</p> <p>Authors classified risk factors as: 1) “empirically supported” if their meta-analytic summary of the literature presented sufficient evidence for the association; 2) “promising” if they had the support of one or two prediction studies plus some supporting evidence of other kinds; 3) “unsupported but with interesting exceptions” if the meta-analytic summary showed a small, non-significant effect, but a significant result was found in at least one large credible study or a study examining subgroups of sexual offenders; and 4) “not risk factors” if they are plausible but have been sufficiently studied to conclude that they have little or no relationship with recidivism.</p> <p>Empirically supported risk factors included: sexual preoccupation, any deviant sexual interest, offence-supportive attitudes, emotional congruence with children, lack of emotionally intimate relationships with adults, lifestyle impulsivity, general self-regulation problems, poor cognitive problem-solving, resistance to rules and supervision, grievance/hostility, and negative influences.</p> <p>Promising risk factors included: hostility toward women, Machiavellianism, callousness/lack of concern for others, and dysfunctional coping.</p> <p>Unsupported risk factors, but those with interesting exceptions included: denial, major mental illness, and loneliness.</p> <p>Not risk factors included: depression, poor social skills, poor victim empathy, and lack of motivation for treatment at intake.</p>	Not reported (published in 2010)	1/11 (AMSTAR rating from the McMaster Health Forum)	Not reported
	Predicting relapse in sexual offenders (25)	<p>For inclusion in the review: studies needed to follow up a sample of sexual offenders, report recidivism information for sexual offences, non-sexual violent offences, or any offences, and include sufficient statistical information to calculate the relationship between a relevant offender characteristic and recidivism.</p> <p>The most common measures of recidivism were reconviction (84%), arrests (54%), self-reports (25%), and parole violations (16%).</p> <p>Sixty-one follow-up studies, including a total of 28,972 sexual offenders, were examined to identify the factors most strongly related to recidivism among sexual offenders. On average, the sexual offence recidivism rate was</p>	1998	2/9 (AMSTAR rating from the McMaster Health Forum)	16/61

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Question addressed	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		<p>low (13.4%). However, there were subgroups of offenders with high rates of recidivism.</p> <p>Sexual offence recidivism was best predicted by measures of sexual deviancy (e.g., deviant sexual preferences, prior sexual offences) and, to a lesser extent, by general criminological factors (e.g., age, total prior offences). Offenders who failed to complete treatment were at higher risk for reoffending than those who completed treatment.</p> <p>The predictors of non-sexual violent recidivism and general (any) recidivism were similar to those predictors found among non-sexual criminals (e.g., prior violent offences, age, juvenile delinquency). Authors suggest that applied risk assessments of sexual offenders should consider separately the offender's risk for sexual and non-sexual recidivism.</p>			

**Appendix 2: Summary of findings from primary studies about remediation/rehabilitation models for sexual offenders, and models for identifying the risk of sexual offenders for reoffending**

Question addressed	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Remediation/rehabilitation models in changing sexual offender behaviour	Assessment and treatment of distorted schemas in sexual offenders (11)	<p><i>Publication date:</i> 2013</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	N/A	<p>A schema is a cognitive structure defined as a network of learned associations that guide attention, inform perceptions, and save mental energy by providing shortcuts to interpreting incoming stimuli.</p> <p>Cognitive restructuring is a procedure that typically involves helping offenders identify and challenge their distorted beliefs so that new ways of thinking can develop.</p> <p>Schema therapy is a procedure that involves four stages of therapy: cognitive (teaching basic cognitive techniques to identify and contradict schema-driven thoughts); interpersonal (where the clinician and group further challenge identified schema-driven thoughts); experiential (e.g., having offenders role-play past experiences to recognize how their schemas have developed and guided their subsequent processing of social and environmental information); and behavioural (practising new adaptive schemas in real life using behavioural experiments).</p>	<p>It has been suggested that when assessing and treating sexual offenders' cognition, therapists should target the underlying schemas that generate distorted beliefs, rather than focus on post-offence rationalizations.</p> <p>Psychometric questionnaires are the most common strategy for assessing distorted cognition. However, they may be less effective at specifically assessing schemas given that respondents have time to deliberate and reject their schema-driven beliefs.</p> <p>Alternatively, indirect measures may offer a better indication of schema content as they reduce the time needed to engage in deliberated thought. The Implicit Association Task (IAT) is the most commonly used indirect measure. Results from IAT studies suggest that many who have sexually abused children hold associations indicative of "child as sexual beings" schema.</p> <p>There is limited empirical research related to the treatment of schemas. Cognitive restructuring and schema therapy both show some success in reducing scores on psychometric questionnaires, suggesting that a change in schema content or an increase in schema management has occurred.</p> <p>Efforts to advance the treatment of distorted schemas include attending to the external world in which offenders reside, adopting a strengths-based approach to treatment, addressing relevant process issues, and treating factors associated with distorted schemas (e.g., attachment issues, early sexual abuse).</p>
	Sexual offender treatment outcome, actuarial risk, and the aging sexual offender in Canadian corrections (8)	<p><i>Publication date:</i> 2012</p> <p><i>Jurisdiction studied:</i> Canada</p>	A national cohort of Canadian federally incarcerated sexual offenders were followed up an	A brief actuarial risk scale (BARS), which predicts sexual and violent recidivism, was created to control for risk-related differences between treated and untreated offenders.	Authors report that the present cohort was a predominantly moderate- to low-risk cohort of sexual offenders given the relatively low mean score on the BARS, and base rate of sexual recidivism (13.7%) relative to other reported base rate estimates over comparable follow-up periods in Canadian

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Question addressed	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
		<p><i>Methods used:</i> Cohort study, Cox regression survival analyses</p>	<p>average of 11.7 years post-release.</p> <p>A total of 732 offenders were identified as having completed (n=625) or not attended (n=107) a sexual offender treatment program, and for whom sufficient information was available to complete the brief actuarial risk scale (BARS).</p>		<p>samples.</p> <p>After controlling for risk and individual differences in follow-up time, treated sexual offenders demonstrated significantly lower rates of violent, but not sexual, recidivism.</p> <p>When the treated and untreated groups were stratified by risk level, significant differences were observed only among moderate or high risk offenders.</p> <p>Treated offenders demonstrated slower times to sexual re-offence and lower scores on a quantified metric of sexual and violent recidivism severity after controlling for risk.</p> <p>Differences in recidivism base rates between treated and untreated offenders were also larger in magnitude for younger offenders (i.e., under age 50 at release), than for older offenders; however, interactions between age and treatment were not found.</p>
	<p>Human rights and ethics in sexual offender treatment (13)</p>	<p><i>Publication date:</i> 2011</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive</p>	<p>N/A</p>	<p>Authors define treatment-as-management as an approach that emphasizes risk management on a continuum from treatment (cognitive behavioural treatment to manage risk) to incapacitation (sexual offender registers, community notification, residence restrictions, and civil commitment).</p> <p>The treatment-as-rehabilitation approach supports holistic treatment in supporting offenders to lead a productive and stable life. It includes two theories, both of which are humanistic, concerned with improving offender well-being,</p>	<p>Authors argue that the more popular treatment-as-management approach violates offender rights because it is ineffective and unethical. They cite research that highlights anti-therapeutic consequences of the approach that increase the risk to reoffend. These consequences include unemployment, homelessness, shame, depression and anxiety, disconnection from social supports, and inadequate treatment.</p> <p>As an alternative, they suggest delivering treatment-as-rehabilitation, an approach supported by international human rights law and universal professional ethics. Authors conclude that an effective and ethical community-offender balance is more probable when sexual offenders are treated with respect and dignity that, as human beings, they have a right to claim.</p>

*Changing sexual offender behaviour and assessing risk for reoffending*

Question addressed	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	Use of the therapeutic communities with sexual offenders (15)	<p><i>Publication date:</i> 2010</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	N/A	<p>and are based on an ethic of care (the legal theory of therapeutic jurisprudence) or a therapeutic alliance (the psychological theory of the good lives model).</p> <p>Authors define a therapeutic community (TC) as a consciously designed social environment and program within a residential or day unit in which the social and group process is harnessed with therapeutic intent. Common elements of all TCs include the provision of a communal living experience, encouraging open communication, and promoting psychological and social adjustment.</p> <p>Authors propose the use of TCs to increase ability to target treatment content, to enhance treatment process, to provide optimal environments for therapeutic gain, and to provide a broad therapeutic framework for treating sexual offenders.</p>	<p>There appears to be consistent research findings that suggest clear support for the effectiveness of the TC modality, especially in relation to substance abuse-related offending and personality disorder.</p> <p>In comparison to research involving non-sexual offenders, there is currently a lack of empirical evidence to support the notion that facilitating treatment for sexual offenders within prison-based TCs is effective. Authors conclude that more research is needed in this area.</p>
	Therapist awareness and responsibility in working with sexual offenders (20)	<p><i>Publication date:</i> 2010</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive</p>	N/A	N/A	<p>This article reviews the effects on therapists of providing psychological services to sexual offenders, and highlights the ethical implications of therapists' clinical reactions. On an individual basis, authors recommend self-awareness and self-reflection in addressing reactions to clients and work-related concerns. It is emphasized that clinicians also have a responsibility to take action and seek support when negative effects persist and may compromise the quality of the therapy. At the organizational level, authors note that professional organizations are responsible for educating clinicians about the effects</p>

Question addressed	Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	Positive approach to sexual offender treatment (19)	<p><i>Publication date:</i> 2008</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive</p>	Examples are drawn from multiple studies, however the participants in the Rockwood Program intervention described in this paper are sexual offenders within a Canadian prison.	The Rockwood Program operates in a group therapy format led by one therapist. Individual sessions are scheduled only when necessary to address problems arising in the group context that cannot be resolved within the group. Groups meet twice each week for three-hour sessions with a 10-minute break in the middle of each session. There are 10 offenders in each group and the groups all operate on an open-ended (or rolling) format. This allows each offender to progress at a pace that fits with the magnitude and complexity of their problems, and that suits their personal style and learning capacity.	<p>of providing therapy, and the means by which to access support. Organizations must work to create an environment in which clinicians feel comfortable raising these issues. The Association for the Treatment of Sexual Abusers (ATSA), for example, has a mentoring program through which clinicians work with a more experienced ATSA member to enhance their knowledge and competence in their clinical roles.</p> <p>In North America, and in most other English-speaking countries, the currently accepted approach to the treatment of sexual offenders is some form of cognitive-behavioural therapy (CBT) with a relapse prevention (RP) component.</p> <p>Authors argue that most current CBT/RP programs have six sets of shortcomings: 1) a “one size fits all” approach; 2) a primarily cognitive approach; 3) a disregard of the role of therapeutic processes; 4) an exclusive focus on past history, particularly past offence history, and on developing a set of avoidance strategies for each client; 5) a failure to build the skills, attitudes and self-regard necessary to develop a better life; and 6) an absence of concern about emotional issues.</p> <p>Authors describe the findings of an evaluation of the Rockwood Program which they have operated in a Canadian prison for more than 15 years. Of the 534 treated sexual offenders who had been released into the community for an average of 5.4 years, only 3.2% had sexually re-offended, whereas the expected rate (based on an estimate calculated from the offenders’ actuarial risk levels) was 16.8%. This yields an effect size (ES) of 1.0, which is four times greater than the ES reported in meta-analyses of similar studies.</p> <p>Authors highlight that unlike any other program reported in the literature, the Rockwood program has been successful in treating psychopaths and those suffering from other personality disorders.</p>

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	Relapse prevention for sexual offenders and considerations for the abstinence violation effect (18)	<p><i>Publication date:</i> 2006</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	N/A	<p>Relapse prevention (RP) is a cognitive-behavioural approach that was originally developed for addictive behaviours, but has since been modified for the treatment of sexual offenders.</p> <p>The abstinence violation effect (AVE) refers to an individual's response to the recognition that he/she has broken a self-imposed rule (e.g. engaging in a single act of substance use, violating his/her commitment to abstinence, etc).</p> <p>According to the RP model, an individual's response to this violation can influence whether the lapse turns into a full-blown relapse.</p>	<p>Authors propose that, like the Rockwood program, existing CBT/RP approaches should incorporate more behavioural exercises, take a more motivational approach instead of a confrontational approach, and shift the focus away from the client's past and the corollary development of avoidance plans, and toward increasing skills, attitudes and self-regulation to facilitate the achievement of a more fulfilling life.</p> <p>Data that have been collected from sexual offenders indicate that the current model of RP for sexual offenders is incomplete if not inaccurate.</p> <p>Authors conclude that modifications to the addictions RP approach to fit the treatment of sexual offenders fail to accurately specify the AVE's occurrence and influence in the offence cycle.</p> <p>Authors recommend that an ideal RP model for sexual offenders should meet two goals: 1) account for all distinctions between addictive behaviours and sexual offending; and 2) accurately reflect the sexual offence cycle including the occurrence of the AVE in this population.</p>
	Working positively with sexual offenders to maximize treatment effectiveness (12)	<p><i>Publication date:</i> 2005</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	N/A	<p>Two models of sexual offender rehabilitation are compared.</p> <p>The Risk Management Model is defined as one in which the primary aim of rehabilitating offenders is to avoid harm to the community, rather than to improve the offenders' quality of life.</p> <p>The Good Lives Model is one</p>	<p>Authors suggest that an exclusive focus on risk can lead to overly confrontational and negative therapeutic encounters, a lack of rapport between offenders and clinicians, and fragmented and mechanistic treatment delivery. It is suggested that the aims of sexual offender treatment should be the attainment of good lives, which is achieved by enhancing hope, increasing self-esteem, developing approach goals, and working collaboratively with the offenders. Authors' conclusions are based on literatures outside of sexual offending.</p>

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	<p>Utility of the trans-theoretical model of behaviour change in the treatment of sexual offenders (10)</p>	<p><i>Publication date:</i> 2005</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>		<p>in which clinicians work to explicitly construct a conception of good lives to guide the rehabilitation of each offender.</p> <p>The Trans-theoretical model of behaviour change has three constructs: Stages of Change, Processes of Change and Decisional Balance.</p> <p>The Stages of Change construct consists of five sequential stages: pre-contemplation, contemplation, preparation, action and maintenance. Progression through the stages happens through a combination of both linear movement to the next stage, with a recycling back though earlier stages when either a lapse or relapse occurs.</p> <p>There are five experiential and five behavioural Processes of Change.</p> <p>Experiential: consciousness raising, self-re-evaluation, social re-evaluation, self-liberation, and dramatic relief.</p> <p>Behavioural: social liberation, counterconditioning, stimulus control, contingency management, and helping relationships.</p> <p>The Decisional Balance construct is the balance between the advantages of continuing with the problem behaviour and the disadvantages of continuing with the problem behaviour.</p>	<p>It has been found that Processes of Change that are considered to have an affective component (dramatic relief, self-re-evaluation and environmental re-evaluation) are used more frequently in the early stages of contemplation and preparation, while the behavioural processes (reinforcement management, counterconditioning, and stimulus control) are used most frequently at the later stages of action and maintenance.</p> <p>Authors suggest structuring programs in two parts, with the first focusing on the experiential processes of change, and second on behavioural processes of change (e.g. relapse prevention). Progress onto the second part would be contingent on the offender's successful completion of the first part and an assessment of their motivation to stop re-offending.</p> <p>With respect to the Decisional Balance construct, it has been found that the cons of changing behaviour largely outweigh the pros at the pre-contemplation stage, while the pros outweigh the cons at the action stage. However, empirical investigation of this issue is required among sexual offenders.</p> <p>One study of incentives and disincentives for treatment participation and behaviour change among child molesters found that a large proportion of participants cited incentives that were associated with the offender's needs rather than the needs of the victims. Authors highlight the need to merge the needs of the offender with the aims of the treatment programs, which tend to focus on the impact of the offender's behaviour on victims.</p> <p>Authors conclude that the Trans-theoretical Model of Behaviour change has some utility as an overarching framework to conceptualize behaviour change and design treatment interventions among</p>

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	Assessment of sexual offenders based on lessons learned from the assessment of non-sexual offenders (9)	<p><i>Publication date:</i> 2003</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Literature review</p>	N/A	This paper presents a review of various aspects of sexual offender assessment including assessment measure to determine criminogenic need, measurements of treatment readiness, assessment of schemas, the utility of performance-based measures, and measurements of offender change.	<p>sexual offenders. However, many of these findings are drawn from research with other clinical problems, and empirical research with sexual offenders is required.</p> <p>There is a general consensus that change scores for self-report scales are often not predictive of outcomes.</p> <p>The trans-theoretical model of change uses stage-based measures of change (pre-contemplation, contemplation, action, maintenance, relapse and termination). It has been used with spousal abusers and demonstrated that individuals proceed through discernible stages, and that tailoring intervention to offenders' "readiness" may reduce attrition and improve program performance. Drawbacks to this approach include the transparency of scale items (resulting in a high correlation with social desirability), and possible insensitivity to subtle changes in offenders.</p> <p>Often, sexual offenders share similarities – with respect to criminogenic needs, antecedents to their crimes, and criminal attitudes – with other offender groups. Like non-sexual offenders, sexual offenders also have marked difficulties with addiction and mental health.</p> <p>Authors recommend that research from corrections, addictions and mental health fields should be incorporated into the mainstream of sexual offender assessment.</p>
	Treatment of adult sexual offenders using a cognitive-behavioural model of intervention (17)	<p><i>Publication date:</i> 2003</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	Not specified	Cognitive-behavioural (CB) interventions are based on the premise that cognitive processes and behaviour are linked, and that cognition influences behaviour. Within this model, sexual offending is viewed as a pattern of behaviour that has developed and been maintained through learning and reinforcement, and that results	<p>Research indicates that cognitive-behavioural, skills-based treatment for sexual offenders is effective in reducing re-offending.</p> <p>Treatment effects are also enhanced when attention is paid to the process of treatment and therapist characteristics in addition to the content and procedures utilized.</p> <p>An important component of CB treatment for sexual offenders involves addressing cognitive</p>

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				<p>from entrenched maladaptive responses and coping mechanisms. Thus these interventions aim to replace maladaptive or deviant responses with adaptive, pro-social beliefs and behaviour by targeting specific areas in which offenders are deficient.</p>	<p>distortions and their underlying attitudinal and belief structures, as well as changing global thinking processes generally.</p> <p>There is inconsistent evidence on the appropriateness of victim empathy as a treatment target. While some studies suggest that empathy can be positively influenced by treatment, other research indicates that sexual offenders do not consistently demonstrate empathy deficits, as compared to other non-sexual offenders or non-offender populations.</p> <p>Targeting victim-specific empathy, rather than general empathy, may be more relevant to sexual offenders. Research has found that child molesters appear to demonstrate significantly greater empathy deficits toward victims of their own sexual offences, as compared to levels of empathy toward the victims of others' sexual offences or empathy in a non-sexual context.</p> <p>Research suggests that social functioning deficits among sexual offenders include deficits in the areas of intimacy and attachment, self-confidence in relationships, self-esteem, loneliness, and coping with stress. Research also indicates that self-esteem is significantly lower in sexual offenders than in matched controls, and that improved self-esteem following treatment is significantly correlated with changes in other treatment targets, such as empathy, intimacy, loneliness and deviant sexual preference</p> <p>Cognitive distortions and lack of empathy have been found to be strongly correlated with each other, and treatment aimed at increasing empathy also reduces cognitive distortions.</p> <p>Of the few studies that have been conducted, findings are generally promising in that combining supervision with community intervention has been found to be effective in preventing a return to sexual offending, improving the manageability of the offender during supervision, and in reducing the rates of post-intervention recidivism.</p>

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					<p>Specifically, in the areas of addictions, depression, mental health and therapy, research clearly indicates that therapist characteristics and approach are integral to effective treatment. Characteristics of therapists that maximize treatment gain include empathy, respect, warmth, friendliness, sincerity, genuineness, directness, confidence and interest in the client. An effective therapist is also one who is a pro-social model, who communicates clearly, who is appropriately self-disclosing, rewarding, encouraging, and non-collusive, who deals appropriately with frustration and other difficulties, and who spends an appropriate amount of time on issues, asks open-ended questions, and is appropriately challenging.</p>
<p>Models for identifying the risk of sexual offenders for reoffending</p>	<p>Protective strengths, risk and recidivism in a sample of known sexual offenders (30)</p>	<p><i>Publication date:</i> 2015  <i>Jurisdiction studied:</i> Texas, United States  <i>Methods used:</i> Self-report measures</p>	<p>Participants were 110 adult male inmates in an 18-month sexual offender treatment program within the Texas Department of Criminal Justice. Offenders in the program were serving the last two years of their sentences for a sexual offence, and progressed through three treatment phases prior to their release.</p>	<p>The relationship between protective strengths and risk, as assessed by the Inventory of Offender Risk, Needs, and Strengths, was examined with respect to the recidivism rate and type of re-offence in a sample of adult males incarcerated for sexual offences.</p>	<p>Approximately 40% of the sample recidivated in some way, including 6% sexually, within the six-year follow-up time.</p> <p>Higher-risk offenders had fewer protective factors when compared with low-risk offenders. As the level of protective strengths increased, the levels of both static risk and dynamic need/risk decreased. Increased protective strengths were significantly associated with decreased levels of general, violent and sexual recidivism.</p> <p>Self-rated protective strengths were significantly valid predictors for sexual, violent and general recidivism.</p> <p>Both the Protective Strengths Index (PSI) and the Overall Risks Index (ORI) were significant predictors of sexual recidivism in the current sample, suggesting that self-perceived protective strengths and risks may be useful predictors of future sexual behaviour. The PSI was a significantly better predictor of sexual recidivism when compared with the SRI, but the SRI items better reflect variables that have been demonstrated to predict general antisocial behaviour than sexual recidivism.</p>
	<p>Tracking and managing</p>	<p><i>Publication date:</i> 2014</p>	<p>Participants were</p>	<p>The dangerous offender (DO)</p>	<p>Findings demonstrate that, despite not being as high</p>

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	high-risk offenders (36)	<p><i>Jurisdiction studied:</i> Canada</p> <p><i>Methods used:</i> File information for offender groups was coded using several risk assessment tools including the Level of Service/Case Management Inventory, the Statistical Information on Recidivism–R1 scale and the Psychopathy Checklist-Revised. For offenders with sexual index offences, Static-2002R was also used. File information was also coded for recidivism.</p>	Canadian male offenders (13 female offenders were excluded) categorized into three separate and mutually exclusive groups: flagged offenders ( $n=516$ ), dangerous offenders ( $n=58$ ), and long-term offenders ( $n=129$ ).	<p>designation is a form of preventative detention which allows for the indeterminate incarceration of violent or sexual offenders partly based on the presumed high likelihood of future offending.</p> <p>The long-term offender designation (LTO) is a form of preventative supervision that imposes a period of community supervision up to 10 years.</p> <p>The Canadian National Flagging System (NFS) seeks to: 1) assist attorneys to more successfully prosecute high-risk, violent offenders; 2) prevent high-risk, violent offenders from falling through jurisdictional gaps; and 3) encourage prosecutors to use the DO and LTO provisions in appropriate cases.</p> <p>NFS coordinators gather information on offenders following a referral from police officers and prosecutors and, based on a review of the information, decide whether an offender should be flagged.</p>	<p>risk as designated offenders, flagged offenders (FOs) were high risk and were significantly more likely to reoffend violently compared with LTOs and other federal recidivists. Authors conclude that the NFS may therefore serve as an early warning system for a select group of high risk offenders.</p> <p>The NFS was also successful in aiding in the application of preventative detention given that the base rate for designations among FOs was substantially higher than the expected base rate among violent and sexual recidivists. While there are improvements that can be made to the existing system (e.g. development of consistent criteria necessary for flagging across jurisdictions), authors deem the NFS as a valuable tool in the identification and management of high-risk offenders.</p>
	Influence of denial, motivation and risk on sexual recidivism (29)	<p><i>Publication date:</i> 2010</p> <p><i>Jurisdiction studied:</i> United Kingdom</p> <p><i>Methods used:</i> Logistic regression analyses</p>	The total sample was drawn from three separate sources delivering group-based Cognitive-behavioural treatment.  The final sample	Analyses were conducted to determine the role of denial, denial of risk, motivation for treatment, and static risk in predicting sexual recidivism outcomes.	<p>The overall recidivism rate for the sample of 180 was 15% over 10.3 years. The mean score for RM 2000 was 1.9, indicating an overall medium risk level for the sample.</p> <p>The effect of denial was not consistent across risk levels. There was relatively little difference in the recidivism rates of the low-risk offenders who admitted or denied, and the direction of the effect varied across the measures used.</p>

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			<p>consisted of 180 adult male sexual offenders who had completed a treatment program in the United Kingdom during the early or late 1990s, and were followed for at least 10 years after release.</p>		<p>For the high-risk offenders, however, denial was consistently associated with decreased recidivism. Given that a great deal of effort is currently expended on overcoming denial in offenders prior to treatment, these findings highlight the need for research evidence to verify whether factors routinely addressed in treatment actually function as many treatment providers presume.</p> <p>The study also found that high motivation for treatment was associated with increased recidivism rates, but this effect disappeared when controlling for static risk.</p>
	<p>Social desirability and sexual offenders (23)</p>	<p><i>Publication date:</i> 2010</p> <p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>	<p>N/A</p>	<p>Socially desirable responding (SDR) is defined as attributing qualities to oneself that are likely to elicit approval from others, and rejecting qualities that are likely to elicit disapproval.</p>	<p>Compared to violent offenders, sexual offenders show higher levels of SDR, with child molesters in particular being most likely to fake good.</p> <p>In general, the ambiguity surrounding the dimensional structure of SDR has limited the standardization of methods to measure and manage social desirability. As a result, a wide variety of scales have been developed to measure SDR, with differing subscales, and various methods of controlling for SDR bias have been proposed. The lack of standardization makes the interpretation and integration of the results across studies difficult and the successful control of SDR uncertain, as it is unclear whether the different scales are measuring the same construct.</p>
	<p>Effect of aging on recidivism risk for sexual offenders (28)</p>	<p><i>Publication date:</i> 2006</p> <p><i>Jurisdiction studied:</i> United States</p> <p><i>Methods used:</i> Descriptive, literature review</p>	<p>N/A</p>	<p>This review sought to derive an empirically based set of guidelines for practitioners about how to incorporate an offender's age in assessing sexual recidivism risk.</p>	<p>When offenders' risk is not considered, age-at-release measured across the complete adult span (age 18+) generally shows some type of turn downward, at least in the oldest age categories. This result was consistent across all of the studies, however the exact nature of the downward trend varied widely across studies.</p> <p>When offenders' degree risk is considered, it was important how that risk was measured. A measurement representing general risk for anti-social behaviour did not show differential effects of age on</p>

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					<p>sexual recidivism rate, however risk related to sexual deviance did.</p> <p>Offender age-at-release may be an inferior measure compared to age-at-first-offence relative to sexual recidivism risk. The latter is statistically more correlated with sexual recidivism risk, and it may also avoid jurisdictional issues related to the length of sentences.</p> <p>Given that samples in the reviewed studies differ in the degree to which older offenders show “life-course persistent antisociality”, there may be a significant confounding factor in these studies.</p> <p>There may be a jurisdictional difference between U.S. and non-U.S. subjects in how age-at-release affects their sexual recidivism risk. One reason why such a difference might exist is related to the different lengths of prison sentences across countries.</p>
	<p>Male victims and post-treatment risk assessment among adult male sexual offenders (32)</p>	<p><i>Publication date:</i> 2008</p> <p><i>Jurisdiction studied:</i> Alberta, Canada</p> <p><i>Methods used:</i> Victim gender data was collected using a combination of self-report and other documentation regarding participants’ offences. Recidivism data was collected through the Canadian Police Information System (CPIC).</p>	<p>The sample consisted of 513 convicted adult male sexual offenders who were voluntarily transferred from the prison system for treatment in the Phoenix Program at Alberta Hospital Edmonton. There were 274 treatment completers and 239 treatment non-completers in the overall sample.</p>	<p>The sample was examined regarding the relationship between the static risk factor of having male victims, subsequent reoffence, and treatment impact.</p> <p>Treatment in the Phoenix Program follows a cognitive-behavioural approach with a focus on group therapy.</p>	<p>Having ever had male victims was non-predictive of sexual recidivism for the entire sample, including treatment completers, non-completers, the combined groups, and a subset of child molesters. This finding is contrary to findings within the risk assessment literature. Authors hypothesize that this discrepancy can be attributed to the difference in treatment setting (secure psychiatric facility versus prison) compared to other programs, and the greater degree of assured confidentiality it allows. This may facilitate a greater willingness for patients to disclose past victims that are previously unknown to authorities, and provide a more complete description of their sexually deviant behavioural repertoire.</p> <p>There was a significant positive correlation between having exclusively male victims and recidivism, but only among non-completers of the program. For completers of the program, the static factor of “exclusively male” victims was no longer predictive of recidivism. Therefore, this represents another</p>

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					<p>static risk factor which has its predictive power significantly reduced as a consequence of treatment in the Phoenix Program.</p> <p>Based on their data, authors conclude that victim gender is unrelated to sexual recidivism for either molesters or offenders against adults after completion of the Phoenix Program.</p>
	<p>Risk factors for criminal recidivism in older sexual offenders (27)</p>	<p><i>Publication date:</i> 2006</p> <p><i>Jurisdiction studied:</i> Sweden</p> <p><i>Methods used:</i> Cohort study</p>	<p>A cohort of 1,303 sexual offenders released from prison in Sweden during 1993-1997.</p> <p>The sample included 551 prisoners (42%) convicted of rape or sexual coercion, 596 prisoners (46%) convicted of child molestation, and 156 prisoners (12%) convicted of other non-penetrative offences.</p>	<p>The study aims to report rates of re-offending by age and examine whether risk factors for violent recidivism are stable across age groups.</p>	<p>The overall base rates of reconviction were 7.5% for sexual offending (n = 98), 16.3% for any other violent (non-sexual) reconviction (n = 213), and 21.3% for any violent (including sexual) reconviction (n = 277).</p> <p>There were significant differences in the rates of reconviction by the four age bands investigated. Those aged 55 years and over sexually reoffended at a rate of 6.1 %, compared with a rate of 10.7% for those aged under 25. The trend appeared to be more pronounced for any violent (including sexual) reoffending.</p> <p>The finding that rates of recidivism are reduced in older age groups replicates work in criminal justice and secure hospital settings in the United States, Canada and the United Kingdom.</p> <p>Risk factors for reconviction appear to differ in prevalence and strength by age band, and this raises the wider issue of the applicability of present risk assessment instruments across all ages.</p> <p>The importance of a concomitant conviction for a violent offence was not apparent in the older group, and the effect of having a stranger victim appeared more pronounced. The latter finding may reflect that sexual deviance such as exhibitionism may be a strong risk factor for sexual recidivism in older sexual offenders, even when age-related decreases in other risk factors may have occurred.</p>
	<p>Multidimensional model of sexual recidivism risk (34)</p>	<p><i>Publication date:</i> 2004</p>	<p>N/A</p>	<p>This study sought to determine: if there is evidence for more than a single risk pathway</p>	<p>Research shows that there are at least two dimensions related to sexual recidivism risk, known as sexual deviance and psychopathy/general</p>

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		<p><i>Jurisdiction studied:</i> Not specified in detail</p> <p><i>Methods used:</i> Descriptive, literature review</p>		<p>relevant to sexual recidivism risk; if so, what the different dimensions may be; and what is already known about assessing the degree of risk stemming from each known dimension of risk.</p>	<p>criminality.</p> <p>The first dimension can be assessed using measures like the penile plethysmograph, the Rapid Risk Assessment of Sex Offense Recidivism, diagnosis of pedophilia, having had solely child sexual assault victims, and having had a male victim. Meanwhile, the second dimension can be assessed using the Static-99, the Minnesota Sex Offender Screening Tool—Revised, the Psychopathy Checklist—Revised, the Violence Risk Appraisal Guide, the Sex Offender Risk Appraisal Guide, having antisocial personality disorder, and ever having an adult female sexual assault victim. Furthermore, measures from one dimension have consistently shown a lack of statistical relationship to measures from the other dimension.</p> <p>Results from reviewed studies support the idea that risk assessments that cover both dimensions and assess each dimension independently from the other are the most accurate. Adding more measures from a dimension already assessed does not seem to add to the accuracy of prediction.</p> <p>Unlike the unilateral conceptualization of risk, the multidimensional model appears to explain empirical findings that otherwise appear confusing, and offers clear guidance about when individual risk or protective factors should be given weight beyond either other risk/protective factors or actuarial results in either increasing or decreasing the estimated risk based on, for instance, the actuarial result.</p>
	<p>Comparing sexual offender risk assessment measures (35)</p>	<p><i>Publication date:</i> 2004</p> <p><i>Jurisdiction studied:</i> United Kingdom</p> <p><i>Methods used:</i> Estimates of risk were completed on all offenders</p>	<p>The final sample consisted of 139 male offenders convicted of committing a sexual offence. There were 51 non-prison sexual offenders and 88 sexual</p>	<p>The aim of this study was twofold: to consider the application of sexual offender risk-assessment measures on offenders with adult or child victims, and to compare risk levels between two referral agencies, namely the Probation Service and a</p>	<p>Despite strong concurrent validity between the six scales, classifications of risk varied. Levels of risk of sexual offenders with child and adult victims ranged from 7% low risk to 62% high risk, and 0% low risk to 93% high risk, respectively.</p> <p>There was also a difference in risk levels between referral agencies: the levels of risk for RSU and Probation Service samples ranged from 1% low risk</p>

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		using the six risk assessments for sexual offenders; the Structured Anchored Clinical Judgment Scale (SACJ); the Rapid Risk Assessment for Sex Offence Recidivism (RRASOR); Static-99; Risk Matrix 2000 Sexual/Violence; and the Sexual Violence Risk-20 (SVR-20).	offenders referred to a U.K. Regional Secure Unit (RSU).  The samples were split into two offence categories based on the age of their victims: sexual offenders against children younger than 16 years and sexual offenders against adult female victims.	U.K. RSU.	to 66% high risk, and 8% low risk to 70% high risk, respectively.  The results from this study support the argument that assessments of risk may be more accurate if they were designed to assess specific subcategories of sexual offenders (such as those who offend against children or adults) rather than having a generic actuarial risk instrument for sexual offenders.
	Comparing physicians who commit sexual offences with other sexual offenders (24)  <a href="http://www.ncbi.nlm.nih.gov/pubmed/10566107">http://www.ncbi.nlm.nih.gov/pubmed/10566107</a>	<i>Publication date:</i> 1999  <i>Jurisdiction studied:</i> Not specified in detail  <i>Methods used:</i> Physician sexual offenders and sexual offender control subjects were matched on offence type, age, education and marital status, and compared on sexual history and preference, substance abuse, mental illness, personality, history of crime and violence, neuropsychological impairment, and endocrine abnormalities.	Nineteen male physicians charged with sexual offences were examined prior to legal and disciplinary proceedings. They were matched to a control group of 19 male sexual offender control subjects on offence category, age, education and marital status.	The study sought to explore the characteristics of physicians charged with sexual offences and compares them with other sexual offenders.	It was found that when physician sexual offenders are compared with a control group matched on offence type, age, education and marital status, there were few differences on variables considered significant in the commission of sexual offences. Despite the small sample size, authors conclude that the same assessment procedures can be recommended for examining both physician sexual offenders and sexual offenders in general.  As an exception to this trend, the presence of neuropsychological impairment and endocrine abnormalities in the physician group was much greater than would be expected in the sexual offender population generally, and more than one finds in the population at large. There were three diabetics (15.8%) among the physicians, when 2.5% would be expected by chance, and another 2.5% undiagnosed.





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