

Cognitive-Behavioral Therapy Efficacy for Reducing Recidivism Rates of Moderate- and High-Risk Sexual Offenders: A Scoping Systematic Literature Review

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Abstract

This literature scoping review compared recidivism rates of moderate- and high-risk sexual offenders who received cognitive-behavioral therapy (CBT) oriented treatments. Ten empirical studies from 2001 to 2014 were selected for review that met the following criteria: (a) Treatment program included a CBT-based intervention with a comparative intervention; (b) participants included adult, male, moderate- and high-risk sexual offenders only; and (c) follow-up data for up to 12 months. Data were analyzed using a summative metric for recidivism rate comparisons ($N = 3,073$ for CBT and $N = 3,588$, for comparison approaches). Sexual offense recidivism rates varied from 0.6% to 21.8% (with CBT) and from 4.5% to 32.3% (with comparison intervention). The within-sample median rate of violent recidivism with a history of sexual offense was 21.1% (with CBT) versus 32.6% (comparison). Sexual offenders had a general felonies (within-sample) median recidivism rate of 27.05% (with CBT) versus 51.05% (comparison). The evidence supports the conclusion that CBT in its various forms is an efficacious treatment modality to prevent offense recidivism by sexual offenders. Suggestions for future research are considered.

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Introduction

The efficacy of interventions in relation to sexually related crime is important in psychiatric management of offenders (American Psychiatric Association, 1999; Långström, Gabrielle Sjöstedt, & Grann, 2004; Marques, Wiederanders, Day, Nelson, & Ommeren, 2005; O'Reilly, Carr, Murphy, & Cotter, 2010), preventing recidivism, as well as addressing public safety concerns (e.g., Abrahams et al., 2015; Australian Bureau of Statistics, 2012, 2013a; Levenson & Cotter, 2005; Losel & Schmucker, 2005). Sexual offenders also are routinely monitored at public expense to minimize if not prevent their reoffending. Medium- to high-risk sexual offenders comprise in excess of 65% of incarcerated sexual offenders (Jennings, Piquero, Zimring, & Reingle, 2015; J. W. L. Ware, Marshall, & Marshall, 2015). The issue of reducing recidivism among moderate- and high-risk sexual offenders has practical implications because they are likely to reoffend with different crimes (Australian Bureau of Statistics, 2013b; Hanson & Morton-Bourgon, 2005; Jennings et al., 2015). Thus, the evaluation of treatments to reduce recidivism is important for evidence-informed criminal justice administration policy.

Recidivism is defined as relapsing into criminal behavior of whatever nature with a prior conviction. However, offenders are more likely to reoffend with a history of incarceration than without such a history (Hanson & Morton-Bourgon, 2005). There are two general indices of recidivism: reconviction, which is more conservative as many sexual charges may be plea bargained; and re-arrest, which might occur without reconviction. Stable or enduring lifestyle risks and anti-social personality predispose those with moderate to high risk to reoffend, which is not the case with low-risk sexual offenders who are predominantly associated with opportunistic offending (Chan & Beauregard, 2015; Hanson & Morton-Bourgon, 2005; Jennings et al., 2015; Wooditch, Tang, & Taxman, 2013). The risk-need-responsivity (RNR) model (Andrews, Bonta, & Wormith, 2011) argues an increased recognition of the importance of treatments to match “the style and mode of intervention” to the offender characteristics to lower risk for recidivism. Knowledge about risk for reoffending across sexual offender populations would inform behavioral-oriented interventions with them (Schmucker & Losel, 2015).

This study sought to map the evidence for cognitive-behavioral therapy (CBT) interventions to reduce recidivism among medium- to high-risk sexual offenders for sexual, violent, and general reoffending. Treatments for sexual offenders historically included surgical, hormonal, or chemical castration, with increasing use of psychosocial interventions (Berlin, 1997; Gallagher, Wilson, Hirschfield, Coggeshall, & Mackenzie, 1999). Although effect sizes for surgical and hormonal or chemical interventions have been 4 times higher than comparison psychosocial interventions (Kim, Benekos, & Merlo, 2016), psychosocial interventions appear to present a promising, more humane treatment regimen than medical castration. Furthermore, with increased understanding of the criminogenic needs of the offenders, it is important to tailor

interventions to specific offender profiles (Jennings et al., 2015; O'Reilly et al., 2010; Wooditch et al., 2013).

CBT is a cluster of interventions to address presumed dysfunctional thought processes that mediate a precipitating event and otherwise harmful behavioral responses to the event. The aim of CBT is to correct the cognitive distortions or decisional lapses believed to be behind maladaptive behaviors, including criminal behavior. Its major mechanisms of action include preventing relapse into criminal behaviors by reducing deviant social attitudes, enhancing behavioral self-efficacy through a variety of decisional risk-weighting techniques to maximize prosocial outcomes, and maintaining behavioral recovery from criminogenic need impulses (Landenberger & Lipsey, 2005). With sexual offender populations, enhancing decisional choice in the face of criminogenic impulses is at a premium for preventing reoffending and thus strategies and techniques learned through CBT can be an integral component of preventive or rehabilitative therapy to reduce risk of recidivism (Burdon & Gallagher, 2002; Lipsey, & Landenberger, 2006; Schmucker & Losel, 2015; Waldram, 2010; Witt, Greenfield, & Hiscox, 2008).

Low-risk sexual offenders tend to be changeable or opportunistic offenders. Moderate- to high-risk offenders mostly present with persistent criminogenic thought patterns or pathological offending (Hanson, 2004). Medium- to high-risk sexual offenders are less likely to admit responsibility for their offending behavior. This makes the need to examine the evidence for treatment options and effects with medium-to-high-risk offenders especially important for managing their risk to reoffend.

The efficacy of CBT to reduce recidivism is premised on the assumption that acceptance of responsibility for offense will lead to more rapid uptake of treatments effects. Denial, cognitive distortion, and lack of empathy for their victims are common among medium- to high-risk sexual offenders (Tierney & McCabe, 2001). However, this assumption of lower recidivism from treatment with acceptance of responsibility would not be true for offenders with denial (Maruna & Mann, 2006; Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005; J. Ware & Mann, 2012; J. W. L. Ware et al., 2015) who, nonetheless, would benefit from CBT interventions aimed at owning up to responsibility for their future actions (J. Ware & Mann, 2012; J. W. L. Ware et al., 2015). This suggests a need to scope the evidence of efficacy cognitions and behavior-change oriented recidivism reduction interventions within types of sexual offender populations.

Review of Previous Research

Hall (1995b) published an influential early meta-analysis that showed that the median sexual offense recidivism rate was 10.5% for those treated with CBT compared with 19.96% for other treatments. However, these studies did not focus on moderate/high risk only offenders. Similarly, an integrative study by Craig, Browne, and Stringer (2003) reported the median sexual recidivism rate of 8% for CBT studies compared with 17% for comparison treatments. In a succession of meta-analysis studies, Losel and Schmucker (2005) and Schmucker and Losel (2015) reported a sexual recidivism

rate of 10.1% with psychosocial interventions including CBT and 13.7% sexual recidivism without treatment. Similarly, Kim et al. (2016) reported 10.8% to 19.96% reductions in sexual recidivism, with superior outcomes for community-treatment interventions with CBT elements. When considering the studies that were published between 1995 and 2014, the evidence seems to suggest that CBT has promise as an intervention for reducing recidivism by sexual offenders, and particularly with juvenile offenders.

One of the shortcomings of prior reviews cited is that comparison by type of recidivism (sexual vs. violent versus general; Hanson & Morton-Bourgon, 2005) was not taken into account when considering intervention used and treatment outcome. The major exception is the study by Hanson et al. (2002). Hanson and others reported on the effectiveness of 43 varying psychosocial treatments and found that general and sexual offense recidivism was lower for treatment groups than for untreated groups. However, Hanson et al. did not specifically analyze for the efficacy of CBT interventions. Furthermore, they did not evaluate violent offenses recidivism. An additional shortcoming of previous studies is that follow-up periods were not included in some reports and, if included, they varied widely from 1 year (e.g., Allam, 1999) to 8 years (e.g., Bakker, Hudson, Wales, & Riley, 1999; S. M. Dwyer, 1997) with a mean follow-up period of 5.8 years (Schmucker & Losel, 2015). Other reasons for the wide disparities in recidivism rates from previous studies are accounted for in part by methodological differences among studies such as inclusion criteria used (Harkins & Beech, 2007; Jennings et al., 2015) and with studies that sampled both organic and psychosocial interventions reporting higher effect sizes overall (Kim et al., 2016; Losel & Schmucker, 2014), as did studies that involved multisystemic or therapeutic community interventions (Schmucker & Losel, 2015).

Up to this point, there has not been any systematic review devoted exclusively to the study of recidivism among moderate- to high-risk sexual offenders following CBT differentiating them by their type of offense recidivism (sexual, violent, and general). The evidence on sexual and nonsexual recidivism with a history of sexual offense following CBT intervention would be important for the appropriate targeting of interventions aimed to reduce risk for specific types of recidivism.

Purpose of the Study

The present study sought to scope the evidence on recidivism among moderate- to high-risk offenders rather than among low-risk offenders. Moderate- and high-risk offenders were selected for this study as “rehabilitation programs are routinely offered to moderate to high risk offenders” (Heseltine, Sarre, & Day, 2011, p. 1).

A scoping systematic literature review was used (Arksey & O'Malley, 2005; Wilson, Lavis, & Guta, 2012) to better understand the emerging evidence on recidivism rates of sexual offending. A scoping review is best suited for the goal of aggregating the emerging evidence on a topic or issue of interest. A scoping review is particularly appropriate for mapping an emerging body of evidence to inform future

studies. The current review addresses the key questions: (a) What effect does CBT have on different types of recidivism among medium- and high-risk sexual offenders? and (b) What is the evidence for the retention of treatment effects over time?

Previous research has shown that shorter follow-up periods can underestimate sexual recidivism rates for those sexual offenders likely to reoffend after several years of release into the community (Jennings, Zgoba, & Tewksbury, 2012; Moster, Wnuk, & Jeglic, 2008). Findings would suggest trends in the evidence to inform subsequent in-depth studies or just-in-time practice interventions to prevent recidivism among sexual offenders.

Method

Search Procedure and Research Design

Empirical studies were identified using four electronic databases: *Web of Knowledge*, *Embase*, *Medline*, and *PsycINFO* for the search period 2001 to 2014. In all cases, advanced search methods were used, using combinations of the following key words: “sexual offender/offense,” “cognitive behavioral therapy,” “recidivism rates,” and “adult male.” Inclusion criteria were (a) the use of CBT as a treatment program; (b) studies that included only adult, male, sexual offenders considered to be moderate or high risk (i.e., based on various standardized assessments of static risk); (c) studies that used a comparison group; and (d) studies that included follow-up. Given these criteria, 10 studies were identified for inclusion in this scoping review study. The current review excluded the evidence on low-risk offenders within studies that included separated groups.

The 10 studies included in the review and analyses of their results are summarized in Table 1. The follow-up period to assess treatment effectiveness as reported in these studies ranged between 2 years and 12.4 years.

The most common means of matching treatment and comparison groups were year of discharge (seven studies), prior convictions (six studies), and offense type (five studies each). Recidivism rates were measured by official reconviction data from state and national authorities. As noted, the importance of considering the three different types of recidivism varies markedly.

Data Analysis

For the data analysis, we used a summation metric derived from the results reported across studies citing confidence intervals (CIs) for derived recidivism outcome percentages over time (see also Beech, Mandeville-Norden, & Goodwill, 2012; Ellis, 2010). The recidivism proportion is the common metric across all the studies reviewed. It is a universally reported measure with practical utility for public-policy reporting because percentage recidivism rates are readily meaningful to a wide audience. We report summary odd ratios with CI for the study data, as well as the descriptive statistics (medians, means, and correlations) for the recidivism by offender group statuses

Table 1. Studies Included in the Review and the Synthesis of Results.

| Study | Follow-up approx. years | Treatment group n | Comparison group n | Excluded n | Sexual recidivism treatment | Sexual recidivism comparison | Violent recidivism treatment | Violent recidivism comparison | Any recidivism treatment | Any recidivism comparison |
|--|-------------------------|-------------------|--------------------|------------|-----------------------------|------------------------------|------------------------------|-------------------------------|--------------------------|---------------------------|
| Aytes, Olsen, Zakrajsek, Murray, and Ireson (2001) | 5 | 170 | 374 | N/A | 0.6% | 6.7% | N/A | N/A | 6.5% | 28.9% |
| Duwe and Goldman (2009) | 9.3 | 1,020 | 1,020 | N/A | 14.2% | 19.5% | 30.8% | 34.1% | 56.6% | 58.1% |
| J. Dwyer and Schweitzer (2003) | 5 | 196 | 164 | 85 | 3.1% | 4.9% | 10.2% | 9.1% | 13.3% | 14% |
| Friendship, Mann, and Beech (2003) | 2 | 384 | 941 | N/A | 3.6% | 4.5% | 6.5% | 13.8% | 18.5% | 44.3% |
| Hanson, Broom, and Stephenson (2004) | 12.4 | 403 | 321 | 146 | 21.1% | 21.8% | 42.9% | 44.5% | 56.6% | 60.4% |
| Marques, Wiederanders, Day, Nelson, and Ommeren (2005) | 8 | 190 | 220 | 37 | 21.6% | 19.1% | 16.3% | 15% | N/A | N/A |
| McGrath, Cumming, Livingston, and Hoke (2003) | 6 | 56 | 90 | 49 | 5.4% | 30% | 12.5% | 31.1% | 35.7% | 57.8% |
| Oliver, Wong, and Nicholaichuk (2009) | 10 | 472 | 265 | 137 | 21.8% | 32.3% | N/A | N/A | N/A | N/A |
| Scalora and Garbin (2003) | 4.5 | 76 | 118 | N/A | 2.1% | 25% | N/A | N/A | N/A | N/A |
| Zgoba, Sager, and Witt (2003) | 10 | 106 | 75 | 69 | 9% | 13% | 26% | 44% | N/A | N/A |

Note. Odds ratio = .33; 95% confidence interval = [.28, -.38]; $z = 14.15, p < .0001$.

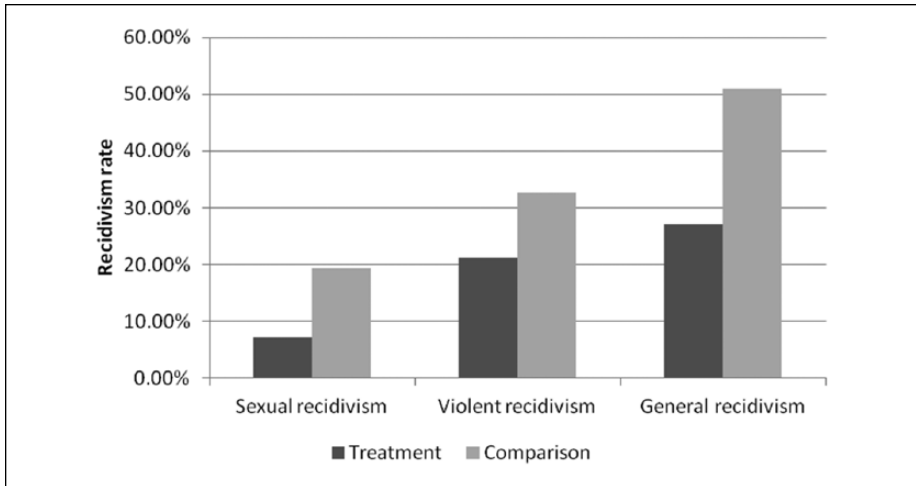


Figure 1. Recidivism rates for treatment and comparison groups.

(sexual, violent, and general) with group comparisons using *t* tests statistics as appropriate.

Results

There was an overall lower rate of sexual recidivism, violent recidivism, and general recidivism for the CBT group (see Figure 1). The majority of the studies identified from the search ($n = 8$) involved prison-based treatment as opposed to community-based treatment. About half of the studies reviewed included a cognitive distortion component and two-thirds included a victim empathy component reflecting the diversity of intervention orientations with CBT interventions. Group therapy was the predominant intervention model across studies.

Sexual Recidivism

Nearly all studies ($n = 9$) reported lower sexual recidivism (for sexual offenses only) rates among people who completed CBT when compared with untreated offenders. Six studies had statistically significant outcomes. The median sexual recidivism rate for the treatment group was 10.25% ($SD = 8.66$, 95% CI = 6.19) compared with 17.67% for the comparison group ($SD = 10.13$, 95% CI = 7.24). This difference was statistically significant, $t(18) = -1.76$, $p < .05$.

Recidivism rates increased over longer follow-up periods for both treated and untreated offenders (see Figure 2). The correlation between length of follow-up and recidivism rate was .80. In summary, untreated offenders had a higher rate of sexual recidivism than their treated counterparts over this follow-up.

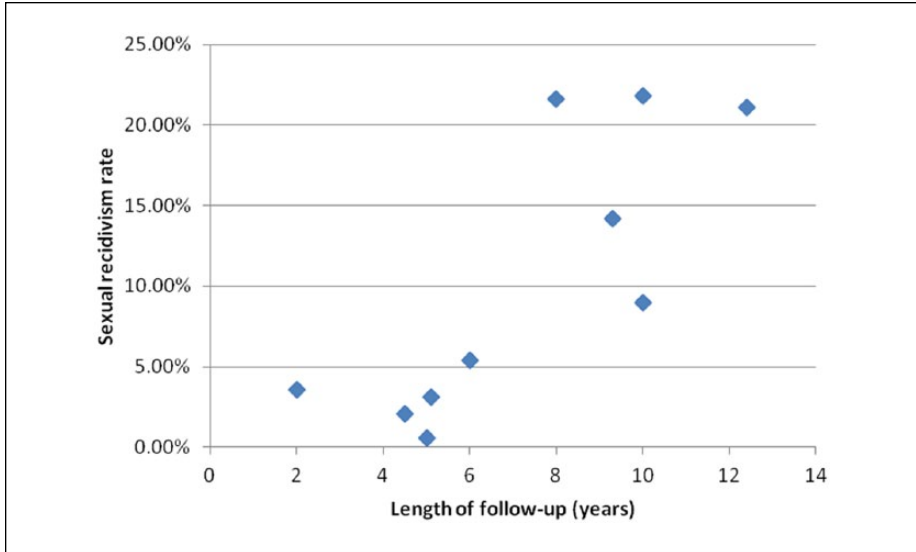


Figure 2. Sexual recidivism rates and length of follow-up.

Violent Recidivism

Seven studies analyzed violent recidivism rates among sexual offenders involved in CBT treatment (see Table 1, columns 9-10). Violence recidivism includes *inter alia* (i.e., among other reasons) assault, cruelty murder or manslaughter. Only four studies reported statistical significance (i.e., Duwe & Goldman 2009; Friendship, Mann, & Beech, 2003; McGrath, Cumming, Livingston, & Hoke, 2003; Zgoba, Sager, & Witt, 2003). These four studies were found to have the same CBT program treatment characteristics, namely, group therapy, relapse prevention, psychoeducational modules, and life skills training. Overall, the treatment group had a lower rate of violence recidivism than the comparison group. The respective medians were 21.1% (CBT) versus 32.6% (comparison). Recidivism rates again increased with the length of the follow-up period (see Figure 3).

General Offense Recidivism

Studies that compared recidivism rates (nonsexual or violent offenses) among sexual offenders and untreated comparison groups ($n = 6$) showed much lower recidivism rates for CBT (see Table 1, columns 10-11). The median rate for the treatment group was 27.05% versus 51.05% for the comparison group. Only two studies, reported statistical significance between treatment group differences (i.e., Aytes, Olsen, Zakrajsek, Murray, & Ireson, 2001; Duwe & Goldman, 2009). Again, there was a general link between length of follow-up and recidivism rate (see Figure 4). A summary comparison of the earlier studies is provided in Table 2.

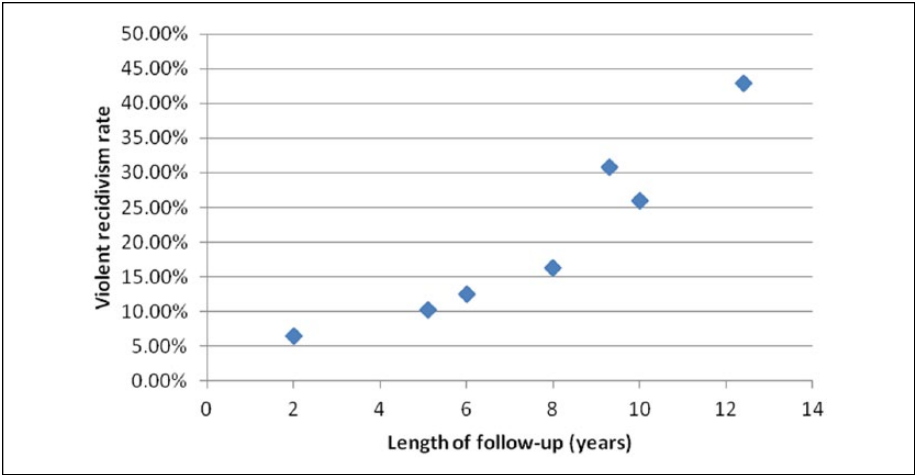


Figure 3. Violent recidivism rates and length of follow-up.

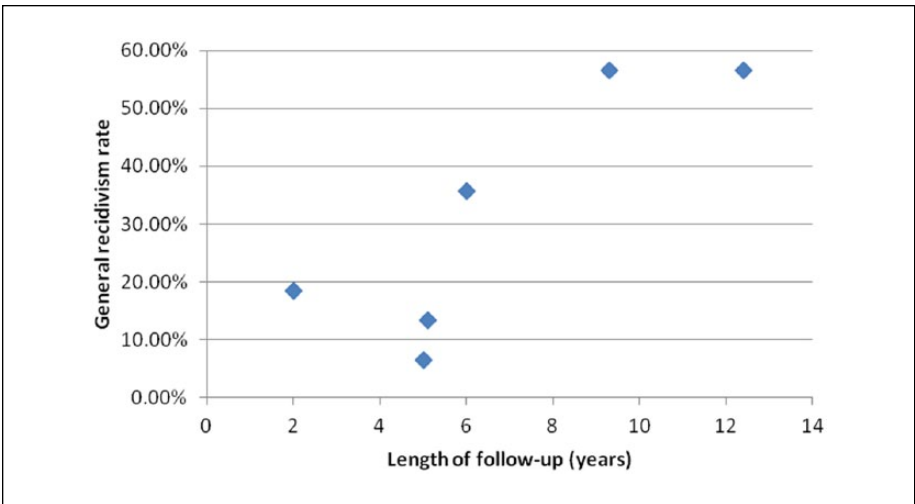


Figure 4. General recidivism rates and length of follow-up.

Discussion and Conclusion

Findings from this review suggest the efficacy of CBT in reducing recidivism rates among sexual offenders when compared with untreated offenders. Furthermore, this scoping review found that the effects of CBT generalize to violent and general recidivism as well (see Figure 1). This adds to the body of evidence that CBT effects may be robust to types of offending; suggesting its potential for adoption as part of

Table 2. Median Sexual Recidivism Rates From Literature Reviews 1995-2014.

| Literature review | k | Median sexual recidivism (%) | |
|---|----|------------------------------|----------------|
| | | CBT (%) | Comparison (%) |
| Hall (1995b) | 4 | 10.5 | 33.5 |
| Hanson et al. (2002) | 26 | 6.5 | 16 |
| Craig, Browne, and Stringer (2003) | 17 | 8 | 17 |
| Kim, Benekos, and Merlo (2016) ^a | 13 | 10.18 | 19.96 |
| Schmucker and Losel (2015) | 29 | 10.1 | 13.7 |
| This study | 10 | 7.2 | 19.3 |

Note. CBT = cognitive-behavioral therapy.

^aKim et al. (2016) study reported treatment versus control effects for two of 13 studies included, and only one of which was not sampled by the Craig et al. (2003) study.

comprehensive treatments to reduce recidivism. Results of the current review support earlier findings supporting the efficacy of CBT as a treatment for sexual offenders (Aytes et al., 2001; Craig et al., 2003; Hall, 1995b; Hanson et al., 2002; Witt et al., 2008).

A unique contribution of this study was to confirm CBT effects with moderate- and high-risk offenders in which comparison groups were used and with extended follow-up periods. The importance of similar treatment and comparison groups within sexual offense investigations has long been acknowledged (Craissati, South, & Bierer, 2009; Hall, 1995b; Hanson et al., 2002; Marques, Day, Nelson, & West, 1994; Witt et al., 2008) as poorly matched comparison groups have commonly been a major weakness of recidivism studies. Similarly lack of evidence of the long-term effects of CBT interventions with moderate- and high-risk sexual offenders has been a limitation of related studies.

However, CBT intervention effects reported for this study may be understated from within- and between-study variations in treatment and comparison groups. Sexual offenders are heterogeneous in the types of offenses, inclusive of rape, child molestation, child pornography, exhibitionism, and so on (Hanson & Morton-Bourgon, 2005). It was unclear from the studies reviewed whether offenders had received previous treatment or how their experience with any prior treatment influenced CBT intervention effects.

Findings from this study should be understood with two caveats in mind: location of intervention (i.e., community based vs. prison based) and intervention delivery methods (group, individual) might influence recidivism outcomes with sexual offenders. For instance, although treatment location effects were not the focus of this study, the present study found no differences in treatment effect for community- or prison-based treatment, which departs from the results of previous studies that reported statistically significant differences between such treatment types (e.g., Galassi, Mpofu, & Athanasou, 2015; Hall, 1995b; Kim et al., 2016). The null effect of community-based treatments and prison-based treatments for reducing recidivism observed in this study

may be explained by the fact that the current study sampled only 10 studies, which may have underpowered the analysis to detect differences that may in fact exist. Furthermore, a regression toward the mean effect might also explain failure to detect significant differences between treatments which in fact might exist.

Intervention delivery design effects might interact with offender characteristics and prospective reoffending in unknown ways. Group therapy is a predominant CBT treatment method with offender populations (e.g., Craig et al. 2003; Gallagher et al. 1999; Losel & Schmucker 2005; Marshall et al. 2005; Polizzi, Mackenzie, & Hickman, 1999). However, there is evidence to suggest that group interventions are more effective if supplemented with individual-focused interventions (Schmucker & Losel, 2015). Studies on the incremental value of individualized interventions together with group interventions in prison, community, and hospital settings would further clarify the significance of individualized interventions in preventing recidivism by sexual offenders. Furthermore, most interventions that pass for CBT are actually eclectic in nature in combining strategies from several related others, including group therapy, multisystemic therapy, classical-behavioral therapy, therapeutic communities, and even insight oriented approaches (Losel & Schmucker, 2005).

Limitations of the Study

For the present study, we examined only 10 studies that met the inclusion criteria and from a search of *Web of Knowledge*, *Embase*, *Medline*, and *PsycINFO*. The restrictive study inclusion criteria have the advantage to result in more comparable evidence on which to base conclusions. Nonetheless, the possibility remains that searches less restrictive than those implemented and including other databases might yield additional studies for the analysis.

The retrospective nature of the current study carries the limitation that likely effects of certain moderator variables, such as unreported information regarding offense type and other treatments received, were unable to be controlled for. Several studies contend that recidivism is influenced primarily by moderator variables such as prior histories of offending and effectiveness of community reintegration programs (e.g., Gallagher et al., 1999; Mackenzie & Hickman, 2006) as well as unknown or unreported treatment that individuals may have received after release (Hanson, Broom, & Stephenson, 2004). Furthermore, unintended information losses over prolonged follow-up times limit the validity of inferences from the evidence considered in this study.

Suggestions for Future Research

To advance the treatment and research agenda, greater attention is needed to matching comparison groups on relevant moderator variables (history of sexual offending, type of offense, prospective recidivism risk, age of offender, family support; stage of prosecution, treatment setting). This would assist careful offender profiling for treatment intervention testing utilizing randomized control trials (RCTs). Although RCTs are the

gold standard for studying intervention efficacy and effectiveness, they are not always practicable or ethical to implement in corrections rehabilitation settings. Alternative quasi-experimental designs are possible that permit the testing of causal hypothesis in real-world treatment settings (West, 2009) or in which denial of intervention would be both unrealistic and unethical.

Conducting longitudinal studies with several data observations points would allow for a more complete understanding of treatment impact. Employing the use of recidivism sensitive measures (e.g., by frequency, severity) and taking into account criminogenic needs would add to the likelihood that treatment intervention effects would be detected if present. Providing more complete descriptions of treatment interventions with detailed descriptions of protocols would add to the quality of the evidence base for evaluating the efficacy of treatment modalities with sexual offenders.

Measuring recidivism solely through reconviction data is a shortcoming of sexual offense studies (Hanson & Morton-Bourgon, 2005; Harkins & Beech, 2007). First, reliance on reconviction data only has the limitation of under-reporting of actual recidivism rates among both treated and untreated offenders (Gallagher et al., 1999; Zgoba et al., 2003). Although recidivism and reoffending are associated with re-arrest, reconviction is a much more involved process so that not all reported cases of recidivism result in a conviction. Unreported or undetected reoffending is difficult to determine. Realistically, there are a number of sexual, violent, and general crimes that go unreported and, even if reported, may be withdrawn before conviction and prosecution take place (Moster et al., 2008; Zgoba et al., 2003). Second, repeat offenders tend to get better at hiding their crimes, making it unlikely that they will be apprehended (Jennings et al., 2015). For a more complete understanding of recidivism among sexual offenders, studies are needed in which community living sexual offenders are guaranteed anonymity of their data for endorsing having engaged in criminal activity for which they were not apprehended.

The integrity of corrections services data collection varies widely by jurisdiction or setting. Prospectively, information and communication technological advances in recording devices over recent years may see the implementation of other improved methods of corrections service data collection tracking recidivism rates to go alongside reconviction data. These electronic records should include re-arrest, trial and plea-bargaining information with relation to post-treatment sexual offender activities. The inclusion of such data would allow for a more accurate recidivism rate among sexual offenders, allowing CBT treatment to be more efficiently assessed.

Future studies could examine the evidence for the components that maximize on treatment responsiveness with moderate- to high-risk sexual offenders. For instance, about a third of convicted sexual offenders may be in denial of their crimes (J. W. L. Ware et al., 2015); moreover, child sexual offenders in particular may not accept responsibility for their sexual abuse actions and the harm they caused to victims (Marshall et al., 2005). This suggests that incarcerated sexual offenders in denial, rather than experiencing cognitive distortions, may have motivations to not accept responsibility so as to protect their self-image (if they offended). They may also be in denial because they were telling the truth if wrongly convicted. The fact that denial is

possible without underlying cognitive distortion calls for continuing study of the efficacy of treatment interventions premised on correcting cognitive distortions as a way to reduce recidivism among this population.

Conclusion

In conclusion, the above findings suggest CBT is a promising approach to reducing sexual, violent, and general recidivism by sexual offenders. Effects appear more pronounced for reducing sexual recidivism than violence and general recidivism. Possible confounds on the evidence include the fact that the base rate for sexual recidivism is lower compared with violent or general recidivism. It is also difficult to assess or assert treatment fidelity to the CBT model or how implementation may have varied across programs researched. Furthermore, it is difficult to assess the degree to which CBT was impactful upon recidivism versus other treatment components (e.g., postrelease supervision). Nonetheless, CBT should be an important consideration for responsive or individualized treatments to reduce recidivism by sexual offenders.

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