Health Evidence™
Helping public health use best evidence in practice since 2005

Date this evidence summary was written:

October 2008

Evidence Summary Title:

Cognitive-behavioural interventions for sexually abused children: Evidence and implications for public health

Review Quality Rating: 9 (strong)

Review on which this evidence summary is based:
Macdonald, G.M., Higgins, J.P.T., Ramchandani, P. (2006). **Cognitive-behavioural interventions for children who have been sexually abused**. *Cochrane Database of Systematic Reviews, Issue 4.* Art. No.: CD001930. DOI: 10.1002/14651858.CD001930.pub2.

Note: The Cochrane review that this evidence summary is based on has been updated. This evidence summary summarizes the above-cited version of this review, not the updated version. An updated evidence summary will be provided as soon as possible.

Review author contact information:
Prof Geraldine Macdonald, Co-ordinating Editor Cochrane Developmental, Psychosocial and Learning Problems Groups, Director of Education, School of Sociology, Social Policy and Social Work, Queen's University Belfast, 6 College Park, Belfast, Northern Ireland, BT7 1LP, UK. Tel: +44 028 9097 1489, Fax: +44 028 90975427 Geraldine.Macdonald@qub.ac.uk

This is an evidence summary written to condense the work of the authors of this systematic review, referenced above. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

Review content summary

This meta-analysis of 10 randomized controlled trials (847 participants) aimed to determine the effectiveness of cognitive-behavioural approaches in treating children who had been sexually abused. Participants studied were: children and adolescents (up to 18 years of age) who have experienced sexual abuse. To be included, studies had to: allocate participants to intervention or control groups by randomized or quasi-randomized allocation methods, and compare CBT with treatment as usual or a placebo control. Interventions described in this review included: interventions described as cognitive-behavioural interventions by the author, and were either individual therapy (7 studies) or group therapy (3 studies). Outcomes measured include: psychological functioning; behaviour problems; future offending behaviour; and parental skills and knowledge. The outcomes had to be measured by an instrument that was either a self-report or completed by an independent rater or relative, and its psychometric properties had to be described in a peer-reviewed journal. Authors report that most of the results were statistically non-significant, however some results suggest that CBT may have a positive impact on sexually abused children's psychological functioning, parental belief in their child's story, and behavioural management skills.

Comments on this review's methodology

This is a methodologically strong meta-analysis. A focused clinical question was clearly identified. Appropriate inclusion criteria were used to guide the search. A comprehensive search was employed using health and psychological databases; reviewing reference lists of primary studies; reviewing grey literature sources via SIGLE; and contacting key informants. The search was not limited by language. Primary studies were assessed for methodological quality using the following quality criteria: research design, sources of bias, follow-up/attrition rates, and data analysis. The methods were described in sufficient detail so as to allow replication and two reviewers were involved in quality appraisal. Any discrepancies in appraisal results were rectified by discussion. The results of this review were transparent. Results were clearly presented in graphical form so as to allow for comparisons across studies. Heterogeneity was assessed using an I^2 statistic, revealing inconsistencies across studies, and dealt with adequately in the statistical analysis. Appropriate analytical methods (fixed effects, random effects) were employed to enable the synthesis of study results.

Why this issue is of interest to public health

Public health is interested in child and adolescent development, as well as identifying areas where children and their families may need more integrated support and services. According to Statistics Canada, in 2002, six out of 10 sexual offenses reported in Canada were to children and youth under the age of 18[1]. Since 1998-2002, this high incidence of sexual offences remained steady and unchanged[1]. The reason for the steady incidence of offences could be due to the fact that sexual abuse is an unreported crime since children are reluctant to report sexual abuse because of shame, knowing the abuser, and/or because they are too young and dependent[2]. In 80% of sexual offence cases, the victim knows their attacker, making it increasingly difficult to report sexual abuse[1]. It is important that professional support is provided for sexually abused children since the experience of testifying in court becomes less stressful for children who have received support[2].

Evidence and implications

Evidence points are in order of the strength of evidence

What's the evidence?	Implications for practice and policy:
1. Psychological functioning 1.1. Depression (5 studies) 1.1.1. Short term (Immediately after treatment) 1.1.1.1. Study children receiving cognitive behaviour therapy (CBT) were as likely as those not receiving CBT to be assessed as being depressed immediately post treatment CBT (-1.80, 95% CI -3.98 to 0.38; p=0.1) 1.1.2. Long term (at least one year) 1.1.2.1. Study children who received CBT were no more or less likely to be assessed as being depressed at least one year after treatment than those who did not receive CBT (-1.90, 95% CI -3.88 to 0.07; p=0.06) 1.1.3. Post traumatic stress disorder (PTSD) (6 studies) 1.1.3.1. Short term 1.1.4. Study children who received CBT scored significantly lower on assessments (using a variety of scales) of PTSD by an average of 0.43 points immediately following treatment than children who did not receive CBT. The true short term decrease in PTSD scores ranges from 0.16 to 0.69 points lower on average. (-0.43, 95% CI -0.69 to -0.16; p=0.002) 1.2. Long term 1.2.1. Study children who received CBT scored significantly lower on assessments (using a variety of scales) of PTSD at least one year following treatment by an average of 0.52 points than children who did not receive CBT. The true long term decrease in PTSD scores ranges from 0.87 to 0.17 points lower on average. (-0.52, 95% CI -0.87 to -0.17; p=0.004) 1.2.1.1. Anxiety (5 studies) 1.2.2. Short term 1.2.2.1. Study children who received CBT scored lower (by 0.21 points) on a variety of anxiety assessment scales immediately post treatment than did children who did not receive CBT. The true difference in anxiety scores ranges from 0.02 to 0.40 lower (-0.21, 95% CI -.04 to -0.02; p=0.03). 1.2.3. Long term 1.2.3.1. Study children who received CBT scored no differently on a variety of anxiety assessment scales at least one year post treatment than did children who did not receive CBT	**1. Psychological functioning** 1.1. CBT appears to be effective in improving some aspects (reduction in symptoms of PTSD and anxiety) of psychological functioning in the short term and in PTSD at least 1 year post intervention. Alternatively, CBT was not effective in reducing depression among these children. Given the positive effect on PTSD however, the evidence suggests that public health organizations working with children victimized by child sexual abuse and their families should include CBT as part of their programming. Additionally, these programs should undergo rigorous evaluations to determine their short and long term effects as well as to determine whether CBT is associated with any harms or negative outcomes 1.1.1. Additional high quality research should also be conducted to add to the existing body of knowledge on this topic
2. Child behaviour problems 2.1. Sexualized behaviour (5 studies) 2.1.1. Short term 2.1.1.1. Study children who received CBT scored no differently on the Child Sexual Behavior Inventory immediately post treatment than did children who did not receive CBT (-0.65, 95% CI -3.53 to 2.24; p=0.7) 2.1.2. Long term 2.1.2.1. Study children who received CBT scored no differently on the Child Sexual Behavior Inventory at least one year post treatment than did children who did not receive CBT (-1.64, 95% CI -5.29 to 2.00; p=0.4) 2.2. Externalizing behaviour (7 studies) 2.2.1. Short term 2.2.1.1. Study children who received CBT scored no differently on the Child Sexual Behavior Checklist (CBCL) immediately post treatment	**2. Child behaviour problems** 2.1. The evidence suggests that CBT is not effective in changing sexual behaviour among children who have been sexually abused. However, children the evidence also suggests that CBT does not result in increased sexual activity, meaning it does not cause harm with respect to child behaviour outcomes. 2.2. Given there is no difference in child behaviour problems, CBT would not be an appropriate intervention choice, if the overall success of the intervention is to be judged on child behaviour outcomes. However, given the positive effect on post-traumatic distress disorder and anxiety, CBT is likely an important intervention to provide to this population. 2.3. Organizations providing CBT as an intervention for children who have been sexually abused should ensure data on other important outcomes are tracked and evaluated over time.

than did children who did not receive CBT (-0.14, 95% CI -0.44 to 0.15; p=0.3) 2.2.2. Long term 2.2.2.1. Study children who received CBT scored no differently on the CBCL at least one year post treatment than did children who did not receive CBT (-0.20, 95% CI -0.62 to 0.23; p=0.4)	
3. Future offending behaviour 3.1. No study that assessed this outcome was included in the review	**3. Future offending behaviour** 3.1. Rigorous program evaluations and high quality research studies are required to determine the impact of CBT on future offending behaviour among children who have been sexually abused.
4. Parental skills and knowledge 4.1. Of child sexual abuse and its (possible) consequences 4.1.1. No data was available on this outcome 4.2. Parental belief in their child's story (2 studies) 4.2.1. The parents of study children who received CBT were significantly more likely (by 0.30 points on either of two different scales) to believe their child's story immediately post treatment than parents whose children did not receive CBT. The true difference in points between CBT and non CBT parents ranges from 0.03 to 0.57 points higher. (0.30, 95% CI 0.03 to 0.57; p = 0.03). 4.3. Accurate attributions for child's behaviour or psychological problems(1 study) 4.3.1. On each of the following 4 aspects of parental attributions (according to the PAS scale), parents of children who received CBT scored no differently than parents of children who did not. 4.3.1.1. Self blame (-0.80, 95% Ci -4.03 to 2.43; p=0.6) 4.3.1.2. Child blame (-1.20, 95% CI -4.47 to 2.07; p=0.5) 4.3.1.3. Perpetrator blame (-0.60, 95% CI -2.62 to 1.42; p=0.6) 4.3.1.4. Negative impact (-1.90, 95% CI -4.67 to 0.87; p=0.2) 4.4. Parents' emotional reactions (2 studies) 4.4.1. Parents of study children who received CBT were significantly more likely to show decreases in their distress (by an average of 7 points on the Parent Emotional Reaction Questionnaire) than did parents of non-CBT children. The true impact of CBT was a reduction in scores that range from 3.9 to 10.1 points lower. (-6.95, 95% CI -10.11 to -3.80; p=0.00002) 4.5. Behaviour management skills 4.5.1. Short term (3 studies) 4.5.1.1. Parents study children who received CBT were significantly more likely to show improvements in their parenting skills (by an average of almost 41/2 points on the Parenting Practices Questionnaire or PPQ) than did parents of non-CBT children. The true impact of CBT was an improvement in scores that range from 1.01 to 7.71 points higher. (4.36, 95% CI 1.01.to 7.71; p=0.01) 4.5.2. Long term (1 study) 4.5.2.1. Parents study children who received CBT were significantly more likely to show improvements in their parenting skills (by almost 12 points on the PPQ) than did parents of non-CBT children. The true impact of CBT was an improvement in scores that range from 5.25 to 18.51 points higher. (11.88, 95% CI 5.25 to 18.51; p=0.0004)	**4. Parental skills and knowledge** 4.1. Few studies have addressed the impact of CBT on parental skills and knowledge among parents of children who have been sexually abused. Thus, rigorous program evaluations and high quality research are required. 4.2. The impact of CBT on parental knowledge and skills varies by specific outcome. 4.2.1. Of child sexual abuse and its (possible) consequences 4.2.1.1. Rigorous program evaluations and high quality research studies are required to determine the impact of CBT on knowledge of child sexual abuse and its consequences among parents of children who have been sexually abused. 4.2.2. Accurate attributions for child's behaviour or psychological problems 4.2.2.1. CBT does not appear to be associated with significantly higher or lower scores regarding parental attributions for their child's behaviour and/or psychological problems among children who have been sexually abused. Therefore, it is not associated with causing harm with respect to such parental attributions. 4.2.2.2. Given there is no difference in this outcome, CBT would not be an appropriate intervention choice, if the overall success of the intervention is to be judged on outcomes associated with parental attributions. 4.2.2.3. Organizations providing CBT as an intervention for children who have been sexually abused should ensure data on other important outcomes are tracked and evaluated over time. 4.2.3. Parent's emotional reactions 4.2.3.1. CBT is associated with positive outcomes related to the emotional reactions of parents whose children have been sexually abused . Thus, CBT should be included in programs that aim to improve this outcome among parents whose children have been sexually abused. 4.2.3.2. Given the limited number of studies in this area, however, organizations providing CBT to this population should ensure that rigorous outcome evaluations are conducted. 4.2.4. Parenting skills related to behaviour management 4.2.4.1. CBT is associated with positive outcomes related to parenting skills in both the short and long term. Therefore, CBT should be included in programs that aim to improve parenting skills among parents whose

	children have been sexually abused. 4.2.4.2. Given the limited number of studies in this area, however, organizations providing CBT to this population should ensure that rigorous outcome evaluations are conducted.
5. Methodological Issues with the Primary Studies in the Review 5.1. Questionable intervention integrity 5.1.1. Small sample sizes 5.1.1.1. Failure to adequately conduct or describe allocation concealment 5.1.2. Failure to report on participant blinding 5.1.2.1. High attrition rates 5.1.3. Lack of long term follow-up 5.1.3.1. Lack of intention to treat analysis 5.2.	**5. Implications for Future Research** 5.1. Rigorous program evaluations and high quality research conducted on the effectiveness and cost effectiveness of CBT should 5.1.1. Ensure adequate description of and adherence to intervention protocols 5.1.2. Be of sufficient power to detect statistically significant differences in outcomes 5.1.3. Following participants long term 5.1.4. Provide incentives to encourage recruitment and retention of participants
6. Cost Benefit or Cost-effectiveness Information 6.1. No cost related information was included in the review	**6. Cost Benefit or Cost-effectiveness Information** 7.1. Future research should assess cost benefit or cost-effectiveness of the interventions

General Implications

- CBT was associated with positive short term outcomes in PTSD, anxiety, and parental emotional reactions and belief in their child's story.
- CBT was associated with positive long term outcomes in PTSD
- CBT was not associated with causing harm for any outcome
- CBT was not effective in reducing depression, sexualized and externalized behaviour, and parental attributions
- A lack of high quality research in this area complicates decision making and suggests the importance of program evaluations and the need for high quality research to be conducted in this area

Legend: CI – Confidence Interval; OR – Odds Ratio; RR – Relative Risk
***For definitions see the healthevidence.org glossary http://www.healthevidence.org/glossary.aspx*

References used to outline issue

1. Statistics Canada. (2003). Sexual offences. http://www.statcan.ca/Daily/English/030725/d030725a.htm
2. Public Health Agency of Canada. (1997). Child sexual abuse. http://www.phac-aspc.gc.ca/ncfv-cnivf/familyviolence/html/nfntsxagrsex_e.html

Other quality reviews on this topic

- MacIntyre, D., & Carr, A. (2000). Prevention of child sexual abuse: Implications of programme evaluation research. *Child Abuse Review, 9* (3), 183-199.
- MacLeod, J., & Nelson, G. (2000). Programs for the promotion of family wellness and the prevention of child maltreatment: A meta-analytic review. *Child Abuse & Neglect, 24* (9), 1127-1149.
- MacMillan, H.L., MacMillan, J.H., Offord, D.R., Griffith, L., McMillan, A. (1994). Primary prevention of child sexual abuse: A critical review. Part II. *Journal Child Psychology & Psychiatry, 35* (5), 857-876.

Related links

- Public Health Agency of Canada. Child Sexual Abuse http://www.phac-aspc.gc.ca/ncfv-cnivf/familyviolence/nfntsabus_e.html
- WHO - Child Sexual Abuse and Violence http://www.searo.who.int/LinkFiles/Disability,_Injury_Prevention_&_Rehabilitation_child.pdf
- WHO – Guidelines for medico-legal care for victims of sexual violence http://www.who.int/violence_injury_prevention/publications/violence/med_leg_guidelines/en/index.html

Suggested citation

Robeson, P., Tirilis, D., Dobbins, M. (2008). Cognitive-behavioural interventions for sexually abused children: Evidence and implications for public health. Hamilton, ON: McMaster University. Retrieved from http://www.healthevidence.org/documents/byid/16981/Macdonald2006_EvidenceSummary_EN.pdf