Evidence In-Sight summary:
Emotion regulation interventions for adolescent girls

Date: November 2011
The following Evidence In-Sight report involved a non-systematic search and summary of the research and grey literature. These findings are intended to inform the requesting organization, in a timely fashion, rather than providing an exhaustive search or systematic review. This report reflects the literature and evidence available at the time of writing. As new evidence emerges, knowledge on evidence-informed practices can evolve. It may be useful to re-examine and update the evidence over time and/or as new findings emerge.

Evidence In-Sight primarily presents research findings, along with consultations with experts where feasible and constructive. Since scientific research represents only one type of evidence, we encourage you to combine these findings with the expertise of practitioners and the experiences of children, youth and families to develop the best evidence-informed practices for your setting.

While this report may describe best practices or models of evidence-informed programs, Evidence In-Sight does not include direct recommendations or endorsement of a particular practice or program.

This report was researched and written to address the following question(s):

- What are evidence-informed approaches for treatment of adolescent girls (13-18 years) with emotion regulation difficulty?

We prepared the report given the contextual information provided in our first communications (see Overview of inquiry). We are available at any time to discuss potential next steps.

We appreciate your responding to a brief satisfaction survey that the Centre will e-mail to you within two weeks. We would also like to schedule a brief phone call to assess your satisfaction with the information provided in the report. Please let us know when you would be available to schedule a 15-minute phone conversation.

Thank you for contacting Evidence In-Sight. Please do not hesitate to follow up or contact us at evidenceinsight@cheo.on.ca or by phone at 613-737-2297.
1. **Overview of inquiry**

The requesting agency has an ongoing caseload of adolescent girls who present with a wide range of needs including depression, poor coping, anxiety, self-harm, and emotion regulation difficulty. The organization would like help identifying evidence-informed approaches to working with adolescent girls with emotional regulation difficulty, particularly those who are self-harming. They have very limited staff and resources, so group programming is of greatest interest. Information on training needs, staff qualifications and cost as they relate to implementing evidence-informed practices in response to emotion regulation difficulties in girls would also be useful.

Question: *What are evidence-informed approaches for working with adolescent girls (13-18 years) with emotion regulation difficulty?*

2. **Summary of findings**

- Self-harm is one symptom of emotion regulation difficulty, and is also a symptom of borderline personality disorder.
- Promising interventions for individuals with emotion regulation difficulty include cognitive behavioral therapy, dialectical behaviour therapy, and mindfulness training.
- Many programs that are used to treat emotion regulation difficulty rely on a manualized treatment program supplemented with elements of cognitive behavioral therapy and dialectical behaviour therapy.

3. **Answer search strategy**

A scan of the literature was conducted to identify relevant programs in the following databases: EBSCO Host (Medline, PsycInfo, CINAHL, Health Business Elite, Nursing & Allied Health Connection: Comprehensive, Psychology and Behavioral Sciences Collection, Biomedical Reference Collection, Comprehensive), Google Scholar, The Cochrane Library and the Campbell Library.

Search terms: emotion regulation, emotion dysregulation, adolescent girls, groups, deliberate self-harm, evidence-informed

4. **Findings**

Emotion regulation refers to a range of personal processes that contribute to amplifying, reducing or maintaining the strength of an individual’s emotional reactions (Davidson, 1998). Difficulties with emotion regulation are associated with a variety of forms of internalizing and externalizing mental disorders (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Cicchetti, Ackerman, & Izard, 1995). For instance, depression might partially be effected by a deficit in emotion regulation, and depressed individuals have difficulty managing and processing negative information (Joormann & Gotlib, 2010). Deficits in cognitive control are related to the use of maladaptive emotion regulation strategies in depression (Joormann & Gotlib, 2010).

Adolescence is an important time developmentally, as it is associated with the emergence of psychological distress, particularly for girls (Hilt et al., 2008). Depressed and anxious youth have difficulty managing sadness, anger, and anxiety, and this may reflect a difficulty in emotion regulation (Trosper, Buzzella, Bennett, & Ehrenreich, 2009).
Deliberate self-harm

Individuals who self-harm score significantly higher on measures of emotion regulation difficulties, have lower emotional awareness (Slee et al., 2008a) and difficulty controlling behaviour when experiencing negative emotions (Slee, Garnefski, Spinhoven, & Arensman, 2008b). Self-harm is a form of emotional avoidance that helps individuals reduce or eliminate painful emotions (Chapman et al., 2006), avoid, or escape from unwanted internal or external experiences, and regulate emotions (Hayes & Feldman, 2004). Although there are negative consequences associated with deliberate self-harm, it may be an adaptation that individuals use to manage negative emotional states (Chapman et al., 2006), thereby regulating emotions (Gratz, 2003).

Deliberate self-harm is strongly associated with depression (Harrington et al., 1998; Hawton, Kingsbury, Steinhardt, James, & Fagg, 1999) and is a core symptom of bipolar disorder (Chapman et al., 2006). Rumination, the continued reprocessing of thoughts and ideas, is predictive of higher levels of depression (Joormann & D’Avanzato, 2010), and has been found to moderate the relationship between depressive symptoms and engaging in DSH (Hilt, Cha, & Nolen-Hoeksema, 2008).

4.1 Evidence-informed interventions

Cognitive behavioural therapy (CBT), emotion-focused CBT, dialectical behaviour therapy (DBT), and mindfulness training are promising interventions that can address emotion dysregulation. CBT is among the most effective treatments for internalizing disorders such as anxiety and depression in children and adolescents (King et al., 2005; Lewinsohn & Clarke, 1999). Studies involving CBT to address self-harm are limited and inconsistent, but it does appear to be an effective intervention (Slee et al., 2008b). The results of a randomized control trial found that CBT that focused on emotion regulation difficulties successfully reduced symptom severity and deliberate self-harm (Slee et al., 2008a). DBT is the only form of cognitive oriented therapy tested in more than one randomized controlled trial that has been found to reduce self-injury in adult female patients with borderline personality disorder (Hawton et al., 2000).

Despite support for CBT, it is clear that CBT-based interventions do not always address the emotion-related deficits of anxious youth (Suveg & Zeman, 2004). Some research suggests that one third of children with anxiety still meet criteria for an anxiety disorder after treatment. While CBT may help youth with anxiety disorders develop emotion identification skills, it does not necessarily teach how to regulate emotions (Suveg, Sood, Comer, & Kendall, 2009). Anxious and depressed youth have symptoms that extend beyond the disorders they are diagnosed with, and therefore treatments that include emotion-focused content may help them regulate emotions.

Emotion-focused therapies integrated into CBT appear to be a promising intervention in the treatment of emotional disorders (Kovacs, Sherrill, George, Pollock, Tumuluru, & Ho, 2006). A study of emotion-focused cognitive-behavioral therapy (ECBT) in children ages 7–13 with anxiety disorders built upon elements of Coping Cat (Kendall, 2000), a manualized program that teaches cognitive restructuring, relaxation, and psychoeducation in anxiety provoking situations. The anxiety content of the intervention was supplemented with content related to emotional expression and emotion regulation. Participating children experienced gains in emotional understanding and emotional regulation and most were better able to identify and discuss their emotions and understand emotion regulation (Suveg, Kendall, Comer, & Robin, 2006). Although a promising intervention, ECBT requires a randomized clinical trial in order to be considered an evidence-based practice (Suveg et al., 2006).
Mindfulness is a practice that may improve emotion regulation skills. Mindfulness and emotion regulation are linked constructs as both center around themes of awareness and acceptance of emotional responses (Roemer et al., 2009). Mindfulness focuses on self-regulation of attention, the ability to re-gain focus, and in general, awareness of thoughts, feelings, and sensations (Hayes et al., 2004). Emotion regulation difficulty is associated with critical judgment – attending to a present moment experience of emotions may help an individual by decreasing over-engagement (e.g., rumination) and under-engagement (e.g., avoidance; Roemer et al, 2009).

A review of 20 randomized control trials of interventions for deliberate self-harm did not identify a single most effective treatment (Hawton et al., 1998). Compared to standard aftercare, problem-solving therapy (i.e., DBT) was found to be a promising intervention. Four studies included in the review reported reduced repetition of self-harm, but none of the results were significant and effect sizes were small.

### 4.2 Manualized group interventions

**Deliberate Self Harm Therapy Group** (Wood et al., 2001) is a program designed for adolescents who harm themselves. The focus of the program is on adolescents “growing though difficulties” by using positive corrective therapeutic relationships. Techniques are borrowed from a host of successful programs including problem-solving and cognitive-behavioral interventions, DBT, and psychodynamic group therapy. The program includes an initial assessment, six group sessions, and weekly long-term group therapy. Group members continue to attend until they feel ready to leave. The training in the “acute” group is oriented around themes of relationships, school problems and peer relationships, family problems, anger management, depression, self-harm, hopelessness and feelings about the future. The “long-term” group places an emphasis on group processes. The groups are designed so that members can join at any time.

A study conducted by the creators of the program used the intervention with a group of 12 to 16 year-olds referred to a child and adolescent mental health service (n = 63). Measures were completed before treatment, at six weeks, and seven months post completion. Outcomes measured were self-reported depressive symptoms, suicidal thinking, behavioural problems, and self-harm. Compared to those in routine care alone, adolescents in the program did not experience a significant reduction in levels of depression or suicidal thinking, but DSH was significantly reduced. Increased attendance at the group sessions was associated with fewer incidents of DSH. The program, which was run by therapists, had a strong effect on the risk of being a “repeater” (two or more episodes of DSH) at completion.

- **Cost:** The program is fully described in a manual; the cost is unknown.
- **Contact:** alisonwood@clara.co.uk
- **Information:** See Wood et al. (2001) for a full description

**Emotion Regulation Training** (Schuppert et al., 2009) is a program adapted from the manualized program Systems Training for Emotional Predictability and Problem Solving (STEPPS), developed for adolescents with symptoms of borderline personality disorder (BPD) and emotion regulation difficulty (Bartels, Crotty & Blum, 1997). Elements of skills training used in DBT and CBT are used. The goal of the program is to introduce different ways to cope with emotional instability and daily stressors, and improve internal locus of control. The program teaches adolescents that self-harm and harm to others is their responsibility and that they have a choice on how to react when feeling distressed.
A randomized control trial was conducted to compare treatment as usual to emotion regulation training combined with treatment as usual in a group of adolescents with emotional dysregulation (Schuppert et al., 2009). Individuals in the Emotion Regulation Training group met for 17 weekly sessions of one and three-quarter hours. The group was facilitated by two therapists. Treatment as usual consisted of medication, individual psychotherapy, system-based therapy, inpatient psychiatric care and emergency services. Subjects were assessed prior to and post randomization. Post-treatment, both groups were found to have equal reductions in BPD symptoms over time; at 6 months adolescents in both groups had less severe borderline symptoms whether or not they received emotion regulation training. Adolescents in both groups reported higher levels of internal locus of control than those in treatment as usual alone. Those who attended both groups reported a stronger sense of control over mood swings. This study was complicated by high attrition—a common problem with adolescents with emotion regulation difficulty (Schuppert et al., 2009).

Cost: The STEPPS program is available on a CD and costs approximately $70.
Contact: nancee-blum@uiowa.edu
Information: To order STEPPS manual: http://www.steppsfobpd.com/

Dialectical Behaviour Therapy (DBT)
DBT is a manualized treatment which uses cognitive and behavioural techniques and mindfulness. Developed by Marsha Linehan (1993), the program was originally intended for individuals with borderline personality disorder. Today, DBT is used to treat a number of problems including self-harm, emotion regulation, impulse control, and problem solving skills, and has been adapted for adolescents. The National Institute for Clinical Excellence (2004) and a Cochrane Review (Hawton et al., 2000) recommend DBT for self-harm for adults, but few studies have examined the effectiveness of DBT in adolescents.

In order to verify the effectiveness of DBT in an adolescent population, a study considered females who engaged in persistent and severe self-harm (James, Taylor, Winmill, & Alfoadari, 2008). The treatment, which was facilitated by therapists, consisted of a weekly skills training group, a weekly individual session, and telephone support. The skills group met for one and a half hour long sessions and taught emotional regulation and problem solving skills. Sessions included teachings on core mindfulness, distress tolerance, and emotional regulation. These modules were reinforced at weekly individual psychotherapy sessions, based in CBT. The current study comprised 16 community members between the ages 15 and 18 years. At completion, there was a significant reduction in episodes of DSH and depression and hopelessness were significantly reduced. In addition, there was an improvement in overall functioning. These improvements were maintained when measured at eight-month follow-up.

Cost: Introductory training sessions in DBT are offered by a number of organizations, and can range from approximately $200 to $400. Organizations that offer introductory sessions include The Hincks-Dellcrest Centre at the Gail Appel Institute and the Centre for Addiction and Mental Health.
Information: DBT is described in detail in Linehan (1993)

Girls Talk (Centre for Addiction and Mental Health, 2009) is an anti-stigma program for young girls that promotes understanding and awareness about depression. Girls Talk is not meant for individuals with a particular illness or at-risk behaviour, but is an overall resilience-based program that can be used with any girl. The purpose of the group is to
Emotion regulation

prevent the development of depression and to educate girls about this disorder. The program seeks to increase girls’ positive identity, their ability to focus on their own personal power, self-esteem, and sense of purpose. It includes eight 90 to 120 minute sessions and is intended for girls aged 13 to 16 (it has been successfully implemented for girls up to age 20). Each session includes education about a predetermined topic, a group discussion, an artistic or physical activity, and journal writing. Facilitators are youth-friendly professionals familiar with working in a school or community setting. The program can be tailored to meet the specific needs of the group. Girls Talk is not intended for girls who have been diagnosed with depression, or are in treatment for depression.

**Cost:** The program can be implemented with a minimal budget. Costs include the space to run the group, supplies, and refreshments. The manual can be printed free from a website, or a printed copy can be ordered for $19.95

**Contact:** publications@camh.net; 1 800 661-1111

**Website:** www.camh.net

5. Next steps and other resources

Knowing what works and receiving training on an evidence-informed practice or program is not sufficient to actually achieve the outcomes that previous evaluations indicate are possible. A program that has been shown to improve mental health outcomes for children and youth but that is poorly implemented will not achieve successful outcomes (Fixsen et al, 2005). In order for a program to be evidence-informed, it needs to be applied with fidelity to the design and it needs to be implemented using supportive “drivers” related to staff competency, organizational leadership and organizational capacity. These drivers include assessing and monitoring the outcomes of your practice using evaluation or performance measurement frameworks, which are particularly important when there is insufficient evidence in the literature to guide clinical decisions. Choosing a practice is an initial step toward implementation, but the implementation drivers are essential to ensure that the program reaches appropriate clients, that outcomes are successful and that clinical staff members are successful in their work.

The Ontario Centre of Excellence for Child and Youth Mental Health has a number of resources and services available to support agencies with implementation, evaluation, knowledge mobilization, youth engagement and family engagement. For more information, visit:

http://www.excellenceforchildandyouth.ca/what-we-do or check out the Centre’s resource hub at http://www.excellenceforchildandyouth.ca/resource-hub.

For general mental health information, including links to resources for families:

http://www.ementalhealth.ca
References


