Research Bulletin

Treating adolescents experiencing depression

What aspects of cognitive behaviour therapy matter most?

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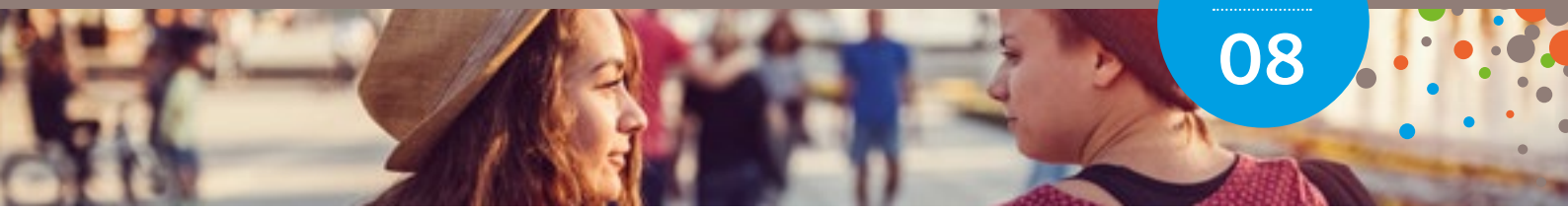

Cognitive behaviour therapy (CBT) is recommended as a first-line treatment for moderate and severe depression in adolescents (NICE, 2005). It is also recommended for persistent mild depression that doesn't respond to less intensive treatments such as supportive counselling, group CBT, or guided self-help.

This research bulletin provides a review of recent evidence for the use of CBT with adolescents experiencing depression, with a particular focus on what components of CBT are important when working with this population (e.g., behavioural activation, cognitive restructuring, etc.). This is to assist clinicians who work with adolescents experiencing depression to understand how they may best cater the treatment to meet the needs of adolescents and to highlight potential innovations in the field.

Background

CBT is the most studied psychotherapy or 'talking therapy' for depression in adolescents and has a stronger evidence base than most other talking therapies (with the exception of interpersonal psychotherapy adapted for adolescents (IPT-A); Callahan, Liu, Purcell, Parker, & Hetrick, 2012; Hetrick, Bailey, et al., 2015; Watanabe, Hunot, Omori, Churchill, & Furukawa, 2007; Zhou et al., 2015). It is important to note, however, that the treatment effects of CBT with this age group are modest; that is, while there are improvements in depressive symptoms, these changes are usually small (Weersing, Rozenman, & Gonzalez, 2009; Zhou et al., 2015). In an effort to improve treatment outcomes, researchers are trying to understand how CBT can best be adapted to meet the clinical and developmental needs of adolescents experiencing depression, and to be delivered within service system constraints (e.g., a limited number of funded sessions).

CBT for adolescents experiencing depression can involve a range of techniques, such as psychoeducation, cognitive restructuring and activity scheduling (or other forms of behavioural activation), and can differ in the duration and intensity at which each technique is offered. Other CBT techniques may or may not be included such as training in relaxation, social skills, communication skills and problem solving (Hetrick, Bailey, et al., 2015; Weersing et al., 2009). The use of CBT for adolescents experiencing depression also needs to take into account variations in development that may impact on treatment outcomes (Garber, Frankel, & Herrington, 2016; Holmbeck, 2012). For example, it's possible that many adolescents do not yet have the necessary cognitive, social or emotional skills to engage in some components of CBT (Garber et al., 2016; Holmbeck, 2012; Sauter, Heyne, & Westenberg, 2009), while other aspects - such as 'homework' or out of session activities - may be unacceptable to some adolescents. **Within the anxiety literature, it is well established that exposure is a critical component of CBT, but it is not yet known what the 'critical ingredient' of CBT is for depression** (Hetrick, Cox, et al., 2015; Weersing, Gonzalez, Campo, & Lucas, 2008; Weersing et al.,

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2009). It's suggested that behavioural interventions may be the most likely 'critical ingredients' for adolescents experiencing depression because these techniques can take account of differences in developmental skills, and can be delivered as a brief intervention, which is an acceptable approach in this age group (Garber et al., 2016; Hetrick, Cox, et al., 2015; Weersing et al., 2017; Weersing et al., 2008).

This Research Bulletin reviews four recent studies that have examined the effectiveness of CBT for depression in adolescents and highlights evidence (where it exists) for the critical components of treatment.

Back to basics: Could behavioural therapy be a good treatment option for youth depression? A critical review. Hetrick S.E., Cox, G.R., Fisher, C.A. et al (2015) *Early Intervention in Psychiatry*, 9(2): 93-99.

This high quality, comprehensive narrative review attempted to identify the core components of CBT for young people experiencing depression, by 'synthesizing' (i.e., critically appraising) the findings from other major reviews and key studies in this area. Overall, evidence suggests that (a) using behavioural techniques based on activity scheduling is better than no treatment (or a 'control' condition) in individuals who are experiencing mental health problems and (b) that these behavioural techniques produce similar outcomes to cognitive therapy (Cuijpers, Van Straten, & Warmerdam, 2007; Ekers, Richards, & Gilbody, 2008).

There are fewer studies that have specifically examined adolescents experiencing depression. Several studies have shown that behavioural interventions have much better outcomes than no intervention, or control conditions (including treatment as usual, or being on a waitlist). One small study showed that treatment outcomes for a behavioural intervention (relaxation training) were comparable to CBT (Reynolds & Coats, 1986). Other research has looked more broadly at treatment outcomes for interventions with a 'cognitive emphasis' compared to those with a 'non-cognitive emphasis' (such as attachment-based family treatment, group support, behavioural problem solving, interpersonal psychotherapy, relaxation training, role playing, self-modelling, and social skills; Weisz, McCarty, & Valeri, 2006). There were comparable treatment outcomes for non-cognitive and cognitive interventions in adolescents experiencing depression. Research to date has mostly been unable to further narrow down which components of behavioural therapy are most beneficial (i.e., relaxation, problem solving, self-modelling, self-control therapy, or social skills), although one major study found that adolescents who received problem-solving and social skills training as part of their CBT had a better treatment response that those who did not (Kennard et al., 2009). However, it was not possible to determine if the problem solving and social skills training *caused* improved treatment responses.

Take home messages It is not yet clear what components of CBT are most effective in treating adolescents experiencing depression, as very few studies have compared treatment outcomes for different aspects of CBT. The limited evidence that does exist suggests that behavioural techniques produce similar outcomes to standard CBT approaches.

Is behavioural activation effective in the treatment of depression in young people? A systematic review and meta-analysis. Tindall, L., Mickocka-Walus, A., McMillan, D., et al. (2017) *Psychology and Psychotherapy: Theory, Research and Practice.*

Behavioural activation is a recommended treatment for adults experiencing depression (NICE, 2009). This high quality, comprehensive review examined whether BA is an effective treatment for *children and adolescents* (aged 18 and under) with depression. BA was broadly defined and included activity scheduling, self-monitoring, goal setting, and any intervention that focused on trying to change behaviour through the use of reinforcement strategies such as rewarding positive behaviour.

The strongest studies included in this review showed that BA was superior to a range of control conditions (including not only waitlists, but 'treatment as usual', which consisted of CBT or IPT-A, and self-control therapy). However these treatment effects were generally weak (i.e., major changes in depression were not found).

Take home messages The limited data to date suggests that BA may be effective for treating depression in adolescents, however, more good quality studies are needed before we can be more confident of these results.

Brief behavioural therapy for pediatric anxiety and depression in primary care. Weersing, V.R., Brent, D.A., Rozenman, M.S., et al. (2017) *JAMA Psychiatry.*

This study was published after the review paper on BA described above. It was conducted across two primary care centres, involving 185 children and adolescents (aged 8-16 years) with a 'full or probable' depressive *or* anxiety disorder. Participants received either 8-12 sessions of brief behavioural therapy (BBT) or 'assisted referral to care' (ARC). ARC was phone-based (average of 4 calls) and included feedback about the adolescent's symptoms, personalized referrals and education about the benefit of services, as well as fortnightly calls to check-in and problem-solve barriers to care. The vast majority of adolescents in ARC (82%) were linked in with specialist mental health care, receiving an average of six outpatient sessions during the study. The BBT was designed to be "novel in its simplicity" (e.g., fewer total techniques than most manualised treatments) and excluded cognitive restructuring in favor of behavioural techniques (Weersing et al., 2017, e.3). To enhance the 'real-world' clinical setting, clinician training was not intensive and clinicians maintained their normal caseload outside of the study.

Adolescents in the BBT group showed greater clinical improvement (57% vs. 28%), as well as reduction in symptoms and improvement in functioning compared to the ARC group. They also showed a faster rate of improvement in symptoms and functioning than the ARC group. BBT was found to be highly acceptable with over 92% of adolescents completing treatment, which compares well against high drop-out rates that are seen for other talking therapies for adolescents with depression (e.g., Goodyer et al., 2017; Zhou et al., 2015). This study also found that Hispanic adolescents responded better to BBT and poorly to ARC compared to white, non-Hispanic youth. This suggests that BBT may be a helpful intervention for ethnic minority youth, although further data, from a diverse range of cultures, is needed to confirm this result.

Take home messages **Adolescents experiencing depression may engage well with, and benefit from, simple and brief courses of behavioural interventions.** This study adds weight to previous reviews (see above) that suggest that behavioural interventions may be effective first-line interventions for adolescents experiencing depression (Hetrick, Cox, et al., 2015; Tindall et al., 2017). The intervention used in this study may be particularly of interest to clinicians as: (i) it was designed to be relatively easy for clinicians to deliver in 'real-world' practice, (ii) details of the session structure and content are available in an accompanying paper (Weersing et al., 2008); and (iii) it was designed to be acceptable to adolescents with depression, taking into account their varying levels of cognitive, emotional and social skills (i.e., it was brief, and not as complex as many other types of talking therapy, including CBT).

Cognitive behavioural therapy and short-term psychoanalytic psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): A multicentre, pragmatic, observer-blind, randomised controlled superiority trial. Goodyer, I.M., Reynolds, S., Barrett, B., et al. (2017) *The Lancet Psychiatry*, 4(2): 109-119.

This large multi-centre 'real-world' trial was conducted across 15 child and adolescent mental health services (CAMHS) in England and involved 470 adolescents (aged 11-17 years) experiencing severe depression. Almost half of the study participants had a comorbid mental disorder, two-thirds reported current suicidal ideation and over a third a lifetime history of a suicide attempt. Adolescents were randomised to either CBT, short-term psychoanalytic psychotherapy (STPP), or a brief psychosocial intervention (BPI). All treatments were delivered by allocated CAMHS clinicians who also performed a case management role if clinically required. In addition, in all groups, medication (SSRIs) could be prescribed if the clinician felt this would speed the adolescent's recovery. Approximately 20% of adolescents had been prescribed an SSRI prior to their recruitment to the trial and 36-41% were prescribed SSRIs by the end of the trial.

The results showed that, on average, and across all groups, adolescents completed far fewer treatment sessions than had been planned. In terms of depression outcomes, there were no differences based on which psychological intervention the young people received; that is BPI was as effective as CBT and STPP. Across all treatment groups, self-reported depressive symptoms reduced over the study period (which included a one-year follow-up). Almost half of all adolescents in the study (48%) were in remission by the end of treatment and 77% were in remission 1-year later. Cost-effectiveness data also showed no differences between the three treatment groups.

As this study did not include a control condition, it is not possible to say that symptom improvement was *caused* by the particular treatment received. While it is encouraging that 77% of young people in this trial were in remission a year after completing treatment, almost a quarter did not respond to treatment. This finding was consistent with previous research demonstrating that 21-25% of adolescents experiencing depression do not respond to treatment (Birmaher et al., 2000; Goodyer et al., 2007; March et al., 2004).

Take home messages Adolescents referred to specialist mental health services with depression may benefit from any of these three treatment approaches embedded within a case management model that also allows for prescription of SSRIs. However we still do not know how to best work with adolescents with severe depression who do not respond to evidence-based psychotherapy, or who do not engage with treatment. The decision as to which treatment components to prioritise early in treatment warrants careful clinical consideration, as these may be the only ones that are delivered. We need to better understand why adolescents experiencing depression disengage during treatment; for example, it's unclear if participants in this study typically disengaged as the therapy was not meeting their needs, for practical reasons (e.g., difficulty making time to attend appointments) or because they were getting better and no longer felt the need to attend.

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Where to from here?

Summary of the evidence

CBT has a robust evidence base in terms of treating adolescents experiencing depression. A number of other less intensive therapies such as behavioural interventions and brief psychosocial interventions show promise in this age group, but more research is needed before we can confidently conclude that they are as effective as CBT. The limited evidence suggests that behavioural components of treatment may be a 'critical ingredient' of any successful talking therapy for adolescents with depression, although this needs to be confirmed in more studies.

What does this mean for clinical practice?

CBT (with the flexibility to tailor treatment to the individual young person) works in treating most, but not all, adolescents experiencing depression. We still don't know how best to treat the over 20% of adolescents experiencing moderate-to-severe depression who do not respond to CBT or other evidence-based interventions. There is no clear consensus on what components of CBT "must be delivered without fail, for the intervention to work" (Weersing, Rozenman, & Gonzalez, 2009, p.42), but there is increasing evidence to suggest that behavioural components should be emphasised for this population. **It may be helpful to devise simpler and briefer treatment plans for adolescents with depression as many disengage from longer courses of treatment** (typically dropping-out following 6-11 sessions).

Questions for future research

How effective are behavioural interventions, and brief psychological interventions as first-line treatments for adolescents experiencing depression? Randomised Controlled Trials (RCTs) should be prioritized.

How effective is a full course of CBT compared to (a) other talking therapies, and (b) to specific components of CBT (e.g., behavioural activation), in treating this group? RCTs directly comparing CBT to treatment such as IPT-A, behavioural interventions (e.g., relaxation training, behavioural activation), and brief psychological therapies would be particularly useful. The one RCT that has compared CBT to a behavioural intervention was conducted in 1986 (Reynolds & Coats, 1986).

How effective are (a) novel treatment approaches (e.g., third-wave CBT interventions), and (b) combined treatment approaches (i.e., an established talking therapy in addition to antidepressant medication) for treating adolescents experiencing persistent depression? This is a particularly important agenda, as we do not yet know how best to treat this group.

How can we best match evidence-based talking therapies to adolescent's presenting issues (e.g., when to use IPT-A versus CBT?)?

Why do adolescents experiencing depression often drop-out of talking therapies early? Qualitative studies may be particularly helpful in allowing us to better understand this issue and adapt treatments accordingly.

> "behavioural components of treatment may be a 'critical ingredient' of any successful talking therapy for adolescents with depression

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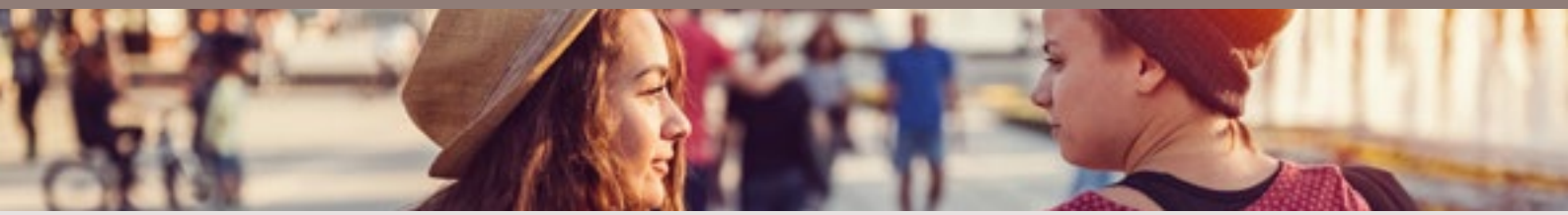

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Research Bulletins are designed so that clinicians and researchers can access an overview of recent research on a specific topic without having to source the primary articles. The implications of the research for clinical practice and opportunities for future research to advance knowledge in the particular topic area are also canvassed.

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