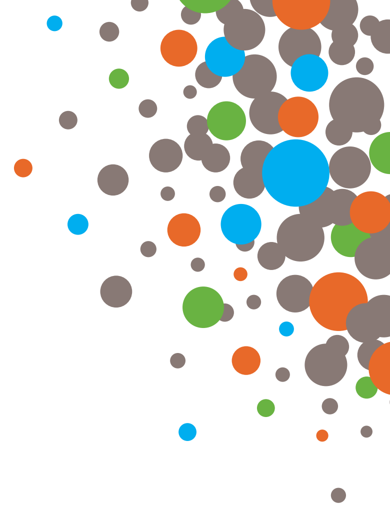
Orygen

The National Centre of Excellence in Youth Mental Health



Evidence Summary

Brief psychological interventions for young people with common mental health conditions

Which brief intervention elements have been tested and work?

Introduction

This evidence summary is for health professionals working with young people who have mild to moderate common mental health disorders. This resource provides a summary of the evidence for common brief interventions in youth mental health, taking into account clinical indicators and treatment planning. We have also included some recommendations that can inform brief interventions for young people seeking help in primary care settings.

This evidence summary does not include: interventions tailored to young people with complex and high-risk presentations, such as telephone suicide intervention or problem-solving as part of integrated treatment for early psychosis; treatments that involve family or other supports; self-administered interventions, such as online self-help style interventions; or, preventive or public health literature.

It is important we keep working to understand how to provide effective help in this format.

What are brief psychological interventions?

This evidence summary focuses on what works in the approximate time frame that young people usually attend counselling. For this reason, it includes trials of interventions that span two to eight sessions. For early intervention, however, the essence of 'brief' or 'low intensity' psychological approaches may be characterised not so much by the number of sessions, but by their general life-skills focus.[1,2]

Life skills

Many life skills are key targets for early intervention in youth mental health. The World Health Organization describes the following life skills: decision-making, problem-solving, creative thinking, critical thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions and coping with stress. It defines these life skills as 'abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demand and challenges of everyday life'.[3]

Where do brief interventions fit within a service context?

More general and overlapping symptoms define early-stage mental illness; consequently, early intervention requires a more general approach.[4,5] Intervention in the early stages of mental illness not only alleviates current distress of the young person, but also has potential to facilitate more rapid recovery when compared to intervening at later stages, which is particularly important for preventing longer term adverse consequences.[6,7]

Provision of early intervention requires significant resourcing, and the supply is often unable to meet the demand. Young people with severe or complex mental illness must be prioritised. Consequently, young people with subthreshold or early-stage mental illness are often faced with lengthy wait times. Additionally, specialised psychotherapies recommended as a first line of treatment—such as cognitive-behavioural therapy (CBT)—require considerable therapist training, which limits clinician availability and affordability and, in the case of early-stage mental illness, these intensive and lengthy therapies are likely to miss the mark.[8,9] Stigma is also a barrier for young people seeking timely help, and of those who do, most attend around four sessions of counselling.[5,10] Young people prefer informal supports and self-reliance over professional healthcare.[10,11]

To meet these challenges, consideration must be given to low-intensity psychological interventions that are effective, accessible to young people, and address general life skills or functional barriers.

Which brief intervention elements have been tested and work?

This section reviews the evidence for a range of brief intervention elements, listed in alphabetical order.

Behavioural activation

Behavioural activation (BA) is based on the link between behaviour and emotion. It is proposed to break the cycle of depression through modifying behaviour to increase a young person's engagement in activities they value, and thereby their chances of deriving pleasure and achievement from these activities.[12,13]

Five small randomised controlled trials (RCTs) of brief BA interventions for young people with common mental health conditions had positive results. Four of the trials had moderate to large effects for the BA group, but the small samples in each of the trials limit confidence in the results.[14-18] One trial of young people aged 18–19 years with subthreshold depression took part in BA across five sessions, and found a significant decrease in depressive symptoms compared to the control group.[17] Another study with university students with subthreshold depression found a four-session BA intervention moderately effective and better than waitlist control after a one-month follow-up.[18]

Although BA is effective in adult populations,[14,19-24] and emerging evidence in young people is promising,[22] there are not enough high quality trials for brief BA in young people to make any firm conclusions about its effectiveness in early intervention.

Individual tailoring and targeting of brief interventions is key.

Mindfulness

Mindfulness is the practice of bringing attention and awareness to the present moment to calmly and non-judgmentally acknowledge and accept feelings, thoughts and bodily sensations as a therapeutic technique.

Several reviews of mindfulness-based interventions in young people found it effective in both clinical and non-clinical populations.[25-28] Of eight controlled trials of brief mindfulness-based interventions, seven reported positive results for mental health symptoms in the short-term compared to the control, but the study quality varied.[18,29-35] One study with a clinical sample of 102 young people found a significant reduction in depression and anxiety symptoms in the intervention group compared to the waitlist after an eight-session program; these results persisted after three months.[29]

There is, however, a lack of consensus as to what constitutes a mindfulness program,[27] as well as a lack of long-term follow-up. Mindfulness-based programs—particularly mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT)—are effective in adults[36-39] and young people,[27] but briefer formats require further research to establish effectiveness for early intervention. If clinicians do provide mindfulness-based programs they should be based on MBSR or MBCT, specific training, and current practice in mindfulness.[40,41]

Physical activity

Physical activity is any body movement that works the skeletal muscles and increases metabolic rate.[42] Physical activity interventions generally prescribe structured exercises that meet a minimum activity threshold (e.g. guidelines provided by the Australian Government's Department of Health), motivational counselling aimed at increasing physical activity, or a combination of both. Clinical guidelines for young people with depression recommend providing general advice about physical activity alongside first line interventions, like CBT.[43]

Reviews of physical activity as a standalone or add-on treatment for depression and anxiety show that it has potential for improving a young person's symptoms,[44,45-47] and its acceptability is good;[48] however, such trials implemented intensive (e.g. multiple times a week, over multiple weeks) supervised exercise programs in non-clinical settings. In four RCTs with young people, trainer or therapist contact was brief and exercise was largely self-directed. While three of these had positive results on psychological measures, not all measured physical activity.[49-52] The fourth RCT found no effect on young people's mood from two sessions of cycling with or without accompanying psychoeducation.[53]

To achieve therapeutic effects, the current evidence supports more intensive, supervised exercise. This may be incorporated into clinical care for young people with early-stage mental illness by having an exercise specialist work alongside mental health professionals, who deliver facilitative brief behaviour change strategies.[48] Further trials are needed to establish the mental health benefits for brief formats of self-directed physical activity in early intervention.[48,54]

Problem-solving

Problem-solving focuses on current problems rather than past events and breaks the problem-solving process down into a series of ordered steps. It is based on the link between everyday problems and negative feelings; if problems can be resolved, feelings will improve.[55]

While problem-solving often forms part of the cognitive component of CBT interventions, there is strong evidence in adult populations and some studies in children that show promising results for problem-solving as a standalone brief therapy.[56-59] Based on studies in these populations, brief problem-solving therapy may be a viable option for young people but further trials are needed because the few-published RCTs in at-risk adolescents to date lack sufficient statistical power, and have failed to find consistent effects.[60-62]

Relaxation

Relaxation involves a range of techniques to elicit relaxation responses. For example, progressive relaxation teaches individuals to systematically identify and relax specific muscle groups.

There is limited evidence that brief relaxation interventions can alleviate depression in young people. A Cochrane review noted the varied nature of studies made meaningful summary difficult, and could not determine whether depressive symptoms were relieved by relaxation treatments in adolescents.[63] One RCT examined a brief eight-session relaxation intervention as a control comparison for CBT in 126 students with elevated depression. It found relaxation therapy had a small therapeutic effect on depression symptoms, equivalent to the brief CBT intervention.[64]

Three RCTs of brief relaxation interventions for young people with common mental health problems showed immediate effects on anxiety.[65,66] Both individual and group programs demonstrate potential to achieve symptom reduction, greater than waitlist and supportive controls.[67] More trials with longer term follow-up are needed to establish the sustainability of these effects.

Sleep

Sleep interventions are based on the link between poor sleep and poor mental health.[68] Strategies to improve sleep include sleep hygiene, stimulus control, sleep restriction, relaxation training, bright light exposure and CBT for insomnia (CBT-I).[68,43]

Meta-analyses have found CBT-I effective.[24,69-72] Adaptations for young people can effectively improve sleep, depression and anxiety symptoms. It can be delivered in individual and group formats, with the average number of sessions used in effective interventions being six.[73,74] The NICE guidelines also reflects this in its recommendation that sleep hygiene advice be provided to young people with depression.[43]

Proof of concept for brief bright light therapy and stimulus control has been demonstrated, but there are no RCTs of brief interventions for these methods with at-risk young people.[75,76,73] Sleep restriction should be used cautiously and is not recommended for young people who have, or who are suspected to have, bipolar disorder, or who experience seizures.[76]

Brief CBT-I can be recommended to young people with common mental health conditions. Strategies can be difficult for an already sleep-deprived young person to take on because they may require initially tolerating less sleep. A gradual approach is recommended, promoting mastery and control.[77]

A note on brief CBT and IPT

CBT and interpersonal psychotherapy (IPT) have established efficacy. Clinical guidelines recommend delivering CBT and IPT in their full form of 10–12 sessions with young people who have common mental health problems.[43] There is stronger evidence for standardised CBT and IPT approaches rather than a mix of several skills used in therapy.[78] Many skills or lifestyle delivery interventions are informed by CBT and IPT, but where there is a specific focus on a particular skill or behaviour, those skills or lifestyle interventions themselves are not CBT or IPT.

There is a growing body of evidence trialling brief adaptations of CBT and IPT. Results to date suggests positive early intervention effects are possible—certainly in the short-term. Fewer studies provide longer term follow-up (six months or more), and these show mixed results.

Until there are more robust trials and reviews of CBT and IPT translated to briefer formats, these treatments should be offered in their full evidence-based form of 10–12 sessions,[79] and young people given clear information about recommended treatment length prior to beginning treatment.

So, do brief interventions work?

With a lack of evidence to support any particular treatment length, there may be more utility in focusing on a young person's goals during therapy. There are promising indications in reviews and a growing number of good quality studies that show short, low-intensity interventions can provide acute symptom relief and have good acceptability and engagement for young people with common mental health conditions.

The most robust early intervention evidence (e.g. good quality, RCTs) of brief psychological formats for young people is for physical activity for anxiety and brief CBT for sleep.

For other interventions, although results from longer formats are encouraging, there are too few quality trials of brief formats in at-risk young people to draw firm conclusions.

Both group and individual psychological interventions can be effective in brief formats. But research also shows that not every brief intervention works, and for robust, sustained effects there is currently insufficient evidence to recommend brief therapy. It is important to evaluate intervention effects over time and to look at what factors may be associated with success.

How does this inform practice?

When considering how brief interventions can inform your practice it's also important to note that youth mental health services designed for mild to moderate mental health conditions are relatively new in the youth mental health field, so it's difficult to measure the effect of brief interventions for specific diagnoses.

With this mind, here are some of the key points around how brief interventions can inform your practice:

- With a lack of support for any particular treatment length, individual tailoring and targeting to individual goals may be more meaningful in therapy.
- There is good clinical rationale and a growing evidence base that a number of brief therapeutic approaches can produce acute symptom relief for young people.
- Successful programs appear to use manualised formats, provide specific training and support, or are conducted by trained or experienced professionals. Training and ongoing supervisory support from an experienced youth mental health clinician is essential, especially given the early stage of research.
- Brief interventions should be embedded in a service structure that supports ongoing monitoring of the young person's mental health and appropriate treatment response for changing symptom profiles. The same clinical skills are important in brief interventions as for longer interventions, and a collaborative therapeutic alliance is paramount.

Given the lack of studies, it is not recommended that clinicians stop using or don't consider using brief interventions to engage young people early. Individual tailoring and targeting is key. When making decisions about what brief intervention is likely to be helpful and when to deliver it, be sure to complement the emerging evidence base with ongoing assessment and collaboration with the young person and your clinical experience.

Where to from here?

Young people on average attend psychotherapy for a brief number of sessions, so it is important we keep working to understand how to provide effective help in this format. More comparison studies directly investigating dose-response and different brief treatment formats in young people are needed. It is also important not to give up on resourcing longer interventions, to be transparent with young people as to what outcomes to expect in a brief time frame, when longer treatment may be indicated, and to collaborate on goals and evaluation together.

Evaluate intervention effects over time and look at what factors may be associated with success.

References

1. Sancassiani FP, E.; Holte, A.; Paulus, P.; Moro, M. F.; Cossu, G.; Angermeyer, M. C.; Carta, M. G.; Lindert, J. Enhancing the emotional and social skills of the youth to promote their wellbeing and positive development: A systematic review of universal school-based randomized controlled trials. Clinical Practice and Epidemiology in Mental Health. 2015;11:21-40.
2. Parker AG, Hetrick SE, Jorm AF, Mackinnon AJ, McGorry PD, Yung AR, et al. The effectiveness of simple psychological and physical activity interventions for high prevalence mental health problems in young people: A factorial randomised controlled trial. J Affect Disord. 2016 May 15;196:200-9.
3. Meeting UNI. Partners in life skills education - conclusions from a united nations interagency meeting. Geneva; 1999.
4. Merikangas KR, He JP, Burstein M, Swendsen J, Avenevoli S, Case B, et al. Service utilization for lifetime mental disorders in U.S. adolescents: results of the National Comorbidity Survey-Adolescent Supplement (NCS-A). J Am Acad Child Adolesc Psychiatry. 2011 Jan;50(1):32-45.
5. Rickwood DJ, Telford NR, Parker AG, Tanti CJ, McGorry PD. The services provided to young people through the headspace centres across Australia. Medical Journal of Australia. 2015;202(10):533-536.
6. McGorry PD, Keshavan M, Goldstone S, Amminger P, Allott K, Berk M, et al. Biomarkers and clinical staging in psychiatry. World Psychiatry. 2014;13:211-223.
7. Hetrick SE, Parker AG, Hickie IB, Purcell R, Yung AR, McGorry PD. Early Identification and Intervention in Depressive Disorders: Towards a Clinical Staging Model. Psychotherapy and Psychosomatics. 2008;77(5):263-270.
8. Jorm AFA, Nicholas B.; O'Donnell, Colin P.; Parslow, Ruth A.; Purcell, Rosemary; Morgan, Amy J. Effectiveness of complementary and self-help treatments for depression in children and adolescents. Medical Journal of Australia. 2006 Oct 2;185(7):368-72.
9. McGorry PD. Risk syndromes, clinical staging and DSM V: new diagnostic infrastructure for early intervention in psychiatry. Schizophr Res. 2010 Jul;120(1-3):49-53.
10. Gulliver A, Griffiths K, Christensen H. Percieved barriers and facilitators to mental health help seeking in young people: a systematic review. BMC Psychiatry. 2010;10:113.
11. Rickwood DJ, Mazzer KR, Telford NR. Social influences on seeking help from mental health services, in-person and online, during adolescence and young adulthood. BMC Psychiatry. 2015 Mar 7;15:40.
12. Jacobson NS, Martell CR, Dimidjian S. Behavioral Activtion Treatment for Depression: Returning to Contextual Roots. Clinical Psychology: Science and Practice. 2001;8(3):255-270.
13. Martell CR, Addis ME, Jacobson NS. Depression in context: Strategies for guided action. New York: Norton; 2001.
14. Norton PJ, Price EC. A meta-analytic review of adult cognitive-behavioral treatment outcome across the anxiety disorders. J Nerv Ment Dis. 2007 Jun;195(6):521-31.
15. Sturmey P. Behavioral Activation Is an Evidence-Based Treatment for Depression. Behavior Modification. 2009;33(6):818-829.
16. Shaw B. Comparison of cognitive therapy and behavior therapy in the treatment of depression. Journal of Consulting and Clinical Psychology. 1977;45:543-551.
17. Takagaki KO, Y.; Jinnin, R.; Mori, A.; Nishiyama, Y.; Yamamura, T.; Yokoyama, S.; Shiota, S.; Okamoto, Y.; Miyake, Y.; Ogata, A.; Kunisato, Y.; Shimoda, H.; Kawakami, N.; Furukawa, T. A.; Yamawaki, S. Behavioral activation for late adolescents with subthreshold depression: a randomized controlled trial. European Child & Adolescent Psychiatry. 2016:1-12.
18. McIndoo CF, A.; Preddy, T.; Clark, C.; Hopko, D. Mindfulness-based therapy and behavioral activation: A randomized controlled trial with depressed college students. Behaviour Research & Therapy [Empirical Study; Quantitative Study; Treatment Outcome/Clinical Trial]. 2016 Feb;77:118-128.
19. Cuijpers P, van Straten A, Warmerdam L. Behavioral activation treatments of depression: a meta-analysis. Clin Psychol Rev. 2007 Apr;27(3):318-26.
20. Cuijpers PC, I. A.; Ebert, D. D.; Koot, H. M.; Auerbach, R.; Bruffaerts, R; Kessler, R. C. Psychological treatment of depression in college students: A metaanalysis. Depression & Anxiety [Meta Analysis]. 2016 May;33(5):400-414.
21. Ekers D, Richards D, Gilbody S. A meta-analysis of randomized trials of behavioural treatment of depression. Psychol Med. 2008 May;38(5):611-23.
22. Ekers DW, L.; Van-Straten, A.; Cuijpers, P.; Richards, D.; Gilbody, S. Behavioural activation for depression; An update of meta-analysis of effectiveness and sub group analysis. PLoS ONE. 2014;9(6).
23. Mazzucchelli T, Kane R, Rees C. Behavioral activation treatments for depression in adults: a meta-analysis and review. York (UK): Centre for Reviews and Dissemination (UK); 2009 [cited 2019 1/5/2019].
24. Morin CM, Bootzin RR, Buysse DJ, Edinger JD, Espie CA, Lichstein KL. Psychological and behavioral treatment of insomnia: update of the recent evidence (1998-2004). Sleep. 2006;29(11):1398-1414.
25. Kallapiran K, Koo S, Kirubakaran R, Hancock K. Review: Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: a meta-analysis. Child and Adolescent Mental Health. 2015;20(4):182-194.
26. Carsley D, Khoury B, Heath NL. Effectiveness of Mindfulness Interventions for Mental Health in Schools: a Comprehensive Meta-analysis. Mindfulness. 2017;9(3):693-707.
27. Tan LB. A critical review of adolescent mindfulness-based programmes. Clin Child Psychol Psychiatry. 2016 Apr;21(2):193-207.
28. Zoogman S, Goldberg SB, Hoyt WT, Miller L. Mindfulness Interventions with Youth: A Meta-Analysis. Mindfulness. 2014;6(2):290-302.
29. Biegel GM, Brown KW, Shapiro SL, Schubert CM. Mindfulness-based stress reduction for the treatment of adolescent psychiatric outpatients: A randomized clinical trial. J Consult Clin Psychol. 2009 Oct;77(5):855-66.
30. Salaman KS, Hainsworth KR, Ladwig RJ, Davies WH, Weisman SJ. A randomized, controlled pilot study of mindfulness-based stress reduction for pediatric chronic pain. Alternative Therapies in Health and Medicine. 2013;19:8-14.
31. Leihr P, Diaz N. A pilot study examining the effect of mindfulness on depression and anxiety for minority children. Archives of Psychiatric Nursing. 2010;24(1):69-71.
32. White LS. Reducing stress in school-age girls through mindful yoga. J Pediatr Health Care. 2012 Jan-Feb;26(1):45-56.
33. Tan L, Martin G. Taming the adolescent mind: a randomised controlled trial examining clinical efficacy of an adolescent mindfulness-based group programme. Child and Adolescent Mental Health. 2015;20(1):49-55.
34. Piet J, Hougaard, E., Hecksher, M. S. & Rosenberg, N. K. . A randomized pilot study of mindfulness-based cognitive therapy and group cognitive-behavioral therapy for young adults with social phobia. Scandinavian Journal of Psychology. 2010;51:403–410.
35. Walsh E, Eisenlohr-Moul T, Baer R. Brief mindfulness training reduces salivary IL-6 and TNF-alpha in young women with depressive symptomatology. J Consult Clin Psychol. 2016 Oct;84(10):887-97.
36. Baer RA. Mindfulness Training as a Clinical Intervention: A Conceptual and Empirical Review. Clinical Psychology: Science and Practice. 2003;10(2):125-143.
37. Bohlmeijer E, Prenger R, Taal E, Cuijpers P. The effects of mindfulness-based stress reduction therapy on mental health of adults with a chronic medical disease: a meta-analysis. J Psychosom Res. 2010 Jun;68(6):539-44.
38. Fjorback LO, Arendt M, Ornbol E, Fink P, Walach H. Mindfulness-based stress reduction and mindfulness-based cognitive therapy: a systematic review of randomized controlled trials. Acta Psychiatr Scand. 2011 Aug;124(2):102-19.
39. Hofmann SG, Sawyer AT, Witt AA, Oh D. The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. J Consult Clin Psychol. 2010 Apr;78(2):169-83.
40. Grossman P, Van dam N. Mindfulness, by any other name...: trials and tribulations of sati in western psychology and science. Contemporary Buddism: an interdisciplinary journal. 2011;12(1):219-239.
41. Van dam N, J. J; 22 March; Orygen, The National Centre of Excellence in Youth Mental Health.
42. GM. C. Physical activity, exercise, and physical fitness: definitions and distinctions for health Public Health Report. 1985;100(2):126-131.
43. NICE. Depression in children and young people: identification and managment. UK; 2017.
44. Salmon P. Effects of Physical Exercise on Anxiety-Depression and Sensitivity to Stress-A Unifying Theory. Clinical Psychology Reveiw. 2001;21(1):33-61.
45. Bailey AP, Hetrick SE, Rosenbaum S, Purcell R. Treating depression with physical activity in adolescents and young adults: a systematic review and meta-analysis of randomised controlled trials. Psychological Medicine. 2018;48(7):1068-1083.
46. Biddle SJ, Asare M. Physical activity and mental health in children and adolescents: a review of reviews. Br J Sports Med. 2011 Sep;45(11):886-95.
47. Carter T, Morres ID, Meade O, Callaghan P. The Effect of Exercise on Depressive Symptoms in Adolescents: A Systematic Review and Meta-Analysis. J Am Acad Child Adolesc Psychiatry. 2016 Jul;55(7):580-90.

48. Parker AG, Bailey AP. Exercise for Adolescents and Young People With Mental Illness. In: Stubbs B, Rosenbaum S, editors. Exercise-Based Interventions for Mental Illness: Physical Activity as Part of Clinical Treatment; 2018.
49. Smits JAJB, A. C.; Rosenfield, D.; Powers, M. B.; Behar, E.; Otto, M. W. Reducing anxiety sensitivity with exercise. Depression & Anxiety. 2008;25(8):689-699.
50. Sadeghi KA, S. M.; Ahmadi, S. M.; Rezaei, M.; Miri, J.; Abdi, A.; Khamoushi, F.; Salehi, M.; Jamshidi, K. A comparative study of the efficacy of cognitive group therapy and aerobic exercise in the treatment of depression among the students. Global journal of health science. 2016;8(10):1.
51. Broman-Fulks JB, ME.; Rabian, BA.; Webster, MJ. Effects of aerobic exercise on anxiety sensitivity. Behaviour Research & Therapy. 2004 2//;42(2):125-136.
52. Broman-Fulks JJ, Storey KM. Evaluation of a brief aerobic exercise intervention for high anxiety sensitivity. Anxiety, Stress & Coping. 2008;21(2):117-128.
53. Lindheimer JBOC, P. J.; McCully, K. K.; Dishman, R. K. The effect of light-intensity cycling on mood and working memory in response to a randomized, placebo-controlled design. Psychosomatic Medicine [Empirical Study; Quantitative Study]. 2017 Feb-Mar;79(2):243-253.
54. Schuch FB, Vancampfort D, Richards J, Rosenbaum S, Ward PB, Stubbs B. Exercise as a treatment for depression: A meta-analysis adjusting for publication bias. J Psychiatr Res. 2016 Jun;77:42-51.
55. Speckens AEM, Hawton K. Social Problem Solving in Adolescents with Suicidal Behavior: A Systematic Review. Suicide and Life-Threatening Behavior. 2005;35(4):365-387.
56. Zhang A, Park S, Sullivan JE, Jing S. The Effectiveness of Problem-Solving Therapy for Primary Care Patients' Depressive and/or Anxiety Disorders: A Systematic Review and Meta-Analysis. J Am Board Fam Med. 2018 Jan-Feb;31(1):139-150.
57. Malouff JM, Thorsteinsson EB, Schutte NS. The efficacy of problem solving therapy in reducing mental and physical health problems: a meta-analysis. Clin Psychol Rev. 2007 Jan;27(1):46-57.
58. Bell AC, D'Zurilla TJ. Problem-solving therapy for depression: a meta-analysis. Clin Psychol Rev. 2009 Jun;29(4):348-53.
59. Cuijpers P, van Straten A, Warmerdam L. Problem solving therapies for depression: a meta-analysis. Eur Psychiatry. 2007 Jan;22(1):9-15.
60. Eskin ME, K.; Demir, H. Efficacy of a problem-solving therapy for depression and suicide potential in adolescents and young adults. Cognitive Therapy & Research. 2008 Apr 2008;32(2):227-245.
61. Hoek WS, J.; Koot, H. M.; Cuijpers, P. Effects of internet-based guided self-help problem-solving therapy for adolescents with depression and anxiety: A randomized controlled trial. PLoS ONE. 2012;7(8).
62. Biggam FH, Power KG. A controlled, problem-solving, group-based intervention with vulnerable incarcerated young offenders. Int J Offender Ther Comp Criminol. 2002 Dec;46(6):678-98.
63. Jorm AF, Morgan AJ, Hetrick SE. Relaxation for depression. Cochrane Database of Systematic Reviews. 2008(4).
64. Vazquez FLT, A.; Blanco, V.; Diaz, O.; Otero, P.; Hermida, E. Comparison of relaxation training with a cognitive-behavioural intervention for indicated prevention of depression in university students: A randomized controlled trial. Journal of Psychiatric Research. 2012;46(11):1456-1463.
65. Reynolds WMC, K. I. A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. Journal of Consulting & Clinical Psychology. 1986 Oct;54(5):653-60.
66. Wood A, Harrington R, Moore A. Controlled trial of a brief cognitive-behavioural intervention in adolescent patients with depressive disorders. The Journal of Child Psychology and Psychiatry. 1996;37(6):737-746.
67. Torabizadeh CB, S.; Yektatalab, S. Comparison between the effects of muscle relaxation and support groups on the anxiety of nursing students: A randomized controlled trial. Complementary Therapies in Clinical Practice [Randomized Controlled Trial]. 2016 Nov;25:106-113.
68. Lovato N, Gradisar M. A meta-analysis and model of the relationship beween sleep and depression in adolescents: Recommendations for future research and clinical practice. Sleep Medicine Reviews. 2014;18(6):521-529.
69. Harvey AG, Tang NY. Cognitive behaviour therapy for primary insomnia: Can we rest yet? Sleep Medicine Reviews. 2003;7(3):237-262.
70. Mitchell MD, Gehrman P, Perlis M, Umscheid CA. Comparative effectiveness of cognitive behavioral therapy for insomnia: a systematic review. BMC Family Practice. 2012;13(40).
71. Okajima I, Komada Y, Inoue Y. A meta-analysis on the treatment effectiveness of cognitive behavioral therapy for primary insomnia. Sleep and Biological Rhythms. 2011;9(1):24-34.
72. Trauer JM, Qian MY, Doyle JS, Rajaratnam SM, Cunnington D. Cognitive Behavioral Therapy for Chronic Insomnia: A Systematic Review and Meta-analysis. Ann Intern Med. 2015 Aug 4;163(3):191-204.
73. de Bruin EJ, van Run C, Staaks J, Meijer AM. Effects of sleep manipulation on cognitive functioning of adolescents: A systematic review. Sleep Med Rev. 2017 Apr;32:45-57.
74. Blake MJ, Sheeber LB, Youssef GJ, Raniti MB, Allen NB. Systematic Review and Meta-analysis of adolescent cognitive-behavioral sleep interventions. Clinical Child & Family Psychology Review. 2017;20(3):227-249.
75. Richardson C, Cain N, Bartel K, Micic G, Maddock B, Gradisar M. A randomised controlled trial of bright light therapy and morning activity for adolescents and young adults with Delayed Sleep-Wake Phase Disorder. Sleep Med. 2018 May;45:114-123.
76. Perlis M, Jungquist C, Smith MT, Posner DA. Cognitive Behavioural Treatment for Insomnia: A Session-by-Session Guide. . New York: Springer Verlag; 2008.
77. Harvey AG, McGlinchey EL. Sleep interventions: a developmental perspective. In: Rutter's Child and Adolescent Psychiatry; 2015.
78. Crowe KM, D. Efficacy of cognitive-behavioral therapy for childhood anxiety and depression. Journal of Anxiety Disorders [Review]. 2017 01 Jun;49:76-87.
79. James ACJ, G.; Cowdrey, F. A.; Soler, A.; Choke, A. Cognitive behavioural therapy for anxiety disorders in children and adolescents. Cochrane Database of Systematic Reviews. 2015(2):CD004690.

Evidence summary writer

Affrica McCarthy

Clinical consultants

A/Prof Rosemary Purcell
Caroline Crlenjak

Editorial assistance

Masters of Writing and Publishing students
at RMIT University

Disclaimer

This information is provided for general educational and information purposes only. It is current as at the date of publication and is intended to be relevant for all Australian states and territories (unless stated otherwise) and may not be applicable in other jurisdictions. Any diagnosis and/or treatment decisions in respect of an individual patient should be made based on your professional investigations and opinions in the context of the clinical circumstances of the patient. To the extent permitted by law, Orygen, The National Centre of Excellence in Youth Mental Health will not be liable for any loss or damage arising from your use of or reliance on this information. You rely on your own professional skill and judgement in conducting your own health care practice. Orygen, The National Centre of Excellence in Youth Mental Health does not endorse or recommend any products, treatments or services referred to in this information.

Orygen, The National Centre of Excellence in Youth Mental Health is the world's leading research and knowledge translation organisation focusing on mental ill-health in young people.

For more details about Orygen visit **orygen.org.au**

Copyright © 2018 Orygen, The National Centre of Excellence in Youth Mental Health.

This work is copyrighted. Apart from any use permitted under the Copyright Act 1968, no part may be reproduced without prior written permission from Orygen.

Orygen, The National Centre of Excellence in Youth Mental Health
1300 679 436
info@orygen.org.au

orygen.org.au

36659-19-Orygen Studio