**A Review of Acceptance and Commitment Therapy (ACT) for Adolescents: Developmental and Contextual Considerations**

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**Abstract**

 Acceptance and commitment therapy (ACT) offers a promising, transdiagnostic treatment approach for a wide range of mental health concerns in adolescents. Although research on ACT for adolescents is still developing, there is encouraging theoretical and empirical support in this area. The ability of ACT to adjust and account for developmental considerations and contexts in adolescence is discussed, alongside the theoretical support for using ACT with adolescents. A broad review of 34 studies on ACT with adolescents is then presented; ACT with adolescents has some preliminary support for anxiety, depression, disordered eating, chronic pain, and more. Detailed examples of how to implement each ACT process with adolescents are presented, along with a brief review of assessment tools. We hope this paper can act as an initial guide for clinicians implementing ACT with adolescents.

 *Keywords*: acceptance and commitment therapy, adolescents, transdiagnostic, youth mental health

**Acceptance and Commitment Therapy (ACT) for Adolescents: Developmental and Contextual Considerations**

Approximately one in every 4-5 youth meet criteria for a mental disorder during adolescence (Merikangas et al., 2010). However, some researchers recently suggest that lifetime prevalence of mental disorders in adolescents is as high as 35.8%, or one in three (Wagner et al., 2017). Furthermore, 22.2% of adolescents with diagnosed mental health conditions in one study met criteria for severe impairment or distress (Wagner et al., 2017). Adolescents with mental health disorders also experience significant impairment across life domains. For example, youth with anxiety disorders report lower self-efficacy in school (e.g., de Lijster et al., 2018) and youth with depression report impaired peer, romantic, and familial relationships (Hammen et al., 2008). With this in mind, many researchers are advocating for youth mental health to become a global priority (e.g., Mei et al., 2020).

There is a dire need to develop a greater understanding of how to treat adolescent mental health concerns to provide the best support for youth and ensure healthier futures internationally. Many young people worldwide are interested in or in need of mental health care. For example, over 50% of adolescents surveyed in Austria had received or were interested in receiving mental health treatment (Wagner et al., 2017). The presence of adolescent mental health concerns remains considerably high and is often considered an international public health concern (Singh & Winsper, 2017). This issue has only grown more pressing since the beginning of the COVID-19 pandemic. In the United States, the American Academy of Pediatrics (2021) has recently declared a national state of emergency in child and adolescent mental health. Furthermore, a meta-analysis of international studies on child and adolescent mental health found a substantial decline in youth mental health since the beginning of the COVID-19 pandemic (Samji et al., 2021).

Among treatments for youth mental health, cognitive behavioral therapy (CBT) and psychopharmacology are the most studied and are considered the gold standard treatment for many youth mental health concerns (Heiervang et al., 2018; Nazeer, 2017). While these treatments are clearly useful for many, they do not fully benefit all youth (e.g., Heiervang et al., 2018; James et al., 2013). For example, CBT for youth anxiety results in full recovery for 47-66% of children (Warwick et al., 2017). The recovery rates are even lower for depression, with a 36% chance of recovery when compared to a control treatment (Oud et al., 2019). Furthermore, there is still a great need for better integration of developmental psychology into clinical interventions for youth (Cicchetti & Toth, 2018; Weisz & Hawley, 2002). While CBT presents a strong treatment option, it is important to investigate a range of treatment options to best address the needs of all youth, as it is unlikely one or two treatments will work equally for all youth. Thus, further evaluation of psychosocial treatments for youth is needed.

Transdiagnostic, as compared to disorder-focused approaches to treatment, target common processes (e.g., psychological flexibility, intolerance to uncertainty) of psychopathology rather than the reduction of symptoms of a particular disorder (Ehrenreich-May & Chu, 2013). Psychological flexibility is defined as the ability to respond to internal and external experiences in a functional and values-based manner, rather than engaging in rigid and/or unhelpful attempts to regulate internal experiences (S.C. Hayes et al., 2006). While child and adolescent-based research on psychological flexibility is nascent, there is evidence to suggest the importance of psychological flexibility in youth. For example, psychological flexibility was associated with improved functioning and affect in youth with juvenile idiopathic arthritis (Beeckman et al., 2019). Similarly, psychological flexibility was found as a mediator in the relationship between verbal abuse and depression in a study of LGBTQ+ youth (Armelie et al., 2010). With this in mind, psychological flexibility may be a promising target for youth mental health care.

**Acceptance and Commitment Therapy**

Acceptance and commitment therapy (ACT) utilizes a transdiagnostic framework to enhance psychological flexibility and improve overall quality of life, rather than focusing on a decrease in symptoms (S.C. Hayes et al., 2006; Hofmann & Hayes, 2018). In this way, ACT has the potential to provide an adaptable, developmentally sensitive, and process-based treatment approach for adolescents. To target psychological flexibility, ACT is comprised of processes traditionally broken into six skillsets: acceptance, cognitive defusion, self-as-context, contact with the present moment, values, and committed action. With these processes, ACT shows potential as a treatment option for transdiagnostically addressing a wide range of mental health concerns in youth. For broader perspectives addressing the theoretical and practical similarities and differences between ACT and transdiagnostic forms of CBT, see papers by Arch and Craske (2008) and Meidlinger and Hope (2017). In this section, we review each of the six ACT processes and relevant research supporting their use with adolescents (for a deeper review of each process, see Turrell & Bell, 2016).

***Acceptance***

Often understood as willingness to open up to internal experiences, acceptance is the opposite of experiential avoidance (i.e., engaging in actions to escape or avoid certain internal experiences). Instead of avoidance, psychological acceptance is the practice of openly welcoming target inner experiences (e.g., difficult thoughts, feelings, or sensations) without trying to change them (S. C. Hayes et al., 2006). Acceptance is considered likely beneficial in early research on adolescents. For example, acceptance acted as a predictor of prosocial behavior and well-being in a large longitudinal study of adolescents (N = 776; Ciarrochi et al., 2011). In another study on adolescent chronic pain, greater acceptance was associated with reduced distress and functioning (McCracken et al., 2010). A similar sample reported pain acceptance was connected to improved functioning and reduced disability (Beeckman et al., 2019). Thus, it is possible that building acceptance in youth may not only theoretically contribute to overall psychological flexibility, but also youth well-being.

***Cognitive Defusion***

Cognitive defusion, the ability to separate oneself from internal experiences, is another important process that may benefit youth psychological flexibility. Defusion techniques aim to undermine the counterproductive function of internal experiences, rather than trying to change the thought or feeling (i.e., attempting to reduce their frequency or presence; S. C. Hayes et al., 2006). Defusion helps clients relate to thoughts simply as thoughts, thereby reducing the power they may have in their life. One study found that defusion acted as a mediator between mindfulness, negative emotions, and anxiety in youth (N=327), suggesting that it could be an important tool for youth coping with mental health concerns (Garcia-Gomez et al., 2019). Furthermore, youth who utilize decentering, a form of defusion, have a reduced probability of anxiety, depression, and at-risk behaviors (Bennett et al., 2021).

***Contact With the Present Moment***

In ACT, contact with the present moment is the intentional and nonjudgmental awareness of the here and now, comparable to mindfulness. Building the skill to move one’s attention to the present moment theoretically allows for increased flexibility in behavior, as it makes room for acceptance and defusion while allowing the adolescent the time and space to choose engagement with valued action. From a research perspective, “acting with awareness”, in addition to acceptance, was a predictor of prosocial behavior and well-being (Ciarrochi et al., 2011). Mindfulness and values-based behavior was also positively associated with finding meaning in life amongst a large, international sample of adolescents (N = 5877; Warren et al., 2018). Mindfulness also acted as a predictor of reduced stress and depression in a Spanish sample of adolescents (N = 352; Royuela-Colomer et al., 2021).

***Self-as-Context***

Next, self-as-context is the ability to see oneself as the container for identity and experiences, as opposed to being fused with them. Self-as-context is a broader ACT concept that blends mindfulness and cognitive fusion. This process allows the adolescent to take on the “observer self,” distancing and practicing awareness of the non-functional aspects of one’s internal world without attachment (i.e., cognitive fusion). Self-as-context skills advocate for a shift into the observer’s perspective, rather than direct engagement with or attachment to the internal experiences themselves (McHugh & Stewart 2012). Focusing on perspective, rather than one’s internal world, allows for the inclusion of experiences that are potentially inconsistent with more rigid self-views. Although research is nascent, perspective taking and empathy (i.e., abilities involving a shift outside of one’s own perspective, a form of self-as-context) are associated with positive adolescent relationships with parents and peers (Boele et al., 2019). Additionally, elevated self-as-context is a significant predictor of reduced adolescent distress (Moran et al., 2018). Lastly, firmly connecting oneself to previous “stories” or personal narratives (i.e., “self as story” rather than self-as-context) was associated with reduced well-being and elevated avoidance behaviors in youth (Moran & McHugh, 2020).

***Values and Committed Action***

Finally, values and committed action are defined by identifying and connecting with meaningful elements of life (e.g., kindness, relationships). More specifically, values are the guiding compass of ACT, aiding adolescents in determining what is most important for them and what kind of life they want to lead. Values are qualities and not achievable objectives (e.g., valuing adventure instead of a big trip to Italy). Values are inherently personal and aim to engage the adolescent in a life of their choice, moving away from experiential avoidance, rule-governed behavior, or external expectations. Similarly, committed action encourages the embodiment of values in daily life, directly linking personal meaning to specific forms of behavior change. All other ACT skills connect back to committed action; processes such as acceptance and defusion can be used in service of moving towards values via specific behavioral goals. Multiple studies have demonstrated the importance of connecting with and acting on values in adolescence. For example, youth who received values-focused interventions reported improvements in stress, grades, and dietary choices (Bryan et al., 2019; Cohen & Sherman, 2014; Sherman et al., 2013). Additionally, youth with elevated connections to familial, religious, and environmental values report increased prosocial behaviors, hope, and self-esteem (Heaven & Ciarrocchi, 2007; Quieroz et al., 2020).

In conclusion, there is growing evidence supporting the potential benefits of each ACT process with adolescents. Due to the overall dearth of research studies on the components of ACT (e.g., dismantling studies, longitudinal studies), particularly with clinical populations, it is too early to identify the most beneficial individual processes of ACT. In terms of the current research support, there are slightly more studies indicating the benefits of values-based work with youth as compared to the other processes, likely due to the cross-theoretical nature of values-based work (e.g., Naar-King, 2011). However, the importance of values work over other processes remains theoretical, particularly because no studies have directly compared individual processes in youth. On the whole, these initial efforts point towards a promise for ACT processes individually and, as we will discuss later on, as a treatment package.

**Developmental Considerations for ACT With Adolescents**

 Adolescent-adapted treatments can sometimes stall or backfire due to modifications leaning on the “developmental level uniformity myth” (Kendall, 1984), the myth that youth are homogenous and at the same developmental level (Sauter et al., 2009). ACT is rooted in the philosophy of functional contextualism, which emphasizes the scientific understanding of behavior via context (i.e., the internal/external world in which it occurs; e.g., Biglan & Hayes, 1986). By focusing on the context, ACT emphasizes the workability of behavior, rather than “correct” and/or “rational” behaviors which may provoke resistance in adolescents (S.C. Hayes et al., 2006). Furthermore, the psychological flexibility model and process-based delivery of ACT allows for an adaptable treatment approach (Ong et al., 2020), which is ideal for application to the varying developmental stages and contexts of adolescence. This means that ACT is not delivered in a manualized or structured format, but with whatever the individual is presenting with in session (as discussed in Hofmann & Hayes, 2018, Ong et al., 2020). Skills promoting psychological flexibility (e.g., ACT processes) can be fluidly applied and adjusted to the range of developmental considerations needed for the moment at hand (Halliburton & Cooper, 2015).

**Cognitive and Emotional Development**

Building psychologically flexible responses and attitudes in adolescence may be beneficial for cognitive and emotional development. Managing thoughts and feelings is increasingly difficult during adolescence; adolescents often let internal experiences take charge of their behaviors (Sauter et al., 2009; Turrell & Bell, 2016). Because adolescents can be hypersensitive to emotion, they may rely on short-term avoidance or impulsivity in response to emotional difficulties (i.e., elevated experiential avoidance; Turrell & Bell, 2016). They may not even be aware of alternatives to acting on emotions, often responding to thoughts and/or feelings rashly, taking risks (e.g., speeding), initiating arguments with family or friends, and making impulsive decisions (e.g., dying or shaving their hair). Attention and perspective-taking are also developing skills in adolescents (Icenogle et al., 2019; Luna et al., 2004). The development of attention-specific abilities (e.g., improved working memory, response suppression) and the maturing ability to understand others’ point of view may lead to preoccupation with what others think (i.e., “adolescent egocentrism”; Schwartz et al., 2008).

Building psychological flexibility is a theoretically promising path for aiding adolescent development of emotional and cognitive abilities. Skills like acceptance and cognitive defusion may help build decision-making independent from internal rules. Acceptance and defusion may also be especially useful for making space for adolescent metacognition (e.g., self-criticism, concerns about others’ opinions) and “ego-centrism.” Present moment awareness may aid in identification of different emotional and cognitive experiences, enhancing the adolescents’ abilities to notice and respond to their internal and external worlds. Lastly, self-as-context skills may be similarly helpful in building self-awareness and enhancing the development of perspective-taking abilities (Everall et al., 2005). All the forementioned skills can all be channeled so that the adolescent is able to lean into what is meaningful to them (i.e., values and committed action), regardless of where they fall on the developmental spectrum.

**Social and Identity Development**

During adolescence, it is common for youth to take risks and challenge boundaries in the service of developing their own identity, voice, and choices. This process is seen across species and is considered evolutionarily adaptive (e.g., Laviola et al., 2003). Adolescents tend to be more interested in peer and romantic relationships as they develop better capabilities for social connections (Moss et al., 2017). Relationships with parents and familial roles within the home may also be shifting, causing changes within family dynamics while adolescents pursue autonomy (Lila et al., 2006). With this in mind, adolescents can struggle with navigating the balance between interpersonal relationships and independence (Everall et al., 2005). Furthermore, youth psychopathology interferes with peer relationships over time, as well as independence seeking and receiving from parental relationships (Meeus, 2016).

ACT provides a promising set of skills that may be particularly advantageous for healthy social and identity development. Building psychological flexibility could be especially beneficial when adolescents are navigating uncertainties within their own identity (e.g., behavior with friends versus family) or life (e.g., whether or not to go to college). ACT processes may provide adolescents the tools to engage in relationships and identity exploration, even in the face of difficult internal experiences (e.g., acceptance of and defusion from social anxiety around trying out for the school play). Present moment awareness may aid with identifying and responding to shifting cognitive demands of changing relationships and life roles. Furthermore, ACT may even directly bolster social and identity development via self-as-context (e.g., seeing themselves as “containers” for multiple identities or roles). Lastly, values and committed action may connect the adolescent back to meaning in their day-to-day life and behaviors; adolescents may benefit from exploring the value in gaining more responsibility, advocating for their own independence, trying new things, and so forth. However, clinicians should be wary of how family or social groups may affect values engagement, along with cultural norms and expectations (Sauter et al., 2009).

**Research on ACT for Adolescents**

In the following sections, we present results of a literature review on ACT for adolescents. For the purposes of this paper, adolescence was defined as between 12-17 years old. Included studies had to involve face-to-face intervention with adolescents, as opposed to parent-based or exclusively self-guided. Further, ACT had to be considered the predominant intervention (i.e., the majority of the intervention was ACT) for a diagnosable outcome. We therefore excluded studies that focused on prevention and/or implementation of ACT with lack of reported outcomes for a clinical concern. Lastly, articles had to be written in English and peer-reviewed. We applied no date or study format restrictions to the search.

The following databases were searched using combinations of “acceptance and commitment therapy,” “ACT,” and “adolescents”: PsychINFO, PsycArticles, and Psychological and Behavioral Science Collection. We additionally reviewed the Association for Contextual Behavioral Science website ([www.contextualscience.org](http://www.contextualscience.org)), which contains a variety of resources and article depository for studies related to ACT. Lastly, we reviewed relevant meta-analyses and reviews (e.g., Halliburton & Cooper, 2015). In total, 401 articles were identified from searching. We reviewed all studies using the aforementioned criteria; when there was uncertainty around inclusion, two of the authors came to agreement about inclusion. In the following sections, we review the 34 studies identified as unique (i.e., not repeats) and eligible. See Table 1 for a brief overview of all included studies.

**Anxiety**

Only a few studies have examined ACT as a treatment for anxiety in adolescents, despite evidence of its equivalency with traditional CBT in adults (Bluett et al., 2014). There is one large randomized controlled trial comparing group ACT, CBT, and a waitlist for 157 youth (46% adolescents) with anxiety. No differences between ACT and CBT were found; youth in the ACT condition reported improvements in quality of life, psychological flexibility, and anxiety disorder severity (Hancock et al., 2018). In a multiple baseline, ACT was used as a treatment for posttraumatic stress symptoms (PTS) in three adolescents from the community and four from a residential program (Woidneck et al., 2014). Adolescents from the community reported a 69% reduction in PTS after treatment and adolescents in the residential program reported an 81% reduction, with 68% and 84% at follow-up respectively. In a case study, art-based ACT was used to treat an adolescent with anxiety and autism; by the end of treatment, the adolescent reported improvements in well-being and psychological flexibility (Chapman & Evans, 2020).

ACT has also been utilized as a school-based treatment for anxiety in adolescents. For example, a recent pilot study examined ACT in a school-based, group format for ten female adolescents with anxiety in Australia; adolescents in the group reported significant medium decreases in anxiety (within *d* = .74) and psychological inflexibility (*d* = .38; Smith et al., 2020). In another pilot trial of school-based and group DNA-V, a developmentally adapted format of ACT (L. L. Hayes & Ciarrochi, 2015), adolescents with anxiety (N = 26) reported medium improvements in anxiety and class attendance as compared to a waitlist control at both posttreatment (between Hedges’ *g* = -.38 for anxiety and Hedges’ *g* = -0.11 for class attendance) and one-month follow-up (between *g*s = .63 and .50; Petersen et al., 2022). Lastly, a randomized controlled trial in Nigeria examined the efficacy of school-based, group ACT as compared to a leadership training for adolescents with elevated social anxiety (N = 104); adolescents in the ACT condition reported significant reductions in social anxiety symptoms (Babalola & Ogunyemi, 2019).

**Obsessive-Compulsive and Related Disorders (OCRDs)**

OCRDs are arguably one of the larger areas of research on ACT for adolescents. A multiple baseline of ACT for OCD in three younger adolescents resulted in a 44% mean reduction in compulsions and 12-61% reduction in overall OCD severity at three-month follow-up (Armstrong et al., 2013). A larger study (N = 69) compared group ACT + selective serotonin reuptake inhibitors (SSRIs), group CBT+SSRIs, or SSRIs-only for adolescents with OCD and found no differences between ACT and CBT groups; both reported significant reductions in OCD severity at post-treatment and three-month follow-up (Shabani et al., 2019). Additionally, a recent case series (N = 3) assessed the effectiveness of an intensive treatment (15 hours per week) combining ACT and exposure and response prevention (ERP) for adolescents with OCD. In this study, the three adolescents reported significant reductions in OCD symptoms (32-60% reductions from pre-treatment), along with improvements in psychological inflexibility, depression, anxiety, and stress, at post-treatment (Petersen et al., 2022).

Several studies have investigated ACT in combination with habit reversal training (HRT) for trichotillomania in adolescents. In a case series of two adolescents (15- and 16-years old) with trichotillomania, both clients reported resistance from pulling for at least two weeks, reductions in distress, and improvements in functioning following 11-12 sessions of ACT+HRT (Fine et al., 2020). In a larger study, ten sessions of ACT+HRT for 14 adolescents with trichotillomania resulted in hairpulling reduced by 30.8% and psychological flexibility increased by 11.3% at post-treatment (Lee et al., 2020). Lastly, in a more recent study, authors found that adolescents (N = 28) receiving ACT+ HRT reported significantly decreased hairpulling severity at post-treatment as compared to the waitlist group (between Hedges’ *g* = 1.55; Twohig et al., 2021).

**Depression**

A smaller number of studies examine ACT for adolescents with depression. In one study at an Australian outpatient clinic, ACT was compared to treatment as usual (TAU) for 30 adolescents. In the ACT condition, 58% of adolescents reported clinically reliable change and reduced depression as compared to TAU (between *d* = .38; L. L. Hayes et al., 2011). A larger study of 66 Swedish adolescents with depression found comparable, but more robust results; those who received group ACT reported medium to large between-group effects in reductions of depression (.86) and psychological inflexibility (.73) as compared to those who received individual support from the school system (Livheim et al., 2015). In a somewhat smaller study, ACT combined with motivational interviewing was tested as a treatment for 11 diverse and socioeconomically disadvantaged adolescents in the United States. Results indicated significant reductions in depression and avoidance along with improvements in behavioral activation and quality of life (Petts et al., 2017). Lastly, a large study (N = 243, ages 15 – 16) investigated an internet-based ACT (iACT) intervention (the Youth COMPASS) for Finnish adolescents, comparing iACT with and without face-to-face support to a waitlist control. In this study, participants who completed more than half the program—in both iACT groups—reported improved depressive symptoms and life satisfaction as compared to the waitlist control (between *d* = .20; Lappalainen et al., 2021).

**Chronic Pain**

The World Health Organization (WHO) recently named ACT as an officially recommended treatment for youth with chronic pain (WHO, 2020). There is substantial literature supporting the use of ACT for chronic pain in youth. To begin with smaller sample sizes, a case study of a 14-year-old female receiving ACT for her idiopathic generalized pain resulted in improved life functioning, lower pain, increased school attendance (Wicksell et al., 2005). Kemani and colleagues (2016) found similar results in a multiple baseline (N = 3) of adolescents reporting chronic pain; following two intensive treatment periods, adolescents reported improved functioning and achievement of values-based goals, but no decreases in pain. However, a pilot study using a similar ACT protocol for 14 adolescents with pain resulted in improved in functioning, school attendance and pain (46% reduction in intensity and 53% reduction in life interference) at posttreatment, with gains maintained at three- and six-month follow-up (Wicksell et al., 2007).

In a larger randomized control trial of 32 adolescents comparing ACT for chronic pain to multidisciplinary treatment, adolescents in the ACT condition reported superior improvements in pain intensity and discomfort following treatment (Wicksell et al., 2009). These results were further confirmed by a recent study, in which researchers found no differences between individual and group ACT for adolescent chronic pain—both groups reported medium to large within-group effect sizes for improvements in psychological flexibility, pain reactivity and interference, and depression (Kanstrup et al., 2016). In another study, a large sample of 98 adolescents receiving a three-week residential ACT treatment for chronic pain reported improved functioning and physical performance at three-month follow-up across a range of measurements (e.g., physical and social disability, walking distances), as well as less anxiety (within *d* = .48) and increased school attendance (Gauntlett-Gilbert et al., 2013). Finally, a small sample (N = 21) of adolescents with functional somatic syndromes (FSS) received a pilot protocol of group-based, ACT for Health in Adolescents (AHEAD), resulting in clinically significant reports of improved physical health and decreased psychological inflexibility and maladaptive illness behaviors (Kallesøe et al., 2020).

**Eating Disorders**

Little research exists on ACT for disordered eating in adolescents. In a case study examining ACT as a treatment for anorexia nervosa (AN), a 15-year-old female was treated with 14 sessions of ACT, resulting in a reduction in AN symptoms and an increase in weight (Heffner et al., 2002). Additionally, Merwin and colleagues (2013) executed a pilot trial of acceptance-based separated family treatment (ASFT) with six adolescents with AN. Adolescents reported restored weight, improved health and functioning, and their parents reported lower anxiety and burden (Merwin et al., 2013). In the subsequent open trial of ASFT for adolescents with AN, full remission was reported in 49% of the 47 participants, along with reduced disordered eating behaviors (Timko et al., 2015).

**Conduct Problems**

To our knowledge, only a few studies exist on ACT for adolescents with conduct problems. In a small study of five adolescents with conduct disorder and/or impulsivity receiving a brief (four 90-minute sessions) ACT protocol, all participants showed large decreases in disruptive behavior, decreases in impulsivity, and increases in self-control and psychological flexibility (Gómez et al., 2014). In another small study, a sample of primarily African American youth (N = 7) with comorbid attention-deficit/hyperactivity disorder, learning disorders, and behavior problems received eight weekly group ACT sessions; five of the seven participants reported significant reliable change for values engagement and behavioral assessments (Murrell et al., 2015). In a larger, multisite study, ACT groups for antisocial adolescents were integrated into Swedish residential care and compared to TAU (N = 160; Livheim et al., 2020). Youth attending the groups (n = 69) reported significant improvements in anger and disruptive behavior, along with self-concept, at posttreatment and extended follow-ups as compared to the TAU group (between *d*s = .34 - .44).

**Other**

Beyond the aforementioned categories, research on ACT with adolescents is occurring in many other areas. For example, a Spanish case study of a 17-year-old male with auditory hallucinations and a diagnosis of schizophrenia indicated that ACT biweekly resulted in a 40% reduction in hallucinations(Veiga-Martínez et al., 2008). Another case study of a 16-year-old African American male with sickle cell disease resulted in improved psychological flexibility and functioning after eight sessions of ACT (i.e., posttreatment) and at a three-month follow-up (Masuda et al., 2011).

ACT has also been utilized as a transdiagnostic treatment for adolescents in a few studies. For example, in a larger study on ACT for stress, 32 adolescents with elevated stress levels were randomized to receive ACT or school-based support. Results indicated a large effect for reduction in stress (between *d* = 1.20), a marginal significant decrease in anxiety (between *d* = .8), and an increase in mindfulness (between *d* = .75) as compared to the control (Livheim et al., 2015). Similarly, a quasi-experimental pilot study assessed the effectiveness of an ACT-based skills group as compared to a waitlist for stress in adolescents with high-functioning autism spectrum disorder (N = 28; Pahnke et al., 2014). Participants were randomized at the class level to receive a six-week ACT skills group; participant- and teacher-ratings both indicated improvements in stress, hyperactivity, and emotional distress at posttreatment and two-month follow-up (Pahnke et al., 2014). Lastly, one retrospective cohort study examined group ACT delivered in three different integrated primary care settings (ACT-IPC) for adolescents (N=110) struggling with a range of presenting problems (e.g., adjustment disorders, anxiety, depression; O’Dell et al., 2020). In a review of the health records of participants, there were reports of improved anxiety (within-group *d* = -.71), depression (within-group *d* = -.54), and psychological inflexibility (within-group *d* = -1.42) following treatment (O’Dell et al., 2020).

**Implementing ACT with Adolescents**

 The following section provides a brief overview of ACT processes and assessment with adolescents. Further resources on professional workshops, trainings, supervision, and implementation support can be found on the Association for Contextual Behavioral Science (ACBS) website: www.contextualscience.org/training.

**Assessment**

Tracking progress in ACT is important and requires careful selection of measures appropriate for youth. The revised Avoidance and Fusion Questionnaire for Youth (AFQ-Y) provides a broad measurement of psychological inflexibility, with a focus on experiential avoidance and cognitive fusion (Greco et al., 2008). Short (eight items) and long (17 items) forms of the AFQ-Y are available and established as youth-friendly measures of psychological flexibility. In terms of specific ACT processes, the Valued Living Questionnaire (VLQ) was adapted for assessment of values in adolescents using two ten-item subscales of importance and consistency around valued behaviors in the week prior to assessment (Swain et al., 2014). Present moment awareness and self-as-context have been measured in previous youth samples using the Child and Adolescent Mindfulness Measure (CAMM); this 20-item self-report has subscales of “observing” and “acting with awareness” for a more specific assessment of present moment awareness (Ciarrochi et al., 2011). Lastly, the Cognitive Fusion Questionnaire (CFQ), a seven-item measure focusing on fusion with thoughts, also has initial support for use in adolescent populations (Solé et al., 2015).

**Using ACT With Adolescents**

***Acceptance***

As an example, acceptance may be beneficial for an adolescent struggling with worries about his parents’ health. Acceptance of anxiety may involve learning to experience anxiety without trying to reassure himself (i.e., avoiding or changing the anxious thoughts). Working to promote acceptance with an adolescent struggling with anxiety might involve introducing them to the concept of *willingness* to experience difficult thoughts or feelings. This can be done via a simple metaphor, particularly ones that are related to the adolescent’s personal experience or interests. In the following example, the metaphor helps the adolescent view worries about his parents as flies while he are at soccer practice (adapted from Turrell & Bell, 2016):

*Imagine you are at soccer practice. It is evening and hot out. There are suddenly bugs everywhere—has this ever happened to you? What do you do with the bugs? Maybe even show me what you would do with your hands to get rid of the bugs…When you struggle against them, slapping them, running away, using bug spray, what happens?…They always come back. And then you are no longer focusing on practice. You might miss what you are supposed to be doing in a drill. You might not even be able to have as much fun with your friends or nail that new dribbling sequence. It suddenly is all about getting rid of the bugs. Is there another alternative? How can you enjoy soccer practice even if the bugs are there? What might happen with the bugs if you did nothing to wave them away or kill them? Show me what you might do with your hands instead. So the bugs might hang around and, at the same time, your fun at soccer practice might actually go up. What do you think—is this possible? How does this relate to your experience with your worries?*

Metaphors such as this one can be easily tailored to the developmental needs and specific interests of an adolescent; if they do not play a sport, the same idea can be applied to bugs while sitting outside or going for a walk with their friends—or even the smell of the subway on the way to school in a city.

When presenting acceptance and/or willingness to an adolescent, it is important to be as experiential or didactic as developmentally appropriate. Some adolescents may connect to the idea of willingness right away and be able to relate to it, using it throughout their life, while others may need more time or didactic examples to apply it. It is likely that some youth require more didactic instruction, while others may grasp the concept without any specific direction from the therapist. Illustrating and/or practicing acceptance and willingness in a more experientially manner may also be beneficial for adolescents who do not respond as well to metaphors. For example, one option could be to guide the adolescent to intentionally introduce an uncomfortable feeling (e.g., holding their breath, walking around with a small object in their shoe, noticing or inducing an itch) and practice making space for the discomfort. It may be helpful to encourage them to engage their five senses and imagination to open up to the feeling, rather than trying to immediately fix or change it:

*When you are ready, let’s take a deep breath in together and hold it. I will do it with you if you’d like. It is totally up to you when to breath in and out—just give me a signal. While holding your breath, be sure to notice what thoughts and feelings show up. Your mind might want you to let go as soon as you breathe in! You might notice uncomfortable sensations in your chest. Be sure to try and let those sensations be there, without acting on them. Give them the space to exist with you, wherever they may be.*

 After holding their breath, encourage the adolescent to consider how this might relate to their own struggles with internal experiences (e.g., *How were the voices telling you to breathe similar to the worries about your parents’ health?*).

***Cognitive Defusion***

As previously discussed, adolescents may attach strongly to their thoughts and/or feelings (i.e., cognitive fusion), struggling to see themselves or their world beyond their internal experiences. For example, an adolescent struggling with depression may respond literally and rigidly to self-criticism (e.g., “My teacher hates me” or “I am always going to be bad at math.”) Helping an adolescent defuse from these thoughts might involve relating their thoughts to something else (e.g., social media ads, constant text messages from the group chat, an annoying person in their class). The messages that we receive from these examples are sometimes helpful (e.g., an ad helping find the cutest pair of shoes) or something we simply scroll by (e.g., an ad for an item we already have). Engaging adolescents in creative activities to describe and/or depict the thoughts (e.g., drawing the ads, creating a jingle of what their “ad” is saying) can further aid defusion and make session more engaging:

 *When you are on social media, do you ever get ads? I get ads all the time, especially for fun things I don’t really need. What kind of ads do you see? Sometimes we get ads that are helpful, and other times they are not so helpful. When’s the last time you had a helpful ad? What was it for? I recently had an ad that was the perfect birthday present for my best friend. Now how about an unhelpful ad? What kind of ads do you hate seeing?*

*How are your thoughts about math like helpful advertisements? Or maybe they are unhelpful? What do you do when you see ads on social media? I usually just scroll past. I feel like engaging with them makes them more likely to come back, but what do you think? Right now, it is almost like you are commenting and/or reacting to these ‘ads.’ What would it look like for you to just scroll past these ads?*

 Another important aspect of defusion work with youth, particularly for depression, might be the differentiation between helpful and unhelpful internal experiences. Adulthood typically comes with a better understanding of which internal experiences are helpful and unhelpful. However, many adolescents do not have that full ability yet and are in the process of strengthening it. Thus, exploring which thoughts signal important information to adolescent (e.g., “I do not understand this unit in math and might need extra help”) as opposed to less helpful (e.g., “I will never understand any math and if I can’t get an A then I might as well skip the class.”) This concept can be turned into a game by taking turns sharing random thoughts and challenging each other to identify when they might be helpful or unhelpful (e.g., “I am in mortal danger right now,” “I really messed up and should apologize”). The therapist and client can even take turns picking creative situations (e.g., starring in a blockbuster movie, running in the Olympics, on the boat to Hogwarts) and discuss thoughts in more fun scenarios. It may be helpful to make or use cards with common thoughts/feelings on them, taking turns drawing cards and discussing the utility of each thought. These adjustments can make therapy more dynamic and engaging, theoretically making the concept easier to learn.

***Contact With the Present Moment***

Present moment awareness practice for adolescents involves providing them with the skills to notice their attention wandering and reorient to the present moment. Young people in need of building their present moment awareness skills may struggle with engaging in class, getting caught up in internal experiences (e.g., rumination, boredom), and/or general distractions (e.g., texting instead of fully focusing on their job). As a more specific example, an adolescent struggling with intrusive traumatic memories may benefit from meditation exercises which help them remain in contact with the present moment, as opposed to being drawn into the past, and in turn engage in valued action (e.g., choosing to ask a question in class in pursuit of their value of knowledge instead of focusing on pushing the memory away). There are several different ways to teach present moment awareness to adolescents—the best method is to make it engaging. Youth in particular may struggle with longer or more traditional meditations (e.g., body scans). One option is to use the *sensory countdown*:

 *Name me five things that you can see. Describe them to me like it is the first time you are seeing them. Now name four things you can feel. Don’t forget to use your whole body—it doesn’t just have to be your fingers. Take a moment and really experience each thing. Now name three things you can hear. What do they sound like? Pretend I cannot hear them when you describe it. Name two things you can smell. Take deep breaths in and really try to smell deeply. I bet you know what the last thing is—can you taste anything right now? What do you taste?*

 Encourage the adolescent to use this daily for expanding their attention, particularly in times when emotions and thoughts are trying to boss them around. It can allow for intrusive thoughts to be present alongside the rest of the adolescent’s internal and external world. This exercise can also build the “muscle” of attention, teaching the adolescent that they can move their attention like any other body part. This exercise can also act as a grounding technique; however, it may be important to emphasize that the goal of this countdown is to expand one’s attention (i.e., notice sensory experiences alongside intrusive thoughts or feelings), as opposed to a distraction.

Adolescents may also respond well to the integration of present moment awareness practice into daily activities (e.g., listening to their favorite music, sitting on the bus, styling their hair) by engaging in these activities as if it were the first time they were experiencing them. There are also many mindfulness and/or present moment awareness mobile applications that adolescents may enjoy (see onemindpsyberguide.org for some recommendations).

***Self-as-Context***

Adolescents may struggle with a “self as content” perspective, in which they connect who they are to certain identities, thoughts, feelings, or other internal/external experiences in a non-functional manner. Being able to flexibly engage with oneself and the ‘observer’ view is key to developing psychological flexibility, as the young person can shift to viewing themselves as separate from their experiences, loosening the grip of fusion and making space for acceptance.

As previously discussed, self-as-context can be especially useful for building identity and awareness of others. For example, an adolescent who views themselves as an athlete and subsequently injures themselves may struggle with finding meaning in their life without the athlete identity. As another example, self-as-context may aid an adolescent struggling with perfectionism, allowing for the experience of both high achievement and mistake-making in the same self-view. Promoting self-as-context in young people might involve a variety of perspective-taking skills. You might encourage the young person to take the perspective of a friend or family member whom they have had an argument with, listing their points of view in comparison to their own. This is especially useful when working with parents or caretakers. You may also guide the adolescent through a more personal perspective-taking visualization to connect to the observer self:

 *Close your eyes and imagine a happy moment from when you were little. What do you see? Take a moment and really try to engage in that moment, as if you were really there. What are you hearing right now in that moment? Do you smell or feel anything? Notice any thoughts or feelings that are showing up. If you feel your attention wandering, gently bring it back to the memory you have selected. Now pause for a moment. Fast forward to a special moment from the last few weeks. Try to imagine that you are really there. Maybe it is a time when you felt happy, emotional, proud, or even sad. What do you see? Take a moment and really try to engage in that moment, as if you were really there. What are you hearing right now in that moment? Do you smell or feel anything? Now, take another step back and notice who is observing in each of these moments. Is there a constant part of you that is just observing in each of these? What do you notice is the same or different? Now bring your attention to the present moment. Notice how your body feels against the seat. Is it that same part of yourself noticing?*

 After this visualization, discuss what the adolescent noticed while shifting between memories and perspectives. Connect the experience of noticing back to their present struggles (i.e., symptoms). Discuss how their “observer” self might be useful (or not useful) in their daily life. It is important to remember that this can be a confusing concept to people of all ages. Encourage the adolescent to explore connecting to this internal “observer,” even if they are unsure that they are doing it “correctly.”

 The same concept can be conveyed more interactively when using an outline of a person that the adolescent imagines as themselves. Depending on the age of the adolescent, they might even enjoy tracing themselves or drawing a quick self-portrait. With this image, guide the client to note various self-evaluations, thoughts, feelings, or other internal experiences that occur throughout their body (e.g., head, hands, heart). Encourage them to switch perspectives between these major areas (e.g., *What is it like to follow your heart? What perspective does your mind bring?*) and where the overarching point of view is. Once the drawing and labeling is complete, work through each one with the client, discussing what connecting to these various perspectives could bring. For example, an adolescent may love the creativity that their heart brings to each activity. While this strength may benefit them in sculpture class or a literature course, it may prolong other activities unnecessarily (e.g., writing a letter to a friend, getting dressed for school).

***Values***

Values in adolescence may be particularly challenging due to the identity development and pressures from social and familial relationships that young people may struggle with. Some examples of valued themes commonly highlighted by adolescents receiving ACT may include (but are in no way limited to) kindness, education, nature, sexuality, spirituality, and more. However, it is important to note that many adolescents struggle to identify specific values; this is developmentally appropriate because they are still exploring what they want their life to be about.

 With this in mind, adolescents naturally may have difficulty connecting to the long-term meaning behind their actions. An adolescent struggling to find meaning or vitality might feel hopeless or detached from their life. They may express feeling like “cogs in a wheel” and begrudgingly refer to specific expectations and/or paths (e.g., graduate high school, go to college, get a job). Alternatively, adolescents struggling to find vitality may engage in a multitude of seemingly random exploratory behaviors, shifting between friend groups, trying different instruments, or engaging in risky behavior. As long as these behaviors are reasonably appropriate to the individual’s culture and family context, it is important to encourage safe exploration and allow the adolescent to seek out vitality and meaning in their life independently. By providing them with a safe and affirmative space for identity and values exploration, it can teach them the utility of meaningful exploration while giving them the space to connect to that sense of vitality.

 Connecting adolescents with their values can be tricky. Discussions around values with youth are often more fruitful in an indirect manner. For example, questions such as “What are your values?” or “What do you want your life to be about?” may be too broad and/or mature. It may be more beneficial to engage in exploratory, fun discussion questions. For example, “*How are you different from your parents? How are you similar*?” You could also say, “*Tell me about the person or character you are when you are playing your favorite video game. Why do you choose to be that character?”* Also, *“What is your dream job?”* or *“Imagine you are having a party on your 21st birthday party. Who would you want to be there? What would you want them to be saying about you?”* You may also encourage the adolescent to do something enjoyable during session (e.g., bringing in a video game to play, painting their nails, engaging in art, sharing music) and ask them to connect how they are feeling while sharing the activity with you. The focus of values-work with adolescents should not be to identify specific values or goals, but instead of orient them to what a meaningful life for them might entail and how they can tell when they are connecting with their values.

***Committed Action***

Being able to connect meaning to their behaviors via committed action can provide a more thoughtful way for adolescents to take risks or try new ways of living. As an example, an adolescent struggling with social anxiety may explore new forms of self-expression by auditioning for the school jazz band despite struggling with fear of embarrassment and wanting to skip it. The benefits of taking the risk to audition, in this example, may even lead to further engagement in therapy, as the adolescent begins to see the outcome of practicing therapy skills (i.e., greater fulfillment, more meaningful activities). Thus, committed action is not just limited to outside the therapy room and can also be connected to appropriate engagement in therapy (e.g., *What would be most meaningful for us to focus on this week?*).

The Choice Point (see Figure 1), initially developed by Ciarrochi, Bailey and Harris (2013) and modified by Zurita Ona (2019), offers a practical modification to teach psychological flexibility and implement committed action in adolescents. At the bottom of the Choice Point, adolescents are invited to identify a specific and personally meaningful activity (e.g., trying out for the school jazz band to help them expand their creativity and to have fun with their friends). Next, the adolescent would write down all the thoughts and feelings that pop into their mind with this activity (e.g., “People will look at me and I might embarrass myself”). The Choice Point graphic acts as a reminder that they have an opportunity (i.e., a choice) to move towards what they care about. On the left side of the Choice Point, the adolescent would then write down all the things they do to suppress, minimize, distract, and get rid of the internal experiences that get them hooked and take them far away from what they care about (i.e., avoidance behaviors). The adolescent is then asked, “*What do you do when you get hooked on those worries and what are the consequences of those behaviors?*” On the right side of the graphic, adolescents eventually can write down skills or metaphors from ACT (e.g., acceptance, defusion, etc.) to get unhooked from their internal struggles and take actions towards what is important to them.

(Insert Figure 1 about here)

**Conclusions and Future Directions**

The research on ACT for adolescents is still nascent and in need of much growth. From this present review, ACT shows potential for continued adaptation and use with adolescents. However, there is clearly much work to be done on expanding our understanding of ACT in the context of adolescent development. More specifically, the psychological flexibility model was originally designed for adults and more empirical validation is needed with younger populations. While some ACT models for youth consider elements of development (e.g., DNA-V; L. L. Hayes & Ciarrochi, 2015), ACT for youth will likely be enhanced when theories of development are incorporated and validated within the psychological flexibility model. Similarly, while a growing portion of research supports the association between the six ACT processes and positive outcomes (e.g., improved well-being, positive mental health), these studies often use measures adapted for adolescents from adults. To fully understand psychological flexibility in adolescents and younger individuals, we must improve our measurement approaches to ensure that we are accurately capturing a likely dynamic construct in youth.

Looking at the treatment literature reviewed, we see growing support for ACT as a treatment for adolescents. Of the 34 studies reviewed, 13 utilized a randomized controlled trial format—only six of these studies compared ACT to an active control treatment (e.g., CBT, TAU). Thus, there is a need for multiple, larger randomized controlled trials with active comparison conditions to fully understand the effectiveness of ACT. Furthermore, few studies had follow-up timepoints beyond one month. Given that adolescence is a period of rapid growth and change, studies with extensive longitudinal measurement are still needed to best support the utility of ACT with adolescents. Similarly, to the best of our knowledge, there are no studies dismantling or examining the individual processes of ACT in clinical contexts. This area of work is needed to best understand how ACT is operating in adolescents and how it can be more precisely adjusted across the developmental spectrum. For example, it is possible that some processes of ACT are more relevant and/or imperative depending on the developmental point the adolescent is at.

Future research may also focus on the effectiveness of ACT across presenting problems and demographics. Most mental health conditions only have a handful of studies assessing ACT as a treatment (e.g., anxiety, depression) and some only have one study (e.g., psychosis). Because ACT may offer benefit to adolescents transdiagnostically, it is also important to further investigate more thoroughly the impact of psychological inflexibility on mental health concerns and how it can best be targeted in interventions like ACT and beyond. Furthermore, greater investment of the use of ACT with diverse adolescents is also needed—prior work with African American and transgender youth show promise (Bennett & Dillman Taylor, 2019; Petts et al., 2017). However, more research is necessary in order to better understand how to adapt ACT for adolescents from all backgrounds. While the studies presented in this review have international representation (e.g., Sweden, Nigeria, Australia, United States), the scope of work is not nearly wide enough. Given the international need for mental health care for adolescents (Samji et al., 2021), growing our understanding of psychological flexibility and ACT in adolescents around the world would be undoubtedly beneficial.

With this in mind, it is also of the utmost importance to begin dissemination and implementation work as part of broadening the scope of the current work with adolescents. While this review did not focus on implementation studies specifically, several highlighted here show promise for incorporating ACT into school settings, community clinics, integrated primary care settings, and residential facilities. School-based work, as represented in six of the studies reviewed, may be an especially important and convenient area to focus on for the dissemination and research of ACT with youth. However, reaching providers who most often work with youth across settings (e.g., hospital, community mental health, religious institutions) may also provide informative outcomes. Implementation and dissemination of ACT for youth may be an especially important gap for future reviews and research studies to fill.

In sum, there is growing promise for the use of ACT with younger populations, especially adolescents. Because of the unique contextual and developmental considerations allotted by ACT, we encourage further research and use of ACT with adolescents. We recommend that future research focuses on 1) further integration of developmental models into ACT and psychological flexibility theories and treatments; 2) greater rigor in the measurement of ACT-related constructs and evaluation of treatment efficacy; 3) expansion of the adolescent populations and presenting problems researched.

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Table 1. *Brief overview and results from included studies on ACT for adolescents.*

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| --- | --- | --- | --- | --- | --- |
| Citation | Presenting/target problem | Study type | Treatment(s) | Sample size | Primary findings from the ACT intervention |
| Hancock et al., 2018 | Anxiety | RCT | Group ACT, group CBT, WLC | 157 | Improvements in quality of life, psychological flexibility, and anxiety disorder severity |
| Woidneck et al., 2014 | Posttraumatic stress symptoms | Multiple baseline | Individual ACT | 7 | Reductions in reported posttraumatic stress symptoms  |
| Chapman & Evans, 2020 | Anxiety and autism spectrum disorder | Case study | Art-based ACT | 1 | Improvements in well-being and psychological flexibility |
| Smith et al., 2020 | Anxiety | Open trial | School-based, group ACT | 10 | Significant decreases in anxiety and psychological inflexibility |
| Petersen et al., 2022 | Anxiety | RCT | School-based group DNA-V, WLC | 26 | Significant improvements in anxiety and class attendance |
| Babalola & Ogunyemi, 2019 | Social anxiety | RCT | School-based, group ACT | 104 | Significant reductions in social anxiety symptoms |
| Armstrong et al., 2013 | OCD | Multiple baseline | Individual ACT | 3 | Reduction in compulsions and overall OCD symptoms  |
| Shabani et al., 2019 | OCD | RCT | Group ACT+SSRIs, group CBT+SSRIs, SSRIs-only | 69 | Significant reductions in OCD severity at post and follow-up |
| Petersen et al., 2022 | OCD | Case series | Intensive ACT+ERP | 3 | Significant reductions in OCD symptoms and improvements in psychological inflexibility, depression, anxiety, and stress |
| Fine et al., 2012 | Trichotillomania | Case study | ACT+HRT | 2 | Reported resistance from hairpulling, reductions in distress, and improvements in functioning |
| Lee et al., 2020 | Trichotillomania | Pilot trial | ACT+HRT | 14 | Hairpulling reduced and psychological flexibility increased  |
| Twohig et al., 2021 | Trichotillomania | RCT | ACT+HRT, WLC | 27 | Significantly decreased hairpulling severity |
| L.L. Hayes et al., 2011 | Depression | RCT | ACT, TAU | 30 | Clinically significant reductions in depression |
| Livheim et al., 2015 | Depression | RCT | Group ACT, individual support from school | 66 | Significant reductions of depression and psychological inflexibility |
| Petts et al., 2017 | Depression | Open trial | ACT+motivational interviewing | 11 | Significant reductions in depression and avoidance along with improvements in behavioral activation and quality of life |
| Lappalainen et al., 2021 | Depression | RCT | Internet-based ACT (iACT) with face-to-face support, iACT without face-to-face support, WLC | 243 | Improved depressive symptoms and life satisfaction |
| Wicksell et al., 2005 | Idiopathic generalized pain | Case study | ACT | 1 | Improved life functioning, reduced pain, increased school attendance |
| Kemani et al., 2016 | Chronic pain | Multiple baseline | ACT | 3 | Improved functioning and achievement of values-based goals, no decreases in pain |
| Wicksell et al., 2007 | Pain | Open trial | ACT | 14 | Improved in functioning, school attendance and pain intensity and interference |
| Wicksell et al., 2009 | Chronic pain | RCT | ACT, multidisciplinary treatment | 32 | Superior improvements in pain intensity discomfort |
| Kanstrup et al.,2016 | Chronic pain | RCT | Individual ACT, group ACT | 30 | Both groups reported significant improvements of psychological flexibility, pain reactivity and interference, and depression |
| Gauntlett-Gilbert et al., 2013 | Chronic pain | Open trial | Residential ACT | 98 | Improved functioning and physical performance, less anxiety and increased school attendance |
| Kallesøe et al., 2020 | Functional somatic syndromes | Open trial | Group ACT | 21 | Clinically significant reports of improved physical health and decreased psychological inflexibility and maladaptive illness behaviors |
| Heffner et al., 2002 | Anorexia nervosa (AN) | Case study | ACT | 1 | Reduction in AN symptoms and an increase in weight |
| Merwin et al., 2013 | Anorexia nervosa | Open trial | Acceptance-based separated family treatment | 6 | Restored weight, improved health and functioning, and lower parent-report of anxiety and burden |
| Timko et al., 2015 | Anorexia nervosa | Open trial | Acceptance-based separated family treatment | 47 | Full remission was reported in 49% of participants, along with reduced disordered eating behaviors |
| Gómez et al., 2014 | Conduct disorder and/or impulsivity problems | Case series | Brief ACT | 5 | All participants showed large decreases in disruptive behavior, decreases in impulsivity, and increases in self-control and psychological flexibility |
| Murrell et al., 2015 | Comorbid attention-deficit/hyperactivity disorder, learning disorders, and behavior problems | Open trial | Group, school-based ACT | 7 | Significant reliable change was reported for values engagement and behavioral assessments |
| Livheim et al., 2020 | Antisocial symptoms | RCT | Residential group ACT, residential TAU | 160 | Significant improvements in anger and disruptive behavior, along with self-concept |
| Veiga-Martínez et al., 2008 | Psychosis | Case study | Biweekly ACT | 1 | Reduction in hallucinations |
| Masuda et al., 2011 | Sickle cell disease | Case study | ACT | 1 | Improved psychological flexibility and functioning |
| Livheim et al., 2015 | Stress | RCT | Group ACT, individual support from school | 32 | Significant reductions in stress, a marginally significant decrease in anxiety, and an increase in mindfulness |
| Pahnke et al., 2014 | Stress in autism spectrum disorder | RCT | Group ACT, WLC | 28 | Participant- and teacher-ratings both indicated improvements in stress, hyperactivity, and emotional distress |
| O’Dell et al., 2020 | Transdiagnostic mental health concerns | Retrospective cohort study | Group ACT | 110 | Improved anxiety, depression, and psychological inflexibility |

*Note*: OCD = obsessive compulsive disorder; AN = anorexia nervosa; RCT = randomized controlled trial; ACT = acceptance and commitment therapy; CBT = cognitive behavioral therapy; WLC = waitlist control; TAU = treatment as usual; HRT = habit reversal training; SSRIs = selective serotonin reuptake inhibitors.

Figure 1

*Example of The Choice Point*

