Published in final edited form as:

Evid Based Pract Child Adolesc Ment Health. 2023 ; 8(2): 236–251.

doi:10.1080/23794925.2022.2042873.

Addressing a Mental Health Intervention Gap in Juvenile Detention: A Pilot Study

Jennifer E. Duchschere[*,1], **Samantha J. Reznik**[*,1], **Caroline E. Shanholtz**[1], **Karey L. O'Hara**[1,2], **Nadav Gerson**[1], **Connie J. Beck**[1,3], **Erika Lawrence**[1,4]

[1]The University of Arizona

[2]Arizona State University

[3]University of Washington, Tacoma

[4]The Family Institute at Northwestern University

Abstract

Research suggests that 60–70% of adolescents detained in the juvenile justice system meet criteria for a mental health disorder compared to 20% of the general adolescent population; however, the vast majority do not receive services. Unfortunately, mental health symptoms often worsen during detainment, and detainment is linked to lower levels of educational attainment and increased risk of adult recidivism. Thus, not only are these adolescents unlikely to receive needed mental health care, but also the lack of interventions in detention may exacerbate inequities of contact with the criminal justice system in adulthood. In addition to these youth being an underserved population broadly, youth of color are also disproportionately incarcerated compared to their white counterparts. The current paper describes results of a pilot study of an Acceptance and Commitment Therapy (ACT)-based behavioral skills intervention, aimed at providing evidence-based mental health treatment for an adolescent population at risk of long-term adverse mental health outcomes. The study included 128 males aged 14–17 who resided in juvenile detention. Results demonstrated that the intervention was acceptable to participants, feasible to provide in detention, and could be implemented with fidelity and competency. Intervention participants demonstrated declines in symptoms of mental health, and ACT-specific constructs of experiential avoidance, cognitive fusion, and perceived barriers to moving toward their values. These results have important implications for the possibility of an effective intervention that could disrupt systemic inequity in youth mental health, and thus support further testing of this intervention in a randomized controlled trial.

Keywords

juvenile justice; Acceptance and Commitment Therapy; pilot study; implementation; equity

Correspondence concerning this article should be addressed to Erika Lawrence, The Family Institute at Northwestern University, 618 Library Place, Evanston, IL, 60201. elawrence@family-institute.org.

*These authors contributed equally to this work.

In late 2018, more than 37,000 adolescents were held in secured residential facilities across the United States (Office of Juvenile Justice and Delinquency Prevention [OJJDP], n.d.[a]). Average lengths of stay in these facilities range from a few days to several months (Holman & Ziedenberg, 2006). Most detainees are male (85%; Hockenberry, 2020) and are detained for non-violent offenses (71%) such as theft, substance use, and probation violations (OJJDP, n.d.[b]). Furthermore, youth of color are disproportionately incarcerated compared to their white counterparts. For example, in 2017, 67% of youth offenders in residential treatment were identified as black, indigenous, or people of color (BIPOC) (i.e., 41% Black, 21% Hispanic, 5% two or more races; Hockenberry, 2020). This inequity is unsurprising but disheartening, especially considering that an estimated 50-75% of adolescents who spend time in detention become involved in the criminal justice system as adults (Child Trends, 2015). In addition, compared to adolescents who commit similar crimes but are not detained, those who spend time in detention earn less income in the future and attain lower levels of education on average (Holman & Ziedenberg, 2006). These data suggest that youth of color or youth from other underserved backgrounds are not only more likely to experience the adverse outcome of being incarcerated, but also that there is a disproportionate distribution of long-term consequences. As such, this inequity in access to mental health treatment likely propagates to longstanding racial disparities in adulthood.

Although maladaptive outcomes for detained adolescents are likely influenced by a multitude of factors, we argue that untreated mental health symptoms are a significant contributor. Most youth who are detained meet criteria for at least one mental health disorder (60-70%), compared to 20% in the general adolescent population (Child Trends, 2015; Holman & Ziedenberg, 2006; Teplin et al., 2002; Shufelt & Cocozza, 2006). Moreover, most who are detained do not receive mental health services (Child Trends, 2015). In 2014, only 43% of juvenile detention centers offered any services categorized as “therapeutic” (Hockenberry et al., 2016). Although a majority of facilities screen for mental health symptoms (Hockenberry & Sladky, 2018), it is unclear what proportion of adolescents with identified concerns are offered services, what types of services are available, and whether the services are evidence-based. In 2016, substance abuse education was identified as the most common service provided (Hockenberry & Sladky, 2018); although this service is needed, it does not cover the wide variety of mental health symptoms that are seen within a detention facility.

To our knowledge, there are no empirically supported treatments that address co-occurring mental health and conduct-related problems available to adolescents during the time they reside in juvenile detention, despite research demonstrating that mental health symptoms often worsen while youth are detained (e.g., Holman & Ziedenberg, 2006). The absence of intervention at this stage may be a catalyst for the worsening of long-term outcomes and inequity perpetuating into adulthood. Empirically supported early interventions could reduce such long-term negative outcomes for this underserved population. Available empirically supported treatments for justice-involved youth and those who meet criteria for conduct disorder (e.g., Multisystemic Therapy [Henggeler et al., 1998]; Functional Family Therapy [Alexander & Parsons, 1982]) tend to be expensive, require extensive family engagement, and are typically only offered after adolescents are released from detention (e.g., as argued by Littell et al., 2005).

Given these concerns, our team adapted an existing evidence-based intervention to target mental health symptoms and conduct-related behaviors for adolescent males in juvenile detention, with the ultimate goal of interrupting cycles of recidivism. Lawrence and colleagues (2014) created an intervention (Achieving Change through Values-based Behavior; ACTV) based upon the core tenets of Acceptance and Commitment Therapy (ACT; Hayes et al., 1999) for adult men convicted of domestic violence. A quasi-randomized controlled trial (RCT) was conducted with adult males who were court-mandated to complete treatment for a domestic violence conviction such that men were assigned to either ACTV or treatment-as-usual (TAU: a hybrid of Duluth model [Pence & Paymar, 1993] and Cognitive Behavioral Therapy). Men who received ACTV demonstrated a 30% reduction in recidivism (operationalized as new charges, including domestic assault and generally violent charges) compared to participants receiving TAU (Zarling et al., 2017). A second quasi-RCT of ACTV in a separate state replicated these findings; men who received TAU were more likely to receive convictions than those in ACTV, and recidivism occurred more quickly (Lawrence et al., 2021). Thus, ACTV has demonstrated promise as an intervention for reducing recidivism in a male justice-involved population. Like ACTV, we chose to focus the adolescent adaptation on males involved in the juvenile justice system. Not only are males more prevalent in this system, but we believe detained females have unique needs which would require further adaptation.

More generally, the ACT literature has demonstrated effectiveness for a wide variety of mental disorders (i.e., depression, anxiety) and maladaptive behaviors (e.g., substance use, self-harm; Hayes et al., 2006; Ruiz, 2010). Not only have these studies demonstrated comparable efficacy of ACT to CBT, ACT interventions have also been shown to yield greater maintenance of treatment gains over time and demonstrate efficacy even when offered in smaller doses (Hayes et al., 2006; Ruiz, 2010). Literature focusing on the use of ACT in various adolescent populations is sparser, but there is research that suggests that outcomes are indeed promising for a variety of presentations (Halliburton & Cooper, 2015).

ACT is based on the idea that “psychological inflexibility” (i.e., responding in a restricted way to situations) creates emotional and behavioral problems (Hayes, 1999). ACT aims to increase one’s psychological flexibility, which is the extent to which one pursues a wide range of behavioral options under a previously behavior-limiting context (e.g., stress, anger, disappointment). To become more psychologically flexible, one can increase skills in six core domains (as defined in Hayes et al., 2012): acceptance (“the voluntary adoption of an intentionally open…nonjudgmental posture with respect to moment-to-moment experience,” p. 272), cognitive defusion (“…closer contact with verbal events [thoughts] as they really are, not merely as what they say they are,” (i.e., thoughts, not truths) p. 224), present moment awareness (“living flexibly in the here and now,” p. 202), self-as-context (“…being aware that we are the ones who contain and look at our private experience,” p. 220), values (“…significant life missions…sense of life direction…,” p. 297), and committed action (“… a values-based action that occurs at a particular moment in time … deliberately linked … action that serves the value,” p. 328).

The desire to alter or remove unpleasant thoughts, emotions, and physiological sensations, or experiential avoidance, is a key theoretical concept in ACT that explains behavioral

restriction and sustains mental health symptoms. ACT reduces emotional and behavioral problems by reducing experiential avoidance (Hayes et. al, 2006). Experiential avoidance is also related to aggressive behavior and relationship violence (Bell & Higgins, 2015; Reddy et al., 2011; Shorey et al., 2014). This is particularly relevant to adolescents in juvenile detention, who may also have higher levels of experiential avoidance, as it has been linked to coercive family interactions (Biglan et. al 2015), behavioral problems (Kingston et. al, 2010), and symptoms in responses to childhood trauma (Shenk et al., 2012). Although ACT may be particularly relevant for the youth in juvenile detention, it had not been studied in this setting. As discussed above, few psychotherapeutic interventions have been tested in juvenile detention and this population is historically underserved. Another potential advantage of ACT for adolescents is that the skills can be taught experientially and through metaphors, making them easier to learn than other cognitive approaches (Goodman & Greenland, 2009). We also argue that ACT is an approach that is more adaptable to individual experiences than other treatment modalities, and thus may be appropriate for diverse populations and presentations.

The adapted intervention (Building Resilience and Emotional Awareness through Knowledge; BREAK) is a six-session group intervention for adolescent males in the juvenile justice system. It incorporates core ACT concepts and components that focus directly on improving behavioral skills, such as effective communication and problem-solving. These skills are useful in many contexts beyond detention, such as speaking with a parent or resolving a problem with a peer. Experiential activities were emphasized to increase engagement, accessibility, and acceptability of the intervention content. For example, participants learn the concept of experiential avoidance through the “Ice Cube Activity” (adapted from Gehart, 2012) in which participants are asked to hold a piece of ice in the palm of their hand and notice how their minds and bodies respond to the sensations (e.g., Do they attempt to alter the experience by dropping the ice cube or moving the ice around in their hand?). After the activity, this experience is likened to the daily struggle with uncomfortable emotions in juvenile detention and the common desire to get rid of unpleasant internal experiences, illustrating that it is possible to live and behave in intended ways despite discomfort. (For a full description of manual adaptation see O’Hara et al. (2019); also see Table 1 for brief descriptions of session content.)

In addition to addressing these key ACT processes and behavioral skills, we paid careful attention to issues raised in prior research about the ‘contagion effect’ or ‘deviant peer influence’ (Dishion & Piehler, 2009) in group interventions for adolescents. As a brief overview, our team worked to combat these possible effects by increasing supervision (i.e., multiple facilitators), separating groups by different levels of risk, and directly addressing glorification of crime and violence as it arose in session. (See O’Hara et al., 2019 for a more comprehensive discussion of this important issue). These honest conversations may not only counteract engagement in negative behaviors, but may even increase prosocial behaviors with peers.

The purpose of the present pilot study was to determine whether to conduct a full RCT of the newly adapted intervention. BREAK was delivered over 11 months to 128 adolescent males who resided in juvenile detention. We evaluated its feasibility and

acceptability, and measured whether participation was associated with reduced symptoms of mental health distress, psychological inflexibility, and recidivism (future arrests and detainments). Some researchers suggest that pilot studies are misused when researchers focus solely on effect sizes to determine evidence of preliminary intervention effectiveness (i.e., Westlund & Stuart, 2017); therefore, we considered both quasi-experimental evidence (intervention vs. control comparisons), pre-post change (within the intervention group), and qualitative observations (e.g., impressions from study team members and facilitators). Herein, we describe the prevalence of mental health concerns in our sample, treatment fidelity and facilitator competence, acceptability of the new intervention, and change in key outcomes. These pilot data were regarded as important indicators of whether to move forward in evaluating BREAK's effectiveness in a large, randomized trial. BREAK's potential as a feasible and acceptable intervention for the underserved population in juvenile detention could assist in ameliorating mental health symptoms and lessen the risk of adult incarceration, reducing trajectories of inequity that are often solidified in adolescence.

Method

An Institutional Review Board responsible for human subjects' research at the University of Arizona reviewed this project and found it to be acceptable according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research. A memorandum of understanding (contract) was also drafted and approved by the juvenile court study site. Additionally, this study was pre-registered through OSF (https://osf.io/wyxe9).[1]

Participants and Procedures

Potential participants were recruited from three of five separate living quarters, labeled "pods" by juvenile detention staff. Two pods were excluded from recruitment because one comprised only female detainees, and the other was specifically designed to assist adolescents struggling with substance use disorders. Adolescents from the other three pods were eligible to participate, and were recruited in either a group or individual format (a recruitment script was read by detention staff, and participants volunteered). Typically, one pod was recruited for BREAK, and a separate pod was recruited for the control condition. BREAK was delivered as an open group, and up to eight adolescents could participate in each session. Control participants were given the option to complete measures as a control participant only, or to be placed on a waitlist to join the group as soon as there was an opening. Given the recruitment restrictions imposed by the detention center, which did not allow research team members to recruit directly, it is unknown how many youths volunteered versus declined. Participants were aware of the condition to which they were assigned and provided informed assent. Since they were detained, the detention facility provided consent for the participants to volunteer for the study.

Participants (N = 128) were males between the ages of 14 and 17 (M = 15.81, SD = 1.10). Race/ethnicity was self-reported via fill-in responses rather than fixed categories to be as

[1]Note that the statistical analysis plan changed due to missing data.

inclusive as possible, and most of the sample identified as a person of color: Hispanic (35.9%), followed by “Other” (which includes biracial or multiracial; 22.65%), Caucasian/non-Hispanic (22.7%), and African American (7.8%). While this racial/ethnic breakdown differs from national samples, it is representative of juvenile detention facilities in the region where the study was conducted. Participants also self-reported criminal charges for their current detainments: 53.1% reported crimes classified as non-violent (e.g., theft, property destruction, probation violation) and 18.8% reported violent crimes (i.e., threat or actual physical harm against another person).[2]

There were 72 participants in the intervention condition, 28 in the control condition, and 28 in the waitlist control condition. Because waitlist participants completed research assessments both as part of the control and BREAK conditions, we randomly selected only one of their two sets of data to analyze in this study. Thus, for the purposes of the present evaluation, all participants were considered either BREAK ($n = 85$) or controls ($n = 43$). There were no statistically significant differences in age (t [120] = 1.37, $p = .174$), self-reported race/ethnicity (χ^2 [5, N = 128] = 2.807, $p = .730$), or self-reported criminal charges (χ^2 [4, n = 108] = 2.400, $p = .663$) between the BREAK and control groups.

Those in the BREAK condition received the manualized six-session treatment over three weekends. As required by the study site, a detention staff member was present during group sessions for safety reasons, but was asked not to participate in the group process and sat separately from the group. Participants in the control condition received care as usual (standard-of-care or SOC) in detention, which could have included crisis services or individual treatment (e.g., if a therapist was approved to come into detention). In practice, few adolescents received treatment. After each date of study participation, both groups received certificates indicating their voluntary participation in a research study; thereafter, they could share these certificates with their families, attorneys, or judges. (A judge suggested this reward for completion of the project.) No known adverse events or side effects occurred in either condition.

Group Facilitators

Group facilitators were undergraduate and doctoral students. All were trained by BREAK developers to ensure treatment fidelity and competence to the model. Training included facilitators reading *ACT Made Simple* (Harris, 2009) and attending weekly trainings to discuss the given concepts and role-play various activities. The research team and facilitators then held trainings to cover each BREAK session in detail and clarify the concepts. We required that each facilitator observe all six sessions of BREAK, and then complete each session as an assistant facilitator. Thereafter, the lead developer determined each facilitator’s readiness to co-facilitate groups. Each group had two facilitators, under the supervision of a licensed clinical psychologist. Most sessions were led by one male and one female, although the majority of facilitators identified as female (66.67%). Additionally, 44.45% identified as facilitators of color.

[2]Numbers do not sum to 100% due to missing data.

Measures

Measures were intended to be completed at three time points: pre-intervention, post-session four, and post-session six. Control participants completed measures at the same time intervals as intervention participants.

Mental Health—Mental health symptoms were measured with the *Brief Symptom Inventory* (BSI; Derogatis, 1993). Participants completed the BSI in paper and pencil format in the group room with facilitators, other group members, and one detention staff present. Participants were spaced to ensure privacy, and detention staff were asked not to look at questionnaires. Facilitators checked the questionnaires directly after completion for endorsement of risk items (i.e., "thoughts of ending your life" and "having urges to beat, injure, or harm someone"). Doctoral student facilitators conducted individual risk assessments as needed, with consultation from a licensed clinical psychologist. Before session one, participants completed the full 53-item BSI survey (sub-scales including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism). Thereafter, participants completed a shortened version that consisted only of the depression, anxiety, and hostility subscales. On the BSI, participants rate their degree of distress with psychological symptoms within the past week, with response options on a Likert scale ranging from 0 (Not at all) to 4 (Extremely). Norms for the BSI have been developed for adolescents who are at least 13 years of age (Sahin et al., 2002). The psychometric properties of the BSI have been tested in a sample of adolescents, with alphas ranging from 0.70 to 0.88 (Sahin et al., 2002).

Additionally, a one-hour semi-structured clinical interview was adapted from the standard clinical interview used by the local juvenile detention facility. The original interview was developed by Dr. Gustavo Perez to assess common mental health symptoms among adolescents in juvenile detention (e.g., worry, anger, sadness, suicidal thoughts). This abbreviated interview provided substantial qualitative data about participants' self-reported symptoms while minimizing participant burden that would have been incurred by including an additional longer-form diagnostic measure. Criteria from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) were used to estimate likelihood of possible diagnosis (APA, 2013). For example, if a participant endorsed "worry" at least half the time and one other symptom of anxiety, they were considered likely to meet criteria for generalized anxiety disorder. Researchers completed as many interviews as scheduling allowed (i.e., not pulling the youth out of school, prior to their release). Approximately half of the participants completed the interview (42 BREAK, 36 SOC). (See, O'Hara et al., 2019 for further information.)

ACT Processes—Targeted ACT processes (experiential avoidance, cognitive fusion, and value-directed behavior) were assessed with the *Avoidance and Fusion Questionnaire for Youth* (AFQ-Y; Greco, Murrell & Coyne, 2005), *Cognitive Fusion Questionnaire* (CFQ; Gillanders et al., 2014), and the *Valuing Questionnaire* (VQ; Smout, Davies, Burns, & Christie, 2014). The AFQ-Y is a 17-item questionnaire assessing cognitive fusion, experiential avoidance, and behavioral inaction. Responses are made on a Likert scale ranging from 0 (not at all true) to 4 (very true). The AFQ-Y has demonstrated internal

consistency (α = .92) with a sample of 329 youths (Greco, Lambert, & Baer, 2008). The AFQ-Y further demonstrates strong reliability (α = 0.92) and expected convergent and divergent validity (Schmalz & Murrell, 2010).

The CFQ is a 7-item questionnaire that assesses cognitive fusion (Gillanders et al., 2014). Respondents rate items on a scale of 1 (never true) to 7 (always true). The CFQ has demonstrated internal consistency (α = .88 – .93) and test-retest reliability (.80) in adult samples (Gillanders et al., 2014). The CFQ has shown convergent and divergent validity (Gillanders et al., 2014). one study in Spain has examined the use of the CFQ with adolescents (Solé et al., 2016; α=.79).

The VQ is a10-item questionnaire that measures progress and obstacles in moving toward self-identified values within the past week. Respondents rated items on a scale of 0 (not at all true) to 6 (completely true). The VQ is composed of two factors: progress (clarity in what is important to a person) and obstruction (disruption of values by not attending to them or focusing on other experiences). Smout et al. (2014) found that these factors were significantly negatively correlated ($r = -0.52$, $p < .001$). Both progress (α = 0.87, average inter-item correlation $r = 0.57$) and obstruction (α = 0.87, average inter-item correlation $r = 0.58$) have demonstrated internal consistency.

Recidivism—Recidivism data were obtained by study site staff at 6- and 12-month periods after participants' final date of research participation. Recidivism was measured in two ways. First, recidivism was defined as returning to the juvenile detention center for any type of criminal activity. Second, recidivism was collected for all juvenile arrests, regardless of whether the participant returned to detention. Measuring recidivism by both arrest and return to detention provides a deeper understanding of youth involvement in the legal system and the impact of BREAK.

Treatment Fidelity and Facilitator Competence—Measures of treatment fidelity and facilitator competence were adapted from those created by Lawrence and colleagues for the evaluation of ACTV (Lawrence & Langer, 2013a, 2013b). The treatment adherence checklist (see Appendix A) included objectives based on the content of each session, and were rated on a scale ranging from 1 (non-adherence) to 3 (full adherence). Seven sessions were observed and coded for level of treatment adherence (four of which were double-coded). The facilitator competence checklist (see Appendix B) included predetermined criteria rated on a scale ranging from 1 (no evidence) to 5 (definite evidence) to assess whether the facilitators were running the group in line with the broader theoretical grounding of the intervention. Six sessions were observed and coded for level of facilitator competence (three of which were double-coded).

Intervention Feasibility and Acceptability—Qualitative and quantitative data were collected by facilitators and research team members at weekly supervision and team meetings to assess feasibility and acceptability. Feasibility was measured by program completion, measure completion, recruitment, and intervention delivery. Acceptability was measured by qualitative reports from team members, observations of facilitators, and rates of voluntary drop out. Additionally, the research team reviewed participants' written responses

to intervention activities to assess whether they seemed to be engaging with the material as intended.

Results

How Prevalent are Mental Health Problems in Juvenile Detention?

To assess the prevalence of mental health concerns in juvenile detention, we first analyzed data from the semi-structured interviews with participants. The results were previously reported (O'Hara et al., 2019); to summarize, we created binary diagnostic scores from the semi-structured interview to estimate the likelihood of DSM-5 diagnoses. The majority of our sample may have met criteria for a diagnosable mental health concern, including generalized anxiety disorder (n = 70, 57.14%), major depressive disorder (n = 77, 42.85%), conduct disorder (n = 75, 90.66%), and posttraumatic stress disorder (n = 77, 54.54%). Although these scores cannot be considered a formal diagnostic assessment, they clearly illustrate the presence of mental health symptoms in this population.

Is BREAK associated with positive changes in mental health symptoms, ACT processes, and recidivism?

Mental health symptoms and ACT processes—Given that only 54% of the sample completed at least two timepoints, we analyzed change in mental health symptoms for participants who completed at least four out of six assessments (BREAK n = 50, SOC n = 19). Independent samples t-tests comparing BREAK and SOC found no significant ($p < .05$) group differences for those who completed at least four assessments. However, it is likely we did not have sufficient power to detect between-condition differences.

Each condition was then examined separately via dependent samples t-tests to evaluate change over time for those who completed at least four sessions. Mean scores among participants in the BREAK condition changed significantly pre- to post- treatment on measures of anxiety symptoms (BSI; t[47] = 3.696, p = < .001), barriers to making value-directed behavioral changes (VQ; t[45] 2.926, p = .005), and experiential avoidance and cognitive fusion (AFQ-Y; t[47] 2.291, p = .027). No significant changes were noted on depression (BSI), hostility (BSI), behavioral progress toward values (VQ), or cognitive fusion (CFQ). All changes were in the expected directions, except for progress toward values. We postulate that although participants may have felt fewer obstacles in moving toward their values (e.g., distressing thoughts or feelings), they may have felt more challenged by making actual progress given their current detainment. In contrast, mean scores did not significantly change pre- to post-treatment among SOC participants on any measure.

Recidivism—Participants' recidivism data (n = 110[3]) were collected at 6- and 12-months after their final date of participation. Because waitlist control participants had some exposure to the intervention, for this analysis they were part of the intervention group. Thus, we re-analyzed group statistics to ensure no group differences existed. There were no statistically

[3]Some data could not be collected, due to the participant turning 18 years old or because they had a common name and were, therefore, not distinguishable from other youths.

significant differences between BREAK and SOC in age (t[108] = 0.137, $p = .891$), or self-reported ethnicity (χ^2 [3, N = 110] = 3.509, $p = .320$). The BREAK and SOC conditions did not differ regarding whether or not they were detained the year after completion of their participation (χ^2 [1, N = 107] = 1.691, $p = .193$), in their number of detainments (t[104] = −0.968, $p = .335$) or in paper arrests (t[105] = −0.411, $p = .128$).

Was BREAK Provided with Fidelity and Competence?

Of the seven rated sessions of treatment adherence, scores were consistently in the moderate to full adherence range (ratings of 2 or 3 on a 1-3 scale). for the double-coded sessions, there was only one discrepancy (one coder rated 2 and the other rated 3). Of the six rated sessions of facilitator competency, coders rated facilitators scores of 4 and 5, indicating sufficient competence. Of the double-coded sessions, only 3 of 18 items were discrepant.

Is BREAK Acceptable and Feasible?

There were several indicators of BREAK's feasibility to be implemented in juvenile detention. First, BREAK sessions were often filled to maximum capacity and there was an ongoing waitlist of adolescents who heard about the group from others; additionally, only three of 103 participants who received any number of BREAK sessions dropped out voluntarily. Second, participants who attended the group demonstrated engagement in the intervention content. For example, one activity is intended to help participants identify their values by posing a hypothetical situation in which they articulate what they want their friends and family members to say about them in the future. A short sampling of the written responses includes:

"…He is a good kid. We want to hug him. He is respectful. His family is happy and proud of what he has done since then."

"He has been sober for 9 years. He is a scientist."

"He's a good person…He helps people when they need help. He is a good friend."

"He's smart. He's funny. He knows how to make you smile."

"…He's never let his past define him. He's a real family man."

Participants continued to remain engaged even when covering more sensitive or challenging topics. One activity asks the youth to write down a difficult thought on a sheet of paper that they are willing to share with the group. Participants shared thoughts such as:

"Everything is my fault."

"I am a problem."

"I'll never amount to anything."

"It's me against the world."

"I can't make it."

These examples demonstrate the willingness of participants to share difficult thoughts with others. They discussed these thoughts in detail, and were open to trying to engage with their thoughts in new ways.

Discussion

The purpose of the current study was to determine whether there is sufficient evidence to support conducting an RCT with this newly created ACT-based intervention targeting conduct problems and mental health symptoms for adolescent males in the juvenile justice system. Results indicate an RCT to further evaluate BREAK is appropriate based on all available evidence, including: 1) relevant literature on ACT and ACTV; 2) presence of mental health concerns in the sample; 3) treatment fidelity and facilitator competency in the implementation of BREAK; 4) acceptability and feasibility of BREAK; and 5) favorable pre-post change on key ACT process and mental health measures. Our team believes in the importance of developing evidence-based and feasible interventions for adolescents in juvenile detention to improve outcomes for this underserved population and interrupt trajectories of inequality.

Situating New Evidence in Prior Literature

ACT has demonstrated effectiveness across a wide variety of mental health concerns for adolescents and adults (Haliburton & Cooper, 2015; Hayes et al., 2006; Ruiz, 2010). In line with these findings, the present study found that BREAK is associated with reductions in anxiety and experiential avoidance, and improvements in value-directed behavioral change in adolescents in juvenile detention. Prior evidence suggested that experiential avoidance predicts violence, behavioral problems, and mental health symptoms (Bell & Higgins, 2015; Reddy et al., 2011; Kingston et al., 2010; Shenk et al., 2012). Thus, BREAK may have significant implications for prevention of negative long-term outcomes for this underserved population. Given the paucity of empirically-supported mental health interventions for adolescents in juvenile detention, the promising results of the present study suggest the importance of further research in this area to reduce inequities for this population and possible benefits of interventions into adulthood.

Mental Health Concerns

Consistent with previous literature regarding adolescents in the juvenile justice system (e.g., Child Trends, 2015; Holman & Ziedenberg, 2006; Teplin et al., 2002; Shufelt & Cocozza, 2006), our sample demonstrated high levels of mental health symptoms. Almost 90% of the sample had experienced *at least* one traumatic event, and many participants would likely meet criteria for a variety of diagnoses (not just symptoms), including Generalized Anxiety Disorder, Major Depressive Disorder, Post-Traumatic Stress Disorder, and Conduct Disorder.

Treatment Fidelity and Facilitator Competency

At a fundamental level, treatment fidelity helps support the validity of research outcomes, by ensuring the treatment was delivered as intended (Borrelli et al., 2005). The current study's evaluation of treatment adherence indicated that group facilitators consistently adhered to

the manual in their delivery of BREAK. Further, facilitator competency refers to the level of knowledge a provider has in the given treatment model. Rating facilitator competency ensures that even if facilitators must deviate from the written manual, the information they are providing remains in line with the beliefs and values of the treatment. The current study's measures of facilitator competence indicated consistently high competence among group facilitators.

Feasibility and Promise of Potential Efficacy

Random assignment of participants was not feasible in this study, and we had to balance the needs of the study site in maintaining procedures and safety with requirements to meet scientific evaluation of the intervention. We were able to develop a protocol that balanced the rigor of our scientific evaluation with real-world implementation challenges in a clinical setting with a vulnerable, underserved population. We were successful in implementing the intervention in the juvenile detention setting, as evidenced by completing 58 sessions over the course of 35 weeks. Despite limitations (e.g., upholding detention rules, safety requirements of a corrections officer being present for each group), participants still found the intervention to be engaging and acceptable; the dropout was remarkably low compared to similar studies (de Haan et al., 2013).

There were other factors that signaled potential challenges with implementation of BREAK in juvenile detention. First, in this pilot study, BREAK was conducted over the course of three weekends due to the availability of the detention facility. The average length of stay for adolescents in the study facility was 27.9 days in 2017 in juvenile detention (J. Basta, personal communication, December 5, 2018), such that most participants were released before the third weekend of BREAK sessions; this likely explains the substantial attrition for the last two sessions. Similarly, the magnitude of BREAK's estimated effect may be underestimated in that many participants were not able to receive the recommended number of sessions. However, it is remarkable that the majority of attrition in this study is likely attributable to being released back into the community rather than voluntary discontinuation.

An intervention will not have a public health impact, even if effective, if it is not likely to be adopted in the community. This study demonstrated that BREAK is acceptable from the perspective of key stakeholders including detention staff, facilitators, and participants. We implemented the intervention with fidelity and competence in a juvenile detention facility with minimal resources. Further, only three participants dropped out of BREAK voluntarily, a remarkably low rate for comparable studies. For example, although reported attrition rates of children and adolescents in therapy are likely influenced by research design and definition of attrition, a recent meta-analysis found studies which estimate that attrition rates range between 28 to 75% (de Haan et al., 2013).

Results of this pilot study indicated that, although there were no significant group differences, intervention participants demonstrated significant pre- to post-intervention declines in anxiety symptoms, and in ACT-based constructs of experiential avoidance, cognitive fusion, and perceived barriers to moving toward their values. Notably, we observed these changes even when participants did not complete the full intervention. Participants in the SOC condition did not demonstrate significant declines on any outcome measures.

Although there was no significant change in recidivism rates, this finding may have been impacted by a small sample size as well as the possible need for more than six sessions to impact this outcome. Additionally, we believe that recidivism may not always be the best reflection of behavior change in that people may be rearrested for lesser crimes and thus not account for no longer engaging in aggressive behaviors.

Limitations

This pilot study suggests promise for a novel intervention to reduce mental health symptoms for adolescents in juvenile detention, but there were some limitations of this research. Given that most participants were unable to complete the intervention over the course of three weekends, there is a need to continue to work with detention settings to provide the full intervention in a shorter time to allow adolescents to fully participate. This limitation could be alleviated by training staff in the facilities to run the group, and/or by finding ways to run groups at various times of the day and days of the week. It is noted that several of our facilitators were undergraduates without prior training in ACT or psychotherapy, which suggests it would be feasible to train other paraprofessionals such as detention staff to deliver the intervention.

Another limitation is that several participants either did not want to complete research measures, or filled them out inaccurately. We learned that it helped to discuss the importance of this process with the participants. Specifically, when facilitators talked about the rationale for these measures in more depth, participants were much more willing to engage in this process. We further emphasized the volitional nature of completing the measures, indicating that we would prefer that they not complete them rather than fill them out inaccurately.

Although we attempted to include a diverse group of facilitators (e.g., males and females, diverse racial backgrounds), most facilitators were white females. It is possible that this fact, alongside coming from a research institution, may have influenced the participants' willingness or desire to fully engage with the material. To mitigate such barriers, facilitators engaged in ACT-consistent self-disclosure, including sharing their own values and unwanted internal experiences. An additional advantage of having the intervention led by detention staff would be potentially increased diversity of group leaders as compared to clinical psychology graduate students.

Additional careful attention to outcome measures may increase the sensitivity of the assessment. Some participants appeared to use response sets in completing the paper-and-pencil self-report questionnaires (i.e., not reading questions and circling zeroes), such that scores on self-report measures were inconsistent with semi-structured clinical interviews. It is well-documented that adolescents may be more likely to complete self-report questionnaires with inaccurate and invalid information (Fan et al., 2006) due to lack of attention, confusion, or purposefully providing intentional false responses (e.g., "jokesters" as described by Fan et al., 2006). To address this concern, future work may consider using a validated clinical interview for assessment of mental health symptoms and diagnoses. Although our researchers did not identify any "jokesters" (Fan et al., 2006) in our participant responses, we identified several participants who were confused or not paying attention. As such, reducing participant burden by reducing the overall number of questionnaires in the

study may increase validity. Per recommendation of Fan et al. (2006), embedding a validity measure in future assessments would mitigate concerns of validity. Additionally, paper-and-pencil self-report questionnaires may benefit from being administered individually (rather than group) format with the support of a clinician.

Future Directions

BREAK appears to be a promising intervention that warrants further investigation. The next step is to conduct a full-scale RCT. In addition to collecting data regarding mental health and recidivism, it would also be useful to gather information about behavior change more generally (e.g., rule-breaking behavior while detained) that may speak more directly to clinical utility compared to other outcomes, such as recidivism. An RCT with a large and diverse sample is also critical to allow the assessment of moderators that might influence intervention effects, particularly race and ethnicity.

Notably, the intervention from which BREAK was adapted has 24 sessions. Although we believe a high number of sessions is unlikely to be feasible within a detention setting, there is an argument to be made for increasing the number of sessions in order to help solidify newly learned skills and practice them over time. These sessions could be compressed into fewer calendar days than in the present study (e.g., conducting shorter groups on the weeknight).

In addition, further adaptations of this intervention would be appropriate, such as a version to address the unique needs of detained females (as discussed by Miller et al., 2012). A community-based component for follow-up and booster sessions (with opportunity for familial involvement if available) would also be useful to help with continuity of care as well as to solidify and translate concepts into the daily lives of these youth.

The intervention may also benefit from adaptation specifically for youth of color, given the disproportionate overrepresentation of youth of color in the juvenile justice system nationally (Hockenberry, 2020) and in our study (35.9% Hispanic; 22.65% Other; 7.8% Black). Youth of color have increased rates of experiencing interpersonal trauma (Sacks & Murphey, 2018) and direct or vicarious traumatic racial discrimination, often called racial trauma (Comas-Díaz, Hall, & Neville, 2019). As such, an adaptation for youth of color would likely benefit not only from increasing the focus on trauma already in the intervention, but also changing the content to explicitly name and address racial stress and trauma. Hardy (2013) proposed an eight-step process for healing from racial trauma for youth of color, including affirming and acknowledging the impact of racism, creating spaces for discussion of race, racial storytelling, validation, and naming of devaluation perpetrated by society and racial oppression, counteracting devaluation and rechanneling rage. (Also see Hardy & Laszloffy [2005] for thorough explication of addressing violence in youth of color.) As an example of how the proposed adaptations above may be integrated in BREAK, the intervention explores the understanding of stereotypes of men, but does not explicitly address devaluation of men of color, which is often raised informally by youth of color during this discussion; such discussion could be formally incorporated into the intervention manual. Furthermore, it may be helpful to incorporate racial socialization and resilience interventions or include community resources for this purpose. (See Anderson

& Stevenson, 2019 and Metzger et al., 2021 for justification of importance of racial socialization interventions for youth of color.) Finally, explicit assessment of racial stress and trauma (Carter, 2007; Williams et al., 2018) and training of group facilitators on racial stress and trauma would benefit such an adaptation.

Conclusion

It is our hope that this research increases awareness of the disturbing lack of access to quality, evidence-based mental health interventions for youth in detention facilities. Although systemic changes are critical to reducing unequal trajectories among youth, we believe that BREAK is a promising intervention that may reduce mental health problems in this underserved population. Effective interventions are crucial for reducing prominent mental health inequities for youth in juvenile detention facilities, as well as disparities in justice involvement for youth of color more generally. If BREAK proves to be effective, it may be an important element in breaking a vicious cycle of long-term consequences for youth who are detained.

Acknowledgments

Research was conducted at the University of Arizona. Authors have since moved to other positions: Dr. Duchschere is now a licensed psychologist in the state of Minnesota; Dr. Reznik is now at the Texas Institute for Excellence in Mental Health, University of Texas at Austin; and Dr. Shanholtz is now at the University of California, Los Angeles. This work was supported by the Institute for Mental Health Research (2015-CBEL-01). Karey L. O'Hara's work on this paper was supported in part by a postdoctoral fellowship provided by the National Institute on Drug Abuse (T32DA039772) and by a career development award provided by the National Institute of Mental Health (K01MH120321).

Appendix A: Treatment Adherence Checklist

Individual Section Ratings (1-3 Scales)

Mark each box indicating which parts were completed during the session. Then evaluate as a whole and rate on the 1-3 scale the extent to which the material was covered.

1 – Section material was skipped or mentioned briefly.

2 – Section material was covered but there was a lack of depth and quality discussion among group members.

3 – Section material led to a discussion among group members. Facilitators used activities to convey information. Participants were involved.

Global Ratings for Each Session or Theme (1-5 Scales)

1 – Goals for this session were clearly not accomplished. Most of the material was not covered or it was covered very briefly. The session needs to be repeated in full for the goals to be accomplished.

2 – Goals for this session were minimally accomplished. Some of the material was covered. Some of the material was covered in some depth. Most of the session should be repeated in order for the goals to be accomplished.

3 – About half of the material was covered effectively, and about half was omitted or covered very briefly. Approximately half of the goals of this session appear to have been accomplished.

4 – Goals for this session appear to have been accomplished. The material was covered in sufficient detail and effectively.

5 – Goals for this session were very obviously accomplished. All of the key material was covered in detail and very effectively. This session could be used as a model for other facilitators.

Session 1

Individual Section	Individual Rating
5 Senses vs. Internal Experiences: • Candy exercise (eating with 5 senses) • Pizza exercise	1 2 3
Values: • 25th birthday party exercise • Discussion of why values are important • Values card sort exercise	1 2 3
Toward vs. Away Moves: • Away moves discussion • Toward moves discussion	1 2 3

	Session Goals	Global Rating
1	To identify what is important to the participants and become more aware/ conscious of their values.	1 2 3 4 5
2	To become more aware of their own thoughts, feelings, and urges.	
3	To learn to differentiate between information from the environment, as perceived by their 5 senses, and their thoughts or feelings about that information (mental experiences)	
4	To learn to differentiate between behaviors that move them TOWARD their values and behaviors that help them avoid unwanted mental experiences (AWAY moves)	
5	To understand that thoughts, feelings, and urges (mental experiences) are different from behaviors that are *responses* to the thoughts and feelings.	
6	To understand that they can choose how to behave based on their values.	

Session 2

Individual Section	Individual Rating
Messages about how guys and girls should behave: • Act like a “man” activity	1 2 3
My personality: • Moving around the room activity with discussion	1 2 3
Messages from family: • Discussion of familial influences	1 2 3
How others influence us: • Discussion of other influences (e.g., friends)	1 2 3
Chain breakers: • Discussion of whether or not want to be a “chain breaker”	1 2 3

	Session Goals	Global Rating
1	To start to notice factors that contribute to their behavior.	1 2 3 4 5
2	To begin to be motivated to change their behavior.	

Session 3

Individual Section	Individual Rating
Advanced away moves discussion: • Discussion of consequences/costs/effort of away moves	1 2 3
Understanding thoughts/feelings/urges: • Psychoeducational discussion regarding thoughts, feelings, and urges • Summarizing what can/can’t be controlled • Monkey mind • First half of tug-of war	1 2 3

	Session Goals	Global Rating
1	To learn that we cannot control our thoughts and feelings all of the time.	1 2 3 4 5
2	To better understand how our thoughts and feelings work.	

Session 4

Individual Section	Individual Rating
Willingness: • Second half tug-of-war • Quicksand metaphor • Ice cube activity • Mind like a radio metaphor	1 2 3
Listening skills: • Discussion of importance of listening (connected to values) • Video & discussion regarding listening in the video • Listening skills role play	1 2 3

	Session Goals	Global Rating
1	To learn the concept of “willingness.”	1 2 3 4 5
2	To evaluate their own listening skills.	

Session 5

Individual Section	Individual Rating
Willingness: • Observing your emotions • Decision tree	1 2 3
Ways of being hurtful and controlling: • Physical • Emotional • Sexual	1 2 3
Defusion: • Thoughts on Cards • Take your mind for a walk • “And” versus “But” • Drawing difficult thoughts • Train cars	1 2 3

	Session Goals	Global Rating
1	To better understand how people can be hurtful physically, emotionally, and sexually.	1 2 3 4 5

Session Goals		Global Rating
2	To better understand the boundaries of consent in sexual relationships.	
3	To learn defusion and emotional acceptance techniques.	

Session 6

Individual Section	Individual Rating (Please circle)
Committed action: • Free throw metaphor • Passengers on the bus • Unwelcome party guest	1 2 3
Speaker skills: • Discussion of passive/aggressive/assertive communication styles • Video & discussion regarding speaking skills in the video • Introduction to “I” statements, generate various examples	1 2 3
Conflict resolution: • Introduction to conflict resolution steps • Completing examples of using this style of conflict resolution	1 2 3

Session Goals		Global Rating
1	To further understand when “willingness” may be an option in their lives.	1 2 3 4 5
2	To distinguish between passive, aggressive, and assertive communication.	
3	To learn the structure and flexibility of “I” statements.	
4	To demonstrate ability to complete each step of problem-solving.	

Appendix B: Facilitator Competency Checklist

Below are a number of behaviors. Please rate the presence or absence of these specific facilitator behaviors in the sessions. Use the scale below to make your rating.

1	2	3	4	5	Don’t Know
No evidence	Little evidence	Moderate evidence	Reasonable evidence	Definite evidence	?

Please rate the extent to which the facilitator:

Behavior	Indicative Evidence	Score (please circle)
1. Used a directive/ confrontational facilitating style	• Told participants how they should or should not behave • Told participants that their behavior was either right or wrong • Lecture and didactic approach • Asked leading questions (modified participant's responses to fit his/her idea of the correct response) • *Comments*:	1 2 3 ? 4 5
2. Engaged in problem-solving discussions (interventions at the content level)	• Offered advice to participants • Focused on content and not on process • Focused on brainstorming possible solutions in order to solve a problem instead of encouraging participants to notice toward or away moves • *Comments*:	1 2 3 ? 4 5
3. Used a traditional cognitive behavioral approach	Encouraged participants to: • Challenge thoughts and/or replace the content of their thoughts • Seek evidence that confirmed or disconfirmed a belief or thought • Think something different than what they were already thinking • *Comments*:	1 2 3 ? 4 5
4. Required that participants assume responsibility for their behaviors	• Asked participants to talk about the event that brought them to detention • Encouraged/prompted participants to take responsibility for this event • Called participants out on their behavior/did not let them get away with excuses for their behavior • *Comments*:	1 2 3 ? 4 5
5. Used a collaborative facilitating style	• Encouraged discussion among group members as opposed to lecturing • Welcomed different opinions and comments; emphasized that there are not right or wrong answers • Did not argue with, lecture, coerce, or attempt to convince a participant • Self-disclosed when appropriate • *Comments*:	1 2 3 ? 4 5
6. Used experiential exercises	• Used a variety of experiential exercised to illustrate concepts as opposed to relying on psycho-education or lecturing extensively • Tailored metaphors, experiential exercises and behavioral tasks to meet the participants unique needs and experiences • *Comments*:	1 2 3 ? 4 5

Behavior	Indicative Evidence	Score (please circle)
7. Model and encourage acceptance as opposed to avoidance	• Facilitator modeled acceptance of difficult thoughts and feelings and encouraged participants to do the same (e.g., sitting with unwanted thoughts, feelings, and memories) • Helped participants notice when they were avoiding or attempting to control unwanted mental experiences • *Comments*:	1 2 3 ? 4 5
8. Model and encourage defusion from unwanted mental experiences	• Facilitator both modeled defusion and helped participants step back from thoughts and feelings • Help participants notice when they were getting hooked • Did not use techniques such as challenging thoughts, replacing thoughts, or seeking evidence for thoughts or beliefs • *Comments*:	1 2 3 ? 4 5
9. Model and promote valued-driven behavior	• Encouraged participants to list or think about their values • Encouraged participants to think about how their behavior might move them close or away from their values • Accepted participants' values as opposed to challenging or criticizing them • Linked the topic of the day to what is important to the participants • *Comments*:	1 2 3 ? 4 5

References

Alexander JF & Parsons BV (1982). Functional Family Therapy: Principles and procedures. Carmel, CA: Brooks/Cole.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). 10.1176/appi.books.9780890425596

Anderson RE, & Stevenson HC (2019). RECASTing racial stress and trauma: Theorizing the healing potential of racial socialization in families. American Psychologist, 74,63–75. 10.1037/amp0000392 [PubMed: 30652900]

Bell KM, & Higgins L (2015). The impact of childhood emotional abuse and experiential avoidance on maladaptive problem solving and intimate partner violence. Behavioral Sciences, 5, 154–175. 10.3390/bs5020154 [PubMed: 25893570]

Biglan A, Gau JM, Jones LB, Hinds E, Rusby JC, Cody C, & Sprague J (2015). The role of experiential avoidance in the relationship between family conflict and depression among early adolescents. Journal of Contextual Behavioral Science, 4(1), 30–36. 10.1016/j.jcbs.2014.12.001

Borrelli B, Sepinwall D, Ernst D, Bellg AJ, Czajkowski S, Breger R, DeFrancesco C, Levesque C, Sharp DL, Ogedegbe G, Resnick B, & Orwig D (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. Journal of Consulting and Clinical Psychology, 73(5), 852–860. 10.1037/0022-006X.73.5.852 [PubMed: 16287385]

Carter RT (2007). Racism and psychological emotional injury: Recognizing and assessing race-based traumatic stress. Counseling Psychologist, 35, 13–105. 10.1177/0011000006292033

Child Trends (2015). Juvenile detention: Indicators of child and youth well-being. Bethesda, MD: Child Trends. https://www.childtrends.org/indicators/juvenile-detention.

Comas-Díaz L, Hall GN, & Neville HA (2019). Racial trauma: Theory, research, and healing: Introduction to the special issue. American Psychologist, 74(1), 1. 10.1037/amp0000442 [PubMed: 30652895]

de Haan AM, Boon AE, de Jong JTVM, Hoeve M, & Vermeiren RRJM (2013). A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care. Clinical Psychology Review, 33, 698–711. 10.1016/j.cpr.2013.04.005 [PubMed: 23742782]

Derogatis LR (1993). BSI Brief Symptom Inventory: Administration, scoring, and procedure manual (4th Ed.). Minneapolis, MN: NCS.

Dishion TJ, & Piehler TF (2009). Deviant by design: Peer contagion in development, interventions, and schools. In Rubin KH, Bukowski WM, & Larsen B (Eds.). Social, emotional, and personality development in context: Handbook of peer interactions, relationships, and groups (pp. 589–602). New York, NY: Guilford Press.

Gehart D (2012). Mindfulness and acceptance in couple and family therapy. New York, NY: Springer Publishing.

Goodman TA, & Greenland SK (2009). “Mindfulness with children: working with difficult emotions,” in Clinical handbook of Mindfulness ed. Didonna F (New York, NY: Springer), 417–429.

Greco LA, Lambert W, & Baer RA (2008). Psychological inflexibility in childhood and adolescence: Development and evaluation of the Avoidance and Fusion Questionnaire for Youth. Psychological Assessment, 20(2), 93–102. 10.1037/1040-3590.20.2.93 [PubMed: 18557686]

Halliburton AE & Cooper LD (2015). Applications and adaptations of Acceptance and Commitment Therapy (ACT) for adolescents. Journal of Contextual Behavioral Science, 4, 1–11. 10.1016/j.jcbs.2015.01.002

Hardy Kenneth V. "Healing the hidden wounds of racial trauma." Reclaiming Children and Youth 22, no. 1 (2013): 24. Retrieved from: http://praxis-cet.s3.amazonaws.com/learning/Webinar/2020/Spring/TRO2/Session+4/Healing+the+hidden+wounds.pdf

Hardy KV, & Laszloffy TA (2005). Teens who hurt: Clinical interventions to break the cycle of adolescent violence. Guilford Publications.

Harris R (2009). ACT made simple: A quick-start guide to ACT basics and beyond. Oakland, CA: New Harbinger Publications.

Hayes SC, Luoma JB, Bond FW, Masuda A, & Lillis J (2006). Acceptance and Commitment Therapy: Model, processes, and outcomes. Behaviour Research and Therapy, 44(1), 1–25. 10.1016/j.brat.2005.06.006 [PubMed: 16300724]

Hayes SC, Strosahl K, & Wilson KG (1999). Acceptance and Commitment Therapy: An experiential approach to behavior change. New York: The Guilford Press.

Hayes SC, Strosahl K, & Wilson KG (2012). Acceptance and Commitment Therapy: The process and practice of mindful change. New York: The Guilford Press.

Henggeler SW, Schoenwald SK, Borduin CM, Rowland MD, & Cunningham PB (1998). Multisystemtic treatment of antisocial behavior in children and adolescents. New York: Guilford Press.

Hockenberry S, Wachter A, & Sladky A (2016). Juvenile residential facility census 2014: Selected findings. Office of Juvenile Justice and Delinquency Prevention. https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/pubs/250123.pdf?ed2f26df2d9c416fbddddd2330a778c6=tulzhcklec-tkcjxxul

Hockenberry S, & Sladky A (2018). Juvenile residential facility census 2016: Selected findings. Office of Juvenile Justice and Delinquency Prevention. https://ojjdp.ojp.gov/library/publications/juvenile-residential-facility-census-2016-selected-findings

Hockenberry S (2020). Juveniles in residential placement, 2017. Office of Juvenile Justice and Delinquency Prevention. https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/media/document/juveniles-in-residential-placement-2017.pdf

Holman B, & Ziedenberg J (2006). The dangers of detention: The impact of incarceration youth in detention and other secure facilities. Justice Policy Institute. http://www.justicepolicy.org/images/upload/06-11_rep_dangersofdetention_jj.pdf

Kingston J, Clarke S, & Remington B (2010). Experiential avoidance and problem behavior: A mediational analysis. Behavior Modification, 34(2), 145–163. 10.1177/0145445510362575 [PubMed: 20308355]

Lawrence E, & Langer A (2013a). ACTV Treatment Adherence Scale. Unpublished measure. University of Iowa, Iowa City, Iowa.

Lawrence E, & Langer A (2013b). ACTV Facilitator Competency Scale. Unpublished measure. University of Iowa, Iowa City, Iowa.

Lawrence E, Langer Zarling A, & Orengo-Aguayo R (2014). Achieving Change through Value-Based Behavior (ACTV)-Facilitator Manual. Iowa City, IA: University of Iowa Foundation.

Lawrence E, Mazurek C, & Reardon KW (2021). Comparing recidivism rates among domestically violent men enrolled in ACTV versus Duluth/CBT. Journal of Consulting and Clinical Psychology, 89(5), 469–475. https://doi.apa.org/doiLanding?doi=10.1037%2Fccp0000649 [PubMed: 34124928]

Littell JH, Popa M, Forsythe B (2005). Multisystemic Therapy for social, emotional, and behavioral problems in youth aged 10-17. The Cochrane Database of Systematic Reviews, 1(1), 1–63. 10.4073/csr.2005.1

Metzger IW, Anderson RE, Are F, & Ritchwood T (2021). Healing interpersonal and racial trauma: Integrating racial socialization into trauma-focused cognitive behavioral therapy for African American youth. Child Maltreatment, 26(1), 17–27. 10.1177/1077559520921457 [PubMed: 32367729]

Miller S, Leve LD, & Kerig PK (Eds.). (2012). Delinquent girls: Contexts, relationships, and adaptation. Springer.

O'Hara KL, Duchschere JE, Shanholtz CE, Reznik SJ, Beck CJ, & Lawrence E (2019). Multidisciplinary partnership: Targeting aggression and mental health problems of adolescents in detention. American Psychologist, 74(3), 329–342. 10.1037/amp0000439 [PubMed: 30945895]

Office of Juvenile Justice and Delinquency Prevention (n.d.(a)). Juveniles in Corrections. https://www.ojjdp.gov/ojstatbb/corrections/qa08201.asp?qaDate=2018

Office of Juvenile Justice and Delinquency Prevention (n.d.(b)). Characteristics of delinquency cases handled in juvenile court in 2017. https://www.ojjdp.gov/ojstatbb/snapshots/DataSnapshot_JCS2017.pdf

Pence E, & Paymar M (1993). Education groups for men who batter: The Duluth Model. New York, NY: Springer.

Reddy MK, Meis LA Erbes CR, Polusny MA, & Compton JS (2011). Associations among experiential avoidance, couple adjustment, and interpersonal aggression in returning Iraqi war veterans and their partners. Journal of Consulting and Clinical Psychology, 79, 515–520. 10.1037/a0023929 [PubMed: 21728401]

Ruiz FJ (2010). A review of Acceptance and Commitment Therapy (ACT) empirical evidence: Correlational, experimental psychopathology, component and outcome studies. International Journal of Psychology and Psychological Therapy, 10(1), 125–162.

Sacks V, & Murphey D (2018). The prevalence of adverse childhood experiences, nationally, by state, and by race or ethnicity. Retrieved from: https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity

Sahin NH, Batigun D, & Uğurtaş S (2002). The validity, reliability and factor structure of the Brief Symptom Inventory (BSI). Turk psikiyatri dergisi = Turkish Journal of Psychiatry, 13(2), 125–135. [PubMed: 12794665]

Schmalz JE & Murrell AR (2010). Measuring experiential avoidance in adults: The Avoidance and Fusion Questionnaire. International Journal of Behavioral Consultation and Therapy, 6(3), 198–213. 10.1037/h0100908

Shenk CE, Putnam FW, & Noll JG (2012). Experiential avoidance and the relationship between child maltreatment and PTSD symptoms: Preliminary evidence. Child Abuse & Neglect, 36(2), 118–126. 10.1016/j.chiabu.2011.09.012 [PubMed: 22398300]

Shorey RC, Elmquist J, Zucosky H, Febres J, Brasfield H, & Stuart GL (2014). Experiential avoidance and male dating violence perpetration: An initial investigation. Journal of Contextual Behavioral Science, 3, 117–123. 10.1016/j.jcbs.2014.02.003 [PubMed: 24955326]

Shufelt JL, & Cocozza JJ (2006). Youth with mental health disorders in the juvenile justice system: Results from a multi-state prevalence study. National Center for Mental Health and Juvenile Justice. https://sites.unicef.org/tdad/usmentalhealthprevalence06.pdf

Smout M, Davies M, Burns N, & Christie A (2014). Development of the Valuing Questionnaire (VQ). Journal of Contextual Behavior, 3(3), 164–172. 10.1016/j.jcbs.2014.06.001

Teplin LA, Abram KM, McClelland GM, Dulcan MK, & Mericle AA (2002). Psychiatric disorders in youth in juvenile detention. Archives of General Psychiatry, 59(12), 1133–1143. 10.1001/archpsyc.59.12.1133 [PubMed: 12470130]

Westlund E, & Stuart EA (2017). The nonuse, misuse, and proper use of pilot studies in experimental evaluation research. American Journal of Evaluation, 38(2), 246–261. 10.1177/1098214016651489

Williams MT, Metzger IW, Leins C, & DeLapp C (2018). Assessing racial trauma within a DSM–5 framework: The UConn Racial/Ethnic Stress & Trauma Survey. Practice Innovations, 3(4), 242. 10.1037/pri0000076

Zarling A, Bannon S, & Berta M (2017). Evaluation of Acceptance and Commitment Therapy for domestic violence offenders. Psychology of Violence, 9(3), 257–266. 10.1037/vio0000097

Zarling A, Lawrence E, & Marchman J (2015). A randomized controlled trial of Acceptance and Commitment Therapy for aggressive behavior. Journal of Consulting and Clinical Psychology, 83(1), 199–212. 10.1037/a0037946 [PubMed: 25265545]

Table 1

BREAK Session Content

Session #	Session Topics
1	• Five senses versus internal experiences • Values clarification • Differentiating between ‘toward’ and ‘away’ moves
2	• Contributors to how people behave
3	• Psychoeducation of thoughts and feelings • Identifying ‘control’ as problematic • Creative hopelessness
4	• Willingness • Listening skills
5	• Identifying ways of being hurtful and controlling • Acceptance • Defusion
6	• Committed action • Speaking skills