A preliminary trial of achieving change through values-based behavior for incarcerated intimate partner violence offenders

by

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The student author and the program of study committee are solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

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ABSTRACT

Intimate partner violence (IPV) is a major public health concern. Perpetrators of IPV are often mandated to complete batterers intervention programs (BIP) which are based on Cognitive Behavioral Therapy and the Duluth Model (Adams, 1988; Pence & Paymar, 1993). BIPs have only a marginal impact on IPV recidivism (Babcock, Green, & Robie, 2004). Based on recent research, a new BIP has been developed for IPV offenders in community corrections that relies on principles from Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999), ACT is an evidence-based cognitive behavioral treatment that targets experiential avoidance via acceptance, mindfulness, and recognizing and acting on one's values (Hayes, Strosahl, & Wilson, 1999). The new treatment, Achieving Change Through Values-Based Behavior (ACTV; Zarling, Lawrence, & Orengo, 2017), has shown preliminary effectiveness as a treatment for perpetrators in community corrections (Zarling, Bannon, & Berta, 2017). The current study extends the literature by piloting ACTV with non-compliant incarcerated IPV perpetrators. Little research has been done on effective treatments for this population. The current study aims to describe the sample in terms of risk (experiential avoidance, psychopathy, adverse childhood experiences, and attachment), change in experiential avoidance over the course of treatment, and recidivism one-year post-intervention. ACTV in jail consists of 24 two-hour sessions delivered in group format over eight weeks. Self-report surveys were collected at three timepoints: the start of treatment, the middle of treatment, and the end of treatment. The men in the current sample (N=23) exhibited high levels of experiential avoidance, adverse childhood experiences, psychopathy, and attachment when compared to clinical and forensic samples from past research,

indicating high levels of risk. Consistent with expectations, experiential avoidance decreased significantly over the course of treatment (paired t-test; t (18)= -3.87, p<.00), suggesting promise for ACTV with this severe population. In addition, IPV recidivism was low (5%) in the one year recidivism period, comparable to recidivism levels found in a sample of IPV offenders in community BIP (Zarling, et al, 2017). No significant differences were found between men who re-offended during the one-year time frame and those who did not. More research ought to be done evaluating predictors of recidivism in this severe population. Overall, the current study supports the use of ACTV with non-compliant, incarcerated offenders. Larger studies of ACTV with this population are warranted.

CHAPTER 1. INTRODUCTION

Intimate partner violence (IPV) is a major public health concern. In the United States, more than 1 in 3 (36%) of women have experienced rape, violence, or stalking perpetrated by a current or former intimate partner (Black et al., 2011). The long-term consequences of IPV victimization include poor health, chronic disease, and chronic mental illness (Coker et al, 2002). For example, IPV victims often experience post-traumatic stress disorder (PTSD) in combination with common comorbidities (e.g., depression, anxiety, panic, substance abuse, eating disorders, somatization disorders, dissociative disorders, suicidality, etc.). Children who witness domestic violence have increased experiences of negative emotions, such as PTSD, anxiety, and depression (Lamers-Winkelman, De Schipper, & Oosterman, 2012). They experience significant physical health problems, and are likely to engage in externalizing behaviors such as self-harm and aggression (Lamers-Winkelman et al., 2012). Notably, witnessing parental IPV as a child increases risk for IPV victimization and perpetration as an adult (Whitfield, Anda, Dube, & Felitti, 2003). Effective interventions are needed to prevent the cycle of abuse from continuing.

Treatments for IPV Offenders

IPV perpetrators do not often seek treatment on their own (Healey, Smith, & O'Sullivan, 1999). Beginning in the 1970s, evidence began to accumulate that arrest alone was insufficient to stop IPV. Per victim reports, 35% of men arrested for IPV (who do not undergo a treatment program) reoffend within one year (Babcock, Green, & Robie, 2004). In an effort to decrease IPV recidivism, a variety of specialized court procedures and intervention programs were developed. Since then, mandatory treatment is usually part of sentencing following an arrest and conviction for domestic assault. Traditional interventions for IPV that take place within the

criminal justice system, called batterers intervention programs (BIPs), include Cognitive Behavioral Therapy (CBT) and the Duluth Model. BIPs are generally weekly group programs that range in duration from 8-52 weeks.

BIPs based on CBT target thoughts and beliefs that support IPV, teach behavioral skills, and provide psychoeducation (Adams, 1988). CBT is considered a model of evidence-based treatment with a large body of literature supporting its efficacy in reducing psychological symptoms. The Duluth Model is a program based on feminist theory, with the goal to change men's patriarchal attitudes (Pence & Paymar, 1993). Interventions based on the Duluth Model employ confrontational tactics to reduce the offenders' denial and minimization, and to encourage them to change their view that men are entitled to have power and control over women. In addition, the Duluth Model incorporates CBT techniques and psycho-education. BIPs are regulated by state standards, which mandate that BIPs adhere to specific approaches that hold men accountable for their behavior and provide psycho-education on the role of power and control motives in the perpetration of IPV.

Unfortunately, BIPs based on CBT and the Duluth Model have little impact on domestic violence. In Babcock and colleague's (2004) meta-analysis of five experimental and 17 quasi-experimental studies, both CBT and Duluth had only a small effect on recidivism, and no significant difference was found between their recidivism rates (i.e., they were similarly ineffective). Per victim reports from experimental studies, offenders who receive treatment are only 5% less likely to be violent with an intimate partner than offenders who are only arrested and sanctioned. This research indicates that BIPs have little rehabilitative impact beyond the impact of punishment alone. More effective BIPs are needed.

Another significant problem is that men who start BIPs often do not complete treatment. Attrition from BIPs is common; 40-75% of IPV offenders fail to complete court-mandated BIPs in the community (e.g., Bennett, Stoops, Call, & Flett, 2007; Buttel & Carney, 2002; Daly & Pelowski, 2000). Perpetrators who fail to complete these programs are significantly more likely than those who complete to re-assault the same victim (Babcock & Steiner, 1999; Gordon & Moriarty, 2003). Moreover, non-completers are more likely to have a more severe criminal history and other risk factors (see Olver, Stockdale, & Wormith, 2011 for a comprehensive literature review). Offenders who do not complete BIPs in the community are often sentenced to jail or prison for not fulfilling the requirements of their sentence. The current study evaluates a new BIP in a population of men who are in jail because they have failed to complete BIP in the community.

A New Treatment Approach

Recent research has found acceptance and mindfulness treatments show promise in reducing aggressive behavior (e.g., Aspche, Bass, & Houston, 2006; Frazier & Vela, 2014; Gardner, Moore, & Pess, 2012; Zarling, Lawrence, & Marchman, 2015). One such treatment, Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is an evidence-based cognitive behavioral treatment that incorporates acceptance and mindfulness as well as recognizing and acting on one's values. ACT emphasizes experiential learning, changing one's attitudes to one's thoughts and behaviors, and recognizing and acting on one's values (Hayes, Strosahl, & Wilson, 1999). ACT draws on a rich body of literature on Relational Frame Theory (RFT; Hayes, Barnes-Holmes, & Roche, 2001), a psychological/behavioral theory of human language and cognition. RFT is an approach designed to be a pragmatically useful analysis of complex human behavior; as such, ACT therapeutic techniques are grounded in RFT principles.

According to ACT, psychopathology and behavior problems are characterized by over-identification with one's thoughts and feelings (termed *cognitive fusion*), avoidance of unwanted thoughts and feelings (termed *experiential avoidance*), and lack of contact with the present moment. Unlike CBT, which aims to change the form and frequency of thoughts and feelings, ACT aims to change their function and how the individual responds to their internal experiences. The goal of ACT is to increase the ability to behave consistently with one's values even in the face of uncomfortable or distressing thoughts and feelings.

ACT targets several therapeutic processes to decrease cognitive fusion and experiential avoidance. First, *mindfulness* processes encourage the open awareness of one's experiences and promote ongoing non-judgmental contact with psychological and environmental events as they occur. The goal is to have clients experience the world more directly so that their behavior is more flexible. *Acceptance* processes involve the active embrace of those private events occasioned by one's history without unnecessary attempts to change their frequency or form, especially when doing so would cause psychological harm. For example, people struggling with anxiety are taught to feel anxiety, as a feeling, fully and without defense; people struggling with anger are given methods that encourage them to let go of their struggle with anger, and so on. *Defusion* techniques involve stepping back from one's thoughts and reducing their impact on one's behavior. For example, a negative thought could be watched dispassionately, repeated out loud until only its sound remains, or treated as an externally observed event by giving it a shape, size, color, speed, or form. Acceptance and defusion in ACT are not ends in themselves. Rather they are fostered as a method of increasing values-based action.

A new BIP based on ACT principles, called Achieving Change Through Values-Based Behavior (ACTV; Zarling, Lawrence, & Orengo, 2017), was recently developed for use in

community corrections. ACTV is based on a novel theory of aggressive behavior and principles and concepts from ACT (Zarling, 2013). Specifically, the theory underlying the ACTV intervention is that aggressive behavior is primarily due to experiential avoidance and the unwillingness to remain in contact with feelings of vulnerability, anxiety, jealousy, or other unwanted internal stimuli (Zarling, Lawrence, & Marchman, 2015). Therefore, the proposed theory of change (or mechanism of treatment success) of the ACTV treatment is that a reduction in experiential avoidance leads to a reduction in IPV behavior.

Currently there are only a few trials of ACT-based interventions with violent populations in the jail setting. First, recent trial conducted in Hungary compared ACT to a CBT-based intervention in jail with a small (*N*=17) sample of violent offenders. Both ACT and the CBT-based treatment consisted of ten sessions, one per week, with nine offenders in the ACT treatment and eight in CBT. Offenders in the ACT condition reported significant increases in values-consistent behavior at three-month follow-up, but neither treatment decreased experiential avoidance (Eisenbeck, Scheitz, & Szekeres, 2016). Second, a recent dissertation study of IPV offenders in jail (*N*=33) also found mixed results (Orengo-Aguayo, 2016). In this study, IPV offenders attended an ACT group three times per week for four weeks. Quantitative results showed no significant change post-treatment in ACT skills (i.e., acceptance, experiential avoidance, present-moment awareness, and identifying and acting on values). Qualitative results, however, indicated the participants were satisfied with the treatment program. Finally, another small study (*N*=18) in Spain with incarcerated domestic violence offenders found ACT (delivered in 14 one-hour sessions) to be successful at decreasing experiential avoidance and impulsivity when compared with a wait-list control group (Sahagun-Flores & Salgado-Pascual,

2013). In all three of the above studies, recidivism was not assessed due to the constraints of working with incarcerated populations.

There is preliminary evidence for ACTV with domestic violence offenders in community corrections. Zarling, Bannon, and Berta (2017) examined the impact of ACTV on reducing new criminal charges one year postintervention compared with the traditional BIP (a combination of the Duluth Model and CBT). In this statewide study of 3,474 domestic violence offenders, significantly fewer ACTV participants were found to have a domestic violence charge within the one year after treatment completion when compared to Duluth/CBT participants (3.6% compared to 7.0%). ACTV participants also had significantly fewer violent offenses in general (e.g., child abuse, armed robbery, assault) in the one-year follow up period.

Risk Factors for Intimate Partner Violence

When developing and testing treatments for IPV, it is important to consider various risk factors of the target population. Given this population has not been studied, assessing their level of risk is an important first step in understanding. There are numerous etiological models of IPV that identify general risk factors for violence (e.g., sociodemographic factors, personality traits), as well as specific factors related to perpetrating IPV. These include childhood risk factors (e.g., adverse childhood experiences), relationship risk factors (e.g., attachment patterns), and psychopathology risk factors (e.g., experiential avoidance and psychopathy).

Adverse childhood experiences, such as abuse, neglect, and challenges during childhood are an important predictor of IPV as well as health and wellbeing (Duke, Pettingell, McMorris, & Borowsky, 2010). Specifically, child abuse (physical and sexual) and witnessing the abuse of a parent increases the risk for perpetration in adulthood (Whitfield, Anda, Dube, & Felitti, 2003).

Experiencing all three types of abuse increases risk 3.8-fold that the child will perpetrate as an adult (Whitfield, Anda, Dube, & Felitti, 2003).

Attachment, another risk factor for IPV, provides a conceptual link between the experience of abuse and hardship in childhood and IPV. According to attachment theory, the parent-child relationship is a model for subsequent relationships, and when this relationship is disrupted it can have lasting effects. Through their relationship with their caregiver, children learn to have positive or negative expectations of others as well as a positive or negative view of the self. Attachment theory categorizes adult romantic relationships as secure, anxious or avoidant. Securely attached individuals are comfortable with closeness and have a positive view of themselves and others; anxiously attached individuals are afraid of abandonment and have a negative view of the self and a positive view of others; and avoidantly attached individuals (negative view of self and others) devalue and avoid closeness. Avoidant attachment is considered the most severe. In prior research, men who engage in IPV show a pattern of insecure attachment (either anxious or avoidant; Holtzworth-Munroe, Stuart, & Hutchinson, 1997; Dutton & White, 2012), partly due to exposure to violence in childhood (Godbout, Dutton, Lussier, & Sabourin, 2009).

Avoidant attachment shares characteristics with psychopathy, another risk factor for IPV. Affective deficits (such as the inability to empathize and low sensitivity to negative consequences) are the hallmark of psychopathy, sometimes referred to as callous unemotional traits (CU; for a review see Frick & Ray, 2015). CU traits are highly heritable and often have an early onset (in childhood or adolescence). Individuals with CU traits exhibit a pattern of antisocial acts that tend to persist (Frick & Ray, 2015). Elevated levels of psychopathy are typically present within a small subgroup of IPV offenders. In Holtzworth-Munroe and Stuart's

1994 review of IPV offender typologies, a severely antisocial batterer group was consistent across studies. In a later test of this typology framework, the prevalence of the severe antisocial typology in a sample of IPV offenders was approximately 16% (Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000), although, other work has reported higher numbers: 26% to 29% (Hamberger, Lohr, Bonge, & Tolin, 1996; Saunders, 1992). Psychopathy is included in the current study because it is associated with higher rates of recidivism after treatment (e.g., Rock, Sellbom, Ben-Porath, & Salekin, 2013; Seto & Barbaree, 1999), making it a salient factor when evaluating a new program.

Finally, recent evidence has been accumulating that experiential avoidance is associated with IPV perpetration. In a sample of military couples, experiential avoidance was associated with increases in acts of physical abuse (Reddy, Meis, Erbes, Polusny & Compton, 2011). In another study of male college students, experiential avoidance was positively associated with psychological, physical and sexual aggression perpetration (Shorey, Elmquist, Zucosky, Febres, Brasfield, & Stuart, 2014). In addition, experiential avoidance mediated the relationship between child emotional abuse and IPV perpetrated as an adult (Bell & Higgins, 2015). Moreover, several avoidant behavior patterns are associated with IPV, including emotional in-expressivity (Tull et al., 2007), violence-specific disassociation (Conrad & Morrow, 2000), substance use (Forsyth, Parker, & Finlay, 2003), etc.. This literature supports the use of ACT for IPV.

The Current Study

Overall, despite extensive knowledge of risk factors for IPV, treatments do little to reduce reoffending. Duluth/CBT (a combination of techniques and content from both), the most common correctional treatment for IPV, reduces recidivism by only 5% when compared to no treatment (Babcock, Green, & Robie, 2004). ACTV, an acceptance and mindfulness treatment

based on ACT, has promise as a new treatment for IPV, but it has not yet been evaluated with a more severe population of IPV offenders. Moreover, the previous studies on ACT-based programs in jail (Eisenbeck et al.,2016; Orengo-Aguayo, 2016) had relatively small treatment dosages, with approximately 12 sessions compared to ACTV's 24 sessions.

The current study evaluates ACTV for IPV offenders who were sentenced to jail following their fourth contempt of court for non-completion of the Iowa Domestic Assault Program (IDAP), Iowa's treatment program for domestic violence offenders in the community. The men were sentenced to jail for eight weeks to complete 24 sessions of ACTV. Self-report data were collected at three time points (beginning, middle and end of treatment). Criminal history and recidivism data were gathered from the Department of Corrections database one year after program completion.

Specific Aims

Specific Aim 1.

Experiential avoidance, adverse childhood experiences, adult attachment patterns, and psychopathy will be examined as theoretically important IPV constructs. The first aim of the current study is to describe an understudied sample of incarcerated IPV offenders. Incarcerated

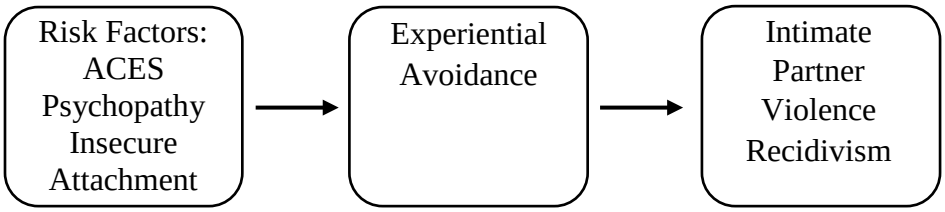

Figure 1
Conceptual Map

IPV offenders are an understudied population, and the current study collected data on several important risk factors. These risk factors will be compared to previous literature.

Hypothesis 1

Offenders are expected to exhibit high levels of insecure attachment, adverse childhood experiences, and psychopathy.

Specific Aim 2.

Evaluate the ACTV theory of change. Experiential avoidance, the primary mechanism proposed by ACTV's theory of change, is the tendency to avoid unwanted thoughts and feelings. This construct is a target of ACTV and is expected to change over the course of treatment.

Hypothesis 2

Experiential avoidance will decrease over the course of treatment.

Specific Aim 3.

Describe recidivism rates and examine differences between offenders who reoffended and those who did not on risk factors. Finally, the last aim of this study is to describe the recidivism of the sample at one year postintervention. In addition, the sample will be divided into two groups based on reoffending (yes or no), and risk factors will be compared across these two groups. Three types of recidivism will be described: domestic violence recidivism, violent recidivism (including domestic violence), and any re-offense (which includes all criminal charges, domestic violence charges, violence charges, and other charges such as driving while under the influence).

Hypothesis 3

This group of offenders is expected to show higher rates of recidivism than offenders in the community. Compared to men who do not reoffend, men who reoffend are expected to have higher experiential avoidance at the end of treatment, higher ACES, higher psychopathy, and insecure attachment.

CHAPTER 2. METHODS

All methods were approved by the Institutional Review Board. Self-report data were collected from the offenders three times over the course of treatment by IDAP facilitators: time one (T1, beginning of treatment), time two (T2, mid-treatment), and time three (T3, end of treatment). Twenty-three men agreed to participate in the current study. Criminal history and recidivism data were obtained from the Department of Corrections database (i.e., the Iowa Corrections Offender Network), one year after program completion.

Achieving Change Through Values-Based Behavior (ACTV) Facilitator Training

ACTV is led by two facilitators, preferably a man and a woman. These facilitators are Department of Corrections staff (or staff of affiliated institutions like Community Mental Health Centers). Prior to training in ACTV, facilitators complete a one-day domestic violence awareness training, covering such topics as Iowa domestic assaults laws, safety procedures, and the dynamics of domestic violence. ACTV training starts with a two-day training session led by experienced therapists followed by three months of in-person observation of ACTV group sessions in the Department of Corrections. After observation, another two-day training session is convened, and the facilitator is paired with an experienced ACTV facilitator who co-facilitates a cycle of ACTV with the trainee. Following this cycle of ACTV, the trainee's competency is evaluated, and the trainee is promoted to full facilitator if they are deemed adequate by their co-facilitator.

Achieving Change Through Values-Based Behavior

ACT consists of five types of modules, each teaching different skills, interspersed over 24 sessions (see Table 1 for an overview of ACTV modules). In jail, ACTV is held three times

per week (two hours each). The Big Picture/Core Skills modules are designed to introduce central concepts (namely, awareness of aggression and its consequences) as well as encourage the identification of pro-social values. The Emotion Regulation and Cognitive Skills module teaches offenders to differentiate between thoughts, emotions and sensory experiences with the aim of helping offenders identify when they are avoiding unwanted thoughts or feelings. The Behavior Change module teaches interpersonal skills, such as setting and respecting boundaries. The Barriers to Change module helps offenders mitigate the effects of environmental factors that could be obstacles to change (e.g., parenting issues).

Table 1.

Description of ACTV Modules

Modules	Description	Sample
Big Picture/Core Skills	The goal of these sessions is for participants to develop an intrinsic motivation to change by connecting with their own values. Mindfulness skills are introduced to help participants notice their own behaviors within their relationships, the multiple contributors to these behaviors, and to distinguish between behavior that is valued-driven and behavior that is in service of experiential avoidance.	The Matrix (Polk, 2014)
Emotion Regulation Skills	These sessions explore the function of emotions and invites participants to notice how they have tried to control or avoid unwanted emotions in their life, and how workable or unworkable these strategies have been. Acceptance or willingness is introduced as a skill which involves noticing emotions as they arise and allowing them to be there without trying to alter their form or function.	Quicksand metaphor, tug of war, ice cube
Cognitive Skills	Participants learn how the mind produces many thoughts and although we cannot control them, we can notice them and step back from them. The goal is to create a useful distance from thoughts (i.e., defusion).	Leaves on a stream, thoughts on index cards

Table 1 continued

Behavioral Skills	Participants learn and practice basic communication skills such as reflective and active listening and how to communicate in an assertive and respectful way. They also learn and practice appropriate conflict resolution skills and how to respect other people's boundaries.	Speaker-listener skills (Markman, Stanley, & Blumberg, 2010)
Barriers to Change	These sessions help participants identify potential barriers to engaging in valued-based behavior (e.g. unemployment, substance abuse, mood and anxiety difficulties, parental custody issues) and offer strategies and resources to help overcome these barriers.	Resume templates, resource list

Participants

Participants were men from Sioux City, Iowa with at least one prior domestic assault charge. All participants received at least four contempt of court charges following non-completion of IDAP in the community. Due to their non-compliance with treatment in the community, these men have been sentenced to jail specifically to complete IDAP. Self-report data were collected from three cohorts from September 2015 to March 2016. All participants continued with "treatment as usual" individual mental health care in the jail, which included regular meetings with a counselor and a psychiatrist.

Study Procedures

Data were collected at the Woodbury County Jail in Sioux City, Iowa by two ACTV facilitators trained in research with human subjects. Participation in the study was completely voluntary, and participants were informed that their involvement in the research study would in no way positively or negatively affect their jail sentence or their status in the IDAP program. At the beginning of the first few ACTV sessions (T1), participants were approached about the study. If they agreed to participate, they completed the first survey and then approached again four

weeks later, which is half-way through the intervention (T2), and one final time at the end of ACTV (T3) during week eight. One year after program completion, criminal history and recidivism data were gathered from the Department of Corrections Iowa Corrections Offender Network (ICON) database.

Measures

For details on when each measure was administered, see Table 2. The reliability of measures in the current study was assessed with Cronbach's Alpha Coefficient (see Table 3),

Table 2.
Measures Collected by Time Point

Time 1 Week 1 – Start of Treatment	Time 2 Week 4 - Midpoint	Time 3 Week 8 – End of Treatment
Demographics	Experiential Avoidance (AFQ)	Experiential Avoidance (AFQ)
Experiential Avoidance (AFQ)	Psychopathy (LSRPS)	Adverse Childhood Experiences (ACES)
	Adult Attachment (AAS)	

Note. AFQ = Avoidance and Fusion Questionnaire, AAS = Adult Attachment Scale, LSRPS Levenson Psychopathy Scale, ACES = Adverse Childhood Events Scale

which ranged from .66 (ACES) to .90 (AFQ-Y). ACES, which is a count of the number of childhood adverse events, was not expected to have high internal consistency. The other scales had acceptable to excellent reliability.

Levenson Psychopathy.

Psychopathy was measured with the 26-item Levenson Self-Report Psychopathy Scale with items such as "For me, what's right is whatever I can get away with" and "I don't plan anything very far in advance" (LSRPS; Levenson, Kiehl, & Fitzpatrick, 1995). The scale has five response categories ranging from agree to disagree. Apha coefficients range from .63 to .82 for

the two subscales (Levenson, Kiehl, & Fitzpatrick, 1995). The mean level of psychopathy in a forensic sample is 57.38 (*SD*= 9.81; Book, Quinsey, & Langford, 2007).

Table 3
Reliability of Measures

Measure	*Alpha*	Number of Items
T1 Experiential Avoidance (AFQ-Y)	0.90	8
T3 Experiential Avoidance (AFQ-Y)	0.77	8
Adverse Childhood Experiences (ACES)	0.66	10
Psychopathy (LSRPS)	0.90	26
Attachment (AAS)	0.87	18

Note. T1= Time one, start of treatment, T3= Time three, end of treatment, AFQ-Y = Avoidance and Fusion Questionnaire for Youth, LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale

Experiential Avoidance.

Experiential avoidance, which is the change mechanism hypothesized by ACT, was measured at all time points using the Avoidance and Fusion Questionnaire for Youth (AFQ-Y; Greco, Lambert, & Baer, 2008). The youth version of the scale was used to accommodate the reading level of participants with items such as “My life won’t be good until I feel happy” and “My thoughts and feelings mess up my life.” This scale has five response categories (“Not at all true” to “Very true”) coded on a scale of 1-5. Items were summed to create a composite score for overall level of experiential avoidance (i.e., higher scores indicate higher levels of experiential avoidance).

Adverse Childhood Experiences.

The Adverse Childhood Experiences Scale measures ten childhood stressors such as "Did a parent or other adult in the household often or very often swear at you, insult you, put you down, humiliate you, or act in a way that made you afraid you might be physically hurt" (Felitti et al, 1998). Adverse experiences include psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned. Participants are instructed to answer yes if they experienced the stressor during childhood. A total score is computed by counting the number of stressors experienced. Approximately 50% of participants in Fellitti and colleagues' study (1998) had zero stressors during childhood and 6% of participants had six or more.

Adult Attachment.

The Adult Attachment scale measures anxious and avoidant attachment. It consists of 18 items (e.g., "I find it relatively easy to get close to others" and "I am comfortable depending on others") scored on a five point scale from "Not at all characteristic of me" to "Very characteristic of me" (AAS; Collins & Read, 1990). The subscales of the AAS have alphas ranging from .69 to .75. Items were reversed and then subscales were totaled. The anxiety subscale contains six items, and the avoidance scale 12.

Data Analysis

Data was analyzed in Stata 14.2. Data were analyzed in Stata 14.2. Twenty percent of the data was missing, and mean replacement was used to deal with missingness in total scores. Missingness is significantly negatively related to the total number of charges during the recidivism period, but not the number of IPV charges (which is of primary interest) or the number of violent charges.

Aim 1.

Means and percentages of risk factors will be presented and compared to norms.

Aim 2.

A paired t-test will be used to test whether experiential avoidance changes significantly over the course of treatment.

Aim 3.

Recidivism rates will be examined and risk will be examined across two groups: offenders who reoffended to those who did not. T-tests will be performed to test for significance.

CHAPTER 3. RESULTS

Table 4

Percentages or Means (and Standard Deviations) of Demographic Variables

Variable	% or Mean (*SD*)
Age (*N*=23)	37.70 (11.36)
Race/Ethnicity	(*N*=23)
American Indian or Alaska Native	52%
Black or African American	4%
White Hispanic or Latino	13%
White Non-Hispanic	30%
Job Status	(*N*=20)
Employed for wages	15%
Self-employed	15%
Out of work and looking for work	45%
Out of work but not currently looking	10%
Retired	5%
Unable to work	10%
Education	(*N*=19)
Some high school	58%
High school diploma	26%
Some college	16%
Relationship Status	(N=17)
Single	47%
Dating	12%
Married	18%
Divorced	12%
Cohabiting	12%
Number of biological children (*N*=16)	2.75 (1.73)
Number of resident children (*N*=16)	1.88 (.50)
Number of domestic violence charges in history (*N*=21)	2.81 (2.25)
Number of violent charges in history (*N*=21)	5.76 (4.32)
Number of charges in history (*N*=21)	55.05 (32.70)

Note. History variables reflect charges before the start date of the intervention.

See Table 4 for demographic information of the sample. The average age was 37.70 years (*SD*= 101.36). The men identified themselves as Native American (52%), White/Non-Hispanic (30%), Hispanic/Latino (13%) and Black/African American (4%). When compared to men in the community-based BIP (e.g., Zarling et al, 2017), the men in the current sample had more severe criminal histories with an average of 55 charges overall, and an average of 2.81 domestic assault charges and 5.76 violent charges prior to the current study (see Table 4).

A paired t-test indicated reports of experiential avoidance showed significant change over the course of treatment, in the expected direction (t (18)= -3.87, p<.00). Cohen's d was computed correcting for dependence between means and the effect was large (d= -4.73). This effect size is larger than pre- to post-treatment change in experiential avoidance found in other ACT treatment studies (Eustis, Hayes-Skelton, Roemer, & Orsillo, 2016). Of the participants with T1 and T3 experiential avoidance scores (N=19), 79% decreased over the course of treatment and 21% remained the same over the course of treatment (no participants increased). Reliable Change Index, which accounts for the reliability of the measure, was computed (*RCI*= -3.86, p<.00)

The average score on a 17-item version of experiential avoidance in a clinical sample of adults with anxiety disorders is 33.49 (SD = 12.69; Fergus, Valentiner, Gillen, Hiraoka, Twohig, Abramowitz, & McGrath, 2012). In a sample of undergraduates, the mean was 19.50 (SD= 12.95). When transformed to compare with our eight-item measure (33.49/17= 1.97*8=15.76), the clinically anxious population exhibited less experiential avoidance than our sample of offenders at T1, although the difference was not significant. The offenders at T3 had a higher score than the sample of undergraduates (19.5/17= 1.14*8=9.12; see Table 5). A one-sample t-test showed a significant difference (t (17) = 3.68, p<.00; see Table 5).

Table 5

Means or Percentages (and Standard Deviations) of Risk Factors Compared to Previous Literature

Measures	Current Study	Previous Literature	*t*	*p*
T1 Experiential Avoidance (AFQ-Y)	17.45 (6.88)	15.76	1.30	.21
T3 Experiential Avoidance (AFQ-Y)	12.72 (4.63)	9.12	3.68	<.00
Adult Attachment (AAS)				
Anxious	15.85 (6.03)	17.3	-.59	.56
Avoidant	30.68 (9.97)	21.4	9.15	<.00
Psychopathy (LSRPS)	64.12 (14.14)	57.38	2.44	.03
Adverse Childhood Experiences (ACES)	3.94 (2.22)	NA		

Percentages, Means (and Standard Deviations) of Recidivism Variables Compared to Previous Literature

Measures	Current Study	Previous Literature	$X^2(df)$	*p*
At least one domestic violence charge	5%	5%	0 (1)	<.00
Average number of IPV charges	.05 (.22)			
Range	0 to 1			
At least one violence charge	24%	8%	32.00(1)	<.00
Average number of violence charges	.38 (.80)			
Range	0 to 3			
Percent of men with any charges	67%	21%	100.76(1)	<.00
Average number of charges	4.33 (5.33)			
Range	0 to 18			

Note. T1= Time one, start of treatment, T3= Time three, end of treatment, AFQ-Y = Avoidance and Fusion Questionnaire for Youth, LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale; Recidivism variables reflect charges within the year after the end of the intervention.

In previous work with forensic populations the average psychopathy score was 57.38 (SD= 9.81; Book, Quinsey, & Langford, 2007). This is significantly lower than the level found in our sample of IPV offenders (64.12; SD=14.14; see Table 5). In prior literature, men who engage in IPV scored an average of 17.3 on the anxious attachment subscale and 21.4 on the avoidance subscale (Holtzworth-Munroe, Stuart, & Hutchinson, 1997). Men in the current

sample had anxious attachment scores comparable to these men, but significantly higher levels of anxious attachment (Holtzworth-Munroe, Stuart, & Hutchinson, 1997).

The average number of adverse childhood experiences was 3.94 (*SD*=2.22). The men reported significantly higher levels of adverse experiences compared to the Center for Disease Control's (2010) nationally representative sample (see Table 6); 59% of the current sample reported 4 or more ACES compared to 12% of CDC's sample. The most frequent adverse experience was parental divorce (15 of 18 respondents experienced this event). Chi-square statistics were computed to compare the CDC's national levels of adverse experience to the level in our sample, and results (see Table 6) indicate a significant difference with the men in our sample reporting more adverse experiences than the national sample (X^2 (4)=225.55, p<.00).

Table 6

ACE Score Descriptive Statistics Compared to CDC Estimates

Number of ACEs	%	% from CDC, 2010
0	6%	41%
1	6%	25%
2	18%	13%
3	12%	8%
4 or more	59%	12%

Note. N = 18. ACES= Adverse childhood experiences; CDC= Centers for Disease Control

Domestic violence recidivism within one year of program completion showed invariance, as only one offender out of the sample of 21 (5%) reoffended within the time frame. Higher recidivism rates were expected due to the severe nature of this sample. A 5% recidivism rate is the same as the community recidivism rate for treatment completers and non-completers, (5%; Zarling, Bannon, & Berta, 2017). Rates of violent re-offense

Table 7

T-Tests and Means (Standard Deviations) of Risk Factors Divided by Violent Offenses within the One Year Recidivism Period

Variable	No Violent Recidivism Mean (*SD*)	At Least One Violent Offense Mean (*SD*)	*t*	*d*	*p*
T1 Experiential Avoidance (AFQ-Y)	19.78 (8.34) N= 13	14.86 (9.73) N= 5	1.07	0.55	.30
T3 Experiential Avoidance (AFQ-Y)	13.10 (4.21) N= 15	11.88 (5.39) N=5	0.53	0.25	.60
Psychopathy (LSRPS)	67.43 (13.30) N=14	53.33 (13.80) N=3	1.66	1.04	.12
Adverse Childhood Experiences (ACES)	3.92 (2.33) N=13	4 (1) N=3	-0.05	-.05	.96
Adult Attachment (AAS)	N=13	N=5			
Anxious	17.92 (5.17)	13.20 (3.27)	1.88	1.12	.08
Avoidant	35.87 (6.94)	31.60 (6.54)	1.19	0.63	.25

Means (and Standard Deviations) of Risk Factors Divided by Offenses within the One Year Recidivism Period

Variable	No Offenses Mean (*SD*)	At Least One Mean (*SD*)	*t*	*d*	*p*
T1 Experiential Avoidance (AFQ-Y)	19.66 (7.60) N=5	17.93 (9.40) N=13	.36	.20	.72
T3 Experiential Avoidance (AFQ-Y)	14.04 (5.27) N=7	12.13 (3.94) N=13	.92	.42	.37
Psychopathy (LSRPS)	69.58 (14.23) N=7	61.7 (13.74) N=10	1.15	.56	.27
Adverse Childhood Experiences (ACES)	4 (2.38) N= 7	3.89 (2.03) N= 9	.10	.05	.92
Adult Attachment (AAS)	N=5	N=13			
Anxious	18 (7.14)	16.08 (4.35)	.70	.33	.49
Avoidant	31.65 (5.18)	35.85 (7.32)	-1.16	.67	.26

Note. The recidivism period starts after program completion and ends one year after program completion; T1= Time one, start of treatment, T3= Time three, end of treatment, AFQ-Y = Avoidance and Fusion Questionnaire for Youth, LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale

(e.g., violently resisting arrest, child abuse, assault) and descriptive statistics for any re-offense (e.g., public intoxication, driving while under the influence, contempt of court) were calculated and are presented in Table 7. Almost a quarter of the sample acquired a violent criminal charge (24%), and more than two-thirds (67%) of the sample received at least one charge within one year after program completion. The average number of charges for the sample within one year after program completion was 4.33 (*SD*=5.33), ranging from 0 to 18 charges.

Because only one offender in the sample was charged with domestic assault during the one year follow-up period, results comparing this man to men who did not reoffend cannot be presented (to protect the privacy of participants). However, men who did and did not commit violent offenses and any offenses were compared (see Table 7). No significant differences were found between those who did not reoffend at all and those who received a criminal charge during the recidivism period.

CHAPTER 4. DISCUSSION

Batterers Intervention Programs (BIPs) are court-mandated treatments for men convicted of domestic assault. Traditional BIPs, including CBT and the Duluth Model, have small effect sizes and a marginal impact on domestic violence recidivism. Achieving Change Through Values-Based Behavior (ACTV) was developed as an alternative to traditional BIPs in community corrections. The current study offers a preliminary evaluation of ACTV for chronically non-compliant IPV offenders in the jail setting. The participants in the current study were domestic violence offenders who failed to complete court-mandated community-based BIP four or more times, and therefore were held in contempt of court and sentenced to jail to complete ACTV. Offenders completed all 24 sessions of ACTV while incarcerated for two months. The aims of the current study were to describe the risk factors of the participants, assess changes in experiential avoidance over the course of treatment, and to examine the participants' criminal charges in the one year following treatment completion.

Consistent with hypotheses, the risk level of the participants in the sample was high. Offenders reported higher levels of experiential avoidance, adverse childhood experiences, avoidant attachment, and psychopathy than reported in previously published studies of clinical and forensic samples. Chronically non-compliant and treatment-resistant IPV offenders have rarely been studied, and these results provide much needed information about the characteristics of this population. Despite the elevated risk factors reported in the sample, offenders reported significant change in experiential avoidance over the course of treatment, such that their levels of experiential avoidance decreased from pre- to post-treatment. This is a positive finding that contrasts with previous research indicating that experiential avoidance is difficult to target in

severe criminal samples (e.g., Eisenbeck, Scheitz, & Szekeres, 2016; Orengo-Aguayo, 2016). The ability to target experiential avoidance is essential to the theory underlying ACTV, and these results indicate that the treatment may be working accordingly.

The primary outcome of interest in the study, IPV recidivism, was favorable for this new program with severe offenders. Only one participant acquired a domestic assault charge during the one year following program completion. The rate of IPV charges in the follow-up period (5%) was the same as rates of IPV recidivism in a recent study of ACTV in community corrections (5%; Zarling, et al, 2017). This is especially surprising given the chronicity and severity of the sample, as well as the historically low impact of traditional IPV treatments. However, rates of violent charges and any charges were much higher; 24% and 67%, respectively. This is about three times the rate reported in the Zarling et al study.

Because only one participant had a domestic assault charge in the one year follow up period, we did not compare risk factors between this participant and the rest of the sample. When examining participants who reoffended in general (either violent charges or any charges), men who reoffended during the one year follow up period did not significantly differ on important risk factors when compared to men who did not reoffend. These results indicate that further research is needed to fully examine these risk factors and how they influence recidivism in a severely criminal sample.

Strengths and Limitations

The current study has several strengths. First, this is a novel application of a recently developed treatment, with an understudied population. IPV offenders with severe criminal histories are not well understood, and the current study advances our understanding of their treatment needs. Second, the use of charges instead of convictions as the outcome variable and

the inclusion of multiple types of offenses in addition to domestic violence charges, allow a comprehensive look at the outcomes for this sample. Third, the relatively long recidivism time frame (one year instead of three or six months utilized in most studies; Arias, Arce, & Vilariño, 2013) provides a more conservative and robust estimate of the findings. Fourth, the sample was relatively diverse and included men from a variety of racial and ethnic backgrounds. Finally, the current study was conducted in "real world" conditions, with the ACTV program being implemented exactly as it would be in normal operations. This increases the generalizability of results to similar contexts and participants.

Nevertheless, the results of the current study should be interpreted in light of several limitations. First, the small sample size limited the power to detect effects. Unfortunately, sample size was restricted due to the cost of conducting an intervention in jail and the preliminary status of the literature on this subject. Larger studies will need to be conducted to more accurately estimate results. Second, the use of criminal charges is likely an underestimate of IPV in the one year following treatment completion. We were unable to obtain victim reports of IPV offenses in the follow-up period, which is considered the gold standard for IPV treatment outcome studies. Third, although the methodology in the current study is consistent with a pilot stage trial (Rounsaville, Carroll, & Onken, 2001), the absence of a control group means that we were not able to determine what changes in the outcomes were due specifically to the ACTV intervention. Finally, treatment fidelity was not assessed. Therefore, it is unknown to what extent the ACTV facilitators were adherent in ACTV implementation. However, the authors of this study were in frequent contact with the facilitators throughout the course of the project, consulting on program implementation issues and engaging in trouble-shooting discussions as needed.

Clinical and Research Implications

There is limited clinical research on addressing IPV in severely criminal samples, and the existing treatment approaches lack empirical support. The consequences of treatment failure are very salient in IPV research. The results of this study can be used by the criminal justice system to make more informed decisions about BIP programming. For example, ACTV treatment philosophy is more consistent with recent trends in criminal justice programming that emphasize rehabilitation over punishment (e.g., Andrews & Bonta, 2010). Moreover, the results of the current study indicate that experiential avoidance, a risk factor for IPV, is a viable treatment target that can be decreased with ACT techniques. This is in contrast to many IPV risk factors that are not directly amenable to change (e.g., childhood experiences). Finally, the ACTV program is relevant to evidence-based practice principles in correctional programming. For example, ACTV already relies on current evidence-based practice principles including increasing intrinsic motivation and positive reinforcement, and may add to those that are particularly important in the jail/prison setting (Serin, 2012).

Considering the high levels of risk and criminality found in this population, more work should be done to assess how to better serve their treatment needs. For instance, while the primary outcome of interest (IPV recidivism) indicated that the treatment shows promise, general and violent re-offending levels, which were not a target of ACTV, were high. Based on the current results, it may be appropriate to modify ACTV to include treatment components that address the unique needs of incarcerated populations. For example, additional sessions could be devoted to issues that are more specific to general criminality (e.g., criminal thinking). This is consistent with future planned studies that will also examine ACTV with integrated trauma-informed and substance abuse treatment models.

There are several important areas of future research. The evidence from this preliminary trial indicates that future work with a larger sample is warranted. A randomized-control trial would be the logical next step in the evaluation of this program for non-compliant offenders. Specifically, randomizing offenders to ACTV, another active BIP (such as CBT), and a wait-list control, would allow researchers to assess the baseline offending rates of this understudied population and the impact of ACTV. The opportunity to study a population that habitually drops out of treatment is rare, and more work is needed with programs of this kind. Finally, assessing experiential avoidance as a true mediator of treatment outcome, and obtaining IPV outcome data from the victims, will be an important focus of future research on ACTV.

Conclusion

Intimate partner violence continues to be a significant social problem with major gaps in our understanding of how best to intervene, including understanding which specific factors contribute to reductions in physical aggression for different types of perpetrators. Current accepted treatments, including the Duluth Model and CBT, have little empirical support as BIPs. Moreover, treatment-resistant and non-compliant IPV offenders are even less understood. ACTV is a promising new BIP that may address the limitations of previous programming. Coupled with previous research on ACT for IPV, the current study lends support for the use of ACTV in the jail setting with chronically non-compliant IPV offenders. Furthermore, the current study adds to the growing literature on new BIP approaches that diverge from the philosophies of previous programming and aim to improve treatment outcomes in the criminal justice system.

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APPENDIX A

ADDITIONAL TABLES

Correlations between Psychopathy, Adverse Childhood Experiences, and Adult Attachment

	LSRPS	ACES	AAS - Anxious	AAS-Avoidant
LSRPS	—			
ACES	0.19	—		
AAS - Anxious	0.4	-.09	—	
AAS - Avoidant	0.32	0.07	.66***	—

Note. N = 23. *p<.1; **p<.05; ***p<.01. LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale

Correlations between Psychopathy, Adverse Childhood Experiences, Adult Attachment and Experiential Avoidance

	T1 AFQ-Y	T3 AFQ-Y
LSRPS	0.08	0.42
ACES	0.16	0.11
AAS		
Anxious	.56***	.77***
Avoidant	.44*	0.34

Note. N = 23. *p<.1; **p<.05; ***p<.01. T1 = Time one (at week one or the start of treatment), T3 = Time three (at week eight or the end of treatment), AFQ-Y = Avoidance and Fusion Questionnaire for Youth, IDAS = Inventory of Depression and Anxiety Symptoms, SCS = Self-Control Scale, LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale

Correlations between Risk and Recidivism

	IPV	Violent	All Offense
T1 AFQ	-0.2	-0.36	-0.19
T3 AFQ	0.04	-0.16	-0.25
LSRPS	-0.28	-0.19	-0.14
ACES		-0.07	-0.12
AAS			
Anxious	-0.18	-0.55**	-0.45*
Avoidant	-0.24	-0.55**	-0.16

Note. $N = 23$. *p<.1; **p<.05; ***p<.01. T1 = Time one (at week one or the start of treatment), T3 = Time three (at week eight or the end of treatment), AFQ-Y = Avoidance and Fusion Questionnaire for Youth, LSRPS = Levenson Self-Report Psychopathy Scale, ACES = Adverse Childhood Experiences Scale, AAS = Adult Attachment Scale, IPV= Intimate Partner Violence

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPLICATION ACCEPTANCE

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
2420 Lincoln Way, Suite 202
Ames, Iowa 50014
515 294-4566

Date: 8/17/2016

To: Amie Zarling
1358 Palmer Building

From: Office for Responsible Research

Title: Evaluation of the ACTV Approach to Reducing Intimate Partner Violence among Court-Mandated Incarcerated IDAP Participants

IRB ID: 15-404

Approval Date:	8/15/2016	**Date for Continuing Review:**	8/17/2017
Submission Type:	Continuing Review	**Review Type:**	Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- **Use only the approved study materials** in your research, **including the recruitment materials and informed consent documents that have the IRB approval stamp.**
- **Retain signed informed consent documents for 3 years after the close of the study**, when documented consent is required.
- **Obtain IRB approval prior to implementing any changes** to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- **Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences** involving risks to subjects or others; and (2) **any other unanticipated problems involving risks** to subjects or others.
- **Stop all research activity if IRB approval lapses,** unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- **Complete a new continuing review form** at least three to four weeks prior to the **date for continuing review** as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. **Approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **IRB approval in no way implies or guarantees that permission from these other entities will be granted.**

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 202 Kingland, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.