Calm, Cool, & Collected: Aggression Replacement Training to Improve Anger Expression and Control in the Adult Mental Health Population

by

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DEDICATION

I would like to dedicate this thesis to my “other half” Michael McCallam. It is your unconditional love, guidance, and support that allowed me to achieve this endeavour. I love you.

This thesis is also dedicated to the individuals who have been diagnosed with a mental illness that I have had the pleasure to work with along this journey. You have taught me more about myself and this field than I could have imagined. Thank You.
ABSTRACT

Research demonstrates Aggression Replacement Training’s (ART) effectiveness in decreasing anger arousal and aggression in adolescent delinquents, adult offenders, and children with autism spectrum disorder. However, there is a lack of research on the use of ART for the treatment of anger reduction in adults with a mental health diagnosis. In the present study, a modified ART program was developed and conducted to evaluate the effectiveness of the program for adults receiving services at a community mental health agency. The program was comprised of one hour weekly group sessions for eight consecutive weeks. Sessions consisted of psycho-education, skill acquisition, and anger control techniques such as deep breathing, counting, and progressive muscle relaxation. In addition, moral reasoning development was utilized to assist members in identifying and challenging their irrational beliefs. The method of delivery was a combination of lecture, discussion, and independent activities. The treatment effects of ART were measured with a pre- and post-test design using the State-Trait Anger Expression Inventory (STAXI). The results from the STAXI indicate that in general the participants’ perceived levels of anger were closer to the normal range. Results suggest that the application of an ART group can be effective for adults who have been diagnosed with a mental illness. A manual outlining the exercises included in the workshop is presented. Limitations of this study and implications for future research are discussed. Previous research supports that ART has worked to reduce anger and physical aggression with other populations. It is hoped that further research will provide empirically supported best practices for the implementation and outcome evaluation for the targeted community mental health population.
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\(^1\) Consent for use of agency name obtained (see appendix A)
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Chapter I: Introduction

Overview

Anger is necessary for survival; it is a natural response for individuals to defend themselves when they are threatened. Spielberger (1988) states that anger is a fundamental emotion; however, it can become problematic if it is not expressed in an appropriate manner. According to Spielberger, anger is conceptualized in terms of a state-trait theory suggesting that there is a difference between state and trait anger. State anger is defined as an emotional state marked by feelings that vary in strength from mild annoyance to fury (Spielberger, 1988). In addition, state anger is associated with physiological arousal (Forgays et al., 1999). Spielberger (1998) defines trait anger as the tendency to identify a wide range of situations as frustrating, and the tendency to respond to these situations with increases in state anger. Forgays et al. (1999) state that interventions for anger management have significantly fallen behind interventions for other emotional problems such as anxiety. According to Van Kleef and Cote (2007), of the range of emotions that arise in conflict, anger is perhaps the most significant. Aggression Replacement Training (ART) is a multi-modal intervention designed to alter the aggressive behaviour of adolescents (Goldstein, Glick, & Gibbs, 1998). Cognitive-behavioural therapeutic techniques are used in ART to address behaviours, feelings, and values of clients (Hollin, 2003). According to Cox and St. Clair (2005), teaching coping strategies to appropriately respond to internal anger experiences may help individuals communicate with others. Furthermore, supporting individuals in identifying uncontrolled anger may focus their energy to make responsible choices (Cox & St. Clair, 2005).

Rationale

Research supports ART’s effectiveness for decreasing anger and aggressive behaviours in adolescents and male offenders. However, there is limited research supporting its use for other populations such as adults with a mental health diagnosis. Excessive symptoms of anger and aggression are commonly experienced by adults who have been diagnosed with a mental illness (Singh et al., 2010). This increases the need for anger management with the mental health population.

Hypothesis

The current study’s purpose is to evaluate the effectiveness of ART on individuals diagnosed with a mental illness who are seeking services at a community mental health agency. Pre and post administration of the State-Trait Anger Expression Inventory (STAXI) will measure the participants’ self-perceived anger expression and control. It is proposed that an ART intervention that incorporates psycho-education, skill acquisition, self-monitoring, and relaxation techniques will assist the individuals within an ART group to perceive their levels of anger to be within the normal range. ART is effective in improving moral reasoning development, skill acquisition, and anger control deficits; therefore, it is hypothesized that an intervention based on Goldstein et al. (1998) will be effective in placing the participants’ perceived anger expression and control scores closer to or within the 25th and 75th percentile.
Outline of Thesis

In the subsequent chapters of the current thesis, a review of the literature on anger and aggression replacement training will be provided. The review will consist of the summarization of prior research studies, theoretical books, and journal articles. The methodology chapter will describe in detail the participants, informed consent procedures, and the content covered and procedures followed in each session. In the results chapter, graphs and tables will present the t-score and percentile for each participant’s score on the scales. The final chapter will include a discussion regarding the results of the study which will consist of the strengths and limitations, implications of the findings, and proposed future research.
Chapter II: Literature Review

The primary focus on the literature review is on Aggression Replacement Training (ART) and its significance in decreasing anger arousal while increasing social skills and moral reasoning development. The effectiveness of ART across populations and settings is explored. Furthermore, the literature review provides a rationale for the current study.

Definition and Origin of Anger

Anger is defined as “an experiential state consisting of emotional, cognitive and physiological components that co-occur, rapidly interacting with and influencing each other in such a way that they tend to be experienced as a singular phenomenon” (Deffenbacher, 1999, p. 296). According to Deffenbacher (1999), anger is a reaction to previous events brought on by memories which are connected with anger, external events, and the cognitive appraisals an individual makes. An individual’s response to an emotionally arousing event is based on their understanding of the circumstances and their internal dialogue (Berkowitz, Lepinski, & Angulo, 1969).

Hollin (2004) suggests that anger should be understood by both physical and social reactions that influence the way in which an individual experiences and expresses anger. There is increasing evidence indicating that emotions play a fundamental role in regulating social interactions (Van Kleef & Cote, 2007). Anger has been associated with several negative behaviours including interpersonal conflict (Blacker, Watson, & Bleech, 2008). In addition, Blacker et al. (2008) state that uncontrolled anger can be costly to the individual experiencing the emotion and to society. When anger is not managed appropriately it can lead to physical, emotional, and interpersonal negative consequences (Blacker et al., 2008). McWhirter (1999) proposes that anger is a significant construct because it can be linked with an array of other struggles in adults such as health complications, violence, and substance abuse. Because anger is frequently associated with aversive situations; it is often viewed as being a product of them. Furthermore, individuals have the tendency to attribute their anger to another individual’s behaviour. Individuals rarely are aware of the more complex origins of their anger experiences (Robins & Novaco, 1999). Hollin (2004) states that anger is an automatic response to events that may be aversive. In addition, there are times in which anger can be a helpful stress response to these events. Robbins and Novaco (1999) state that individuals are prone to ascribe the sources of their anger to the constant and controllable characteristics of another persons’ behaviour. Individuals often have a difficult time recognizing existing situations, such as work pressure or family tension, which function as a background for identified provocations. In addition, individuals do not recognize that the way they view the world can lead them to frequently feel angry and believe that anger cannot be prevented or controlled. However, Robbins and Novaco (1999) further state that this is not accurate given that an individual has control over their life circumstances and their cognitive dialogue. Individuals who frequently reside in extremely stressful environments set the stage for their anger. Moreover, individuals who are frequently aggressive generate social settings that increase additional anger responding that becomes challenging to change. According to Robbins and Novaco (1999), anger is often derived of traumatic life events and related to personality or mental disorders. Those exposed to traumatic events can become angry and demonstrate continual psychological disturbance after the event (Forbes et al., 2004). According to Eckhardt, Norlander, and Deffenbacher (2004), anger has been linked to many psychological disorders; therefore, it has been considered as a result or
symptom of these disorders. Conversely, there are researchers who suggest that anger is a separate construct in itself (as cited in Ghazinour & Richter, 2009). Forbes et al. (2004) state that anger is a universal and practical emotion. It is the frequency and intensity of how the anger is felt and expressed that determines how problematic it can be. There are times in which anger can be practical; however, it can become an independent problem with several harmful consequences which require treatment (Kassinova & Tafrate, 2002).

Anger is a difficult construct to define because the current literature lacks a consensus on the definition. This may be due to the fact that anger is a general emotional experience that varies on a continuum from individual to individual (Norcross & Koboyashi, 1999). However, anger is described in a way that combines emotional, physiological, behavioural, and cognitive components. Anger is a feeling state that ranges in intensity from mild frustration to fury and rage (Spielberger, 1988). Additionally, anger is associated with a physiological component which includes physical warning signs (Gaines & Barry, 2008). Anger is typically seen as various forms of withdrawal or aggression (Spielberger, 1988). Furthermore, anger may be expressed through distorted thinking and beliefs (Nugent, 1991). In summary, researchers have opposing views on the origins of anger; although, it appears as though there is consensus that uncontrolled anger is an important social problem which should be thoroughly researched.

**Definition and Origin of Aggression**

Aggression is behaviourally defined as the infliction of physical or verbal harm directed towards an object or another individual (Averill, 1983). However, the literature suggests that aggression can also be emotionally defined. The emotional definition describes aggression as a behaviour that is derived from anger (Karataş & Gökçakan, 2009). Hollin (2003) states that aggression originates from a perceived negative interaction between an individual and their surroundings. Goldstein, Glick, and Gibbs (1998) suggest that aggression is primarily learned through observation of others, imitation, direct experience, and rehearsal. Anger can result in aggression when it is not expressed or controlled in an appropriate manner. However, anger leading to aggressive behaviour is determined by the nature of the frustration, constrictions of the situation, expected outcomes, and the coping style of the individual (Burns, Bird, Leach, & Higgins, 2003). According to Palmer (2005), Aggression Replacement Training (ART) is based on the theory that aggression is a learned behaviour that develops in childhood. Individuals who are aggressive justify their acts through cognitive distortions. In addition, for those who present a delay in the development of moral reasoning and frequently use cognitive distortions, aggression can become self-perpetuating (Palmer, 2005). In summary, aggression can be defined from a behavioural and emotional point of view (Karataş & Gökçakan, 2009). Therefore, a program which emphasizes the emotional, behavioural, and cognitive processes in changing behaviour is necessary to treat aggression.

**Anger and Mental Illness**

According to Ghazinour and Richter (2009), psychopathological symptoms are linked with high levels of anger experience, expression, and control. In psychotherapy, client anger is one of the most challenging emotions that clinicians encounter (Norcross & Kobayashi, 1999). When an individual with a mental illness is aggressive, they endanger the safety and well-being of others as well as themselves (Bisconer, Green, Mallon-Czajka, & Johnson, 2006). Bisconer et al. state that untreated aggression can cause problems for finding placement in the community. In addition, continued aggression can increase the amount of time an individual with a mental
illness stays hospitalized. When an individual with a mental illness is unable to manage their anger within the community, they may experience multiple admissions into psychiatric hospital settings (Singh et al. 2010). Furthermore, when compared with the general population, individuals with a mental health diagnosis display more aggression (Singh et al. 2010). According to Norcross and Kobayashi (1999), aggression is associated with many mental and behavioural disorders including antisocial personality disorder, conduct disorder, post-traumatic stress disorder, and borderline personality disorder.

**Aggression Replacement Training**

Aggression Replacement Training (ART) is a multi-channelled intervention designed to alter the behaviour of aggressive individuals (Amendola & Oliver, 2003; Goldstein et al., 1998). ART teaches individuals alternate behaviours in order for them to appropriately respond to triggers and settings that may result in aggressive responses. In addition, ART focuses on developing new skills, cognitive restructuring, and confronting morals (Amendola & Oliver, 2003; Goldstein et al., 1998). Hatcher et al. (2008) suggest that ART was one of the first interventions to implement a program with psycho-education to alter an individual’s thinking, emotions, and actions. Through the use of skill development, relaxation techniques, and moral reasoning development, ART decreases aggressive behaviours (Hatcher et al., 2008). According to Glick and Goldstein (1987), ART is an effective intervention with significant reliability. It appears to support skill development and performance, improve anger control, decrease the frequency of acting-out behaviours, and increase the frequency of positive, pro-social behaviours (Glick & Goldstein, 1987). Furthermore, ART is prevalent across North America and Europe within an array of educational and correctional services. ART consists of three major components which include skill-streaming, anger control training, and moral reasoning training (Goldstein et al., 1998).

**Skill-streaming.** Skill-streaming is the behavioural element of ART (Glick & Goldstein, 1987; Goldstein et al., 1998). It is a set of step-by-step instructions to help manage social situations through the use of modeling, role-playing, feedback, and transfer of training (Hatcher et al., 2008). The skill-streaming component of ART is based on Bandura’s social learning model. Each skill is broken down into its behavioural steps (Glick & Goldstein, 1987; Goldstein et al., 1998). Modelling is used to show clients examples of expert use of the behaviours that comprise the skills in which they are learning. In addition, role-playing is used to give the clients guided opportunities to practice and rehearse the behaviours. Furthermore, praise, additional instruction, and feedback on their performance is given in order to encourage the clients to generalize the skills learned into their naturalistic environment (Amendola & Oliver, 2003). With the use of skill-streaming, individuals learn the new skills to deal effectively and appropriately with others (Hollin, 2003).

**Anger control training.** According to Goldstein et al. (1998), anger control training is ART’s emotional element. It is designed to help make the arousal of anger less frequent and to teach clients self-control when their anger is aroused. Furthermore, anger control training teaches clients to become aware of their internal and external triggers. Once the triggers are recognized, an individual can develop skills to cope with their anger and respond appropriately in those situations likely to trigger the emotion (Hollin, 2003). Anger control training is a method for empowering clients to modify their own anger reactions (Goldstein et al., 1998). It teaches
individuals what not to do in an infuriating situation (Reddy & Goldstein, 2001). In addition, anger control training teaches self-evaluation techniques and trains individuals to consider the consequences for their actions (Goldstein et al., 1998). Deffenbacher (1999) states that being able to control aggressive impulses is necessary in reducing aggressive behaviours. It is important to have individuals understand that anger is a normal emotion; however, being able to control it will increase their ability to control aggressive behaviour (Goldstein et al., 1998).

**Moral reasoning training.** Moral reasoning training is ART’s cognitive element (Goldstein et al., 1998). This component attempts to raise clients’ awareness of morals by looking at other individual’s points of view. It also teaches clients to view their world in a more fair and logical way (Glick & Goldstein, 1987; Goldstein et al., 1998). In the moral reasoning component of ART, individuals are exposed to moral dilemmas where they are required to brainstorm a variety of solutions. The resolution of cognitive conflicts frequently enhances their moral reasoning (Reddy & Goldstein, 2001). In addition, moral reasoning assists individuals in choosing to use pro-social skills over aggressive behaviours (Goldstein et al., 1998). Through carefully structured group exercises involving discussion, feedback and decision making, moral reasoning training seeks to change and enhance moral development (Hollin, 2003).

**ART Procedures**

In the process of ART, therapists prepare and motivate clients. In the initial session, program information such as the purpose, procedures, and rules are presented to the clients (Reddy & Goldstein, 2001). During this time, client participation and motivation is enhanced by including them in the establishment of rules pertaining to attendance, confidentiality, and group behaviour. In the skill-streaming component, each skill is broken down into behavioural steps, which are then modelled by the therapist, and subsequently role-played by the participants during the session (Reddy & Goldstein, 2001). During the sessions which incorporate anger control training techniques, participants are taught to deal with provocation by following a series of behavioural steps that identify triggers. Some triggers include external events and internal appraisals that provoke anger (Reddy & Goldstein, 2001). Strategies to decrease anger arousal include awareness of physical, behavioural, and emotional experiences that indicate the presence and arousal level of anger. In addition, behavioural relaxation strategies are used in order to decrease the individual’s level of anger arousal. These strategies include deep breathing, counting backwards, and progressive muscle relaxation (Goldstein et al., 1998). Furthermore, reminders such as the use of self-statements and self-evaluation are used to appraise how well the participant is implementing the techniques. These further decrease anger arousal by disputing and replacing internal triggers (Reddy & Goldstein, 2001). In the final component of ART, the participants are exposed to moral dilemmas where they are required to brainstorm a variety of solutions. The resolution of cognitive conflicts frequently enhances their moral reasoning (Reddy & Goldstein, 2001).

**ART Techniques**

**Role-playing.** Role-playing provides guided opportunities to practice and rehearse appropriate inter-personal behaviours (Reddy & Goldstein, 2001). McReynolds, Devoge, Osborne, Pither, and Nordin (1981) state that role-playing has recently become more popular in the assessment of anger, assertiveness, and social skills. Reddy and Goldstein (2001) suggest
guidelines to include when a client is role-playing in Aggression Replacement Training. They consist of reminding the client of their part and encouraging the client to attend to whether they are using the skill in a correct manner. If the role play strays from the identified social skill, end the role play, provide instructions as required, and continue the process (Reddy & Goldstein, 2001). After each role play, feedback is provided to the client on their performance. Performance feedback is critical as it allows for the client to be frequently praised on how well they model the appropriate skills and behaviours. In addition, it allows the client to learn areas in which they can improve (Reddy & Goldstein, 2001). ART incorporates role-playing which assists individuals in experiencing and examining their internal and external reactions to anger-provoking events. Furthermore, role-playing in the ART program provides individuals with a safe, supporting atmosphere to practice their skills (Goldstein et al., 1998; Reddy & Goldstein, 2001).

**Cognitive restructuring.** According to Hollin (2003), cognitive distortions are irrational thought patterns or attitudes about oneself or one’s social behaviour that support aggressive behaviour. Cognitive restructuring is used to assist in defusing angry thoughts (Bieling, McCabe, & Antony, 2009). Teaching group members about cognitive distortions is extremely useful because once these concepts are understood; clients can quickly tackle their own cognitive errors. This allows the clients to correct their thinking more efficiently (Bieling et al., 2009). Thought records are used in order for individuals to record their thoughts that automatically occur in response to a distressing event. In addition, thought records allow individuals a chance to write out the cognitive distortions in which they identify from their automatic thoughts. Furthermore, individuals are able to develop rational thoughts that replace their irrational thinking (Nugent, 1991). Through the use of thought records, individuals will distance themselves from the thoughts they are experiencing, understand that the interpretation of an event is not always accurate, and adjust how they respond to a stimulus. According to Barriga, Hawkins, and Camelia (2008), cognitive distortions provide a significant function in the production of aggressive behaviour. However, cognitive restructuring can modify emotional and behavioural reactions (Nugent, 1991).

**Relaxation techniques.** Relaxation techniques are used to decrease the physiological arousal associated with anger which include a racing heartbeat, muscle tension, and increased breathing (Gaines & Barry, 2008). Anger management incorporates relaxation strategies to reduce arousal (Bieling et al., 2009). Gaines and Barry (2008) state that the use of self-regulation is necessary in controlling aggressive behaviour. Furthermore relaxation exercises are often included when behavioural problems are the focus of interventions because of their association with physiological arousal that can have a negative influence on behaviour (Gaines & Barry, 2008). Relaxation exercises are useful anytime an individual feels aroused by stress or anger. Once an individual is physically relaxed, they can make better use of cognitive strategies to handle their anger more appropriately (Grambling & Averbach, 1998). A study presented by Deffenbacher and Stark (1992) demonstrated that relaxation skills were as successful in the treatment of anger as combining them with cognitive coping skills. The study consisted of 55 psychology students who were randomly assigned treatment conditions of cognitive and relaxation coping skills (n=16), relaxation coping skills (n=9), and a non-treatment control (n=20). Although Deffenbacher and Stark argue that the combination of cognitive and relaxation coping skills is the most effective intervention, the results of the study indicate that participants in the relaxation coping skills condition considerably decreased the tendency to negatively
express anger. The relaxation techniques utilized in ART include progressive muscle relaxation and deep breathing exercises (Goldstein et al., 1998).

**Progressive muscle relaxation.** Muscle relaxation training relieves individuals from their troubling physical and emotional symptoms and lets them experience the positive sensations associated with lowered muscle tension. According to Scheufele (2000), progressive muscle relaxation (PMR) resulted in the greatest effects on behavioural and self-reported measures of relaxation. Mild depression, hopelessness, and loneliness, have also been treated effectively with PMR (Harris, 2003). Empirical evidence supports the use of PMR in individuals with physical conditions such as Human Immunodeficiency Virus (HIV) (Cucciare, Sorrell, & Trafton, 2009), cancer (Lyles, Burish, Krozely, & Oldham, 1982), and sleep disturbances (Alley, 1983). Additionally, PMR has proven to be effective in reducing anxiety in individuals with psychological conditions such as schizophrenia (Chen et al., 2009), agoraphobia (Michelson, Mavissakalian, & Marchione, 1985), generalized anxiety disorder (Borkovek et al., 1987), and panic disorder (Dattilio, 2001). Nickel et al. (2005) state that PMR is an effective treatment technique for treating aggression in male adolescents. Moreover, PMR plays a role in decreasing physical aggression in students with emotional and behavioural difficulties (Lopata, Nida & Marable, 2006). ART uses progressive relaxation techniques as a strategy to reduce anger (Amendola & Oliver, 2003). PMR is a well-known intervention; individuals can learn to self-administer the techniques so they can manage tension and stress in different environments on their own (Harris, 2003).

**Deep breathing exercises.** Anger management programs typically include relaxation exercises for stress and anxiety reduction which often include a focus on the mechanics of breathing (Gaines & Barry, 2008). Goldstein et al. (1998) suggest that deep breathing exercises are utilized in ART as an anger reducer. Participants are prompted to take slow deep breaths in order to assist them in making a more controlled response when a stressful situation arises. Deep breathing is one of the most effective emotional regulation techniques to use when an individual feels their level of anger rising (Gramling & Averbach, 1998). Furthermore, deep breathing exercises are one of the essential building blocks to mastering relaxation procedures and they are one of the most straightforward methods for eliciting the relaxation response (Gaines & Barry, 2008).

**The Effectiveness of ART with Other Populations**

Research demonstrates Aggression Replacement Training’s (ART) effectiveness for decreasing anger arousal and aggression in several populations. In an adult community-based program, ART results have shown a 13.3 percent reduction in recidivism (Hatcher et al., 2008). In addition, Hatcher et al. (2008), state that ART was adapted within the English and Welsh probation service. Sugg (2000), reported a one year reconviction rate for program completers of 20.4 percent, compared to 34.5 percent for a non-treatment control group (as cited in Hatcher, 2008). Reddy and Goldstein (2001) conducted a study where 60 male incarcerated juveniles were assigned to one of three groups: a 10-week ART program, no-ART brief instructions control group and a non-treatment control group. Results revealed that ART participants, compared to both control groups, significantly acquired and transferred four of the 10 skills. Moreover, adolescents that participated in both control groups exhibited higher intensity aggressive behaviour than those that participated in ART. A global community functioning measure
indicated that the youth who participated in ART were rated with higher community functioning in the areas of home, family, peers, and legal than the youth who did not receive ART programming (Reddy & Goldstein, 2001). A study by Perseus House, Inc compared residential and community-based ART programs for incarcerated juvenile delinquents. The results of the community-based program indicated that the participants considerably improved their social skill competence, decreased their aggression scores, and improved their irrational thinking. Researchers conducted a follow-up for re-arrest rates at 3, 6, 9, and 12 months after the participants were discharged. The groups that received the ART program recidivated 18 percent on the program within the community ($n=599$) and 19 percent in the residential program ($n=300$) (Amendola & Oliver, 2010).

Numerous studies demonstrate that ART is not only a valuable program for incarcerated juvenile delinquents. According to Roth and Striepling-Goldstein (2003), ART has decreased chronic aggressive behaviour of students within the school system. ART is used at the elementary and secondary school levels (Roth & Striepling-Goldstein, 2003). Schools have used ART as a required or voluntary course within the school curriculum (McGinnis, 2003). Skill-streaming has been recognized as a standard component of group learning in the classroom (Roth & Striepling-Goldstein, 2003). There is significant evidence suggesting that traditional punishments, such as suspension and detention, are unsuccessful in providing long-term change (Goldstein et al., 1998; McGinnis, 2003). ART programs have also been used with students who display chronic, anti-social behaviour and have been repeatedly disciplined. Research findings suggest an overall decrease of aggressive behaviour in adolescents with the implementation of ART (McGinnis, 2003).

A modified form of ART has been demonstrated with children and youth diagnosed with autism spectrum disorder (Moynahan, 2003). In addition, ART has been used predominantly with children with Asperger’s syndrome who display behavioural problems. A pilot study by Moynahan (2003), consisting of a 12-week ART program, was implemented with 30 sessions. To ensure higher involvement in sessions, children without autism spectrum disorder were mixed into the group. The results of the study demonstrate ART’s effectiveness in decreasing aggressive behaviour in children and adolescents with autism spectrum disorder. In Norway, schools and treatment centres are increasing the use of ART for this population (Moynahan, 2003).

**Group Treatment**

There are therapeutic and practical benefits of group therapy (McWhirter, 1999). Groups provide opportunities for the members to experience vicarious learning, to experience role flexibility as helpers and help seekers, and for group members to gain a sense of universality by observing that others are struggling with similar issues. Additionally, groups provide members with a sense of community in which they feel less isolated and alone, and are helpful to members by providing structured opportunities for interpersonal learning (McWhirter, 1999). Bieling et al. (2009), state that groups offer altruism in which members have an opportunity to help one another. Both members benefit if one member gives advice to another. In addition, groups give members opportunities to try out a variety of new skills and receive direct feedback. Group members can learn by observing other members model the behaviour correctly and gain important information about appropriate interpersonal strategies. In addition, groups offer an opportunity for shared learning (Bieling et al., 2009). A study by Deffenbacher (1999) indicated
that group therapies, which utilized social skills training and relaxation skills, considerably decreased anger, aggression, and anxiety.

Homework Assignments

According to Scheel, Hanson, and Razzhavaikina (2004), group therapy can be even more effective when homework assignments are provided. Homework in psychotherapy is defined as “the act by the therapist of recommending either implicitly or explicitly to the client the performance of specific, between session actions” (Scheel et al., 2004, p.2). Dattilio (2001) states that homework assignments vary during the course of group treatment; however, they can include PMR, breathing exercises, and recording daily hassles and cognitive distortions. The application of therapeutic skills and behaviours between sessions has been acknowledged as one of the most frequent intervention approaches in a clinical setting (Neimeyer, Kazantzis, Kassler, Baker, & Fletcher, 2008). Homework assignments which encourage self-monitoring help clients to become more aware of their behaviours. Homework allows clients to recognize their triggers for their behaviour as well as the consequences of it (Bieling et al., 2009). When clients attribute improvement to their own hard work it increases their confidence (Young, 2009). Weekly homework assignments, in the form of hassle logs, require clients to participate throughout sessions and after the sessions are complete (Goldstein et al., 1998). Homework assignments, especially if they require some daily work, can enhance treatment considerably (Young, 2009). The application of therapeutic skills and behaviours between sessions has long been recognized as one of the most common clinical strategies (Neimeyer et al., 2008). Empirical evidence suggests that the completion of homework is a predictor of treatment outcome (Kazantzis & Lampropoulos, 2002).

The Current Study’s Relationship to the Literature

Interventions for controlling anger have fallen behind interventions controlling other emotional difficulties despite the significance of anger in the psychological functioning of clients (Deffenbacher & Stark, 1992). Recidivism, psychoticism, and neuroticism have been found to be associated with anger. This suggests a relationship between anger and a mental illness (Singh et al., 2010). The complex construct of anger has not yet been fully explored; therefore, there is a need for further investigation.

Literature demonstrates ART has been effective for decreasing anger arousal and aggression in young people, adolescent delinquents, adult offenders, and children and youth with autism spectrum disorder. Although there is a lack of research on the use of ART for the treatment of anger reduction in adults with a mental health illness, there appears to be an increased need for treatment and research into this population. Therefore, an ART intervention consisting of deep breathing, progressive muscle relaxation, and cognitive restructuring techniques will be utilized in this study to decrease adults’ perceived level of anger in the participation of an anger management group at a community mental health agency.
Chapter III: Method

Participants

Inclusion-exclusion criteria. The participants were adult clients receiving clinical services from Frontenac Community Mental Health Services (FCMHS). Participants were self referred to the Calm, Cool, and Collected group or were referred by their case worker who recognized a need for anger management intervention. Notification of the group was communicated via internal e-mail and a poster that was sent to the managers of the teams within the agency (see Appendix B). The group members met the following criteria: (a) they resided in Frontenac County, (b) they had been diagnosed with a serious mental health illness and/or had substance abuse concerns, (c) they recognized that they had difficulties controlling anger and/or aggression, (d) showed some commitment to making changes, and (e) were comfortable in a group setting. The participants who did not complete all of the sessions were still able to take part in the study. Exclusion criteria for the group included (a) if the participant required a more intensive treatment setting, (b) if they were acutely psychotic, or (c) if they disclosed any discomfort of group settings in the initial meeting.

Participant characteristics. Five participants were involved in the study consisting of four females and one male between 21 and 45 years of age ($M = 27$, $SD = 10.1$). All participants in the study acknowledged in a clinical interview that they had a current problem with controlling their anger. Two additional males were accepted into the group; however, they were not asked to participate in the study because they failed to meet the inclusion criteria.

Participant 01 was a 23-year-old female diagnosed with borderline personality disorder, severe depression, anxiety, and panic disorder. In addition, she had been diagnosed with a learning disability. The participant was relying on the Ontario Disability Support Program (ODSP); however, worked part-time in the human services field. A file review indicated that she had a history of sexual abuse as well as a history of abusing marijuana. She was engaged and living with her partner. During the time of the study, she was receiving services from a Transitional Case Manager and had a case worker helping her with her concurrent disorder.

Participant 02 was a 24-year-old male diagnosed with depression who demonstrated frequent anger outbursts. He used marijuana occasionally and had a history of physical and emotional abuse. During the time of the study, the participant lived alone and frequently visited his 20-month-old daughter. The participant was unable to control his anger and aggression and believed that his anger stemmed from his full-time position as a customer service representative. This participant was referred through the Crisis Team at the agency. He was not receiving any other services from the agency at the time of this study. To ensure participant confidentiality, each client’s data was assigned a numeric code.

Participant attrition. Of the original 5 participants, 2 completed the study, resulting in a 60% attrition rate. Participants who dropped out of the study did not differ significantly on the post-test measure from those who completed the study. The reasons for leaving treatment included being uncomfortable in the group setting, psychiatric hospitalization, and moving out of town.

Consent. Verbal and written consent (see Appendix C) was obtained by participants prior to the commencement of the initial group session. A three-page document was developed to
outline the purpose, duration, and procedures of the study. In the document, the potential risks and benefits of participating in this study were addressed. Participants were informed how the confidentiality of any records identifying them would be maintained. In addition, the participants were informed that participation was voluntary and if they wished to participate, they were able to withdraw at any time without affecting the services they were receiving from FCMHS. The participants were further informed that any data collected would be destroyed if they decided not to continue participating in the study. Furthermore, contact information was provided in order to answer pertinent questions or address any concerns about the research. The present study was approved by the St. Lawrence College Research Ethics Board.

**Design**

In the current study, an AB Case Study design was utilized to evaluate the effectiveness of the workshop by comparing the participants’ perceived levels of anger at pre and post stages of intervention. The group was facilitated by the researcher and co-facilitated by a different staff member of the Transitional Case Management Team each week. In addition, a Behavioural Science Technology (BST) student was present for four sessions. To guarantee treatment integrity, the facilitator debriefed with the BST student after each session regarding the participants’ behaviours and progress. At the end of each session, the facilitator completed a record log (see Appendix E) to track the progress of each participant. The participants’ progress was monitored through attendance and punctuality, completion and quality of homework assignments, and quality of participation in role-playing and discussions.

**Dependent variables.** The dependent variable in this study was the participants’ perceived levels of anger. This was determined through pre-test administration of the State-Trait Anger Expression Inventory (STAXI). For the purpose of the study, anger is defined as “an experiential state consisting of emotional, cognitive and physiological components that co-occur, rapidly interacting with and influencing each other in such a way that they tend to be experienced as a singular phenomenon” (Deffenbacher, 1999) (p. 296). State anger is defined as an emotional state marked by subjective feelings that vary in intensity from mild annoyance or irritation to intense fury and rage. Trait anger is defined as the disposition to perceive a wide range of situations as annoying or frustrating, and the tendency to respond to such situations with more frequent elevations in state anger (Spielberger, 1988).

**Independent variables.** The intervention which consisted of techniques adapted from Aggression Replacement Training (ART) (Goldstein et. al, 1998) served as the independent variable in this study. Activities included distinguishing between appropriate and inappropriate expressions of anger, recognizing anger cues, learning about cognitive distortions, and practicing anger reduction techniques. Homework included hassle logs in which participants were asked to record any hassles they experienced within the week. Additionally, participants were asked to keep track of their moods. Role-playing and guided group discussions were included. The participants were frequently asked to share how the topics related to their personal experiences.

**Data analysis.** The data obtained for the current study was based on score calculations of the pre-and post-test results. A decrease in the calculated scores for the State Anger, Trait Anger, Anger Expression In, and Anger Expression Out scales would suggest a perceived improvement
in anger experience and expression. Additionally, an increase in the Anger Control scale would indicate perceived improvement in the manner the participants control their anger.

**Setting and Apparatus**

The group sessions were held at the ‘Princess St. Café’ located in the agency’s building. The room was medium in size with several windows on a far wall. The chairs in the room were arranged in a semi-circle, which allowed easy interaction among the group members and facilitators. Small round tables were scattered around the chairs to provide a place for the members to write notes about the sessions and complete worksheets. The materials included a copy of the ART training manual (Goldstein et al., 1998), chart paper, an easel for the chart paper to be displayed, markers, a writing utensil for each member, and a poster board to display skill steps. In addition, each participant was provided with folders which contained paper handouts on topics of each session and homework assignments which consisted of mood charts (see Appendix D) and hassle logs (see Appendix E).

**Measures**

**State-Trait Anger Expression Inventory (STAXI).** The STAXI (Spielberger, 1988) was used to measure pre- and post-scores of the participants. The STAXI is a self-report psychometric scale which consists of 44-items and encompasses five scales and two subscales. This inventory is rated on a 4-point Likert rating scale of 1 (almost never) to 4 (almost always). The State Anger scale consists of ten items related to the intensity of angry feelings that one might experience at a particular time. The Trait Anger subscales consist of ten items related to individual differences in one’s disposition to experience anger. Additionally, the Anger Expression subscales are comprised of 24-items associated with the frequency that anger is either suppressed or expressed. The Anger Control scale measures the frequency with which an individual attempts to control anger expression. A score’s percentile rank on the STAXI denotes how an individual is compared to normative samples. Scores on the STAXI that fall inside the 25th and 75th percentile are considered to be within the normal range (Spielberger, 1988). It should be noted that the STAXI cannot be displayed due to the copyright law.

**Rationale.** The STAXI was utilized as a pre and post measure because the scale demonstrates good convergent validity and test-retest reliability (Spielberger, 1988). The STAXI can be objectively scored and easily administered by an individual with limited training in psychological testing. Moreover, the STAXI is a well-known measure that has been utilized extensively in research (Spielberger, 1988). It should be noted that the revised STAXI, the STAXI-2, may have been a preferred measure; however, the researcher did not have access to it at the time of the study.

**Participant record log (PRL).** The Participant Record Log (see Appendix F) was an ongoing assessment measure to monitor the participants’ progress. Attendance was recorded on whether or not the group members attended each session. Punctuality was recorded with a checkmark if the participant arrived on time; however, if a participant was not on time, the amount of time they missed during the session was recorded. Homework completion was recorded on a scale of 1 (partially complete) to 3 (full completion). In addition, participation was
recorded on a scale of 1 (*not at all engaged*) to 4 (*highly engaged*). The facilitator completed the PRL following every session.

**Rationale.** The participant record log was developed and used to ensure that relevant notes on the progress of each participant during the sessions were obtained. The participant record log was useful for staff to write a progress note for each client as per agency guidelines. Scores were evaluated for each participant.

**Muscle relaxation rating scale.** The Muscle relaxation rating scale (see appendix G) adapted from Anda (2007) is a self-report measure of an individual’s relaxation response to guided progressive muscle relaxation exercises. A scale of 1 (*very relaxed*) to 5 (*very tense*) is utilized in order to rate each muscle group. In addition, a total rating score is calculated.

**Rationale.** An awareness of one’s own physiological response is an important component of anger control training; therefore, the Muscle Relaxation Rating Scale was used to determine if the participants were able to recognize and decrease their muscle tension. Furthermore, increased awareness of an individual’s own physiology may lead to improved anger control. Therefore, the scale was an additional measure to assess treatment gains.

**End of group survey.** Participants were encouraged to complete an end of group self-report survey (adapted by Gottlieb, 1999) (see Appendix H). In this survey participants were asked to rate themselves on a Likert scale of 1 (*lacking the presence of the trait/skill*) to 10 (*the greatest presence of the trait/skill*). The survey included an area for the participants to rate their perceived skill and trait levels on the scale before the group started and after the eight weeks of treatment. In addition, a scale of 1 (*low*) to 5 (*high*) was given in order for the participants to rate how they viewed the group. Participants were asked to record their opinions on working with the facilitator and other group members. Additionally, they were asked if they would recommend the group to a friend.

**Rationale.** The end of group survey was administered to measure the participants’ perceived progress made within the group as well as give the agency and researcher feedback on the workshops overall effectiveness.

**Procedures**

**Protocol.** The workshop was comprised of one-hour weekly sessions for eight consecutive weeks. The hour duration was selected based on the agency staff member’s previous experience with group format. An hour in length was suggested due to the intensity of the material and the participants’ ability to remain engaged. The time-frame for an average session can be found in Appendix I. Sessions consisted of psycho-education, skill acquisition, anger control techniques such as deep breathing, counting, and progressive muscle relaxation. In addition, moral reasoning development was utilized to assist members in identifying cognitive distortions. Group members were taught cognitive restructuring techniques in order to challenge their irrational beliefs. The method of delivery was a combination of lecture, discussion, and independent activities. Participants were encouraged to attend each session. However, they were informed that if they were unable to attend, they could contact the facilitator to arrange an
individualized make-up session. The protocol was provided as a framework in which the facilitators were flexible in applying the therapeutic techniques to meet the needs of the individual members.

**Initial session.** The initial session began with the facilitator introducing herself and the co-facilitator. The facilitators encouraged the group members to introduce themselves by expressing that it was a great way to get to know one another. Following the introductions, the facilitator gave an overview of the workshop including a discussion of the typical format and structure of the sessions. Members of the group brainstormed ground rules with the facilitators. Folders containing paperwork on the first session were passed out to each member. The session included psycho-education on general principles regarding anger, barriers to expressing anger, and penalties for not expressing anger appropriately. The session ended with the facilitators motivating the group to attend the next session by thanking the members for attending, reiterating the essential components of the program and how useful it will be to them, and addressing any questions or concerns they had. The aims of the initial session were to give the participants information on the nature and purpose of anger treatment, to encourage motivation to change negative responses to anger by recognizing the costs of anger, and to foster trust and confidence in the therapeutic process.

**Group sessions.** Each session began with the facilitator introducing the new co-facilitator to the group. Homework was then reviewed in which group members were encouraged to describe their experience with the assignment from the previous week. The review of homework assignments allowed the members to collectively problem-solve any provocations they had endured throughout the week. During this time, the facilitators provided encouragement and positive feedback. Participants were actively encouraged by the facilitators to share their personal experiences related to current material covered in the session. The facilitators directed discussions on anger-related topics and supported participants in maintaining such topics. The chart paper was displayed as a visual presentation of pertinent material covered as well as social skill steps. The facilitators expanded upon the material using current examples and questioned the participants on how it related to them. In sessions in which members were taught new skills, the facilitators prompted, reinforced, and modelled the desired behaviours.

**Intervention procedures.** The sessions in which a new skill was taught incorporated role-playing in order for the members of the group to experience and examine their internal and external reactions to anger-provoking events. It provided them with the opportunity to learn to identify and evaluate physiological, cognitive, and behavioural responses when angry. Additionally, the members of the group were able to work on old habits by establishing a new pattern of behaviours through practice and rehearsal. Homework assignments were assigned each week. The first part of each group session was structured around reviewing the homework. Mood Charts allowed the participants to record and challenge their thoughts and allow them to see how their thoughts and moods were linked together. The Hassle Log is an essential component of an anger management program. It allowed members to record a variety of aspects related to the incidents that made them angry. Furthermore, it promoted self-awareness and helped the participants learn to evaluate the degree to which they had successfully managed their anger. Relaxation techniques, in the form of deep breathing and progressive muscle relaxation, were taught to the members in the group. Group members were encouraged to use these techniques
when they felt their level of anger rising. The relaxation techniques were an essential component in the group process because when an individual is physically relaxed, they can make better use of cognitive strategies to handle their anger more appropriate. Cognitive restructuring allowed the members of the group to gain awareness of negative thought habits, learn to challenge them, and substitute positive thoughts and beliefs. The group members were taught about thoughts that automatically occur in response to a distressing event and how to identify them in their own thinking. For an outline of the group sessions see Appendix J.
Chapter IV: Results

The current study evaluated the effectiveness of Aggression Replacement Training (ART) on individuals diagnosed with a mental illness who were seeking services at a community mental health agency. The State-Trait Anger Expression Inventory (STAXI) measured the participants’ self-perceived anger expression and control. It was hypothesized that an ART intervention would assist the individuals within the group to perceive their levels of anger to be within the normal range. The “Calm, Cool, and Collected” workshop appeared to be a generally effective treatment for the participants’ self-perceived levels of anger to move closer to the normal range. The intervention was effective in moving the participants’ perceived anger expression and control scores closer to the 25th and 75th percentile. Due to the high attrition rate of the study, descriptive statistics are used to describe the results for the two participants on an individual basis. STAXI scores between the 25th and 75th percentile fall in what may be considered to be the normal range (Spielberger, 1988).

Results for Participant 01

STAXI measure. Results of the STAXI indicated that at pre-treatment, Participant 01 scored within normal range on the S-Anger scale and scored extremely high on all other scales, excluding the AX/Con, which placed her scores well above the normal range. In addition, Participant 01 scored significantly below the normal range for the AX/Con scale. Post-test results indicated that Participant 01 scored the same on the S-Anger scale for the pre- and post-test. At post-intervention, Participant 01’s scores decreased on the T-Anger, T-Anger/T, T-Anger/R, AX/In, and AX/Out scales. Her scores placed her in the high end of the normal range for T-Anger/T. Scores on the T-Anger, T-Anger/R, AX/In, and AX/Out scales significantly decreased; however, the scores continued to place Participant 01 above the normal range. Pre- and post-test scores for Participant 01 on the STAXI measure are presented in Table 1 and illustrated in Figure 1.
<table>
<thead>
<tr>
<th>Scales</th>
<th>Pre</th>
<th></th>
<th></th>
<th>Post</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raw</td>
<td>T Score</td>
<td>Percentile</td>
<td>Raw</td>
<td>T Score</td>
<td>Percentile</td>
</tr>
<tr>
<td>S-Anger</td>
<td>10</td>
<td>50</td>
<td>50</td>
<td>10</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>T-Anger</td>
<td>26</td>
<td>63</td>
<td>99</td>
<td>23</td>
<td>58</td>
<td>80</td>
</tr>
<tr>
<td>T-Anger/T</td>
<td>9</td>
<td>62</td>
<td>90</td>
<td>7</td>
<td>55</td>
<td>74</td>
</tr>
<tr>
<td>T-Anger/R</td>
<td>13</td>
<td>62</td>
<td>92</td>
<td>11</td>
<td>56</td>
<td>78</td>
</tr>
<tr>
<td>AX/In</td>
<td>28</td>
<td>77</td>
<td>98</td>
<td>20</td>
<td>62</td>
<td>87</td>
</tr>
<tr>
<td>AX/Out</td>
<td>30</td>
<td>80</td>
<td>99</td>
<td>20</td>
<td>66</td>
<td>91</td>
</tr>
<tr>
<td>AX/Con</td>
<td>16</td>
<td>29</td>
<td>2</td>
<td>17</td>
<td>31</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Adult Female normative groups were used. Scale = STAXI scale.

Figure 1. Participant 01’s STAXI t-scores.
Participant record log (PRL). Participant 01 attended 75% of the sessions (6 out of 8). Prior to the second and fifth session, Participant 01 informed the facilitator that she would not be able to attend group due to illness. Participant 01 attended individualized make-up sessions to learn the material covered in the sessions that she missed. She was punctual for every session she attended. Although Participant 01 did not complete assigned homework until the last two sessions, the homework she did was fully complete. In addition, she ranged from being slightly engaged to highly engaged throughout group sessions. The participant record log results for Participant 01 are presented in Appendix K.

Muscle relaxation rating scale. During sessions four to eight, the participants recorded their muscle tension prior to and following each progressive muscle relaxation exercise. Participant 01 appeared to be very tense prior to the progressive muscle relaxation exercises. She rated her lower back, legs, feet, and stomach as the most tense. In addition, Participant 01’s eyes, nose, neck, and shoulders were fairly tense. She rated her hands and arms to be the most relaxed. Her overall rating for muscle tension was 28. Participant 01 scored her hands, arms, mouth, and jaw the same on the pre and post Muscle Relaxation Rating Scale. However, on the post-test she indicated that the rest of her muscle tension had decreased. Participant 01’s overall muscle tension decreased to a total score of 18 following the progressive muscle relaxation exercise.

Table 2 below presents the results of the Muscle Relaxation Rating Scale for Participant 01.

<table>
<thead>
<tr>
<th>Muscle Group</th>
<th>Pre</th>
<th></th>
<th>Post</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Hands and Arms</td>
<td>2</td>
<td>0.71</td>
<td>2</td>
<td>0.71</td>
</tr>
<tr>
<td>Eyes and Nose</td>
<td>4</td>
<td>0.84</td>
<td>1</td>
<td>0.45</td>
</tr>
<tr>
<td>Mouth and Jaw</td>
<td>2</td>
<td>0.55</td>
<td>2</td>
<td>0.71</td>
</tr>
<tr>
<td>Neck and Shoulders</td>
<td>4</td>
<td>0.55</td>
<td>3</td>
<td>0.55</td>
</tr>
<tr>
<td>Lower Back</td>
<td>5</td>
<td>0.55</td>
<td>3</td>
<td>0.84</td>
</tr>
<tr>
<td>Stomach</td>
<td>5</td>
<td>0.45</td>
<td>4</td>
<td>1.67</td>
</tr>
<tr>
<td>Legs and Feet</td>
<td>5</td>
<td>0.89</td>
<td>4</td>
<td>1.52</td>
</tr>
<tr>
<td>Total Score</td>
<td>28</td>
<td></td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Note: On a continuum of 1 to 5, 1 denotes very relaxed and 5 denotes very tense.
Results for Participant 02

STAXI measure. Results of the STAXI indicated that at pre-treatment, Participant 02’s score on the S-Anger scale fell under the high end of the normal range. Percentile scores on all other STAXI scales, excluding the AX/Con, fell extremely high above the normal range. Additionally, Participant 02 scored considerably below the normal range on the AX/Con scale. Participant 02’s score increased on the S-Anger scale and AX/Con scale and decreased on the T-Anger/R scale at post-intervention. However, Participant 02’s scores stayed the same on all other scales (T-Anger, T-Anger/T, AX/In, and AX/Out). Pre- and post-test scores for Participant 02 on the STAXI measure are presented in Table 3 and illustrated in Figure 2.

Table 3

Pre and Post STAXI Scores for Participant 02

<table>
<thead>
<tr>
<th>Scales</th>
<th>Pre Raw Score</th>
<th>Pre T Score</th>
<th>Pre Percentile</th>
<th>Post Raw Score</th>
<th>Post T Score</th>
<th>Post Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Anger</td>
<td>10</td>
<td>50</td>
<td>69</td>
<td>14</td>
<td>58</td>
<td>91</td>
</tr>
<tr>
<td>T-Anger</td>
<td>38</td>
<td>80</td>
<td>99</td>
<td>38</td>
<td>80</td>
<td>99</td>
</tr>
<tr>
<td>T-Anger/T</td>
<td>16</td>
<td>80</td>
<td>99</td>
<td>16</td>
<td>80</td>
<td>99</td>
</tr>
<tr>
<td>T-Anger/R</td>
<td>16</td>
<td>80</td>
<td>99</td>
<td>15</td>
<td>72</td>
<td>97</td>
</tr>
<tr>
<td>AX/In</td>
<td>20</td>
<td>61</td>
<td>89</td>
<td>20</td>
<td>61</td>
<td>89</td>
</tr>
<tr>
<td>AX/Out</td>
<td>22</td>
<td>65</td>
<td>98</td>
<td>22</td>
<td>65</td>
<td>98</td>
</tr>
<tr>
<td>AX/Con</td>
<td>13</td>
<td>22</td>
<td>1</td>
<td>15</td>
<td>26</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Adult Male normative groups were used. Scale = STAXI scale.
Figure 2. Participant 02’s STAXI t-scores.

Participant record log (PRL). Participant 02 attended 75% of the sessions (7 out of 8). He missed session 5 due to a change in his medication; however, he completed an individualized make-up session to learn the missed material. Participant 02 was punctual for each group meeting and he partially completed the homework on four sessions. In addition, he was fully engaged in guided group discussion for each session he attended. The participant record log results for participant 02 are presented in Appendix K.

Muscle relaxation rating scale. Participant 02 rated his lower back, jaw, and hands and feet as the most tense. Participant 02’s neck and shoulders scored as fairly tense. In addition, he rated his hands, arms, and stomach at a low score. Participant 02 indicated his lowest muscle tension to be in his eyes and nose. His overall rating on muscle tension was 25. On completion of the post Muscle Relaxation Rating Scale, Participant 02 indicated that his muscle tension decreased on all of his muscles except for his stomach which stayed the same. Participant 02’s muscle tension decreased to a total score of 18 following the progressive muscle relaxation exercise. Table 4 below presents the results of the Muscle Relaxation Rating Scale for participant 02.
Table 4

*Participant 02’s Muscle Relaxation Rating Scale Results*

<table>
<thead>
<tr>
<th>Muscle Group</th>
<th>Pre M</th>
<th>SD</th>
<th>Post M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands and Arms</td>
<td>2</td>
<td>0.89</td>
<td>1</td>
<td>0.89</td>
</tr>
<tr>
<td>Eyes and Nose</td>
<td>1</td>
<td>0.89</td>
<td>3</td>
<td>0.55</td>
</tr>
<tr>
<td>Mouth and Jaw</td>
<td>5</td>
<td>0.45</td>
<td>4</td>
<td>1.64</td>
</tr>
<tr>
<td>Neck and Shoulders</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0.89</td>
</tr>
<tr>
<td>Lower Back</td>
<td>5</td>
<td>0.45</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Stomach</td>
<td>2</td>
<td>0.55</td>
<td>2</td>
<td>0.84</td>
</tr>
<tr>
<td>Legs and Feet</td>
<td>5</td>
<td>0.55</td>
<td>1</td>
<td>0.45</td>
</tr>
<tr>
<td>Total Score</td>
<td>25</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: On a continuum of 1 to 5, 1 denotes very relaxed and 5 denotes very tense.

**End of Group Survey**

During the final session, the participants filled out a survey where they rated themselves on a scale of 1 (*lacking the presence of the trait or skill*) to 10 (*the greatest presence of the trait or skill*). The survey had a section in which participants rated their perceived level of the skills and traits they possessed before the group started and after the eight weeks of treatment. Additionally, the participants rated how they viewed the group on a scale of 1 (*low*) to 5 (*high*). See Appendix L for results of the End of Group Survey.
Chapter V: Discussion

Overview

The current study’s results appear to support the hypothesis that an Aggression Replacement Training (ART) program, specifically designed for individuals with a mental health diagnosis, can improve an individual’s self-perceived anger experience and expression. Furthermore, results of the study suggest that an ART intervention can be effective in assisting individuals to perceive their levels of anger on the State-Trait Anger Expression Inventory (STAXI) to be closer to the normal range.

Interpretation of Results

Interpretations were drawn after implementing a workshop for a group of adults with a mental health diagnosis. The study obtained pre- and post-test STAXI results from two participants. The results are interpreted separately for each participant and provide noteworthy information regarding the use of a workshop to improve anger expression and control in adults who are diagnosed with a mental illness.

Participant 01. The pre-test score on the S-Anger scale placed Participant 01 within the middle of the normal range which indicated that she was not experiencing intense anger at the time the test was administered. Participant 01 scored the same on the S-Anger scale over the course of the eight week treatment. She scored extremely high on the T-Anger scale which indicated that she frequently expressed angry feelings and often felt as though she was being treated unfairly by others. Elevated T- Anger scores are associated with a high risk of developing a serious ailment, such as coronary heart disease, as a result of habitual anger (Spielberger, 1988). Post-test results indicated that although the score fell above the normal range, there was a considerable decrease in Participant 01’s T-Anger score. A lower score on the scale indicated that she may have experienced less frustration and did not express her anger as frequently (Spielberger, 1988). Scores were extremely high on the T-Anger/T and T-Anger/R subscales indicating that participant 01 was quick tempered, impulsive, and lacked anger control. In addition, she was extremely sensitive to criticism and negative evaluations of others. The decrease in the T-Anger subscales suggested that she was able to control her anger more appropriately and she was less sensitive to appraisals by others (Spielberger, 1988). Pre-test scores placed Participant 01 extremely high on the Anger/In and Anger/Out scales. Elevation on these scores indicated that depending on the situation, she would either inhibit behaviours associated with her anger or express it aggressively through physical or verbal behaviour. Post-test results indicated a decrease on both scales suggesting that Participant 01 expressed her anger less aggressively and suppressed her anger less often. The score on the AX/Con scale at pre-test administration was lower than the normal range which indicated that Participant 01 was not trying to manage or prevent her anger. However, a slightly increased score on the AX/Con scale after treatment indicated that she was attempting to control her experience and expression of anger (Spielberger, 1988). The decrease on scores, that were previously elevated, denoted that progress was made following treatment.

Participant 02. The pre-test score on the S-Anger scale placed Participant 02 within the high-end of the normal range which indicated that he was not experiencing intense angry feelings at the time the test was administered. However, post-test results indicated a significant increase
of state anger. The elevation suggested that he was either experiencing chronic anger or that the angry feelings were situationally determined (Spielberger, 1988). However, it was difficult to determine whether or not Participant 02 was experiencing an anger provoking situation at the present time. Pre-test results on the T-Anger, T-Anger/T, AX/In, and AX/Out were extremely high which indicated that participant 02 regularly interpreted others as frequently being unfair, had a quick-temper, and was impulsive. In addition, he frequently experienced anger and engaged in verbally and/or physically aggressive behaviour when expressing his anger. Results of the post-test indicated that Participant 02’s scores on the T-Anger, T-Anger/T, AX/In, and AX/Out stayed the same indicating that there were not any changes after the eight week treatment. Participant 02 scored extremely high on the T-Anger/R subscale which indicated that he was extremely sensitive to criticism and negative evaluations of others (Spielberger, 1988). The slight reduction in his score after treatment suggested that he was less affected by others’ negative appraisals. The score on the AX/Con scale at pre-test administration was lower than the normal range which indicated that Participant 02 was not effectively managing or preventing his anger (Spielberger, 1988). However, a slight increase in the score after treatment indicated that he was attempting to control his experience and expression of anger. Participant 02’s scores did not decrease on all scales. These findings suggest that that the participant may not have fully learned how to best respond to his feelings and improved self-knowledge. However, the program may have been useful in helping him to recognize and understand his anger. Participant 02’s scores decreased minimally which denoted some progress was made after completing the eight week treatment.

**Muscle relaxation rating scale.** Following pre- and post-test administration of the Muscle Relaxation Rating Scale, a decrease in overall muscle tension scores suggested that the participants were able to learn how to relax different muscle groups after practicing progressive muscle relaxation (PMR). The facilitator noticed that the participants appeared to be reaching deep relaxation faster as more sessions were completed. After several PMR exercises, the participants’ verbally reported to have been more relaxed after each session. The participants further reported that after several exercises in the group, they found it easier to implement the procedure on their own when they were experiencing high levels of anger and anxiety arousal.

**End of group self-report survey.** Results from the End of Group Self-Report Survey indicated that the participants perceived themselves to have increased their ability to control their own anger, decision making skills, and awareness of their own and others’ feelings. Additionally, participants perceived themselves to have increased their ability to recognize their physical signs and triggers of their anger, and the ability to calm themselves down when they are experiencing anger and anxiety arousal. Overall, the results were very positive and indicate a high level of satisfaction with the workshop. The participants verbally reported that although their anger did not decrease dramatically, they became more aware of their anger and were more likely to use the relaxation techniques when their anger arousal increased. They further reported that their significant others had noticed a considerable change in how they were able to control their anger.

**Strengths**

The current study contains multiple strengths. A major strength of the study was the successful engagement and motivation of the group members. Although one member dropped
out of treatment and two members were unable to attend the final session, the group had an overall low rate of withdrawal given the complexity of the clinical cases. The participants involved in the study had various mental health diagnoses; therefore, the study supports the use of ART with varying diagnoses. The client’s receiving services at the agency had a difficult time committing to their appointments and taking on the responsibility to contact their worker when they were unable to attend a session. Therefore, an additional strength of the study was that each participant informed the facilitator when they were unable to attend the workshop which demonstrated their commitment to the group. Additionally, both participants requested to have an individual make-up session on the missed material when they were unable to attend a session. The workshop was a positive, pro-social environment which fostered group cohesion. In addition, the participants disclosed that they felt comfortable sharing their anger-related experiences with little discomfort. Additionally, incidental teaching was used throughout the sessions which facilitated generalization. An additional strength of the study was that a manual, which incorporated current best practices in anger management, was created for the workers in the community mental health agency to use when implementing an anger management program.

Limitations

Due to the time constraints of the study, follow-up sessions for evaluation of the maintenance of treatment gains were not able to be conducted. In addition, the study lacked a control group to compare a similar group of individuals who were not receiving ART. Therefore, attributing improvements to the ART workshop is difficult due to the improvements that may have resulted from other factors such as social desirability and additional support. Another limitation to the study was the loose participant selection. Clients receiving services from the agency were not denied treatment even if they did not meet the inclusion requirements of the study. As previously stated, there were two additional group members who were not participating in the research; however, these members actively participated in each session and contributed to the guided group discussions. An additional limitation was that the revised State-Trait Anger Expression Inventory (STAXI), the STAXI-2, was not available to the researcher; therefore, the original STAXI was utilized. The STAXI-2 is comprised of additional subscales in Anger Control such as Anger Control-In, and Anger Control-Out. Additionally, the STAXI-2 is comprised of subscales in State Anger such as Feeling Angry, Feel Like Expressing Anger Verbally, and Feel Like Expressing Anger Physically. The additional subscales suggest that the STAXI-2 may have provided further detail on the anger expression and control of the participants. A predominant limitation of the study was that the progress relied on a self-report measure which may have led to self-report biases and could have confounded the data. Participants may not have accurately reported their anger or may have changed their anger response as a direct result of engaging in the study.

Multi-Level Challenges to Service Implementation

Client level. Clients receiving services from a community mental health agency often have difficulties committing to the duration and demands of an intervention. This is especially true for an anger management group. Clients may have concerns about the negative stigma anger management has in today’s society. Personal life events and environmental issues may further impede consistent participation in a group setting. Issues with individual disorders can cause barriers to treatment such as impulsive behaviour and instability in mood. A group setting may
become reinforcing for individuals who use the group as a way to express anger in an inappropriate manner. Additionally, it can become a challenge when those with a personality disorder compete for attention. This can result in a disruption during group sessions.

**Program level.** Clients who seek services at a community mental health agency have an array of psychological and interpersonal problems. An intervention must be suited to the multiple needs of the clients which may include a learning disability, low cognitive functioning, and language barrier. Due to the extensive material and information provided in an anger management group, the duration of the sessions needs to be considered in order to allow ample time for all of the material to be presented.

**Organization level.** There are multiple challenges within a community mental health agency. These include a lack of funding, limited staff and resources, and limited space to hold a group. It is important to hold a group at a time and place that does not interfere with other staff members’ and clients’ schedules. Workers at a mental health agency have heavy caseloads; therefore, it can become difficult for the staff to dedicate time to co-facilitating a group each week.

**Societal level.** Although anger is a natural human emotion, society has labeled it as a negative emotion. This can create a negative stigma around ‘anger management’. In addition, society may ostracize those who struggle with controlling their anger. There are individuals who are victimized within the community due to their mental illness. This can have a detrimental effect on the individual receiving treatment because they may not feel comfortable walking into a mental health agency and may even have difficulties leaving their home.

**Contributions to the Behavioural Psychology Field**

The pre-test scores on the STAXI were significantly high (over the 75th percentile) for all participants. According to Spielberger (1988), scoring above the 75th percentile can impede an individual’s optimal level of functioning and interfere with interpersonal relationships. In addition, these high percentile scores can facilitate physical and psychological disorders. Therefore, anger treatment in an adult community mental health agency is imperative. The results of the study revealed that a brief, interactive workshop was able to improve perceived levels of anger and that ART can be effective for adult clients with an array of diagnoses. The ART workshop was effective in placing the participant’s perceived anger scores closer to the normal range. Despite the methodological limitations of the current study, the results suggest that ART can be an effective treatment for adults diagnosed with a mental illness who are seeking clinical services within a community mental health agency.

**Recommendations for Future Research**

A major strength of the current study was that it presented several suggestions for facilitating anger management groups within a community mental health agency and for future research. An adequate assessment of motivation and readiness to participate in an anger management group should be done before a participant is accepted into the group. A participant selection process which includes an interview and pre-screening test may be beneficial in future research. The workshop ran for eight-weeks; therefore, due to time constraints, the current study focused primarily on the anger control training component of ART. Furthermore, the eight-week program, coupled with the high needs nature of the participants made it difficult to have
observable treatment changes. A longer program which incorporates additional skill-streaming and moral reasoning training may be more effective in improving perceived levels of anger experience and expression. Another recommendation for further study would be to develop a more complex study design which incorporates a control group. Moreover, researchers may wish to consider using the revised STAXI and an additional psychometric assessment when designing future ART studies in order to demonstrate additional evidence. Previous research supports that ART has been effective in reducing anger and physical aggression with other populations. It is hoped that further research will provide empirically supported best practices for the implementation and outcome evaluation for the targeted community mental health population.
References


Appendix A: Consent for Use of Agency Name

St. Lawrence College
Exeter Campuses

Date: Dec 24/10

CONSENT FOR USE OF AGENCY NAME

I, [Your Name], consent to the use of the name of Frontenac Community Mental Health Services (FCMHS) in Dawn Godfrey’s applied thesis for the Bachelor of Applied Arts in Behavioural Psychology program at St. Lawrence College.

[Agency Staff Signature]

[Student Signature]

[Printed Name]

[Printed Name]
Appendix B: Workshop Poster

CALM, COOL, & COLLECTED WORKSHOP

- PROBLEM SOLVING SKILLS
- SOCIAL SKILLS
- SELF-MONITORING
- RELAXATION TECHNIQUES

Guided group discussion will be used to explore aggressive and negative thinking and promote anger management and socially appropriate behaviours.

To be suitable for the group, individuals should recognize that they have a problem with anger and/or aggression, show some commitment to making changes, and be comfortable in a group format.

*For referrals (male or female) please contact Dawn (4th year Behavioural Psychology student working with the TCM team) Ext. 2325

1 HOUR A WEEK FOR 8 WEEKS

*Please see information form attached
CALM, COOL, AND COLLECTED WORKSHOP

The group will begin in October 2010 and will run for 1 hour once a week, for 8 weeks. If you are interested, please complete the form and return it to your worker at FCMHS. Dawn will contact you with the group details.

Name ____________________________________________

Phone # __________________________

When are you available to participate in this group?

Morning ________ Afternoon ____________

Any comments or requests:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Appendix C: Participant Consent Form

CONSENT FORM

TITLE: The Use of Aggression Replacement Training to Improve Anger Expression and Control in the Adult Mental Health Population

STUDENT: DAWN GODFREY

COLLEGE SUPERVISOR: FRANK KANE

Invitation
I am a student in my 4th year in the Behavioural Psychology program at St. Lawrence College and I am currently on placement at Frontenac Community Mental Health Services. As a part of this placement, I am completing a special project called an applied thesis and am asking for your assistance to complete this project. The information in this form is intended to help you understand my project so that you can decide whether or not you want to participate. Please read the information below carefully and ask all the questions you might have before deciding whether or not to participate.

WHAT IS THE PURPOSE OF THE STUDY?
This project is designed to see whether techniques of Aggression Replacement Training (ART) are useful in decreasing one’s perceived level of aggression. Furthermore, guided group discussion will be used to correct aggressive and antisocial thinking and promote anger management and social competence.

WHAT WILL YOU NEED TO DO IF YOU TAKE PART?
This project will involve eight weekly group therapy sessions that will be an hour long. Also, a pre-group and post-group session will be required in which an inventory called the State-Trait Anger Expression Inventory will be given to you to determine your idea of the levels of anger you experience. This is a questionnaire that will have 57 statements regarding your anger. You will be asked to rate whether these statements are almost always like you or not at all like you. This should take approximately 15 minutes to complete. In addition, homework assignments will be given in order for you to keep track of your level of frustration and how you are feeling.

WHAT ARE THE POTENTIAL BENEFITS TO ME OF TAKING PART?
Benefits to this treatment are not guaranteed; however, they may include a decrease in aggressive behaviour, and an increase in your positive thoughts and emotions. In addition, you may have an increase in positive social interactions with others.
**What are the possible disadvantages and risks of taking part?**
The potential risks of participating in this group are minimal; although, they may include a discomfort in discussing your feelings and emotions within a group format. Also, you may become frustrated if you do not see immediate improvement in your mood and behaviour.

**What happens if something goes wrong?**
If at any time you have any questions or feel distressed you may contact me, the co-facilitator, or your worker at the agency.

**Will my taking part in this project be kept private?**
All information collected will be kept strictly confidential. The information will be coded (so that your name will not be included on it) to ensure confidentiality and stored for up to seven years in a locked filing cabinet located in a locked office at the agency. Only the facilitators will have access to the information within the cabinet. Once the project is finished, I will make a report without your name or any identifying information.

**Do you have to take part?**
It is up to you to decide whether or not to take part. If you do decide to take part, you will be asked to sign this consent form. If you do decide to take part, you are still free to withdraw at any time, without giving any reason, and without affecting the services you are receiving from the agency.

**Contact for further information.**
This project has been approved by the Research Ethics Board at St. Lawrence College. The project will be developed under the supervision of Frank Kane, my supervisor from St. Lawrence College. I really appreciate your cooperation. If you have any additional questions or concerns, feel free to ask me, Dawn Godfrey, or you can contact my College Supervisor Frank Kane at 613 536-6686 or through email at KaneFM@csc.scc.gc.ca. Feel free to also contact the Research Ethics Board at appliedresearch@sl.on.ca.

**Consent**
If you agree to participate in the project, please complete the following form and return it to me as soon as possible. A copy of this signed document will be given to you for your own records. An additional copy of your consent will be retained at the agency and in a secure location with the Research Ethics Board at St. Lawrence College.
CONSENT

By signing this form, I agree that:

- The study has been explained to me.
- All my questions were answered.
- Possible harm and discomforts and possible benefits (if any) of this study have been explained to me.
- I understand that I have the right not to participate and the right to stop at any time.
- I am free now, and in the future, to ask any questions about the study.
- I have been told that my personal information will be kept confidential.
- I understand that no information that would identify me will be released or printed without asking me first.
- I understand that information regarding the study may be used in reports or presented at conferences.
- I consent for the data collected as part of this intervention project to be published in a peer reviewed journal or professional publication.
- I understand that I will receive a signed copy of this consent form.

I hereby consent to participate.

Participant/Parent/Guardian Printed Name: ______________________________

Age of Participant (If Under 18): __________

Signature: ______________________________ Date: ________

SLC Student Signature: __________________ Date: ________

Printed Name: ____________________________
Appendix D: Mood Chart

<table>
<thead>
<tr>
<th>The Event</th>
<th>Time of Day</th>
<th>What I am Feeling</th>
<th>Rating the Feeling (1-10)</th>
<th>My Thoughts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1= I’m slightly frustrated; however, the feeling will soon pass.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10= The most frustrated I have ever been and I feel that I am not in control.</td>
<td></td>
</tr>
</tbody>
</table>

Appendix E: Hassle Log

HASSLE LOG

Use the Daily Hassle Log to track every time you get angry. Fill in each of the sections described below:

1. Date, Time, and Place: This will help you see if there is a pattern of your anger escalating at any particular time of the day or any specific location

2. Subject of my Anger: Who or what was your anger directed at?

3. Anger-related behaviour: What behaviours or actions did you take at the height of your anger?

4. Anger Level: Rate the level of escalation of your angry behaviour, on a scale of one to ten, ten being the most violent explosion you’ve ever had and one being totally calm, cool, and collected.

5. Triggering event(s): What happened that triggered your anger –this could be an outside event, something happening to you, or some internal conflict

6. Anger cues: What were your early ’cues’ –your thoughts, feelings and behaviours –that could have cued you in to the fact that your anger was beginning to escalate?

7. Underlying emotions: What emotions were surrounding the triggering event that might have been at the root of your anger?

8. What I did right: What about the situation do you feel you handled well?

9. What I could have done better: What about the situation would you do differently next time?

10. Abusive behaviour: Using the following definition of abuse, did you behave abusively to anyone during this incident? “Abuse is any attempt to gain power or control over another person using physical, emotional, verbal, sexual or financial tactics”.

HASSLE LOG

1. Date: ____________ Time: _______________ Place: ______________________

2. Subject of my anger: ________________________________________________

3. Anger-related behaviour: _____________________________________________

4. On a scale of 1-10, my anger level was:
   Cool & calm 1  2  3  4  5  6  7  8  9  10 violent explosion

5. Triggering event(s): _________________________________________________

6. Anger cues: Thought ________________________________________________
               Feelings _____________________________________________________
               Actions _____________________________________________________

7. Underlying emotions: ________________________________________________

8. What I did right: ____________________________________________________

9. What I could have done better: _______________________________________

10. Did I behave abusively toward another person during this incident? ___Yes ___No

Appendix F: Participant Record Log

PARTICIPANT RECORD LOG

Session: ____________

<table>
<thead>
<tr>
<th>Participant</th>
<th>Attendance (Did they attend the session?) [Yes/No]</th>
<th>Punctuality [√ / Time Late]</th>
<th>Homework Completion [Yes/No]</th>
<th>Quality of Homework Completion</th>
<th>Participation [1-4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td></td>
<td></td>
<td></td>
<td>1= partially</td>
<td>1= not at all engaged</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2= mostly</td>
<td>2= engaged a little</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3= fully</td>
<td>3= moderately engaged</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4= highly engaged</td>
<td>4= highly engaged</td>
</tr>
<tr>
<td>02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>04</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G: Muscle Relaxation Rating Scales

**Muscle Relaxation Rating Scale**

<table>
<thead>
<tr>
<th>ID # __________________</th>
<th>Date ______________</th>
</tr>
</thead>
</table>

Rate how relaxed you were **BEFORE** the Muscle Relaxation practice. Circle a rating of 1 (very relaxed) to 5 (very tense) for each muscle group. Add all ratings together to get a total score.

**Hands and Arms**
- Very relaxed 1 2 3 4 5 Very tense

**Eyes and Nose**
- Very relaxed 1 2 3 4 5 Very tense

**Mouth and Jaw**
- Very relaxed 1 2 3 4 5 Very tense

**Neck and Shoulders**
- Very relaxed 1 2 3 4 5 Very tense

**Lower Back**
- Very relaxed 1 2 3 4 5 Very tense

**Stomach**
- Very relaxed 1 2 3 4 5 Very tense

**Legs and Feet**
- Very relaxed 1 2 3 4 5 Very tense

**TOTAL (7 ratings above added together) **

## Muscle Relaxation Rating Scale

ID # __________________ Date ______________

Rate how relaxed you were AFTER the Muscle Relaxation practice. Circle a rating of 1 (very relaxed) to 5 (very tense) for each muscle group. Add all ratings together to get a total score.

### Hands and Arms

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Eyes and Nose

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Mouth and Jaw

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Neck and Shoulders

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Lower Back

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Stomach

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Legs and Feet

<table>
<thead>
<tr>
<th>Very relaxed</th>
<th>Very tense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL (7 ratings above added together) __________**

Appendix H: End of Group Survey

End of Group Self-Report Survey

For each of the following traits, rate yourself both as you were when you started this group and as you are now. Use a scale of 1 to 10, with 10 being the greatest presence of the trait. Each person changes in different ways. How did this group change you?

<table>
<thead>
<tr>
<th>Trait</th>
<th>Before</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Control of My Anger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Good Decision Maker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aware of My Own Feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aware of Other People’s Feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to Recognize Physical Signs of My Anger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to Recognize Triggers For My Anger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to Calm Myself When I Feel Angry/Anxious</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Using a scale of 1 to 5 (1 being the lowest and 5 being the highest), please circle your opinion about the following:

<table>
<thead>
<tr>
<th>What do you think?</th>
<th>1 = low</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 = high</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed working with other individuals in the group</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I enjoyed working with the facilitator in the group</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I learned new skills and am using the skills in my day-to-day life</td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>If I knew someone who could benefit from a similar group, I would recommend that they “give-it-a-try”</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Overall, I would rate my experience in the group as</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Appendix I: Time Frame for Average Session

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome &amp; Review of Last Session</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Breathing Exercise</td>
<td></td>
</tr>
<tr>
<td>Muscle Relaxation Exercise</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Psycho-education/Teach New Skill</td>
<td>25 minutes</td>
</tr>
<tr>
<td>Role-Play if Applicable</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Review/Wrap-Up</td>
<td>5 minutes</td>
</tr>
</tbody>
</table>

*It should be noted that the breakdown of the average session was suggested by Transitional Case Managers and their experience of groups at the agency.*
# Appendix J: Outline of Sessions

<table>
<thead>
<tr>
<th>Session</th>
<th>Session Content</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session One</td>
<td>• Introduce facilitators and group members&lt;br&gt;• Overview of program (goals and disclaimer)&lt;br&gt;• General Principles Regarding Anger&lt;br&gt;• Barriers to Expressing Anger&lt;br&gt;• Penalties for Not Expressing Anger&lt;br&gt;• Understanding Anger Worksheet&lt;br&gt;• Managing Anger Worksheet&lt;br&gt;• Ways of Dealing with Anger&lt;br&gt;• Discuss Mood Chart&lt;br&gt;• Review and Wrap-up</td>
<td>Mood Chart</td>
</tr>
<tr>
<td>(Intro to Group)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session Two</td>
<td>• Review Initial Session&lt;br&gt;• Understanding Your Experience of Anger&lt;br&gt;• Identifying Unresolved Anger Questionnaire&lt;br&gt;• Discuss ABC’s of Anger&lt;br&gt;• Discuss Triggers for Anger&lt;br&gt;• Role-play Triggers&lt;br&gt;• Cues (behaviour, emotion, cognitive)&lt;br&gt;• Discuss Physical Cues&lt;br&gt;• Introduce Hassle Logs&lt;br&gt;• Review and Wrap-up</td>
<td>Mood Chart And Hassle Log</td>
</tr>
</tbody>
</table>
| Session Three | ● Review Second Session  
● Behavioural Tools  
● Diaphragmatic Breathing  
● Counting  
● Progressive Muscle Relaxation  
● Reminders  
● Thinking Ahead  
● Consequences  
● Review and Wrap-up | Mood Chart And Hassle Logs |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session Four  | ● Review Third Session  
● Progressive Muscle Relaxation  
● Self-Esteem Worksheet  
● Responding to Failure  
● Knowing Your Feelings  
● Expressing Feelings  
● Review and Wrap-up | Mood Chart And Hassle Log |
| Session Five  | ● Review Fourth Session  
● Progressive Muscle Relaxation  
● Self-Talk  
● Discriminating between what I Can and Can’t Control Worksheet  
● Automatic Thoughts  
● Effects of Negative Thinking  
● Review and Wrap-up | Mood Chart And Hassle Log |
| Session Six   | ● Review Fifth Session  
● Progressive Muscle Relaxation  
● Cognitive Distortions  
● Ways to Challenge Cognitive Distortions  
● Examples of Cognitive Distortions  
● Review and Wrap-up | Mood Chart And Hassle Log |
| Session Seven | ● Review Sixth Session  
● Progressive Muscle Relaxation  
● Psycho-education on Marijuana  
● Review and Wrap-up | Mood Chart And Hassle Log |
| Session Eight | • Review Seventh Session  
|              | • Progressive Muscle Relaxation  
|              | • Review Sessions  
|              | • Overview of Progress  
|              | • End of Group Celebration  
|              | • Distribute Certificates  
|              | • End of Group Survey  
|              | • Wrap-up |
Appendix K: Participant Record Log Results

Participation Record Log (PRL) Results for Participant 03

<table>
<thead>
<tr>
<th>Session</th>
<th>Attendance (Y/N)</th>
<th>Punctuality (Y/N)</th>
<th>H/W Completion (Y/N)</th>
<th>H/W Quality (1-3)</th>
<th>Participation (1-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>N</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Y</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>N</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N/A</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Note. H/W = homework; Attendance, Punctuality, and H/W Completion rated Yes, No, or N/A.

Participation Record Log (PRL) Results for Participant 05

<table>
<thead>
<tr>
<th>Session</th>
<th>Attendance (Y/N)</th>
<th>Punctuality (Y/N)</th>
<th>H/W Completion (Y/N)</th>
<th>H/W Quality (1-3)</th>
<th>Participation (1-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>N</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N/A</td>
<td>4</td>
</tr>
</tbody>
</table>

Note. H/W = homework; Attendance, Punctuality, and H/W Completion rated Yes, No, or N/A.
Appendix L: End of Group Survey Results

End of Group Self-Report Survey

For each of the following traits, rate yourself both as you were when you started this group and as you are now. Use a scale of 1 to 10, with 10 being the greatest presence of the trait. Each person changes in different ways. How did this group change you?

<table>
<thead>
<tr>
<th>Trait</th>
<th>Before</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Control of My Anger</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>A Good Decision Maker</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Aware of My Own Feelings</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Aware of Other People's Feelings</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Able to Recognize Physical Signs of My Anger</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Able to Recognize Triggers For My Anger</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Able to Calm Myself When I Feel Angry/Anxious</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Using a scale of 1 to 5 (1 being the lowest and 5 being the highest), please circle your opinion about the following:

<table>
<thead>
<tr>
<th>What do you think?</th>
<th>1 = low</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoyed working with other individuals in the group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoyed working with the facilitator in the group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I learned new skills and I am using the skills in my day-to-day life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>If I knew someone who could benefit from a similar group, I would recommend that they “give-it-a-try”</td>
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<tr>
<td>Overall, I would rate my experience in the group as</td>
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End of Group Self-Report Survey

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<td></td>
<td></td>
<td></td>
</tr>
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*Adapted from Gottlieb, M (1999). The Angry Self: A comprehensive approach to anger management.