Evaluating the Efficacy of an Outpatient Anger Management Program

by

Jamie Wensink, Dr. Melissa Bolton, C. Psych.

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Canada
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Dedication
To my wonderful family, friends, and partner for encouraging me to pursue my passions with an open heart and mind.

“You cannot shake hands with a clenched fist”
- Indira Ghandi
Abstract

**Background** Anger Management programs are a widely used intervention for those who have demonstrated disordered or aggressive conduct. They are often mandated for individuals as part of a court punishment, condition of parole, or condition of custody with Children’s Aid Services. To this, the success of a treatment is often contingent on the effectiveness of the program being administered. Yet, organizations implementing anger management and other programs do not often scientifically measure the efficiency or success of the course. In adding to the validation of such programming an evaluation of efficacy was administered using a local agency’s anger management program. **Method** Two assessments were implemented to evaluate the efficacy of the program. First, a modified version of the Clinical Anger Scale (CAS) was used in a repeated measures assessment to record quantitative data on anger over time. Secondly, one-on-one interviews were conducted and then analyzed using grounded theory approach to record and contrast qualitative data on the impact and implications of the program. The research question of “Does the anger management group effectively function to decrease self-reported intensity and frequency of individual anger experiences, and to increase participants individual quality of life ascribed by the functions of personal wellness and interpersonal functioning?” was successfully answered. **Results** Quantitative findings demonstrated no significant change in participant levels of anger over time. However, using statistical assumptions for absent data variables identified the possibility for significant findings in further testing. Qualitative findings identified that the form of individual anger had changed; individual participants had stated increases to the use of coping, de-escalation, and emotional regulation strategies. Further, all interviewed participants had stated improvements to their current interpersonal relationships, that the program was effective, and an increase to their overall quality of life. **Conclusion** The anger management program was found to be moderately effective at treating individual anger. It had not demonstrated for decreases of individual levels, yet it had demonstrated the potential for decreases were further research conducted. The highlighting strength of the program was in improving individual regulations of anger. It can be concluded that this program is effective for teaching the skills required to appropriately regulate the emotion of anger; thus, leading to improved conduct, interpersonal relationships, and quality of life.
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Chapter I: Introduction

Appropriate emotional regulation is crucial for maintaining an overall healthy quality of life (Nikmanesh, Shirazi, & Farazinezhad, 2017). With the plethora of emotions comprising the human condition, anger is one of the few that are universally recognized (Waller, Cray, & Burrows, 2008). This claim may be confirmed by White (1996)’s research, wherein the expression of anger was found to be almost immediately identifiable; comparably so to other easily recognized emotions such as joy. Most literature surrounding anger and aggression concludes that anger significantly supersedes aggressive actions. A study that exemplifies this is by Tafrate, Kassinove, and Dundin (2002), whereby they state most individuals are susceptible to developing dysregulated anger. For this they outlined the example that developing hostility toward one’s own child is a commonly feared trait among relatively stable parents.

The emotion of anger is found to develop from a variety of root causes (Wright & Umstead, 2016), and take on different forms (Aekyung, Jongsoon, Oksoo, & Lee, 2015; Hejdenberg & Andrews, 2011). The American Psychological Association (2018) defines anger as feelings of antagonism towards a person or object perceived to intentionally cause due harm; in contrast, Soykan (2013, as cited by Duran, Ergün, Tekir, Çalışkan, & Karadaş, 2018) defines anger as “a highly natural, universal and humane emotional response displayed to unsatisfied requests, undesired results, and unmet expectations” – (Soykan 2003, p.1). Thus, anger can be inferred as the resulting emotion that arises when one feels their needs or rights are threatened, withheld, or have been trespassed against them. With this awareness, it may be of importance to be mindful for the consequences and risk factors that lead regular anger to become deregulatory posing risk for harm to self or others.

As the emotional response of anger is comprised of cognitive, emotive, and physiological factors; these components are adversely affected while an individual’s anger is chronic or high in intensity (Deffenbacher, 1999). Thus, ineffective management of anger regulation or severity of one’s outbursts may lead to detrimental consequences for the individual’s overall quality of life (Julkunen, & Ahlström, 2006). In the most extreme cases, the onset of frequent and intense anger can manifest into criminally punishable behaviors, such as assault (Duran et al., 2018), unhealthy coping strategies (Zarshenas, Baneshi, Sharif, & Sarani, 2017), and dysfunctional interpersonal relationships (Tayebi, Kashani, & Zaskar, 2017). As such, these actions or behaviours may result in individuals finding themselves struggling within the judicial system, drug addiction, domestic violence, or custody disputes.

Duran, Ergün, Tekir, Çalışkan, and Karadaş (2018) attempt to describe the potential relationships between anger and crime. For this, they conducted a cohort prison study involving 506 offenders; finding that individual levels of anger were of the mid-low range on average. In exploration of the results, they further conducted a literature analysis and were unable to find other studies that displayed the same findings. Duran et al. (2018) explained that there may have been a personal bias error from the prisoner responses. However, they concluded that despite moderate to low levels of demonstrated anger, their research found significant results of a high correlation with poor anger-management amongst the offenders.
Çorapçıoğlu and Erdoğan (2004)’s cross sectional research study on anger and recidivism may further support this correlation of poor anger-management amongst offenders. They identified that offenders who had previous criminal records demonstrate higher levels of anger than first time offenders. Although their study is based out of Turkey, due to an inaccessibility of geographically proximal information it may be generalized as a best specific example for this relationship. In their study it can be inferred that amongst correctional populations, poor anger regulation may be expressed by the intent of harm to another individual. As such Çorapçıoğlu and Erdoğan (2004) postulate that one out of ten offenders have the intent to harm a specific individual, while one out of 50 will follow through on this intent. Their findings also depicted that those offenders who had caused conflicts with authority were 4.5 times more likely to reoffend, and that those who physically aggressed against other offenders were 3.3 times more likely. Lastly, they concluded the most predictive traits for recidivism in relation to anger and aggression were those with physically aggressive histories, previous offenses while under the influence of substances, violent offenses, and causing damages out of anger; concluding that the strongest predictors were resisting officers, and between-inmate violence.

As for the role of anger in interpersonal relationships, Firestone and Catlett (2009) identify in their publication *The Ethics of Interpersonal Relationships* that dysregulated anger is destructive for interpersonal relationships and families. They describe that failure to appropriately express anger leads to hostility and cynicism, in turn damaging both parties in the relationship and creating interpersonal distance. They caution that this can develop into child abuse and violent actions.

Rodriguez and Green (1997)’s literature supports these claims, they conducted a study in New Zealand on the relationship between anger and child abuse across 39 participants. Their findings had identified that parental traits related to child physical abuse were unhappiness, intrapersonal, and interpersonal difficulties. This aligns with Firestone and Catlett’s (2009) claims that interpersonal dissonance may lead to aggressive behaviours. An example of this interpersonal confliction can most commonly be viewed in intimate partner relationships. Were partner A to stop pulling their weight in a relationship, and partner B to bottle their feelings about this then interpersonal dissonance or friction may form. When these feelings are left for a long enough period of time partner B would become more likely to be aggressive towards partner A. Rodriguez and Green (1997)’s preliminary research had identified stress as a main predictive factor; however, not all parents with high levels of stress perpetuated abuse. In concluding their study, they found that there was an overwhelming and significant correlation between an individual’s level of anger and the predictability of future child abuse.

Due to the significant risks of dysfunctional anger, it is important that any attempted treatments be effective for reducing anger intensity and increasing anger control. Thus, this thesis seeks to evaluate the efficacy of a community organizations anger management program. Further, it may be exampled by this study’s population below that it is not uncommon for anger management to be part of a sanction, condition of parole, mediating factor for custody, or individually sought after. It is imperative in this regard that the effectiveness and integrity of the ascribed program be demonstrated and maintained as a treatment method.

Tafrate et al. (2002) state that due to the subjective and personal variance with individualized levels of anger, genuine self-reported assessments of the emotion in its natural environment demonstrate to provide the most meaningful information. Thus, in assessing this research population in an analysis of efficacy, a present-state, objective, and empirically valid
permanent-product self-recording measure will be used to generate qualitative data, while a one-on-one post-program interview process will be utilized to gather qualitative data.

In doing so this study hopes to serve three purposes: (a) To identify potential discrepancies between the attendee populations of those mandated by a judicial court, those mandated by Children's Aid Services (CAS), and those who voluntarily registered for participation. (b) To collect empirical qualitative data and evaluate the efficacy of the Anger Management group, identify the strengths and weaknesses of the current program, and to provide a brief measure of wellness and overall functioning of the participants. (c) Lastly, to provide a statistically sound resource which may be used by the agency to advocate for the program and its potential treatment success.

From this, the study further seeks to answer two preliminary research questions: (1) Does the anger management group effectively function to decrease self-reported intensity and frequency of individual anger experiences, and to increase participants individual quality of life ascribed by the functions of personal wellness and interpersonal functioning. (2) Are there significant discrepancies in the success and development of question (1)'s objectives between the participant groups of those mandated to attend by the judicial system, those mandated to attend by children's aid services, and those who are self-referred and registered with the program.

In the next chapter of this article, a review of the literature on anger will be presented. Within it historical and present theories of anger will be contrasted and described in three sections: Emotional Regulation, Social Influencing Factors, and Empirically Based Treatments for Emotion Dysregulation. Upcoming sections of this work describe the methodologies of this study, present the analytical findings, and discuss the implications of the results found.

Chapter II: Literature Review

Anger

The ability to self-regulate the expressions of anger and aggression can frequently be issues for those with mental health concerns. Leading theorists Digiuseppe and Tafrate (2003) state that approximately 12% of clinical patients will display difficulties with anger. However, according to a third theorist Deffenbacher' (1999), feelings of anger are not a psychological maladaptation as they are a normative human experience that everyone will face. As such, anger is revered as one of the basic human emotions and is brought on by emotional sensations of discomfort (Deffenbacher, 1999; Duran et al., 2018). Generally, anger is elicited from the unexpected behaviours of others, unsatisfied requests, unmet expectations, and non-desirable results of one’s actions (Tafrate, Kassinove, & Dundin 2002; Duran et al., 2018).

Typically, feelings of anger are preceded by a sensation of frustration (Duran et al., 2018). At their core, these episodes of anger are momentary and immediate responses to social, environmental, and internal stimuli that can affect their respective intensity and duration (Deffenbacher, 1999). Examples of eliciting stimuli are being deceived by a trusted individual, unexpected traffic errors, and ruminative thoughts of how something was unfair. However, 5-20% of general anger episodes may be expressed through an act of aggression when these feelings of anger are elevated (Jacob, Gilam, Lin, Raz, & Hendler 2018; Zarshenas, Baneshi, Sharif, & Sarani 2017). Respectively, an emphasis must be placed that these generalized episodes of anger and aggression are typically of a moderate intensity (Tafrate et al., 2002).

Conversely to the above literature, anger is not a feeling to be avoided as found in recent studies and is not always dysfunctional or problematic (Tafrate et al., 2002; Deffenbacher, 1999). Indeed, anger can become an adaptive and constructive emotion that perpetuates prosocial behaviours (Deffenbacher, 1999). Examples of this claim are that anger may be expressed as an
effective means in communicating problems, to express that a goal has been blocked or withheld, to express that another’s behaviour is unacceptable, be used to engage in positive coping strategies, resolve problematic situations, and lastly to protect oneself from a perceived threat (Deffenbacher, 1999; Tafrate et al., 2002). Examples of such threats where anger is a positive tool are that one is being aggressed, disrespected, or made to be in an aversive circumstance; thus, anger can be used as a response to promote self-efficacy, self-empowerment, and develop appropriate assertiveness (Deffenbacher, 1999).

Deffenbacher (1999) details the formation and progression of anger as a conceptualization between three interactive components: These components are specific events, imagery arousal, and internal stimuli. He states that these may either be a singular incident, or a series of triggering events. These events are then moderated by the individual’s pre-disposed emotional state and the perception of their occurrences.

Specific Events. are identifiable, external incidents that incorporate another individual’s behaviour such as being insulted or cut off, the malfunctioning or non-performance of objects such as the laundry machine breaking, and one’s own behaviours such as making a detrimental mistake. With these incidences the source of an individual’s anger is identifiable, and blame may be attributed; further, one’s own anger to a specific event may be viewed as justifiable and appropriate to the context of the situation (Deffenbacher, 1999).

Imagery arousal. anger is internally perpetuated arousal that is first elicited by an external stimulus. It is the combination of an external event with one’s own anger related memories and imagery. This attribution of anger is most prominent within individuals who have experienced prior trauma, and as such they may demonstrate reactions disproportionate to the triggering incident. To understand this anger, it is imperative that the trigger and memories or images be identified. One such example would be of an individual who would always fight over what to eat with a previous partner, then upon planning dinner with a new partner the individual would rush to aggress at the first disagreement in choice (Deffenbacher, 1999).

Internal Stimuli. is generally perpetuated by hyper-focused intents or thoughts. Wherein an incident occurs that elicits a mild amount of anger, and the individual ruminates on it to the extent that they escalate their own emotional arousal. Deffenbacher (1999) dictates that intense ruminations will increase an individual’s level of anger or negative affect, create a sense for loss-of-control, and elevate the likelihood for maladaptive responses. An example of this would be losing an argument with a colleague shortly before leaving for home, and that entire evening the individual would cycle through how they could have responded to win the argument or put the colleague “in their place”. After which, they would return to work the next day and restart the argument to state the conclusions they came up with the night prior.

Deffenbacher (1999) describes anger tolerance as the degree of aversive stimuli an individual may contently handle; and concludes that the probability of dysfunctional anger is elevated as anger tolerance decreases while the intensity of one’s anger episodes increase. Wholly, whether an individual’s anger is dysfunctional is dependent on the consequences and outcomes of their actions (Deffenbacher, 1999). This statement is further supported by Duran et al. (2018), who state that maladaptive anger may be formed through aggression. These actions then create distress for oneself and others, perpetuate avoidance or withdrawal, or form an emotional foundation for hate and aggression resulting in harm to one’s own health and well-being. This holds grounds for the potential of anger to be a clinical, frequent, and debilitating problem (Digiuseppe & Tafrate, 2003).
An example scenario for this would be of an individual who is in a stressful work environment and each day they begin to feel more and more run down. This exhaustion causes for decreases in their anger tolerance. They become quicker to respond harshly to those around them, become blunt, and more uncaring as the intensity of their anger episodes increase. As their responses become harsher, they find it harder for them to effectively do their job or engage with those around them; their colleagues stop talking to them, and they begin to resent their job, employers, and peers. Leading them to being at an increased risk of personal injury, harming their job stability, and unable to engage in joyful activities outside of their work environment.

The relationship between anger and health is further confirmed by Julkunen and Ahlström (2006). Their research portrays a relationship that dysregulated anger also shows to have adverse implications for biological health. Within their literature, they cite various models of anger and hostility demonstrating as risk factors for poor health. This is further reinforced by Yamaguchi, Kim, Oshio, and Akutsu’s (2017) findings. They conducted a research study that investigated the generalized effects of anger and found that physical health was negatively correlated with anger symptomatology and traits. Further, Tafrate et al. (2002)’s study identifies that being prone to anger puts regular middle-aged persons at a significant risk for heart disease not otherwise found to be related to biological health.

Tafrate et al. (2002)’s study identifies socially dysfunctional relationships with anger. They claim that increased levels of anger may lead to interpersonal violence and self-destructive decision making. This is supported by Duran et al. (2018), whom surmise that ultimately and regardless of reasoning, anger oriented behaviours may result in rule resistance, physical confliction, and bodily harm. Tafrate et al. (2002) in turn confirm this statement by proposing that 53-61% of anger episodes are towards a liked or well-loved individual, whereby it takes the form of yelling or screaming 43-58% of the time.

In reflecting on the above literature, a significant importance for one’s capability to moderate perceptions of their internal and external environments is presented. Adaptive anger has the potential to improve ones’ health and quality of life, while maladaptive anger poses risks for mental, physical, and social complications. Thus, when beginning to ascertain and maintain a healthy anger relationship, one needs to be able to regulate such emotions. Recently, Yamaguchi et al. (2017) described that there are three types of anger regulation attracting current literature: These are, anger-in, anger-out, and anger-control.

**Anger-in.** is otherwise known as suppression or internalization of anger emotions, wherein one self-regulates their emotive feelings. Anger-in literature finds that it may be linked to levels of perceived stress and physical health. When someone uses the regulatory process of anger suppression, it has demonstrated detriments to quality of life, mental and physical health, social supports, and promotes irritability, ruminations, and maladjustment. This can otherwise be known as “bottling emotions”, where an individual pushes down their aversive feelings and resentments to a point that it creates a sense of agony for themselves.

**Anger-out.** is how an individual expresses their emotions towards other individuals or objects either physically or verbally. When these expressions are appropriately moderated it may be found as beneficial to the individual. Similar in theory to adaptive anger processes, appropriate expressions may result in a reduction of negative emotions and a promotion of general health. Negative examples of anger-out would be shouting or screaming, slamming doors, and physically confronting other individuals. Beneficial examples may be going to the gym or expressing oneself assertively.
Anger-control is the process of which an individual reduces intrinsic anger experiences; this would be done through appropriate coping strategies with the emotion of anger. It is like anger-in where the emotions of anger are not made aware to others. There is a key difference however, where emotionally controlling anger allows an individual to no longer experience it whereas suppressing anger internalizes it without resolution. There is a risk; however, that having too great of anger-control does not allow someone to access the adaptive functions of the emotion. In contrast, Tafrate et al. (2002) identifies that difficulties with anger control may be factors for poor decision making, self-destructive behaviours, substance abuse, risky behaviour, and anxiety.

To best exemplify the above, anger-control will be contrasted with anger-in for the following scenario: You are an individual who is sharing a living space with three other people and arrive home to find that the place is a complete and utter mess. Almost every available dish is dirty and filling the sink or counters, every waste bin is overflowing, there’s half eaten food sitting out, and the floors are covered in dirt and grime. An individual with appropriate levels of anger-control would be able to utilize effective coping strategies such as focused breathing, thinking about the best way to approach the issue, the ability to walk away and calm down before coming back, then assertively speak to each of the housemates about putting in place an effective plan to clean and maintain the living space. An individual with too little anger control may start banging on doors with all their might, shout at the housemates about how unacceptable the state of the house is, begin placing firm demands, and overall hurt the relationships within the household. Finally, an individual with too much anger-control may experience upset with the state that the household is in, then immediately calm themselves, and acceptingly continue into the house without addressing the issues at hand.

Likewise, Birkley and Eckhardt (2018) dictates that the process of controlling anger is mediated by one’s anger inhibition; that is, the ability to resist the urge to aggress. They state that an urge to aggress in response to provocation is a normal response not to be viewed as pathological. Birkley and Eckhardt (2018) proclaim that the determining factor for a maladaptive response is whether an individual overrides or obeys the impulsive urge. They state that the more attention given to an aggravating stimulus the greater the urge to aggress will become. Further, they theorize that this is caused by the activation of cognitive scripts akin to rumination. Likewise to Yamaguchi et al. (2017)’s study, the authors state that anger suppression is presumed to cause physiological arousal and perpetuate the chances of aggression.

A further conceptualization of aggression by Ruddle, Pina, and Vasquez (2017) is an action towards another that consists of intended harm. For doing so they sub-divide it into three aggression types. Instrumental aggression which is proactive and predatory, this is mostly preceded by rumination and serves to complete an intended goal. Impulsive aggression, which is anger driven, lacks self-control, and follows a triggering incident. Finally, trigger-displacement aggression which is aggression towards an individual who is not the source of the aversion; this results in the response being disproportionate of the triggering event and instead comes from previous trauma.

With the previous implications for different intensities and characteristics of anger, a last study in the review of the anger literature is Tafrate et al. (2002)’s study in the differences of anger episodes between high and low trait anger adults. Their analysis identifies that there are significant differences between the two groupings, with further implications that high trait anger adults may be a unique clinical group.
They found that those with high trait anger demonstrated more frequent anger episodes of an increased intensity and duration, greater problems with emotional cognition, negative self-ratings, heightened rates of catastrophic thinking, lower frustration tolerance, and were four times more likely to state their perceptions were distorted. Further, that ruminations and distorted thinking were found to perpetuate anger episodes and an increased impulsivity within the population. As a result, one in every five anger episodes constituted aggression and an engagement in self-destructive behaviours or substance use, and weaker interpersonal relationships.

**Emotional Regulation**

There are two similar, but distinct types of anger that may be inferred from the anger focused literature. The first is anger surrounding an individual’s personality and characteristics, otherwise known as trait-based anger. The second is focused on how the individual may respond in differing situations or circumstances, otherwise known as state-based anger. Where trait-based anger focuses on the individual as a whole, state-based anger focuses on the individual’s environment. The literature surrounding these two concepts is explored below.

**Trait-Based Anger.** Recent literature has described a relationship between aggression and emotional-regulation (Velotti et al., 2017). Ruddle et al. (2017) states that primarily, links have been found that those with poor emotional regulatory skills present a tendency for developing more aggressive behaviours. Velotti et al.(2017) describes emotional regulation as incorporating self-awareness, impulse-control, pursuing goals under distress, and adaptive emotional-regulatory skills. Ruddle et al. (2017) dictates that emotional-regulation is an essential skill for problem solving, attentive focus, and developing interpersonal relationships.

Ultimately, Ruddle et al. (2017) state that emotional-regulation influences how an individual interacts with others, specifically during aversive or undesirable events. This claim has scientific backing as found by Jacob, Gilam, Lin, Raz, and Hendler (2018). Whereby in a controlled lab setting, the neurological behaviour and activation of clients was assessed between neural networks for emotional reactivity and emotional regulation. They found that the communication between these two networks effectively mediated emotional-regulation during an episode of emotional arousal. Lastly Ruddle et al. (2017) found that emotional-regulation has demonstrated to impact how an individual perceives social situations that influence future behaviour.

Self-regulatory factors such as effective coping strategies, or the ability to control responses to emotional situations, have been found to present a key role in understanding aggression (Birkley, & Eckhardt, 2018). Birkley and Eckhardt (2018) state that the primary tool for effective emotional-regulation is the use of cognitive reappraisal. That is, the re-evaluation of automatic assessments towards other people or situations and the selection of healthier thoughts. They further state that effective reappraisals have demonstrated an increase of prosocial behaviours, such as appropriate interpersonal conversations, responding to constructive criticisms, and maintaining healthy relationships. Effective re-appraisals were not only seen to demonstrate an increase of pro-social behaviours in generalized populations, but even in those identified as high-risk for aggression.

Another study conducted by Velotti et al. (2017) has found that the utilization of emotional reappraisals has been effective in relieving anger severity. They describe that greater anger control is related to one’s own emotional awareness, and a confidence to engage in effective emotional regulatory behaviours. Velotti et al. (2017) also found that the ability to control anger may be greater in learning effective emotional-regulatory strategies and an
increased self-awareness. However, effective anger control may demonstrate to not be indicative of a compliance to having a poor emotional state. Velotti et al. (2017) controversially found that individuals who accept their negative feelings may act more impulsively on their feelings of anger. Whereas greater impulse control may lead to decreases in anger expressions, these findings suggest that anger and aggressive behaviour are a result of poor impulse control during emotional arousal. Lastly, their study suggests that emotional dysregulations have significant effects in maladaptive anger expressions and poor impulse control. Along with suppressing displaced aggression, this amplifies poor emotional regulation as a predictor of aggressive behaviour. This signifies that chronic anger may be the result of poor impulse control and limited access to adaptive emotional-regulatory strategies.

Ultimately Birkley and Eckhardt (2018) defines emotional regulation as, “The manipulation of either emotion antecedents or one or more of emotion response components” – (page 2 paragraph 3). They describe that antecedent focused regulation seeks to change the environmental factors associated with an emotion either internally or externally; while response focused regulation seeks to attempt changing the perceptions associated with an emotion. In short, an antecedent focus seeks to prevent the emotion while a response focus attempts to change the emotion after it occurs.

**State-Based Anger.** In evaluating the effectiveness of emotion-regulatory strategies, Levy-Gigi and Shamay-Tsoory (2017) found that their effectiveness is contingent on the context of which they are used. Traditionally, regulatory behaviours that promote information processing were effective while those that avert information processing were ineffective (Levy-Gigi, & Shamay-Tsoory, 2017). Levy-Gigi and Shamay-Tsoory (2017) state in recent literature however, that there is no “one” useful strategy; the effectiveness of an emotional-regulatory behaviour is situational, depending on the environment and the individuals present mental state. Deffenbacher (1999) justifies this, wherein he describes that if one is in a negative state of mind while stimulated, then the probability of an anger response would be greater. Thus, meaning their normal regulatory processes were ineffective for the situation. An example situation for this could be characterized by an individual who encounters an angering inconvenience while they are already currently upset: Imagine a person who’s day just is not going their way, they arrived to work late, got reprimanded by their boss, realized they forgot their lunch and had to eat out, then on their drive home they get cut off by another driver. The likelihood of them responding in an angry or aggressive manner would be significantly higher than if they had a good day where they arrived early, were complimented by their boss, and packed a lunch.

Prior incidences of anger further predispose an individual to either heightened feelings of anger or successful regulation (Deffenbacher, 1999). One example being wherein Deffenbacher (1999) has found that prior anger episodes can generalize to future ones. He states that there are varying physical and emotional states that increase the presentation of aversive feelings and imagery while lowering distress tolerance. Secondarily, Levy-Gigi, and Shamay-Tsoory (2017) demonstrated in literature that the appropriate selection of regulatory strategies among reappraisal and distraction is effective in de-escalating an individual’s emotive arousal. These findings support the prior premise that there is no “best-fit” method for emotion regulation and that it is highly individualized.

It can be determined that the ability to distract oneself from an instigating stimulus or provoking event serves crucial in avoiding dysfunctional episodes of anger (Birkley, & Eckhardt, 2018). As Deffenbacher (1999) describes, when client self-awareness increases they will better implement learned coping-skills and initiate strategies that progress their therapeutic goals.
Overall, it can be inferred that the ability to regulate one’s anger and emotional responses may be beneficial to sustaining social relationships, maintaining healthy levels of stress, and can beneficially impact an individual’s overall quality of life.

**Emotional Regulation and Quality of Life.** One article that may highlight the general importance of regulating one’s cognitions is Julkunen and Ahlström (2006)’s study on the relationships between anger, hostility, and a sense of coherence with quality of life. They define sense of coherence as:

a global orientation based on a person’s pervasive confidence that internal as well as external stimuli are structured and predictable: that the resources needed to meet these demands are available; and that these demands are seen as challenges, worthy of investment, and engagement – (Julkunen & Ahlström, (2006). p. 33, pp. 1).

These findings suggest the importance of self-regulatory beliefs and individualized treatments in the relationship to having a positive sense of coherence.

They theorize, that to improve one’s sense of coherence includes the ability to control one’s anger and express it in a constructive way. Their findings demonstrate that there is a 10-15% variance amongst persons for a perceived sense of coherence in each assessed aspect of anger and hostility. Thus, these findings suggest that if an individual was able to engage in healthy emotive-regulation, they would be able to improve their global views and promote a sounder sense of coherence. This allows the individual to have the ability of further de-escalating their levels of anger and aggression.

These findings are supported by another study conducted by Nikmanesh, Shirazi, and Farazinezhad (2017) whom assessed the relationship between emotional regulation and quality of life. They cite, that the world health organization (WHO) defines quality of life as, “an individuals’ perceptions of their positions in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns.” – (Page 94, Paragraph 2). The authors describe emotional-regulation as the ability to achieve specific goals through a structured effort that moderates thoughts, feelings, and actions. They further iterate that to self-regulate is to compromise goals, and that positive emotions perpetuate positive self-regulation while negative emotions harm an individual’s ability to self-regulate.

In analyzing the literature, Nikmanesh et al. (2017) found that those who have a lower quality of life will experience more physical and emotional negative consequences. Further, that there is a significant positive relation to quality of life with emotion-focused coping strategies, perceptions of suffering, and adjustments to stressful life events. Their findings indicate that self-regulation has a significantly positive relationship with an individualized quality of life while simultaneously reducing negative symptoms. Thus, the use of effective self-regulatory interventions can improve an individual’s quality of life and create beneficial physical health effects.

In contrast with the above literature, poor emotional regulation and heightened rates of aggression have demonstrated to carry serious consequences to oneself and others. Velotti et al. (2017) found that poor emotional regulation predicted proactive aggression, as well as mediated negative emotional affects and physical aggression. Further, they state that poor emotional regulation was found to result in more frequent abusive behaviour towards an individual’s partner.

**Anger and Social Aggression.** Historical literary evidence suggests that high trait anger and intense anger patterns are significant risks for intimate partner aggression (Birkley & Eckhardt, 2018). This finding is supported by Ruddle et al. (2017) who found that positive
outlooks on aggression in adolescence and hostile attributions are determinants for domestic violence. Efficacy for this can be found within Birkley and Eckhardt (2018)’s study, whereby those who were instructed to suppress anger-related outward expressions displayed greater levels of anger traits and demonstrated more deficient emotional regulatory strategies than their low trait anger counterparts. The results of their study on the effects of instigation, anger, and emotional regulation in partner aggression confirms that difficulties in emotional regulation and managing anger have been found as significant risk factors for intimate partner aggression.

These findings in anger and intimate partners can be expanded to families. Whereby Rodriguez and Green (1997)’s study on parenting stress, anger, and child abuse signified that anger expression was found to be positively correlated with levels of abuse within parent-child relationships. Anger generally precedes aggression and violence, and can be associated with being imprisoned due to difficulties with aggression, violence, and discipline (Duran et al., 2018). As such, anger management programs are becoming increasingly popular and have been integrated with alternative sentencing programs for those involved in or perpetuating domestic violence (DiGiuseppe & TafRATE, 2003).

Social Influencing Factors

In assessing the relationship between anger and environmental or social constructs, Deffenbacher’s (1999) literature can once again be referred to. He finds, that anger eliciting stimuli tend to be violations of personal comfort, or harm to one’s values, livelihood, and beliefs. He states that when an individual is infringed upon in these ways, that they will feel challenged, threatened, or frustrated; continuing, that the more rigid one’s beliefs and values, the better the chances that anger will be elicited and the more likely for it to be of a high intensity. This type of anger is one that could be seen in political debates. An example of this is global warming. Were an individual to vehemently believe that global warming does not exist, then they would be more likely to quickly become defensive when provided with factual information about its existence. Challenging their beliefs may lead them to be quick to try and dismiss the argument, use foul language, or attack the confronters own beliefs. When what one knows to be true or believe is challenged or trespassed against, there is an increased risk for hostile response while increasing the strength in their belief.

In appraising anger, one may do so by using primary or secondary appraisal. These appraisals are based on the situational context and their mental state prior to the emotional response. Primary appraisal is oriented towards the triggering stimuli and its characteristics; with it, intense anger can be felt after deciding a specific event did not or should not have occurred. The intensity of anger felt will be greater when the event is viewed as intentional, preventable or controllable, unwarranted, or blameworthy. The probability and intensity are further greatened when the individual over-values an event and its outcomes, uses stigmas, and has revengeful or punitive thinking. An example of primary anger may be that an individual is hosting a barbecue and their pet dog manages to run away. After recovering their dog and ending the barbecue they think of how it could not have escaped if the house door were locked; in turn, they become infuriated about the fact that no one had locked the doors and allowed the dog to escape.

Secondary appraisals are described as one’s own thoughts used in coping. Deffenbacher (1999) identifies three appraisals that increase the likelihood of poor anger appraisals, these can best be described as burnout, low-frustration tolerance, and contextually appropriate. To exemplify each, burnout may be an exclamation like “I am so overwhelmed, I can’t do this anymore’, low frustration tolerance may be a statement such as “this is completely unfair, no one should have to deal with this”, and a contextually appropriate statement may be “they have been
disrespecting me all day, they deserved it”. Thus, it can be inferred from his work that in social contexts dysfunctional anger can be seen towards others as making demands, commanding, imposing personal values, and a perspective that the outcomes of such actions being fulfilled are a necessity and not a preference. These characteristics were found to be a common trend in Tafrate et al. (2002)’s research and were shared between both low and high trait anger groups. Further they conclude that actions of anger and aggression once again are frequently towards a liked or well-loved person of the perpetrator and largely a result of personal familiarity. These findings combined with the above literature have significant implications towards the impact that anger and aggression might impose on family dynamics. Literature exploring this relationship is presented below.

**Anger and Family Relationships.** Zarshenas, Baneshi, Sharif, and Sarani (2017) report that difficulties in anger control were found to be common amongst those who abuse children. Consequently, literature exploring the relationship has found that children as young as 1-year old are developmentally affected by exposure to domestic violence (Ruddle, Pina, & Vasquez, 2017). Further, it can be inferred that a child exposed to domestic violence learns the involved behaviours to be normal or acceptable. Ruddle et al. (2017) state that exposure is linked as one of the most significant predictors for engaging in domestic violence with 34-54% of male child abuse victims likely to become adult abusers. They further support the opening statement, describing that emotional-regulation of self is a crucial factor in the development of domestic violence. They identify that those who experience child abuse have an enhanced outward expression of anger, and that internalization within domestic violence victims is contingent on how they perceived the experience. These findings carry the same implications as identified earlier regarding anger-in and anger-out modalities. Ruddle et al. (2017) dictate that these behaviours are a maladaptive process for coping. Externalized behaviours may present as delinquency and perpetrations of violence, while those who internalize behaviours will become withdrawn.

A secondary study conducted by Rodriguez and Green (1997) looking at the relationship between anger and child-abuse amongst parents confirms that there is a correlated relationship. Within their study, they identified affirmatively that the degree or intensity of physical punishment a child received was linearly related to the amount of anger the parent felt towards their child at the time. In other words, if the parents had a greater level of anger towards their child, the child would then receive a more physically severe punishment. Rodriguez and Green (1997) also drew discrepancies between anger expression and the abuse, whereby older parents were seen to be less expressive and remain consistently hostile with their children. Contrasting this claim with degree of stress and frustration, single parents and fathers were found to have higher levels of anger expression. However, of the two groups fathers did not have higher abuse scores.

From these findings it can be interpreted that the amount of aggression and anger presented by the parents of a child can influence, mold, and detrimentally impact the developmental, regulatory, and behavioural factors of a child. Thus, the ability to regulate and control one’s own anger is crucial not only for the benefit of the individual expressing anger, but to the benefit of those exposed to it. Finally anger-regulation is essential in breaking a long-standing cycle of inter-relational abuse.

**Anger and Criminal Relationships.** The findings of the above articles may present greater implications and consequences for anger with regards to familial dysregulations. In a cross-sectional study on criminal risk factors and crime, Corapcioğlu and Erdoğan (2004) found
that three of the most significant determinants are improper family life, substance use, and tendencies towards violence. These findings may be further supported by statistical analyses in the United States finding that 50% of parents in prisons have an incarcerated immediate family member; from this analysis it was determined that 6% of those assessed had an incarcerated mother, and that 19% of those assessed had an incarcerated father (Eriksson, Hjalmarsson, Lindquist, & Sandberg, 2016). Further, Eriksson, Hjalmarsson, Lindquist, and Sandberg (2016) cite a Swedish study between crime and family life found that of those committing crimes, 41% of male offenders had a brother who was criminally involved while 48% of females had a sister who was criminally involved.

Corapçioğlu and Erdoğan’s (2004) study also found while looking at risks for recidivism, that those with a criminal history demonstrated significantly increased levels of trait-anger, anger-in, and anger-out. Further, they found that those with criminal tendencies presented a proneness to anger that negatively affected their general functioning, mental and physical health, and personal relationships. Thus, they note that unregulated anger is a predictive factor for repeated crimes.

In evaluating this relationship between anger and crime, Duran et al. (2018) conducted a study to look at the relationship between anger and tolerance levels of Turkish offenders in a T-Level closed prison. Wherein, anger was defined as an additive to behavioural struggles and actions of annoyance; further, it plays a role in the intensity and hostility of retaliations that perpetuate interpersonal violence. When compared to society and other offenders, those who committed violent crimes had higher anger-in scores and suggested that their anger was more commonly suppressed. Those who committed violent crimes had difficulties with anger-management, expressed their feelings as a physical outburst, and were generally angry before the crime. Interestingly, the overall levels of anger for incarcerated populations were moderate; however, the population’s ability to manage anger and tolerance levels were poor. In additional review of violent crimes, a secondary study that they cited found those who commit voluntary manslaughter were unable to manage their anger in verbal confrontations. Lastly, repetitive imprisonments were found to increase anger and lower tolerance.

Two further forensic studies looked at additional relationships between anger, aggression, and crime. The first found emotional dysregulation to be predictive of violence (Velotti, Garofalo, Callea, Bucks, Roberton, & Daffern, 2017). Whereby, aggression may be a secondary response that personalizes emotional pain; while protecting oneself during an inability to self-reflect or empathize with others (such as for those with Antisocial Personality Disorder). Emotional dysregulation has also been found to have a relationship with trait anger that results in decreased self-control and predicting aggression.

The second study was Corapçioğlu and Erdoğan’s (2004) self-report study in Izmit, wherein they found that the most common crime for incarceration is violent offenses. Their study identified that homicide was the first and injury the second most common crimes. Additionally, 1/10 prisoners had wished to cause harm on a specific individual while 1/50 followed through on the intent. Finally, substance use was found to play a key role where 35% of crimes committed were under the influence of narcotics.

Of the articles discussed, the concepts of anger, anger regulation, aggression, dysregulated anger, and types of regulatory strategies have been reviewed. The consequences of maladaptive anger, aggression, its relationships to crime, and impacts on the family dynamic and children have also been discussed. From this there proves to be a significant importance in
maintaining regulative capabilities of one’s anger levels, and in promoting positive social relationships.

**Benefits of Social Relationships.** One study that stresses the importance of healthy social relationships is Levy-Gigi and Shamay-Tsoory’s (2017) evaluation on intrapersonal, with oneself, regulation and stress. Their analysis for the importance of healthy interpersonal, with others, relationships involved comparing the differences in benefit between a coping strategy selected by the individual or selected by a loved one of the individual during stressful events. The results of the assessment found that there was a significant advantage in interpersonal regulation during distress; where it was found that the partner close to the person in distress was better able to identify an effective coping strategy. Their findings show that it is important to develop at least one healthy interpersonal relationship that promotes emotive-regulatory behaviours. In conclusion, they theorize that the benefit is due to the other individual’s capability of being analytical, clear minded, and personally detached from the situation.

**Empirically Based Treatment for Emotion Dysregulation**

Synthesizing all the above literature, it can be determined that anger should be assessed as a potential target for clinical interventions (Deffenbacher, 1999). In doing so, a coherent treatment process should be developed within a patient-client relationship that understands the antecedents, cognitive appraisals, emotional experiences, behavioural responses, and consequences of the client’s anger (Deffenbacher 1999). Zarshenas et al. (2017) state that aggression reducing interventions based on changing individual beliefs requires time and repeated attempts. Continuing, that these interventions be comprised of strategies that assist in controlling anger initiation and consistency: Such as breathing exercises, practicing assertion, use of progressive muscle relaxation, and thought blocking.

A reminder must also be made that anger should not be wholly eliminated as it can be both constructive and maladaptive (Digiuseppe & Tafrate, 2001). When constructive it maintains interpersonal relationships, asserts authority, changes the behaviour of the instigator, and resolves problems. In contrast, maladaptive anger seeks revenge or harm, selfish outcomes, coercion, and the use of verbal aggression to destress. Thus, to maximize effectiveness anger treatment should teach to discriminate between what is adaptive and what is destructive.

Digiuseppe and Tafrate (2001) proposed a theoretical model for anger treatment that is based on six core components and six additional considerations. The core components are to cultivate a therapeutic alliance, to address motivation for change, to manage physiological arousal, to foster cognitive change, and finally to teach relapse prevention. The six considerations are to manage impulsive behaviours, use forgiveness, consider systemic interventions, seek restitution and reintegration with prior relationships, develop environmental supports, and to develop a therapy format.

Digiuseppe and Tafrate (2001) developed this model by conducting a methodological analysis of all relevant literature to the date of the study. They evaluated five meta-analyses encapsulating all anger-treatment outcome literature prior to 2001. Secondly, they reviewed all accessible scientific research on the topic. From these analyses, they then drew conclusions based from the research and conceptualized the minute details into specific characteristic traits.

Historically, anger-management treatment has been demonstrated as available for individuals in all developmental stages of growth; further, anger treatments present to provide lasting effectiveness and proven benefits for physiological health, assertiveness, and deemed beneficial by a person’s significant others (Digiuseppe & Tafrate, 2001). The most effective programs have proven to be those that have enlisted protocols which involve adhering to a
manual, and integrity checks on the therapist’s consistency and performance of implementation. Programs following this format produced greater reductions in anger than those that did not use structured formats (DiGiuseppe & Tafrate, 2001). The below literature will be looking at a multitude of treatments and their found effects in anger-management.

Taylor, Novaco, and Brown (2016) conducted a study that sought to evaluate the use of cognitive-behavioral therapy-based anger treatments to reduce aggression and violence in detained patients with intellectual disabilities. The results of the study found an overall 34.5% decrease in aggression and 55.9% decrease in patient assaults. From this study it can be identified that anger-management treatments are effective for all persons regardless of intellectual capability.

A second study by Mackintosh et al. (2017) states that cognitive-behavioral therapy is the most prominently used method in treating anger. Wherein, they cite a meta-analysis of differing approaches that found moderate to significant reductions in symptomatic anger and arousal, with positive increases in behavior and attitude. They also identified that calming techniques demonstrated an overwhelming influence in anger reduction. However, noted that limitations to cognitive-behavioral therapy approaches are they require repetition and feedback, scheduled concurrent treatment engagement, and commonly require follow-ups. In an attempt to circumvent these limitations and promote maintenance gains usually received from post-treatment skills practice; they developed a mobile app to be used coinciding with treatment. Thus, one group of participants received standard anger management training and a second received training plus the mobile application. Analysis of the app’s effectiveness demonstrated no difference from those who did not use the app; however, those who did use the app presented a 13% greater post-treatment retention rate.

A third study by Mackintosh et al. (2014) states that CBT based anger management therapy additionally has been shown by prior research to be effective in treating dysregulated anger. They reviewed two treatment groups, the first group received in-person treatments, and the second group received therapy via teleconference. Their results found that those who had longer commutes to in-person treatment demonstrated greater improvements, this is best explained that a longer commute was a greater motivating factor for participation. Further, concurrent use of mental health services had a greater effect on decreasing anger symptoms; those who used two or more services at a time demonstrated to have greater improvements. Overall, both groups showed significant decreases in anger symptomology. This demonstrates that although anger treatments are more effective in person, they can still be moderately effective through long-distance methods. This is especially so if the individual is using one or more other mental health services at the same time.

Finally, DiGiuseppe and Tafrate (2003) found that analyzing treatment outcomes by using dependent variables may provide the greatest efficacy for a treatments effect. This conclusion arose in lieu of conducting a systematic meta-analysis of the anger treatment literature. In doing so they reviewed 57 between-group studies where 50 had control groups and 7 did not. Overall they assessed 92 treatments involving 1841 participants and found that between group treatments demonstrate a 76% overall improvement to levels of anger, within-group treatments demonstrated an 83% overall improvement, and that 72% of the clients presented as better with regards to anger in follow-up analysis.

With regards to the implications of anger in families and those legally involved, Rodriguez and Green (1997) found that anger management training demonstrated for decreased anger levels in parents and an increased quality of parent-child relationships. Further the use of
empirically sound assessments present significance for predicting the risk of abuse towards a child. For example, they found that higher scores on the state trait anger expression inventory assessment tool were predictive of child abuse. This tool is a self-assessment report that measures anger across a variety of dynamics including expression. DiGiuseppe and Tafrate (2001) supports this finding whereby they state that interventions in anger demonstrate the probability of playing a significant role for mending families as improvements in one individual can be objectively identified by other individuals close to them. Additionally, Tayebi, Kashani, and Zaskar (2017) found that CBT-based anger management significantly decreased and improved domestic conflicts and marital disputes. Lastly, Zarshenas et al. (2017) found that anger-management can prevent maladaptive behaviour in criminal offenders by increasing their ability to adjust to differing circumstances and increase their psychological capability.

As DiGiuseppe and Tafrate (2001) states, there is a concern that many treatment programs fail to use empirically sound interventions, and as a result pose the potential of having little to no therapeutic effect. With this regard in mind, and the research found in the previous literature that a structured and consistent treatment is the most effective. It is the hope of this study to gather quantitative and qualitative data using a test-retest survey method and one-on-one interviews of a non-clinical agency’s anger management program to determine efficacy of its effectiveness.

Chapter III: Methods

Participants

The research study was conducted within a community organization anger management program. In the program, participants fell under three generalized demographic populations; (a) those mandated by the judicial court (CM), (b) those mandated to attend by Children’s Aid Services (CAS), and (c) those whom are voluntarily enrolled (VE) of their own volition. Ethical approval was received from St. Lawrence College’s Review Ethics Board on October 2nd, 2018. As such those in the program’s attendance were invited to participate in the thesis research study.

In full, there was a potential thirty-six (36) research participants that may have been enrolled in the program. Of these, sixteen (16) did not show up for the program, five (5) did not finish, and four (4) did not consent to participation leaving a total of eleven (11) study participants of which two (2) had dropped out after the fourth week. The estimated age range of those who participated in the research is 20-50 years old. Overall, participant subgroupings consisted of three (3) CAS, two (2) Voluntary, two (2) Court Order/Probation Mandated, and one (1) individual mandated by both court order and CAS.

Informed consent for data collection was provided prior to receiving the Modified Clinical Anger Scale (MCAS; Appendix A). The scale was modified due to the nature of the participants (e.g. adjusting for literacy issues), for successful data collection to occur it was imperative to neither overwhelm nor intimidate the consenting participants from wanting to complete the study. Whereas, the original Clinical Anger Scale (Appendix B) is easily unclear, and some statements within it are potentially offensive or triggering for the participant populations. Therefore, informed consent was verbally provided in full to the class with a warmly worded printed copy of the consent document (Appendix C) available for all attendees.

Inclusion criteria for the study were that the individual is a student in the anger management program and be eighteen years of age or older. Exclusion criteria are that the individual is seventeen years of age or younger, or not a student within the anger management class such as a personal support.
Study Design/Format
This study is a multiple-baseline within subject’s research design. The aim of the study was to measure the efficacy of a community agency’s anger management program. This was done through the analysis of both quantitative and qualitative data. Quantitative data were collected using the modified clinical anger scale (MCAS), a brief permanent product assessment tool that records present levels of general anger. Qualitative data was ascertained through one-on-one semi-structured interviews with consenting participants and numerically measuring standardized responses while contrasting anecdotal trends from the unstructured responses.

The independent variable being measured for effect is the anger management program. This program is an eight-week, classroom-style, educational program that teaches how to appropriately manage varying levels of anger. The dependent variable measured was individual levels of anger MCAS scores and was used to measure the efficacy of the program. Mean changes in statistical analyses across separate time points were used to identify the effectiveness of the program.

The research study and assessments were conducted by the placement student. The Clinical Anger Scale was administered during weeks 3, 6, and 8 of the program. This study was conducted independently of the program placing no stress on or affecting the programs integrity or the clients learning experiences. Furthermore, demographic differences were analyzed by contrasting the results between the three pre-set demographic populations of CM, CAS, VE individuals.

Setting and Apparatus
The anger management classes took place in a classroom setting that is hosted and facilitated by the corresponding community agency. The classes were of a structured academic model with weekly 2-hour lessons and informative homework packages. The classes were hosted during the late evenings, after 1700 hours and before 2200 hours, and facilitated once a week for an eight-week period by agency representatives. The research study was administered via in-class survey on weeks 3, 6, and 8 of the program. The materials required were the MCAS, a pen, confidentiality contracts, and consistent attendance.

The one-on-one interviews were hosted after the anger management program had concluded in full. These interviews occurred privately within an agency’s office. A three-week period was allotted for the interviews to occur and information to be recorded. The context of the interviews was regarding the benefits and detriments that the program had on the interviewed individual, and the integrity of the program.

Consent
Classroom privacy of the psychometric assessments were ensured by re-collecting each of the participants’ assessments after completion. These files were kept in a locked filing cabinet inside a locked office within the agency. The qualitative interviews were held within a private office at a pre-set time.

For transcription and data analysis, each participant was re-assigned a randomized code as their unique identifier. The psychometric analyses and consent forms will be kept within the agency’s archives for a 10-year period. The transcribed data will be kept on an encrypted USB Flash Drive with no identifiable variables for a 7-year period. After a 7-year latency period the USB device will be formatted to delete all files and physically destroyed by administering a high-voltage electrical charge. After a 10-year latency period, the individual consent forms will have all identifiable information blacked out with black ink and shredded.
Measures

**Modified Clinical Anger Scale.** The Modified Clinical Anger Scale is an alteration of the empirically valid, brief, and minimum risk assessment measure the Clinical Anger Scale for assessing an individuals’ present state of anger. The intended use for the MCAS was to provide an example of the classrooms mean level of anger throughout the progression of the course. The assessment is an objective self-report measure that diagnoses current levels of individual anger across 20 of the Clinical Anger Scale’s 21 states as cited below. The modified version does not account for work interference as due to a typography error in the first assessment the question had to be removed from future assessments.

Anger now, anger about the future, anger about failure, anger about things, angry-hostile feelings, annoying others, angry about self, angry misery, wanting to hurt others, shouting at people, irritated now, social interference, decision interference, alienating others, work interference, sleep interference, fatigue, appetite interference, health interference, thinking interference, and sexual interference. – (Snell, Gum, Shuck, Mosley, & Hite, n.d. pp. 220-221).

The quoted items are represented in the Clinical Anger Scale by 21 sets of pairing questions. The individual being assessed is given four statements and is asked to select the most accurate to their individual state. The answers from each set of pairings are represented numerically with an overall score. A greater final score indicates greater individualized levels of clinical anger.

For the purposes of this study the Clinical Anger Scale has been modified for implementation as to not deter or upset the participants from completing/returning the assessment. Instead of deciding a most accurate statement, the themes have been adapted to a generalized question that corresponds with a Likert scale response of 1 (Not Often), 2 (Occasionally), 3 (Often), 4 (Always)

**Post-Program Interviews.** Post-program interviewing was used to collect qualitative anecdotal information about each participant’s subjective experience. The hope was to identify areas of growth, strengths, and needs within the program. The interviews were one-on-one and privately held within an agency office. To gather these data a semi-structured interview style was used consisting of open-ended and standardized response questions (Appendix D). Interviews were further recorded, and the client responses coded and analyzed following grounded theory. The rationale for using this method was to compliment and contrast the quantitative data obtained from the MCAS; due to the briefness of the MCAS assessment it is difficult to obtain a complete representation of the anger management program’s impact on the individual experience.

**Procedure**

The anger management classes were held weekly and attended by those who are mandated by CAS, CM, or VE. Informed consent was provided prior to the MCAS being distributed to the class. Informed consent was provided orally before administration of the first assessment with printed forms distributed and readily available. Consent for participation and data collection were received prior to administering the assessment; non-consent for data collection and participation were determined from non-completion of the assessment and consent forms. The classes were led by two facilitators over an eight-week period from September 18th, 2018 until November 6th, 2018. Designated periods for assessment completion were October 2nd, 2018; October 23rd, 2018; and November 6th, 2018. Interviews with participants of the research study were held from November 12th, 2018 until November 30th, 2018 for qualitative data collection.
Data Collection

Quantitative Data. Multiple repeated-samples analysis of variance (ANOVA) were conducted to efficiently contrast the observed data. These data included the total scores of all nine participants through the three timepoints of weeks 3, 6, and 8 assessments; and the total scores of assessment questions 1-20 through the timepoints of weeks 3, 6, and 8. Further, these analyses were re-calculated using statistically assumed data for individuals who did not complete one of the three assessments. To do so their response scores for completed assessments were compared to the scores of all other individuals who completed the assessment at those timepoints using the Cosine Distance formula \[
\frac{\left(\sum_{i=1}^{n} x_i y_i\right)}{\sqrt{\sum_{i=1}^{n} x_i^2} \sqrt{\sum_{i=1}^{n} y_i^2}} \]
This allowed for the identification of the 2 participants whose responses most closely resembled the absent data form; from this a weighted mean was calculated for each response between the two identified individuals allowing for the closest hypothetical approximation of a response.

Qualitative Data. In-depth semi-structured interviews were conducted to explore participants’ relationships with anger through the agency, and to collect any critical feedback on subjective strengths and limitations of the anger-management program. One week prior to the interview, participants were contacted to inquire on attendance, and informed that they would be asked questions regarding general feedback, benefits or detriments, and areas of success or limitations of the program. Questions were designed around interpreting personal effectiveness of the program for each individual, the approachability and comfort of the program, potential increases in emotional regulation, and limitations or areas of improvement for the course. The questions used for assessment were approved by the thesis supervisor, agency supervisors, and program coordinators; no concerns, gaps in assessment, or additional questions were identified by approval staff upon inquiry. All interviews were audio-recorded and transcribed verbatim for analysis.

Qualitative Analysis. Qualitative data was analyzed following a grounded theory approach (Glaser, & Strauss, 1967). Grounded theory bases itself on the premise of categorizing, coding, and consistently revisiting the observed material. From it the coded information and categories can be contrasted in a constant and comparative analysis to identify trends and linkages within the material. Once recorded, the interviews were read through line by line with a categorical code expression. Each line being applied an attributive statement to aid in material both within and across transcripts. After, the data were coded and the questions were grouped by relevance to each component of the study. After which, each category was contrasted between data codes to synthesize the most accurate feedback of the analyses.

Chapter IV: Results

Quantitative

A repeated measures ANOVA was used to determine significance for the effectiveness of the anger management program in treating individual levels of anger. Two sets of two data analyses were calculated to most accurately contrast and conceptualize the findings. The first data set is actuarial data and includes five out of nine participants who participated in the study. Four participants were required to be removed for statistical analysis as a result of incomplete assessments. The second data set uses statistically assumed sample data by calculating the cosine distance and weighted means for missing integers. As each participant removed from the first data set had a non-complete for one out of three assessments, A statistical assumption was calculated using weighted means and cosine distance. The two assessments that they had completed were compared to the responses of all other participants by using the cosine distance.
formula; this determined two other participants whose responses were most statistically similar. After which, the assumed responses of the first participants absent assessment were generated by calculating a weighted mean score between the two identified peers for statistical analysis. Thus, this allows for a smaller assessment of effect while remaining able to accurately predict the level of effect had all assessments been completed.

**Actuarial Data.** No statistically significant difference was found (at an alpha of 0.05) for total levels of anger across the timepoints of weeks 3, 6, and 8 of the anger management program ($F(2,8) = 3.600, p = 0.077$). However, significance has been identified for the total scores of assessment questions across time points when a repeated-measures ANOVA is similarly conducted ($F(2,38) = 20.183, p = 1.1E-06$). These findings suggest that despite a lack of significant difference for levels of anger over time, the form of the anger may be changing. One possible limitation in this regard, is the small sample size obtained.

Table 1  
*Total Question Scores of the Modified Clinical Anger Scale Assessment*

![Bar chart showing total question scores of the Modified Clinical Anger Scale Assessment](chart.png)

of the program. This indicates that participants levels of anger were not reduced, but the form of their anger has changed. These findings roughly indicate that an ability for emotional regulation and control of outward expression has been increased.

**Statistically Assumed.** A significant difference is identified when non-complete assessments are corrected through statistical assumption ($F(2,16) = 5.648, p = 0.014$). Further, the significance of question totals across time is also greater in contrast to the actuarial data ($F(2,38) = 24.304, p = 1.6 E-07$). As the findings for this analysis have been assumed, they should not be considered valid as they were not self-reported by the participants. However, due to their statistical closeness in probability to how the participant would have responded they may be considered moderately accurate. Implications can be drawn that with a greater sample size statistical significance may have been found for decreased levels of anger.

**Results of Qualitative Analysis**

Of the nine study participants, four completed an in-person interview lasting an average of 25 minutes each with this researcher. Of the five individuals who did not attend an interview, one had declined, four did not appear at the scheduled time, and those who did not appear did not
respond when contacted for potential rebooking. Demographically, three of the participants attended the program in relation to CAS, and one as a condition of parole.

The participant interviews centered around three focuses for research regarding the program: (a) perceived and actualized effectiveness of the program; (b) ease of engagement in the program; and (c) strengths or limitations of the program. Each of these aspects and relevant quotes from the interviews are discussed and depicted below.

**Perceived and Actualized Effectiveness of the Program.** To evaluate the perceived and actualized effectiveness of the program, the participants were asked a series of questions relating to the impact that the course had on them personally, the skills they have learned, the opinions of others, and how effective they believe the program was. All participants had responded positively towards the effectiveness of the program and outlined its potential areas of strength and weakness.

Overall, the program was found to be relatively effective by the interviewed participants as they rated it an average of 4.1 out of 5.0. The positive aspects of the program identified were that each participant was able to get most of what they needed for recovery from the program. The negative aspect that went against a majority five out of five rating was that there was a lot of material, on an individual basis, that was not beneficial or seen as necessary for each participant.

“I did learn quite a bit of how to process thinking and stuff like that when anger does come up. Cause that is one thing I did not do in the past is actually kind of figure out is this actually what I’m seeing or is it something else? I think even when my former partner and I were arguing back and forth.” – (I4)

Every participant had stated that the program met the goals in which it set to achieve. Further, they had indicated that it allowed them to meet most of their own personal goals through the program. The most highlighted area of progress that the participants outlined was with regards to emotional regulation and the ability to control their actions. Specifically, each had mentioned the newfound ability to walk away when they felt their anger rising, or to contemplate the aspects they are not seeing and re-address the issue at a later time.

“But just stuff like that, little stuff like that you know before taking anger management would make me snap, but now you know now just wipe off my shoulders and walk away.” – (I3)

The one skill that was stated to be developed by all participants interviewed was mindfulness. They had all described the ability to have an awareness of themselves, their thoughts, actions, and interpersonal communication. Additionally, when asked “What impact has completing this program had in your personal life?” All participants responded that they had experienced benefits interpersonally. The following quotes are examples of the dimensions that the clients had improved.

“Big impact, I’m in a relationship where before I went to it I’d snap at everything. Now I can sit down and when I talk to him we can come to an agreement. Whereas before I would just take it in, it helped a lot.” – (I1)

“It has helped me really more give an understanding to deal with the whole entire thing with my counsellor, because I was never really able to talk about it I would shut down, like just shut down completely to where I didn’t want anything to do with anybody I wouldn’t eat I wouldn’t talk.” – (I2)

Regarding how others had described the impact of the program on client lives, each was described as having better patience, rational thinking, and stress-management. In contrast, almost all the participants stated that their anger had decreased. The modalities of which were best
described as resulting in an increased emotional awareness. One participant identified that they would rather cry than be angry now due to thinking through stressful situations. A second stated they, “think of what I’m saying before I speak or something cause I could potentially hurt that person” – (I2) and one participant hit on a significant point of interest that correlates with the results of the quantitative analysis: “They decreased a bit, but I’d almost have to say they almost stayed the same, it’s just how I control that.” – (I3)

To surmise the above information, all participants stated they found the program beneficial. It had allowed them to grow a self-awareness of how their actions impact others and how to appropriately respond in aversive situations. The participants had stated that the benefits of the program were noticed by those close to them. Lastly, the key skills developed were increases to emotional regulation, mindfulness, and coping strategies.

Ease of Engagement in the Program. All the participants stated that the program did not align with their expectations prior to attending. However, they had all stated that the program was still enjoyable. The main conflict to their expectation was with the classroom setting. All participants had expected to have to engage in some kind of activity or collaborative work within the program; where in contrast they had all been surprised to find that 100% of the coursework was to be practiced and completed independently outside of the sessions.

“I thought it was going to be more, I knew we’d do paper work, but I thought it was going to be more in class than doing the work at home, and I thought maybe he’d talk more about what’s on the paper instead of experiences.” – (I1)

The strengths of the environment were that it became more comfortable over time and allowed for generalizability of the material. Difficulties cited by participants were that the space felt over-crowded, and the class schedule was challenging with the breaks too short and no time allotted to work on the material or ask questions. Further, when asked “How relatable was the material? Were there any parts that were difficult to understand?” all but one participant cited the coursework. However, explained that they had previously attended another agency’s anger management program which may have created familiarity with the content. Some participants had stated that they needed to look up the material online to properly understand it, and others had stated they needed to arrive at the agency outside of scheduled hours for extra support to complete it.

“In more like understanding things, cause they just give us the homework and expect us to do it ya know? They don’t really explain to us on how what to do for it and how to do it they just expect us to automatically know. So that’s just what got me confused cause I needed people explaining it to me, and someone to sit there and actually help me understand it.” – (I2)

Regarding the classroom setting, participants had found that it was made to be a very comfortable experience. They largely attributed this to the facilitators and both their personalities and engagement style as the primary factor. “The facilitator… He made it interesting and enjoyable” – (I3) “It’s good, the people were calm they were funny outgoing giggling laughing and cracking jokes, it was a good experience” – (I2). One participant stated that in comparison to other attended programming, they appreciated that this course made certain to establish comfort before learning; that this allowed for better absorption of the material vs. getting right to the course work at the beginning of class.

Strengths and Limitations of the Program. Participants overall deemed the program to be an asset for themselves and their quality of life. Further, every participant interviewed said that they would recommend the program for someone who is struggling with dysregulated anger.
Regarding the content, a primary topic identified that the program could improve on is the subject of domestic violence. The participants who commented about this had specifically cited an interest in knowledge related to managing emotions when coming out of a hostile relationship. Further, a secondary desire was for learning better skills to process thoughts and control one’s anger.

“I think along the lines of, there was an abusive session. Lesson seven I think it was on abuse and I think they can really push that along on both sides, like the woman being abused and how she could control her anger after she’s out of that relationship. The fact of being abused and out of the relationship. That’s when mine came in, cause I wasn’t allowed to let it out during the relationship.” – (I1)

“Trying to help people how and what’s the best way to control their anger and emotion. And it’s hard to take this and apply it to 20-30 different people when those 20-30 people take it differently or they don’t want to hear that. And ya know it’s kind of hard to explain, maybe give more resources on how to control it and what can you do to prevent it” – (I3)

For the program overall, the weekly coursework was seen to be beneficial to the learning experience. Specifically the coursework allowed individuals to take the material being taught in the program home, then use and reflect on it allowing for generalization of skills and thought processes. A vast majority of limitations for the coursework was related to a lack of reasonable access to supports for it in-class. Other stated limitations were that the homework required too much of a time commitment for someone who is working, and that it was difficult to understand if one forgot the specific context that it was presented in. The only area of concern with the coursework was in comfortability of the questions. One participant had stated some of the questions caused more harm than benefit for them, while others stated they had difficulty answering other questions due to them being more personal than necessary or going against their beliefs. To this extent it was believed that the coursework was beneficial, but in need of more explanation, assistance, and clarity; it was also felt that the more personal questions in the material could be revised to be more sensitive to traumatic triggering, and not inquire on an individuals’ sexual nature.

“The homework I want to say was beneficial, it did have a lot to do within the program. It did actually make you think of your scenarios, so it made you rethink of some problems you’ve had in the past and uhm, so like I wanna say that the homework was really good in that way, but in other ways the past is the past yknow we don’t wanna keep bringing up the past, and to reliving all that emotions that happened. For some people it might be good, for some people it might be bad, for myself it was kind of a semi-semi. Like reliving the past is not something that I want to look at anymore.” – (I4)

In summary of the qualitative data, overall the program has demonstrated to be beneficial in assisting individuals to manage their anger. From the participant interviews it can be ascertained that this is done so by teaching processes to regulate emotions, cope through stressful situations, and de-escalate negative thinking processes. The areas of strength for the program are in its ability to provide comfort, generalizability, and practicality. The areas of weakness identified by participants are vagueness of the homework packages, limited accessibility to additional supports, and the program’s schedule.

Chapter V: Discussion

Evaluating the effectiveness of a program is imperative for maintaining long-term validity and integrity. Proper evaluations allow for the identification of strengths, limitations,
areas of growth, and areas of deficit. This allows for adjustments to be made as necessary to ensure that the program is addressing the needs that it first sought to. This study’s hope was to utilize the scientific method to cumulate and synthesize qualitative and quantitative data for assessing the integrity of a local agency’s anger management program. From doing so, it may potentially lay a groundwork to continue providing and improving effective client care, assist in serving the identified populations, and provide updated information regarding the literature on anger management and emotional regulation.

There demonstrated to be partial support for the first research question in completion of this study. No statistically significant results were found for increases or decreases to individual levels of anger throughout the duration of the program. However, other significant changes were found relating to coping strategies, mindfulness, and emotional regulation. Each participant interviewed had stated improvements to overall thought, cognitive skills, and de-escalation strategies. From those interviewed it can be stated that there were moderate to significant improvements for their quality of life and relationship with the emotion of anger. Due to the limited number of participants for final evaluation, discrepancies between the groups of those mandated to attend by CAS, justice services, or self-referred could not be identified to answer the second research question. Overall, the effectiveness of the program was demonstrated not through decreases in emotional arousal, but instead by changing the form and regulatory capability for emotional expressions.

Some interesting findings can be made by contrasting between the actuarial data group, the statistically assumed data group, and the qualitative data. The most significant is that despite there being no difference in individual levels of anger across time, the form of client anger presentation had changed. This follows in line with the theory surrounding anger-control (Yamaguchi et al., 2017) as stated earlier in the literature; quality of life improvements with the clients appear to correlate with healthier expressions of anger wherein they do not engage in emotional suppression, anger-in, or emotional explosiveness, anger-out, tendencies. In reviewing the qualitative data, the two most common trends for developed skills are the ability to walk away, and the ability to re-think the situation. In contrasting with the quantitative data, the two questions with the greatest decrease across participants are Question 10, “When I become angry, I will shout at other people” and Question 13 “Becoming angry impacts my ability to make good decisions”; thus, validity for an increase to emotional regulatory behaviours can be identified.

This research project has demonstrated to fall in line with the surrounding literature. Namely Zarshenas et al. (2017)’s study wherein the most effective attribute of the program for decreasing anger expressions was through the teaching of regulatory processes. This contrasts well with Deffenbacher (2011)’s working model of anger wherein a greater degree of client awareness allows for greater use of therapeutic strategies. Thus, likewise to the findings of Nikmanesh et al. (2017) increases of emotional regulatory skills very well could have improved quality of life. The methods for treatment used in teaching anger management best align with previous cognitive behavioural treatments for anger. The course was comprised almost entirely of reflective and schema challenging material that promoted a responsibility and ownership over one’s emotional perceptions. Other cognitive behavioural studies such as Taylor et al. (2016)’s use of the stress inoculation paradigm have proven beneficial for decreasing level’s of aggression. Further Tayebi et al. (2017) had conducted a meta-analysis on the use of cognitive behavioural therapy for addressing anger and found supportive results for intimate partner aggression.
This study is an important contribution as the primary implication is that the use of more than one form of assessment could often be necessary for appropriately validating the efficacy of a treatment. Additionally, these findings highlight that behavioural improvements can not always be quantified by traditional paradigms; that the use of assessing the different dynamics of behaviour is important for observing effective change. Were only quantitative or qualitative data to have been used, the findings of this research would have presented as inconclusive and with no significant difference in levels of anger. However, contrasting between the two typesets of data showed an increase in coping skills and emotional regulation with mild-moderate decrease in levels of anger. Further, it provides merit to the agency’s interventions and may be used to advocate success and enlist a greater number of participants.

**Limitations**

This study was not without significant limitations affecting its implementation. First, an initial first-week assessment could not be made due to time constraints for ethical approval. This resulted in the first assessment taking place on the 3rd week of the program. Second, the nature of a modified assessment results in a decreased validity for the results displayed; further, due to a typography error in the first assessment and a need for continuity in repeated evaluations question 15 had to be removed from the assessment. Third, participant response bias may have influenced the results of the data. Dishonest or exaggerated answers may have skewed the results of the quantitative analysis. Fourth, the absence of four out of nine participant assessments is cause for a sample group that may be too small to have significant results. Lastly, with the nature of qualitative interviews there poses a risk for interviewer confirmation bias, or participant response bias that may have affected the feedback analysis.

**Recommendations**

This study succeeded in demonstrating preliminary data that advocates for the efficacy of the anger management program. However, as it fell short of providing a substantial representation of effect, recommendations for future analysis would be to conduct a more in-depth and prolonged assessment on individual levels of anger between groups. In conceptualizing the participant feedback for future programming, the best recommendations would include: Greater time-duration for breaks that allow for participants to get support and ask questions; revision to the home-work package that increases clarity, or creation of an instruction handout for the homework; minor adaptations as required that best fit the needs of the collective group; and the allowance of time before or after the weekly sessions for individuals to receive support. The most effective future study would be to assess the program across all implementations. As the program is administered thrice annually this would allow for the results over the course of a year and may demonstrate a different outcome with greater validity.
References


Appendix A:  
Modified Clinical Anger Scale  

Name: _____________  

### Modified Clinical Anger Scale

**Feelings Inventory Instructions:** The group of questions below ask about the types of feelings you might have. For each of the questions below, circle the option that best describes how you feel, where: 1 = Not Often, 2 = Occasionally, 3 = Often, and 4 = Always. Try your best to answer each question, even if you’re unsure of the correct response. Make sure you select only one option from each question.

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<tr>
<td>1. In general, I feel angry:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<tr>
<td>2. Thinking about upcoming events in my future makes me feel angry:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>3. I feel angry when I feel as though I’ve failed at something:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>4. Looking back on my previous behaviour, I now become angry:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>5. I feel hostile towards those around me:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>6. I feel that other people are intentionally trying to annoy me:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>7. I find that my anger is about myself:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>8. Other people are responsible for the problems in my life:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>9. When I become angry, I find myself wanting to hurt someone else:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>10. When I become angry, I will shout at other people:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>11. I find myself being irritated by things now, more often than they used to:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>12. My desire to be around other people decreases when I am angry:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>13. Becoming angry impacts my ability to make good decisions:</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>14. As a result of my anger, people in my life have begun to avoid me:</td>
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<tr>
<td>Question</td>
<td>1 – Not Often</td>
<td>2 – Occasionally</td>
<td>3 – Often</td>
<td>4 - Always</td>
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<td>15. Because of my anger, I find it difficult to sleep at night:</td>
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<td>16. Because of my anger, I find myself more tired during the day:</td>
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<td>17. I find, that when I become generally more angry, that I begin to eat less throughout the day:</td>
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<td>18. I can feel that my anger is affecting my overall health:</td>
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<td>19. When I become angry, I am unable to think with a clear mind or focus on anything else:</td>
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<tr>
<td>20. Because of my anger, I find that I’m less interested in sex than I used to be:</td>
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Appendix B:
Clinical Anger Scale

FEELINGS INVENTORY INSTRUCTIONS: The group of items below inquire about the types of feelings you have. Each of the 21 groups of items has four options.

For example, ...A.... A. I feel fine.
B. I don't feel all that well.
C. I feel somewhat miserable.
D. I feel completely miserable.

For each cluster of items, read and identify the statement that best reflects how you feel. For example, you might choose A in the above example. If so, then circle the letter (A) next to the item number associated with that group of statements.

Answer the questions even if you’re not sure. Make sure you select only one statement from each of the 21 clusters of statements.

PLEASE BE HONEST IN RESPONDING TO THE STATEMENTS.

1. ..... A. I do not feel angry.
   B. I feel angry.
   C. I am angry most of the time now.
   D. I am so angry and hostile all the time that I can’t stand it.
2. ..... A. I am not particularly angry about my future.
   B. When I think about my future, I feel angry.
   C. I feel angry about what I have to look forward to.
   D. I feel intensely angry about my future, since it cannot be improved.
3. ..... A. It makes me angry that I feel like such a failure.
   B. It makes me angry that I have failed more than the average person.
   C. As I look back on my life, I feel angry about my failures.
   D. It makes me angry to feel like a complete failure as a person.
4. ..... A. I am not all that angry about things.
   B. I am becoming more hostile about things than I used to be.
   C. I am pretty angry about things these days.
   D. I am angry and hostile about everything.
5. ..... A. I don’t feel particularly hostile at others.
   B. I feel hostile a good deal of the time.
   C. I feel quite hostile most of the time.
   D. I feel hostile all of the time.
6. ..... A. I don’t feel that others are trying to annoy me.
   B. At times I think people are trying to annoy me.
   C. More people than usual are beginning to make me feel angry.
   D. I feel that others are constantly and intentionally making me angry.
7. ..... A. I don’t feel angry when I think about myself.
   B. I feel more angry about myself these days than I used to.
   C. I feel angry about myself a good deal of the time.
   D. When I think about myself, I feel intense anger.
8. ..... A. I don’t have angry feelings about others having screwed up my life.
   B. It's beginning to make me angry that others are screwing up my life.
   C. I feel angry that others prevent me from having a good life.
   D. I am constantly angry because others have made my life totally miserable.
9. ..... A. I don’t feel angry enough to hurt someone.
   B. Sometimes I am so angry that I feel like hurting others, but I would not really do it.
C. My anger is so intense that I sometimes feel like hurting others.
D. I'm so angry that I would like to hurt someone.

10. .....  A. I don't shout at people any more than usual.
     B. I shout at others more now than I used to.
     C. I shout at people all the time now.
     D. I shout at others so often that sometimes I just can't stop.

11. .....  A. Things are not more irritating to me now than usual.
     B. I feel slightly more irritated now than usual.
     C. I feel irritated a good deal of the time.
     D. I'm irritated all the time now.

12. .....  A. My anger does not interfere with my interest in other people.
     B. My anger sometimes interferes with my interest in others.
     C. I am becoming so angry that I don't want to be around others.
     D. I'm so angry that I can't stand being around people.

13. .....  A. I don't have any persistent angry feelings that influence my ability to make decisions.
     B. My feelings of anger occasionally undermine my ability to make decisions.
     C. I am angry to the extent that it interferes with my making good decisions.
     D. I'm so angry that I can't make good decisions anymore.

14. .....  A. I'm not so angry and hostile that others dislike me.
     B. People sometimes dislike being around me since I become angry.
     C. More often than not, people stay away from me because I'm so hostile and angry.
     D. People don't like me anymore because I'm constantly angry all the time.

15. .....  A. My feelings of anger do not interfere with my work.
     B. From time to time my feelings of anger interfere with my work.
     C. I feel so angry that it interferes with my capacity to work.
     D. My feelings of anger prevent me from doing any work at all.

16. .....  A. My anger does not interfere with my sleep.
     B. Sometimes I don't sleep very well because I'm feeling angry.
     C. My anger is so great that I stay awake 1—2 hours later than usual.
     D. I am so intensely angry that I can't get much sleep during the night.

17. .....  A. My anger does not make me feel anymore tired than usual.
     B. My feelings of anger are beginning to tire me out.
     C. My anger is intense enough that it makes me feel very tired.
     D. My feelings of anger leave me too tired to do anything.

18. .....  A. My appetite does not suffer because of my feelings of anger.
     B. My feelings of anger are beginning to affect my appetite.
     C. My feelings of anger leave me without much of an appetite.
     D. My anger is so intense that it has taken away my appetite.

19. .....  A. My feelings of anger don't interfere with my health.
     B. My feelings of anger are beginning to interfere with my health.
     C. My anger prevents me from devoting much time and attention to my health.
     D. I'm so angry at everything these days that I pay no attention to my health and well-being.

20. .....  A. My ability to think clearly is unaffected by my feelings of anger.
     B. Sometimes my feelings of anger prevent me from thinking in a clear-headed way.
     C. My anger makes it hard for me to think of anything else.
     D. I'm so intensely angry and hostile that it completely interferes with my thinking.

21. .....  A. I don't feel so angry that it interferes with my interest in sex.
     B. My feelings of anger leave me less interested in sex than I used to be.
     C. My current feelings of anger undermine my interest in sex.
     D. I'm so angry about my life that I've completely lost interest in sex.
Scoring Instructions for the Clinical Anger Scale (CAS):
Each cluster of statements was scored on a 4-point Likert scale, with A = 0, B = 1, C = 2, and D = 3. Subjects' responses on the CAS were summed so that higher scores corresponded to greater clinical anger (21 items; range 0 - 63).

CAS scores is accomplished through the following interpretive ranges: 0-13 - minimal clinical anger; 14-19 - mild clinical anger; 20-28 - moderate clinical anger; and 29-63 - severe clinical anger.
Appendix C: 
Informed Consent Document 

Dear Sir/Madam:

I am a student in the Honours Bachelor of Behavioural Psychology program at St. Lawrence College. For my placement here and as part of my thesis, I am conducting research on the current state of the Salvation Army’s Anger Management Program hosted by Freedom Ministries.

Invitation

You are invited to take part in a brief survey during classes 2, 5, and 8. In the survey questionnaire, there are 21 questions and it should take you about 5 to 10 minutes to complete it. On the week following the final class, I would also like to invite you to take part in a brief one-on-one discussion about your thoughts about the program.

Why is the study about?

You are being asked to help provide feedback on whether the skills being taught in the program work and if they help in your own experiences. We also want feedback on how to best serve you and how to make sure our program is effectively meeting your needs. It might benefit you in knowing that your contribution to this research will contribute to improving this program for others that need it. Some questions in the survey ask about your mood. Know that you are not required to answer any questions that make you feel uncomfortable. If you are ever feeling upset or confused, please come and talk to us (me, Bob or Linda). We are happy to help.

Do I have to take part?

It is up to you to decide whether you wish to participate or not. Whether you choose to participate or not, your decision will not have any effect on your participation in the Anger Management Program. Even if you agree to participate now, you can change your mind later. If you decide that you no longer wish to be a participant in this study, you may withdraw from the study no questions asked.

What will happen to the information I provide?

Your privacy is important and you will not be identified by name or any identifiable information in my thesis or any reports or presentations made on the findings from this research. This consent form and any information I collect from you will remain locked in a secure location. I am required to keep signed consent forms for 10 years. I will destroy everything else at the end of my school year. Please note that I am not collecting any information about illegal activities and I cannot protect your confidentiality.

Whom can I contact for more information?

I appreciate your cooperation and if you have any additional questions, feel free to ask me, Jamie Wensink at Jwensink26@student.sl.on.ca. You can also contact my College Supervisor, Dr. Melissa Bolton at MBolton@sl.on.ca. If you have concerns about the way this research is being conducted or about your rights as a participant, you may contact the SLC-REB Chair at reb@sl.on.ca.

This study has received ethical clearance from the Research Ethics Committee for Behavioural Psychology (REC-P) under the authority of the St. Lawrence College Research Ethics Board (SLC-REB), and has been approved by Dennis Chadwick of Freedom Ministries, our facilitators Bob and Linda Browne. The project was developed under the supervision of Melissa Bolton Ph.D., C. Psych (SLC college supervisor).
Consent
By signing this consent form: I understand the research as it has been explained in this form; I agree that all of my questions have been answered to my satisfaction; and I understand what I am being asked to do in this study.
*Please keep a copy of the signed consent form for your records.

Name:____________________________
Signed:__________________ Date:__________________________

BPSYC Student Signed:__________________ Date:__________________________
Appendix D:
One-on-One Interview Questions

1. Overall, how would you describe the effectiveness of the program in helping you cope with anger? If you could rate the program between one and five, with five being the most effective, how effective do you believe it was?
2. Was the program what you expected it to be when you started?
3. In your opinion, has the anger management program met the objectives it had set to achieve?
4. Did you achieve your own personal goals in result?
5. What skills have you developed as a result of the program?
6. What impact has completing this program had in your personal life?
7. What would/have your friends and family members notice different about you?
8. Have you noticed any changes with your emotions? Would you say your levels of anger have relatively decreased/increased/stayed the same now compared to when you entered the program?
9. Do you feel like these skills have helped you to manage or control your emotions in any way?
10. What areas do you feel that the program can improve upon?
11. How relatable was the material? Were there any parts that were difficult to understand?
12. What was the environment of the class like for you? Did it allow for you to remain comfortable attending after the first session? Were there any specific barriers that made you second guess whether you wanted to continue this course? – time of day, difficulty of material
13. Did you find the weekly course work to be beneficial? In what ways was it? Was it not?
14. Would you recommend the program to another individual struggling with anger?
15. Is there anything that I haven’t asked you today that you think would be important for the quality insurance of this program or elements that could be improved in the future?

Thank you so much for your participation and helping us to make this the best version of this program for clients.