INITIAL DEVELOPMENT AND VALIDATION OF THE COPING STYLES QUESTIONNAIRE FOR TRAUMATIC EVENTS (CSQTE)

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Initial Development and Validation of the Coping Styles Questionnaire for Traumatic Events (CSQTE)

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Abstract

A questionnaire that assesses monitoring and blunting coping strategies used by individuals who have experienced a traumatic event was developed and validated. The Coping Styles Questionnaire for Traumatic Events (CSQTE) was evaluated in a clinical sample of 11 individuals (9 women and 2 men), all of whom were seeking medical advice as a result of experiencing a traumatic event. It was found that 18 of the 21 initial items from each of the monitoring and blunting scales of the CSQTE were useful for measuring monitoring and blunting. In addition, each scale exhibited good internal consistency and convergent validity. The CSQTE has the potential to become a useful tool for understanding the coping strategies individuals use after experiencing a traumatic event. Future studies might want to consider another item analysis with a larger sample of clinical and non-clinical participants.

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Initial Development and Validation of the Coping Styles Questionnaire for Traumatic Events

The current study focuses on the development and validation of a questionnaire designed to assess monitoring and blunting coping strategies that are used by individuals in reaction to a traumatic event. Studies have supported the usefulness of monitoring and blunting coping strategies in stress-provoking situations (Miller & Managan, 1983). More specifically, there is evidence that the use of these coping strategies may be positively related to the success of long-term recovery after a traumatic event (Solomon, Mikulincer, & Arad, 1989). To date, a questionnaire designed to measure both monitoring and blunting, specifically for trauma-related anxiety, has not been developed. The development of a tool that is able to measure accurately the coping strategies an individual uses would help health professionals devise effective treatment plans.

Overview of Trauma

A traumatic experience is defined by the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) as one that is both life threatening and can cause the individual to experience fear, horror, or helplessness. Traumatic experiences are distinguished from other forms of stressors by their higher level of seriousness (Krause Shaw, & Cairney, 2004). Examples of traumatic events include sexual and physical abuse, witnessing or being involved in a violent crime, witnessing a death, prematurely losing a parent, loss of a child, and participation in combat, to name a few (Krause et al., 2004). Researchers have shown significant interest in the study of traumatic events over the past several decades, presumably due to the high prevalence of reported traumatic experiences (Krause et al., 2004). A national random

probability sample of 4,008 American women, found that 69% of them were exposed to trauma at some point in their life (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). When these results were extrapolated to the entire population, they estimated that 66 million women in the U.S. had experienced at least one major traumatic event. In 1995, the first large American national survey regarding the psychological effects of trauma found that the majority of people had experienced at least one major traumatic event and that around 20% of women and just over 8% of men were likely to develop Acute Stress Disorder or Post-Traumatic Stress Disorder (PTSD; Resick, Monson, & Rizvi, 2008).

Effects of Trauma on Life. As a result of experiencing a traumatic event, post-traumatic stress can present itself in various ways which include both emotionally and physiologically challenging symptoms. For example, research has shown that exposure to traumatic events can significantly lower an individual's ability to develop and maintain close personal relationships (Bowlby, 1980), lower one's sense of control and mastery (Brown & Harris, 1978), and increase the likelihood of engaging in health-risk behaviours such as alcohol abuse (Davis, Combs-Lane, & Smith, 2004). Furthermore, research has indicated that exposure to traumatic stressors often leads to a compromise in one's immune functioning (McEwen & Lasley, 2002).

Individuals also tend to experience a wide range of emotionally challenging symptoms in reaction to threat-related information. Examples of such challenges include physiological hyperarousal, avoidance and emotional numbing, and reexperiencing symptoms (Hunt & Evans, 2004). Trauma survivors' experience of physiological hyperarousal is often expressed as a constant state of "fight or flight" (Resick, et al., 2008). In this alert state, the individual is prepared constantly to respond to new perceived

threats from people or environments, even in non-dangerous situations (Resick et al., 2008). The individual may, for example, constantly scan their environment and prepare to defend themselves or to run away at any time, even when they are in a situation where they would normally feel safe. This coping response has been shown to interfere with daily functioning, social interactions, and lead to exhaustion (Kulka et al., 1990). Avoidance represents the individual's effort to create emotional and psychological distance from the traumatic event (Creamer, Burgess, & Pattison, 1992). When memories of the traumatic event encroach into the individual's consciousness, so can the negative emotional experiences associated with the trauma (Resick et al., 2008). Therefore, the individual may attempt to avoid thoughts, feelings, situations, and people associated with the event so they can avoid reexperiencing the emotions (Resick et al., 2008). Likewise, emotional numbing is often seen as an attempt to eliminate the aversive feelings associated with invasive recollections (Astin, Layne, Camilleri, & Foy, 1994). According to Resick et al. (2008), reexperiencing symptoms are normally experienced as distressing and intrusive because the individual has little control over how or when the symptoms will occur. They also argue that these symptoms bring out strong negative emotions associated with the original traumatic event, and that if any of these emotional and behavioural symptoms are experienced excessively (or are not treated properly or in a timely manner) the individual may be diagnosed with PTSD .

PTSD is an anxiety disorder resulting from experiencing a traumatic event and involves the same reactions that are associated with traumatic events in general. However, PTSD symptoms must be experienced simultaneously for at least one month, and must be

distressing or cause functional impairment (Resick et al., 2008). A considerable percentage of trauma survivors show full symptoms of PTSD immediately after the traumatic event; however, these rates drop to almost half after 3 months and then stabilize (Resick et al., 2008). Past research has found a wide range of factors that can affect the likelihood of an individual becoming traumatised after experiencing a stress-creating event (Hunt & Evans, 2004). For example, some factors include nearness to the event, perceived threat of death or injury, expectedness, as well as individual factors such as neuroticism (Hunt & Evans, 2004). According to Hunt and Evans (2004), however, research on these factors is inconsistent, possibly for the reason that PTSD has not yet shown any direct link to particular personality characteristics. Both individuals diagnosed and not diagnosed with PTSD after experiencing a traumatic event have been shown to present symptoms and coping behaviours in reaction to the event (Resick et al., 2008).

Miller's Theory of Coping with Threat- Related Information

According to Miller (1979), when individuals are threatened by an aversive, stress-creating event, their behavioural reaction can vary along two dimensions: monitoring and blunting. Monitoring and blunting are two separate strategies that individuals use to cope with threat related information. Miller defined monitoring as an individual's tendency to seek out information regarding a threatening situation and attend to it. By contrast, she defined blunting as an individual's tendency to avoid informational cues about a threat and distract themselves when confronted by a threatening situation. Although these constructs may seem related, monitoring and blunting are considered separate strategies because individuals scoring high on one of these coping strategies tend

not to obtain corresponding low scores on the other (Miller, 1987). Miller argued that these two coping strategies have an impact on peoples' psychological and physical well-being.

Further to Miller's theory, Van Zuuren and Wolfs (1991) suggested that monitoring may be related to internal locus of control and the individual's ability to use problem-focused coping. They showed that individuals who use monitoring as a means to cope with a situation do not spend more time thinking about the event than do blunters, but do use more problem-focused skills. For example, monitors tend to focus intently on the situations they are in and the people around them that make them emotional, so that they feel prepared to react to unexpected circumstances. Conversely, blunters tend to distract themselves or avoid people and situations that make them emotional.

Miller's (1979) theory supports the suggestions made by Van Zuuren and Wolfs (1991) that high blunters tend to use more emotional avoidance strategies and less problem-focused coping. In contrast, high monitors cope through information seeking but do not use this information in active behavioural coping (Miller, 1979). Miller contends that avoidance allows blunters to achieve better adaptational outcomes than monitors. Consider the following example of a young woman (Jane) who has been sexually assaulted. As a result of the traumatic event, Jane may find certain people, places, or things to be threatening or cause her to become emotional. To cope with these threats, Jane may use monitoring and/or blunting strategies. If Jane was higher in blunting, she may avoid places that remind her of where she was assaulted, or she may avoid talking about the assault with friends and family. Furthermore, Jane may try to distract herself while going to sleep in an attempt to not have nightmares about the event. On the other

hand, if Jane was a higher monitor, she would not necessarily avoid places or people, but rather be very aware of her surroundings while in the threatening situations. She may be aware of exit routes when in large groups of people, or around men, or she may walk in well-lit areas so as to see her surroundings. Furthermore, Jane may talk with friends about her traumatic event, but she would be consciously aware of how to stop the conversation if she became emotional. According to Miller's theory, Jane would have a better emotional outcome if she primarily used blunting as a coping strategy. This is also the case for various other threat-related and anxiety-provoking situations.

Numerous studies have examined the role of these coping styles in various anxiety-provoking situations (for example, Mezo, McCabe, Antony, & Burns, 2005; Miller & Managan, 1983). In general, a preponderance of evidence supports Miller's (1979) theory (i.e. high blunting results in better emotional outcomes than does high monitoring). For example, Miller and Managan (1983) found that when experiencing gynaecologic stress, monitors experienced greater distress before, during, and after seeing a gynaecologist and took longer to recover from the impact of this situation than did blunters. In other words, individuals who primarily used blunting as a coping strategy showed less distress before, during, and after seeing a gynaecologist.

Monitoring and blunting were initially studied in non-clinical samples (Miller 1987); however, studies eventually transitioned to clinically based studies of monitoring and blunting in relation to short-term anxiety provoking situations. Exploration of these strategies has helped in understanding various facets of anxiety, such as social anxiety (Mezo, McCabe, Antony, & Burns, 2005). A study by Mezo et al. (2005) examined the use of monitoring and blunting in socially anxious situations by administering the Coping

Styles Questionnaire for Social Situations (CSQSS) to a non-clinical sample of 443 college students. This study showed the efficacy of monitoring and blunting as mediational variables, and individuals that primarily use blunting as a coping mechanism result in significantly better emotional outcomes when confronted with a stress-provoking social situation (Mezo et al., 2005). These findings are comparable to those found by Miller (1987) and correspond with Miller's (1979) theory.

A more recent study of monitoring and blunting in socially anxious situations examined a clinical sample of socially phobic individuals (Persadie, Rowa, McCabe, Antony, & Swinson, 2008). Participants with a principal diagnosis of social phobia were asked to complete the CSQSS as well as measures of social phobia and depressive symptom severity (Persadie et al., 2008). In this study, monitoring (vs. blunting) scores showed a stronger relationship with anxiety ratings made during stressful behavioural tasks. In other words, individuals with higher monitoring scores also had higher anxiety ratings. Furthermore, when groups of purely high monitors and high blunters were compared, it was found that anticipatory anxiety before a speech task was strongly related to a monitoring coping style in social phobia. The researchers contended that a monitoring coping style in relation to social phobia may be related to greater anticipatory anxiety regarding stressful tasks.

Monitoring and blunting have also been investigated in relation to dental fear. Muris, De Jongh, Van Zuuren, and Schoenmakers (1996) administered a cognitive control questionnaire as well as a measure of monitoring and blunting (Miller Behavioural Style Scale; Miller, 1987) to 85 dental phobics who were awaiting treatment in a dental fear clinic, as well as 70 non-phobic control participants. They found that monitoring was

related positively to the occurrence and acceptance of negative thoughts about dental treatments and related negatively to the ability to control those thoughts. The researchers also found the opposite pattern for individuals high in blunting. Specifically, blunting correlated negatively with the occurrence and acceptance of negative thoughts about dental treatments and correlated positively with cognitive control. The authors concluded that monitors, as compared to blunters, generally display greater distress and arousal because of the methods these individuals use to process threat-related information. That is, on the basis of these findings, individuals who experience anxiety in relation to dental treatments will likely have a healthier emotional outcome if they use a blunting strategy.

Taken together, these studies illustrate the utility of understanding these strategies for the implementation of treatment plans for individuals experiencing anxiety related to dental fear, gynaecologic stress, and social anxiety, along with many other anxiety-provoking situations. Based on the aforementioned studies, it is predicted that assessment of monitoring and blunting coping strategies will be useful in helping to understand the coping styles of anxious individuals who have experienced traumatic events.

Monitoring and Blunting in Relation to Trauma

Little is known about the use of monitoring and blunting coping strategies of individuals who have experienced a traumatic event. A review of the literature revealed that only one study has focused on the use of monitoring and blunting by individuals who have experienced trauma. In that study, monitoring and blunting coping strategies used by soldiers who were diagnosed with war-related PTSD were explored by Solomon et al. (1989). Contrary to Miller's (1979) theory, Solomon and colleagues found that soldiers who relied primarily on monitoring strategies suffered the least from trauma-related

psychopathology, and that the use of blunting (with or without monitoring) was associated with more severe psychopathology. However, coinciding with Miller's (1987) findings, the researchers also found that monitors tend to rely on problem-focused coping strategies, whereas blunters rely more on emotion-focused coping strategies. Consider again the example of Jane, the victim of sexual assault. According to Solomon and colleagues' findings, Jane would have a better outcome if she used a monitoring strategy. The reason why Solomon and colleagues' findings run counter to Miller's theory is currently unknown.

The Current Study

Despite the development of several scales to measure monitoring and blunting coping strategies, there is currently no means to measure those two strategies in relation to traumatic events. For instance, Miller (1987) designed the Miller Behavioural Style Scale (MBSS) to measure the use of monitoring and blunting coping strategies. This scale was designed for use with threatening or anxiety-provoking situations in general- not specific to a phobia or anxiety. The MBSS consists of very general questions regarding threatening life situations. There is no reference to trauma, traumatic events, or coping with those events throughout the scale. As such, it is unknown whether the scale actually taps into all types of phobia and anxieties. On the other hand, Mezo et al. (2005) created the CSQSS to measure the use of monitoring and blunting coping strategies in socially anxious individuals. The lack of a scale to measure the use of monitoring and blunting coping strategies by individuals who have experienced a traumatic event ultimately limits

the depth at which monitoring and blunting can be explored in individuals experiencing anxiety in reaction to a traumatic event.

The current study is a pilot study attempting to bridge the gap caused by this limitation, through developing and validating the Coping Styles Questionnaire for Traumatic Events (CSQTE), which is designed to assess coping strategies in reaction to a traumatic event. This study is designed to answer the following two questions: (1) Is the CSQTE a reliable and valid measure of monitoring and blunting coping strategies used by individuals who have experienced a traumatic event?, and (2) Do individuals experiencing trauma-related anxiety use monitoring and blunting as active coping mechanisms? The study evaluates the reliability and validity of the CSQTE via comparison to five other measures.

Method

Participants

The study population focuses on individuals generally experiencing anxiety as a result of reacting to a traumatic event, not necessarily on those who have a clinical diagnosis for a Traumatic Stress Disorder. More specifically, the study concentrates on the assessment of the use of monitoring and blunting coping strategies in reaction to experiencing a traumatic event. This is accomplished through the development of the CSQTE and the initial assessment of the reliability and validity of the measure. For the purposes of this study, a traumatic event is defined as a situation where an individual has "experienced, witnessed, or been confronted with an event or events that involved actual or threatened death, serious injury," (Beckham, Davidson, & March, 2003) or cruel, inhuman, or degrading treatment for themselves or others. The individual's response to the traumatic event must include "intense fear, helplessness, or horror" (Beckham et al., 2003).

Thirteen participants were recruited from the Waterford Hospital, St. John's, NL. One participant was removed from the study because over half of the CSQTE was left blank. A second participant was removed because the answer "not at all" was provided to the entire Impact of Event Scale. No participant was removed on the basis of exhibiting a socially desirable response set, which was determined by scores on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

The remaining eleven participants consisted of nine women and two men, ranging in age from 19 to 53 years of age ($M = 36.18$, $SD = 11.77$). A psychologist working at the

Waterford Hospital in St. John's, NL, assisted in distributing the questionnaire packets to participants. To be included in the study, individuals needed to be 19 years of age or older and seeking medical advice as a result of experiencing a traumatic event. However, these individuals did not need to be diagnosed with a Traumatic Stress Disorder (e.g., PTSD) as a result of their experiences. Each participant was admitted into the healthcare center and was seeking advice from a health professional. For some participants, their primary reason for admission into the Waterford Hospital was a result of experiencing a traumatic event. However, other participants had experienced a traumatic event in the past and were seeking medical advice for this, which was secondary to their primary admission reason.

Materials and Design

Participants received a packet of questionnaires consisting of (a) an informed consent form (see Appendix A), (b) demographic questionnaire section (see procedure section), (c) the newly developed Coping Styles Questionnaire for Traumatic Events, (d) the Coping Styles Questionnaire for Social Situations (Mezo et al., 2005), (e) Miller Behavioural Style Scale (Miller, 1987), (f) Impact of Event Scale (Horowitz, Wilner, & Alvarez, 1979), (g) Social Interaction Anxiety Scale (Mattick & Clarke, 1998), and (h) Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The questionnaires in each packet were organized using a Williams Design, which is a generalized Latin Square design that is also balanced for first order carryover effects (Williams, 1949).

Coping Styles Questionnaire for Traumatic Events (CSQTE). The CSQTE (see Appendix B) consists of three sections. Section I contains questions regarding the age and

gender of the participant. Section II is composed of three questions designed to ensure that the participant's experience meets the criteria for designating it as a clinically defined traumatic experience. These questions were designed using criteria A from the DSM-IV-TR (American Psychiatric Association, 2000) for experiencing a traumatic event (see Appendix C). For example, in order to be considered a traumatic event, the experience must fit the definition of a traumatic event, as well as include intense fear, helplessness, or horror. The second section also includes a list of 12 events considered to be "traumatic" (Krause et al., 2004). Instructions explain that participants are to indicate which traumatic event they had experienced. If they had experienced multiple events, they were asked to indicate the most recent event experienced.

Section III describes seven hypothetical situations requiring a response regarding how likely individuals are to use monitoring and blunting when presented with the threatening experiences. These situations were developed using criteria B from the DSM-IV-TR for experiencing a traumatic event (see Appendix C). Criteria B lists various ways that individuals reexperience the traumatic event; for example, by constantly dreaming of the event. In this section, instructions direct participants to envision themselves in each described situation. Each of the seven situations is followed by a list of six coping strategies, three monitoring and three blunting. Participants rate (on a 5-point Likert scale) how likely it is that they would use each coping strategy if they were in the described situation. These coping strategies were also developed using the DSM-IV-TR, specifically, criteria C for experiencing a traumatic event, which describes reactions that individuals may experience after a traumatic event. For example, individuals who have

experienced a traumatic event often exhibit avoidance behaviours and emotional numbing (see Appendix C).

The CSQTE is scored by summing the scores on the monitoring questions and the blunting questions separately, that is a monitoring scale score and a blunting scale score is calculated for each individual.

Coping Styles Questionnaire for Social Situations (CSQSS). The CSQSS was developed to measure monitoring and blunting coping styles in social situations (see Appendix D). The CSQSS consists of scenarios describing stressful situations concerning interacting socially with others, being the centre of attention, or being judged by others (Mezo et al., 2005). Each scenario is followed by items that assess the degree to which each situation is feared or avoided and the frequency at which they are encountered. Three monitoring and three blunting items also follow each scenario which assesses the degree to which each of these coping skills would be used. All items are rated on a 5-point Likert scale where scoring consists of summing items separately to produce monitoring scale and blunting scale scores. The CSQSS has exhibited very strong evidence for the reliability and validity of measuring monitoring and blunting in reaction to social evaluative situations (Mezo et al., 2005). More specifically, the CSQSS exhibited a coefficient α of .81 for the monitoring scale and .78 for the blunting scale (Mezo et al., 2005).

Miller Behavioural Style Scale (MBSS). The MBSS (see Appendix E; Miller, 1987) was designed to measure the use of monitoring and blunting coping styles when confronted with threatening situations in general. The MBSS consists of four dangerous scenarios in which participants are to imagine themselves. After each scenario,

participants are asked to indicate which of eight coping responses they would consider using in each situation. Four of the coping style responses are monitoring responses and four are blunting responses. Thus, two scale scores are obtained from the measure for monitoring and blunting with scores ranging from 0 to 16. The MBSS has good support for internal consistency: $\alpha = .79$ for the Monitoring scale and $\alpha = .69$ for the Blunting scale (Miller, 1987). Furthermore, test-retest analyses with a sample of 110 subjects showed the MBSS subscales to be highly stable over a 4 month period: for the monitoring subscale, $r(98) = .72, p < .01$; for the blunting subscale, $r(98) = .75, p < .01$ (Miller & Managan, 1983).

Impact of Event Scale (IES). The IES is a 15-item scale which measures the experience of post-traumatic stress for any specific life event (Horowitz et al., 1979; see Appendix F). This scale measures two categories of experiences in response to a stressful event: intrusive experiences such as ideas and feelings and avoidance of certain ideas, feelings, and situations. Based on two separate samples, the subscales of the IES show very good internal consistency (coefficients ranging from .79 to .92; Horowitz et al., 1979). The IES is scored by summing responses on both the intrusive and avoidance subscales separately, as well as summing all responses to receive an overall score.

Social Interaction Anxiety Scale (SIAS). The SIAS (Mattick & Clarke, 1998) was designed to measure fears associated with social interaction (see Appendix G). This measure is a 16-item instrument which has been shown to be reliable and valid in both clinical and non-clinical samples with coefficient alphas ranging from .86 to .94 (Orsillo, 2001). Items on the SIAS describe cognitive, affective, and behavioural reactions to social interaction situations (Matttick & Clarke, 1998). The SIAS takes approximately

five minutes to complete, items are rated on a 5-point Likert scale, and positively worded items are reverse coded for scoring.

Marlowe-Crowne Social Desirability Scale (MCSD). Since participants were administered the questionnaire packet by their health professional the MCSD (see Appendix H; Crowne & Marlowe, 1960) was administered to control for socially desirable answers. The MCSD is a 33-item instrument, with higher scores indicating higher degrees of social desirability The MCSD was designed to assess social desirability in terms of an individual's tendency to act in a manner that avoids the disapproval of others (Crowne, 1979). Very high scorers on the MCSD are considered to be exhibiting a socially desirable response set. Scoring the MCSD consists of assigning 1 point for socially desirable responses and 0 to non-socially desirable responses. The internal consistency coefficient for the scale, using Kuder-Richardson formula 20, is .88 and the scale has a test-retest correlation of .89 (Crowne & Marlowe, 1960).

Procedure

Participants were approached about the study during a regular meeting with the psychologist. For those individuals willing to participate in the study, questionnaire packets were given to them to complete at their convenience. Participants first read the informed consent form, then the questionnaires. It is estimated that it took approximately 20 minutes to complete the packet, based on feedback from the Psychologist who administered them. Once participants completed the questionnaire packet, it was sealed in a separate envelope and returned to the psychologist.

Data Analysis Procedure: Item responses were screened for outliers and missing data on a case-by-case basis. The CSQTE began with a total of 21 blunting items and 21 monitoring items; however, question F under Situation 3 (referred to as item S3F), a blunting item, was not answered by 6 of the 11 participants. This is believed to be a result of a photocopying error since the item was very difficult to see at the top of the questionnaire page. Therefore, since this could skew results, the item was removed from the study before analyses began. Furthermore, among the responses from the 11 participants, there were missing items. Since the number of missing items was minimal, the mean of the item was used for substitution of the missing data. This is preferred over substituting the missing values with the participant's mean response score because the assumption that all variables are measuring the same construct is violated (Huisman, 1999).

Descriptive Statistics: All participants answered "yes" to experiencing a traumatic event, indicating they should meet the criteria to participate in the study. Furthermore, all participants endorsed "yes" to at least one of the three traumatic responses (fear, helplessness, or horror). However, most participants endorsed two or more of the responses, as 81.8% of participants experienced a fear response, 90.9% experienced helplessness, and 81.8% experienced horror. To further determine whether or not each participant fit the criteria to be included in this study, total scores on the Impact of Event Scale were used. These totals classify individuals into one of four possible stress ranges, specifically, subclinical, mild, moderate, and severe stress. Of the 11 participants in the study, two were considered mildly stressed, eight moderately stressed, and one participant was classified as severely stressed. Since no participant was classified as subclinical, all

11 participants, again, met the criteria to be included in the study. Participants were also asked to indicate, what type of specific traumatic event they had experienced from a list of 12 possible events.

Item Reliability Analyses: To explore the reliability for each of the remaining 20 blunting items and 21 monitoring items on the CSQTE, analyses focused mainly on item discrimination indices. According to classical item analysis, item discrimination refers to a test item's ability to statistically distinguish between participants with more or less of the trait one is attempting to measure (Hogan, 2007). In this case, the trait would be either monitoring or blunting coping styles. For the purposes of this study, item-total correlation was used to determine the discrimination indices of items on the CSQTE. The item-total correlation test is performed to check whether any item is inconsistent with the rest of the scale and thus can be discarded (Shultz & Whitney, 2005). Typically, researchers aim for a positive, low-to-moderate item-total correlation. More specifically, correlations between $r = 0.1$ and 0.5 are acceptable when conducting item analyses (Shultz & Whitney, 2005). Therefore, a lower cut-off score of $r = 0.1$ was used to determine the usability of each item. If this cut-off was violated, the item was removed and analyses were conducted again without this item.

Coefficient alpha was also investigated for each scale as a whole and each item within the scales. Coefficient alpha, more commonly known as alpha, is a measure of consistency or reliability used to explore whether a set of items believed to measure the same construct are correlated (Vogt, 2007). Alpha ranges from zero when the items do not correlate at all to 1.0 when the items correlate perfectly (Vogt, 2007). An alpha of 0.7

or higher is usually considered satisfactory because if it were any lower, the R^2, or coefficient of determination, or percentage of variance explained, would be less than 50% (.70 x .70 = .49 or 49% variance explained; Vogt, 2007). That is, an alpha coefficient of 0.7 or higher indicates a reliable scale or a reliable item within a scale. Since the alpha for each of the scale items were all very close in value, and since items would be evaluated in relation to one another, three decimal places were used when reporting coefficient alpha.

Change in alpha if each item was individually deleted was also calculated to explore what alpha would be, for each scale, if each item was deleted. An increase in the overall reliability statistic for each scale after an item has been deleted indicated that that item did not correlate well with answers to other items. This was not used as criteria for removing an item, but rather as additional support for whether an item should be removed and as an indicator to further investigate that item in later studies. For example, if an item violated the item-total correlation cut-off of 0.1, an increase in alpha if that item removed provided additional support that the item was of poor value and should be removed from the scale.

Since the CSQTE calculates two separate scale scores for monitoring and blunting, as opposed to an overall test score, item-total correlations and alpha were calculated for each scale of items separately. For clarification purposes, when referring to any item on the scales, each are labelled by situation number, then item letter. For example, for question 'A' in Situation 1 the label would be S1A.

Item Means and Standard Deviations: Items on a scale should measure a range of answers from participants, therefore tapping in to the natural variability that occurs in a

population. As such, a ceiling effect would be less than ideal. Item means and standard deviations, as well as response histograms, were examined.

Construct Validity Analyses: To explore the construct validity of the CSQTE, the convergence with matching criterion measures of monitoring and blunting and with measures of subjective stress/distress, and divergence with non-matching criterion measures of monitoring and blunting were investigated. Convergence was investigated through correlations between the monitoring and blunting scales of the CSQTE and the CSQSS, MBSS, and IES. Divergence was investigated with correlations between the two scales of CSQTE and the SIAS. Table 10 contains the bivariate correlations between the two scales of the CSQTE with each of these measures. It should be noted that correlations are presented from a small clinical sample size and, as such, strong conclusions cannot be drawn.

Results

CSQTE Data Analysis

Descriptive Statistics: Table 1 contains the percentages of participants who stated they had experienced each of the 12 events listed on the questionnaire.

Table 1

Frequencies of Traumatic Event Experience

Traumatic Event	N	Percentage (%)
Physical Abuse	8	72.7
Sexual Harassment	7	63.7
Loss of Child	3	27.3
Loss of Parent	3	27.3
Violent Crime	2	18.2
Automotive Accident	2	18.2
ATV/Snowmobile/Boating Accident	2	18.2
Homicide	1	9.1
Other	1	9.1
Combat	0	0.0
Natural/Manmade Disaster	0	0.0

Note. Total numbers exceed participant numbers since some participants endorsed more than one option.

As can be seen, most participants endorsed more than one traumatic event; therefore, for each single event, the number is out of the 11 participants. As can be seen from Table 1, in order of highest to lowest percentage of reported experiences, the two most frequently experienced events were physical abuse (72.7%) and sexual harassment

(63.7%). To a lesser extent, participants experienced loss of a parent (27.3%) and loss of a child (27.3%). The events with the next highest percentage rates were automotive accidents (18.2%) and ATV/snowmobiling/boating accidents (18.2%). Lastly, participants reported experiencing homicide (9.1%) and other (9.1%). No participants reported experiencing combat or natural/manmade disasters.

Item Reliability Analyses

Blunting Scale Item Analysis: Reliability analyses were conducted for the 20 blunting items on the CSQTE. Overall, alpha for the initial 20 items of the blunting scale was 0.864. Table 2 contains item-total correlations and change in alpha if item removed for each of the 20 blunting scale items.

Items S2C and S4E both have alpha levels less than 0.1, as such these items were removed from the CSQTE blunting scale. Alpha also increased with each of these items deleted, therefore adding additional support for their removal. Item S2C was removed first, since its item-total correlation value was a larger negative value then S4E. Furthermore, by removing S2C first, this allowed for exploration of whether the item-total correlation value of S4E may change. Alpha also increased when items S3D and S6A were removed; however, item-total correlations for these items are well above the cut-off score of 0.1 and were not removed.

With item S2C removed, the overall alpha for the blunting scale increased to 0.877. Table 3 contains item-total correlations and change in alpha for each of the remaining 19 items on the blunting scale of the CSQTE. The item-total correlation value for item S4E decreased further with the removal of item S2C and still violated the 0.1 cut-off.

Table 2

Item-Total Correlations and Alpha for Initial 20 Blunting Scale Items

Item	Item-Total Correlation	Alpha if Item Deleted
S1A	.63	.851
S1B	.38	.861
S1C	.81	.847
S2A	.64	.851
S2B	.86	.841
S2C	**-.17**	**.877**
S3D	.22	**.865**
S3E	.50	.857
S4D	.63	.852
S4E	**-.05**	**.873**
S4F	.45	.859
S5A	.64	.850
S5B	.35	.862
S5C	.46	.859
S6A	.24	**.865**
S6B	.60	.853
S6C	.36	.862
S7D	.33	.863
S7E	.66	.853
S7F	.54	.855

Note. Bolded items indicate violation of the item-total correlation cut-off of 0.1 and an increase in alpha if item deleted.

Table 3

Item-Total Correlations and Alpha for 19 Blunting Scale Items (Item S2C removed)

Item	Item-Total Correlation	Alpha if Item Deleted
S1A	.62	.867
S1B	.37	.876
S1C	.80	.862
S2A	.65	.865
S2B	.87	.856
S3D	.22	**.879**
S3E	.53	.870
S4D	.64	.867
S4E	**-.10**	**.888**
S4F	.47	.872
S5A	.65	.865
S5B	.32	.877
S5C	.47	.873
S6A	.25	**.879**
S6B	.60	.867
S6C	.37	.876
S7D	.35	.877
S7E	.67	.867
S7F	.55	.869

Note. Bolded items indicate violation of the item-total correlation cut-off of 0.1 and an increase in alpha if item deleted.

The value of alpha also increased when item S4E is removed, adding additional support for removing the item. No other item total-correlation value changed to the point of violating the cut-off. However, alpha increased again when items S3D and S6A were removed, though the item-total correlation values were still above the cut-off. Therefore, these items were retained.

Reliability analyses were conducted again with both S2C and S4E removed. The overall alpha value of .888 was found for the blunting scale. Table 4 contains the item-total correlations and change in alpha for the remaining 18 items on the blunting scale of the CSQTE. All remaining 18 items were above the item-total correlation cut-off of 0.1 and deemed reliable items for the blunting scale of the CSQTE. Items S1B, S3D, S5B, S6A and S6C resulted in an increase in the overall alpha value when each item was removed; however, because the increases were minimal this value was not used as criteria for removal of an item but rather as support in addition to item-total correlation values. See Appendix I for a list of the remaining 18 items considered usable for the blunting scale of the CSQTE.

Monitoring Scale Item Analysis

Reliability analyses were also conducted for the 21 monitoring scale items to identify items not sufficient for use on the CSQTE. For these initial 21 items, the scale's reliability based on alpha was 0.819.

Table 5 contains the item-total correlations and change in alpha if item deleted for the 21 monitoring scale items. Items S1D and S7B both violated the 0.1 cut-off score; therefore, each were removed. Each item also resulted in an increase in alpha when

Table 4

Item-Total Correlations and Alpha for 18 Blunting Scale Items (Items S2C and S4E removed)

Item	Item-Total Correlation	Alpha if Item Deleted
S1A	.63	879
S1B	.34	**.889**
S1C	.79	.875
S2A	.68	.877
S2B	.87	.869
S3D	.20	**.890**
S3E	.54	.882
S4D	.65	.879
S4F	.49	.884
S5A	.64	.878
S5B	.27	**.891**
S5C	.51	.883
S6A	.24	**.890**
S6B	.60	.880
S6C	.35	**.889**
S7D	.37	.888
S7E	.68	.879
S7F	.59	.880

Note. Bolded items indicate an increase in alpha if item deleted.

Table 5

Item-Total Correlations and Alpha for Initial 21 Monitoring Scale Items

Item	Item-Total Correlation	Alpha if Item Deleted
S1D	**-.06**	**.830**
S1E	.40	.810
S1F	.32	.815
S2D	.33	.815
S2E	.76	.791
S2F	.26	.817
S3A	.33	.815
S3B	.70	.796
S3C	.35	.813
S4A	.52	.805
S4B	.36	.813
S4C	.56	.803
S5D	.56	.802
S5E	.78	.787
S5F	.64	.797
S6D	.21	**.821**
S6E	.11	**.826**
S6F	.18	**.821**
S7A	.48	.809
S7B	**.00**	**.824**
S7C	.19	**.822**

Note. Bolded items indicate violation of the item-total correlation cut-off of 0.1 and an increase in alpha if item deleted.

deleted, showing additional support for each item's removal. However, since item S1D's item-total correlation value was of a lesser value then S7B, this item was removed first. This was done to explore whether or not item S7B's value would change to above the cut-off after removing item S1D. Items S6D, S6E, S6F and S7C also resulted in an increase in alpha after removal; however, since item-total correlations for each item did not violate the cut-off, this was not considered sufficient evidence for each item's removal.

Once item S1D was removed, reliability analyses were conducted again for the remaining 20 items. This resulted in an overall alpha value of 0.830 for the monitoring scale, an increase from the previous value. Table 6 contains the item-total correlations and change in alpha values for the remaining 20 items of the monitoring scale, with item S1D removed. Item S7B's item-total correlation value increased with the removal of item S1D; however, this increase was not large enough to place it above the cut-off score. Alpha also increased when item S7B was removed and thus, it was deleted. Item-total correlation for S6E also decreased to below the cut-off of 0.1 when item S1D was removed. Item S6E also resulted in an increase in alpha when removed and was deleted. Items S6D, S6F and S7C resulted in increased alpha levels upon removal, however, item-total correlations were still above 0.1. As such, these items remained in the monitoring scale.

After items S7B and S6E were removed, reliability analyses were conducted for the remaining 18 items. Alpha for the monitoring scale increased from a value of 0.830 to a value of 0.845. Table 7 contains the item-total correlations and change in alpha for the remaining 18 items of the monitoring scale. All 18 items were above 0.1 and considered reliable items for the CSQTE. Items S6D, S6F and S7C resulted in an increased alpha

Table 6

Item-Total Correlations and Alpha for 20 Monitoring Scale Items (Item S1D removed)

Item	Item-Total Correlation	Alpha if Item Deleted
S1E	.40	.823
S1F	.35	.826
S2D	.27	.830
S2E	.80	.802
S2F	.29	.828
S3A	.37	.826
S3B	.67	.810
S3C	.36	.825
S4A	.52	.818
S4B	.36	.825
S4C	.59	.814
S5D	.58	.814
S5E	.78	.801
S5F	.62	.810
S6D	.20	**.834**
S6E	**.09**	**.839**
S6F	.18	**.834**
S7A	.47	.822
S7B	**.02**	**.835**
S7C	.19	**.835**

Note. Bolded items indicate violation of the item-total correlation cut-off of 0.1 and an increase in alpha if item deleted.

Table 7

Item-Total Correlations and Alpha for 18 Monitoring Scale Items (Items S1D, S6E and S7B removed)

Item	Item-Total Correlation	Alpha if Item Deleted
S1E	.46	.836
S1F	.36	.841
S2D	.33	.843
S2E	.83	.817
S2F	.31	.842
S3A	.30	.843
S3B	.68	.825
S3C	.32	.842
S4A	.48	.835
S4B	.35	.841
S4C	.57	.831
S5D	.57	.830
S5E	.83	.814
S5F	.64	.826
S6D	.11	**.854**
S6F	.18	**.849**
S7A	.44	.838
S7C	.28	**.846**

Note. Bolded items indicate an increase in alpha if item deleted.

level after removal; however, this was still not sufficient support to remove the items and each were still included in the monitoring scale of the CSQTE. See Appendix I for a list of the 18 items which are considered useful for the monitoring scale of the CSQTE

Item Means and Standard Deviations

Each item on the CSQTE is rated on a 5-point Likert scale where 1 = probably not use and 5 = definitely use. Item means and standard deviations for the items in the blunting scale of the CSQTE are contained in Table 8. As can be seen, the item with the highest mean was item S3D ($M = 4.55$) of the blunting scale, which also had the lowest standard deviation ($SD = 0.52$). Upon further exploration, participants all endorsed 'probably use' and 'definitely use' on item S3D, showing a ceiling effect for this item, which is less than ideal. Inspection of response distribution histograms for each item also indicated that item S5A ($M = 3.91$, $SD = 1.86$) of the blunting scale revealed limited variation in responses among participants. For this item, all participants answered 'definitely not use' or 'definitely use'. While this evidence may support removing these items, they were not removed during these analyses since the participant size was very small, therefore limiting the ability to make sound conclusions. These items should be looked at further in future studies.

Table 9 contains the means and standard deviations for the items of the monitoring scale. As can be seen from the table, the item with the highest mean was item S3A ($M = 4.09$) of the monitoring scale, which also exhibits the lowest standard deviation ($SD = 0.831$). This shows a ceiling effect, or reduced response variability, for this item. In other words, participants' responses to this item were all very similar which indicates that the item may not measure the differences which naturally occur within a population.

Table 8

Means and Standard Deviations for the Blunting Scale Items of the CSQTE (N = 11)

Item	Mean	Standard Deviations
S1A	3.45	1.57
S1B	2.64	1.69
S1C	3.64	1.29
S2A	4.09	1.58
S2B	3.64	1.69
S3D	**4.55**	**0.52**
S3E	3.18	1.60
S4D	3.82	1.40
S4F	3.27	1.62
S5A	**3.91**	**1.87**
S5B	3.73	1.56
S5C	3.00	1.95
S6A	4.45	1.21
S6B	3.91	1.58
S6C	2.98	1.61
S7D	3.18	1.66
S7E	4.18	1.17
S7F	3.45	1.51

Table 9

Means and Standard Deviations for the Monitoring Scale Items of the CSQTE (N = 11)

Item	Mean	Standard Deviation
S1E	3.73	1.79
S1F	3.27	1.68
S2D	2.91	1.76
S2E	2.82	1.66
S2F	4.27	1.27
S3A	**4.09**	**0.83**
S3B	3.18	1.54
S3C	3.82	1.25
S4A	3.36	1.50
S4B	3.18	1.66
S4C	2.82	1.54
S5D	3.55	1.81
S5E	2.91	1.87
S5F	3.18	1.72
S6D	3.36	1.80
S6F	3.36	1.57
S7A	4.27	1.10
S7C	3.36	1.80

Furthermore all participants endorsed 'may use', 'probably use', and 'definitely use' on item S3A, which shows a ceiling effect for this item as well. Again, this item was not removed during this study, since the small, clinical sample size limits the ability to make definitive conclusions.

Construct Validity Analyses

With respect to convergent validity, the correlations between the monitoring and blunting scales of the CSQTE and the CSQSS were all positive, represented in Table 10.

Table 10

Correlations between the CSQTE Monitoring and Blunting Scales and CSQSS, MBSS, IES and SIAS (N = 11)

	CSQTE Monitoring	CSQTE Blunting
CSQSS Monitoring	.36	.60
CSQSS Blunting	.52	.55
MBSS Monitoring	-.13	.29
MBSS Blunting	-.42	-.26
IES Intrusive	.37	.60*
IES Avoidance	.23	.31
IES Total	.34	.52
SIAS Total	.51	.76*
MCSD	-.68*	-.57

Note. * Correlation is significant at the $p < .05$ level (2-tailed)

The CSQSS monitoring scale correlated more strongly with the blunting scale of the CSQTE than the monitoring scale of the CSQTE. However, comparison of these two

correlations through conducting a Meng test (Meng, Rosenthal, & Rubin, 1992), indicated that these correlations are not significantly different, $p = 0.37$. Since these two scales both measure reactions to anxiety-provoking situations, positive, moderate correlations are expected.

Additionally, the correlation between the CSQTE blunting scale and the MBSS monitoring scale was positive, whereas the correlation between the CSQTE monitoring scale and the MBSS monitoring scale was negative. These results are opposite to what was expected. It should be noted that the correlation between the MBSS monitoring scale and the scales of the CSQTE were found not to be significantly different, $p = 0.18$. Correlations between the MBSS blunting scale and the scales of the CSQTE were both found to be negative.

Correlations with the IES intrusive scale, avoidance scale, and total score were all positive. The CSQTE blunting scale correlated significantly with the IES intrusive scale at the .05 level. All correlations with the IES subscales were stronger for the CSQTE blunting scale than for the monitoring scale, suggesting that the blunting scale is measuring aspects of blunting. These results were as expected the IES measures subjective stress/distress and since avoidance and intrusiveness are more prominently a part of the blunting coping mechanism.

With respect to divergent validity, correlations with the SIAS were not as expected. The CSQTE monitoring and blunting scales were both positively correlated with the SIAS and the blunting scale was correlated with the SIAS at the .01 significance level.

General Discussion

The purpose of the present investigation was to develop and validate a scale to measure the use of monitoring and blunting by individuals who have experienced a traumatic event. It was found that 18 of the 21 initial items from each of the separate monitoring and blunting scales of the CSQTE were useful for measuring the coping strategies. Furthermore, each scale exhibited good internal consistency, as well as convergent validity with the CSQSS and IES. It is evident from this study that individuals experiencing trauma-related anxiety do use monitoring and blunting for active coping. These results have implications for the usefulness of the CSQTE as a tool for measuring monitoring and blunting in relation to experiencing a traumatic event.

The blunting scale item analysis resulted in two items being removed for violating the item-total correlation cut-off of 0.1, leaving 18 reliable items (one blunting item was removed before analysis began). Both items which were removed, S2C and S4E, were items with similar content. Specifically, item S2C stated "You stay in the situation, but distract yourself to avoid thinking about the traumatic event" and item S4E stated "You stay in the environment, but avoid thinking about the traumatic event by distracting yourself with other things." Both items are an attempt to explore 'avoidance' and 'distraction' response behaviours while remaining in the threatening environment. There are three possible reasons why these similar items were not sufficient for use on the CSQTE. First, it is possible that the wording of these specific items was not clear enough to allow the participant to fully understand what the item meant. This is especially possible since there are other items regarding the same content which were not removed from the scale. A second possibility is that staying in these threatening situations is not

common in the specific situations these items were referring to on the scale. Specifically, these two items were placed in the context of taking a walk by yourself and being reminded of the traumatic event after seeing, smelling, or hearing something. A third possibility is that it is uncommon for individuals who have experienced a traumatic event to stay in these situations and distract themselves. Perhaps the common coping mechanism for these situations is to remove oneself from the situation completely (i.e., more so blunting then monitoring). In future studies, an option for improvement may be to remove any items regarding these topics. Conversely, another option would be to try several different wordings of the items, perhaps for a panel of both experts and non-experts.

The monitoring scale item analysis resulted in three items being removed for violating the item-total correlation cut-off of 0.1, leaving 18 reliable items. All three items which were removed, S1D, S6E, and S7B, were also similar items. Each item focused on the behavioural aspect of monitoring where the individual may allow themselves to stay in a threatening situation but not allow themselves "to become emotional" as a coping mechanism. For example, item S6E stated, "You do not allow yourself to become emotional during the actual recollections." Similar to the blunting items, there are at least two reasons why this topic was problematic on the monitoring scale. Firstly, since items regarding this topic still remain on the monitoring scale, the wording of these three items may not have been written clearly enough for the participants to fully understand what the items meant. Secondly, it may also be possible that individuals find it difficult to refrain from becoming emotional in the three situations in which these items were placed. For example, the three items were placed in the context of having dreams about the traumatic

event, having upsetting recollections, and being reminded of the event by certain people or activities. Future studies could include different wordings of these items, for both a panel of experts and non-experts.

Once all problematic items were removed from the CSQTE, both the monitoring and blunting scales of the CSQTE exhibited good internal consistency. Specifically, the overall alphas for the monitoring and blunting scales were 0.85 and 0.89 respectively. This is a desirable outcome since an alpha of .70 or higher is considered to be satisfactory (Vogt, 2007). Furthermore, if the alpha was too high, this may indicate that each scale is only measuring a single concept within monitoring and within blunting. In reality, this is not the case. As can be seen from the CSQTE, there are many different ways to use both monitoring and blunting as coping mechanisms. Therefore, the alpha levels found in this study indicate that the scales are measuring the range of differing coping mechanisms that are present in the population.

As hypothesized, the correlations between the monitoring and blunting scales of the CSQTE and the CSQSS were all positive. Correlations with the IES intrusive scale, avoidance scale, and overall total score were all positive with the CSQTE as well. Furthermore, the correlations with the IES were stronger for the blunting scale than the monitoring scale. Since intrusiveness is a prominent symptom of trauma-related anxiety and avoidance is a major aspect of the blunting coping strategy, this offers support that the items on the CSQTE are actually measuring trauma-related monitoring and blunting. Therefore, with further development and analyses, the CSQTE will be a useful tool for measuring an individual's coping styles and, in turn, assist in creating treatment plans for these individuals.

Contrary to predictions, however, the correlations with the MBSS were all negative, except for correlations with the MBSS monitoring and the CSQTE blunting scales. This is an interesting finding because the CSQTE and CSQSS correlated positively, and the MBSS and CSQSS were found to correlate positively in past research (Mezo et al., 2005). These results were not as expected since Miller's (1987) MBSS is meant to measure monitoring and blunting in a very general sense; therefore, moderate, positive correlations were expected between scales measuring the same construct (monitoring or blunting). However, this result may be tapping into something similar to what Solomon et al. (1989) found in past research regarding individuals experiencing war-related trauma anxiety, which was the opposite results to what Miller's (1987) theory would have predicted. Specifically, Miller's theory assumes that the use of monitoring as a general primary coping strategy would result in more distress before, during, and after an event (Miller, 1979). In contrast, Solomon et al (1989) found that monitoring as a primary coping strategy from trauma-related anxiety would result in less distress. Therefore, it is possible that the usefulness of a coping strategy is different for specific anxieties, such as those related to trauma. As such, Miller's general measure of anxiety may not be useful for measuring trauma-related monitoring and blunting

With respect to divergent validity, correlations with the SIAS were not as expected. That is, the CSQTE monitoring and blunting scales were correlated positively with the SIAS. This is likely because social anxiety can play a large part in how an individual copes with a traumatic event. If the individual primarily uses blunting, they may avoid social situations. In hindsight, the SIAS was possibly not a good tool to use to

measure divergent validity because it is probable that participants were also experiencing social anxiety or avoidance as a result of their experiences.

The CSQTE has the potential to be a useful tool for understanding the coping strategies an individual uses after experiencing a traumatic event. It is important to understand that, while the DSM-IV TR was used in the creation of the CSQTE, it is not intended to be used as a diagnostic tool like the DSM-IV TR. The DSM-IV TR is a tool that health professionals use to determine whether or not an individual meets the criteria to be diagnosed with a psychological disorder; for example, schizophrenia, obsessive compulsive disorder, or post-traumatic stress disorder. On the other hand, once validated with future studies, the CSQTE may be able to be used to measure whether an individual who has experienced a traumatic event (and may or may not be diagnosed with PTSD) uses monitoring or blunting as their primary coping strategy and, in what type of situations they may use one strategy more than the other. This type of information can be very useful for health care professionals who are treating individuals who have experienced traumatic events.

Health care professionals often create specified treatment plans for their individual patients since each patient differs on many levels. For example, patients may differ in the severity of their experiences, reactions, and ability to adapt to treatment. They also differ in their abilities to cope and their mechanisms of coping. Therefore, having knowledge of how each individual copes in different anxiety-provoking situations will further allow these professionals to specify an individual's treatment plan. Refer to the earlier example of Jane, a victim of sexual assault. If Jane were seeking medical advice from a health professional after her experiences, the doctor may decide to give her a battery of

interviews and tests, which may include the CSQTE. After Jane takes the tests, her health professional may begin to create a treatment plan designed only for her. If Jane's CSQTE test results explained that she primarily used blunting as her coping strategy, her health professional may include this in the treatment plan. Jane, for example, may have a tendency to avoid being alone with men, or she may avoid talking with friends and family about her experiences because she is afraid of becoming emotional. Jane's health professional may take these behaviours into account and may not ask Jane to talk to her friends and family, but rather to write in a journal where she can start writing whenever she wants, and stop whenever she feels too emotional. Conversely, if Jane's CSQTE results indicated that she primarily used monitoring as her coping strategy; her health professional would include this in the treatment plan. Jane may have a tendency to stop herself from becoming emotional or she may constantly scan her environment and, as a result, Jane's health professional may ask Jane to allow herself to express her emotions, perhaps alone at first and then with family and friends. Often individuals such as Jane would not recognize that their behaviours can be a result of their experiences; therefore, a scale like the CSQTE can help make the individual more self-aware as well.

Once validated, this measure may be able to be used to assess coping strategies used by individuals who have experienced a traumatic event and, as a result, this measure will facilitate more specific treatment plans for these individuals. Research using the CSQTE may help to find reasons that may account for the differences between Miller's (1979) theory of monitoring and blunting and the findings by Solomon et al. (1989). In addition, the current study can further the knowledge of the application and usefulness of monitoring and blunting in evaluating coping strategies and will aid in showing how these

strategies are used in traumatic situations. This study can give further understanding of the experiences these individuals endure and assist in explaining why they exhibit such behaviours as avoidance, heightened arousal, or low affect (Beckham et al., 2003).

With this knowledge, and the developed questionnaire, it may be possible that more targeted treatment plans can be implemented for individuals who have experienced a traumatic event. For example, individuals who primarily use monitoring as a coping strategy tend to cope by constantly seeking out (monitoring) safety from threatening situations, whereas those who use blunting as their primary coping strategy tend to cope by avoiding and escaping threatening situations. Having an instrument which can allow a health professional to know which coping strategy an individual primarily uses will allow the professional to target the treatment plan to include, and work with, the individual's coping style.

Limitations

There are at least four limitations of this study. The first issue relates to the small sample size. Collecting data from clinical populations is often very difficult and, with time constraints, the population size available for this study was unfortunately very small. However, this study was a pilot investigation of an initial pool of items used to create the CSQTE. Therefore, the small sample size was considered sufficient for the purposes of this study. Future studies which replicate the current study, and studies which may look deeper into the specific aspects of the CSQTE using a larger sample size are needed.

Further to this, the second issue regards the recruitment process. While a clinical population can be chosen at random, given the constraints of data collection for the

current study, the participants were not chosen at random. Rather, participants had to be chosen on the basis of whether they fit the criteria for this study.

A third limitation regards question S3F, a blunting item, which was not answered by 6 of the 11 participants. This item was removed before any analyses were conducted. It is believed that the low response rate was a result of a photocopying error, since the item was very difficult to see at the top of one of the questionnaire pages. It is unknown whether this item would have been a useful addition to the blunting scale of the CSQTE; therefore, it is suggested for future studies, that this item be used again to test its reliability. It should also be ensured that the questionnaire packets are as easy to read as is possible.

Lastly, a fourth limitation of this study was the use of the SIAS for divergent validity. This measure was chosen initially because it was not a measure of trauma, monitoring, or blunting. However, perhaps a measure of social anxiety would not be useful for divergent validity, especially with such small sample numbers, since social anxiety and trauma-related anxiety may overlap. For example, individuals experiencing anxiety in reaction to a traumatic event may avoid certain situations or places, or crowds of people which remind them of the traumatic event. Therefore, the individual may exhibit some symptoms of social anxiety as well. Furthermore, since the participants may or may not have been primarily seeking medical advice as a result of experiencing a traumatic event, the participants may also have had comorbid diagnoses of social anxiety. Future studies should involve a measure that is more useful for exploring divergent validity, such as a measure of attitude; for example, attitudes toward ethical activity, sexuality, or religiosity.

Future Directions

Future research on the CSQTE should focus on gathering more data to support its reliability and validity. Studies may include another item analysis with more items used to replace those that were removed. As mentioned earlier, the items may be reworded to make it clear what is meant by each item. Another measure, or two, should be used in place of the SIAS to explore divergent validity again. Furthermore, to explore convergent validity, the MBSS and CSQSS should be included again to test whether larger population sizes, with more random sampling, will change the results.

The CSQTE can also be used in future research to measure normative data regarding the usefulness and prevalence of coping strategies in the population. As a result, the general and scientific populations will have a better understanding of how and why individuals cope with situations the way that they do. It would also be useful to use a measure which would explore the effectiveness of the participant's coping strategy. Since this measure, once validated, can be used to facilitate treatment plans, knowing what coping strategy, on average, results in less trauma-related psychopathology, would be very useful.

It is clear from this study that individuals experiencing anxiety as a result of a traumatic event do, in fact, use monitoring and blunting as active coping methods. As such, having a measure that can allow health professionals to understand how their clients cope would be very useful. This information can help create treatment plans for individuals to help resolve their psychological distress, as well as give themselves, their health professional, and the general population a better understanding of the experiences these individuals endure.

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Appendix A

Informed Consent Form

Assessing the Use of Monitoring and Blunting Coping Strategies by Individuals Who Have Experienced a Traumatic Event.

Investigators: Erin M. Broderick, Dr. Peter G. Mezo, Dr. Jennifer Stapleton

Sponsor: Department of Psychology, Memorial University of Newfoundland
You have been invited to take part in a research study. It is up to you to decide whether to be in the study or not. Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This information sheet explains the study.
The researchers will:

- discuss the study with you
- answer your questions
- keep confidential any information which could identify you personally
- be available during the study to deal with problems and answer questions

If you decide not to take part or to leave the study this will not affect your usual health care.

The purpose of this study is to validate a questionnaire which was developed to assess coping methods used by individuals who have experienced a traumatic event. Having this questionnaire will allow a medical professional to know which coping method an individual uses most often. The questionnaire will allow the professional to apply a more targeted treatment plan for that individual. It is not known whether this study will benefit you specifically.
This study is being conducted for completion of a Masters degree in Experimental Psychology at Memorial University of Newfoundland. It will involve voluntarily completing a packet of six short questionnaires. The questionnaire packet will take approximately 15 minutes to complete. Once you have completed the questionnaires, you will not be contacted again.
Please be aware that your participation in this study is completely voluntary and you are free to withdraw at any time and remove any data you may have contributed. After reading this information sheet, if you would like to participate in this study, please complete the six questionnaires. Completing the questionnaire packet and returning it to your medical professional gives us your consent to be in this study. When you consent to participate in this study, you do not give up your legal rights. Researchers involved in this study still have their legal and professional responsibilities. Please do not place any

identifying marks on any of the pages so your answers cannot be identified. To ensure that individual information cannot be identified the information obtained from this study will be analyzed and reported on a group basis.

After you have completed the questionnaires, if you feel you would like to speak to someone, your medical professional is available for consult. You can also contact the Newfoundland and Labrador Help Line at 1-888-899-4357 (HELP) at any time.

If you have any questions about taking part in this study, you can meet with the investigator who is in charge of the study at this institution. That person is:

Erin M. Broderick at 1-709-737-8876

Or you can talk to someone who is not involved with the study at all, but can advise you on your rights as a participant in a research study. This person can be reached through:

Office of the Human Investigation Committee (HIC) at 709-777-6974
Email: hic@mun.ca

Appendix B

Coping Styles Questionnaire for Traumatic Events

Participant #:

Coping Styles Questionnaire for Traumatic Events

Section I:

What is your age? _____

What is your gender? Male_____ Female_____

Section II:

The following questionnaire is designed to assess one's reactions to stressful situations in the context of having experienced a traumatic event. Have you ever experienced, witnessed, or been confronted with one or more events that involved actual or threatened death, serious injury, or cruel, inhuman, or degrading treatment for yourself or others?

Yes ___ No ___

If yes, please continue to complete the following questionnaire.

Did your experience include you *witnessing* or *being involved* in any of the following? (If you have experienced multiple traumatic events, please choose the most recent)

Sexual Harassment ___	Combat ___	Workplace Accident___
Violent Crime ___	Physical Abuse ___	Loss of Parent ___
Loss of Child ___	Natural/Manmade Disaster__	Homicide ___
Automotive Accident ___	ATV/Snowmobile/Boating Accident___	

Other (please specify) _____

Did your response to this situation include:

Intense fear?	Yes___	No___
Helplessness?	Yes___	No___
Horror?	Yes___	No___

Section III:

Please read the following scenarios and imagine yourself experiencing them. Following each scenario are statements
regarding coping strategies for each situation. Please rate how likely you would be to use each strategy as honestly
and accurately as possible using the following scale:

1 = Definitely would not use this strategy
2 = Probably would not use this strategy
3 = May not use this strategy
4 = Probably would use this strategy
5 = Definitely would use this strategy

		Probably not use	May use	Probably use	Definitely use
Situation 1: *You find yourself constantly having dreams about the traumatic event.*					
A	You try to think of other things before falling asleep (i.e your day, upcoming events).	1	2	3	4	5
B	You avoid discussing your dreams with other people.	1	2	3	4	5
C	You keep yourself occupied to avoid thinking about your dreams throughout the day.	1	2	3	4	5
D	You allow yourself to discuss your dreams with others, but do not allow yourself to become emotional while doing so.	1	2	3	4	5
E	You attempt to find ways to avoid having the dreams again.	1	2	3	4	5
F	You allow yourself to think about and discuss your dreams, but are consciously prepared to leave the conversation if you become too emotional.	1	2	3	4	5

Situation 2: *You are going about your daily activities when you find yourself in a situation where you see, smell, or hear something that makes you feel like the traumatic event is happening all over again.*

A	You immediately remove yourself from the situation.	1	2	3	4	5
B	You avoid the sight, smell or sound in the future.	1	2	3	4	5
C	You stay in the situation, but distract yourself to avoid thinking about the traumatic event.	1	2	3	4	5
D	You stay in the situation, but you do not allow yourself to become emotional.	1	2	3	4	5
E	You stay in the situation, but ensure that you know a way to leave; in case it may become too difficult to stay.	1	2	3	4	5
F	You find ways to help you avoid the situation in the future.	1	2	3	4	5

Situation 3: *You are having a heated discussion with someone when you start to become very emotional.*

A	You pay attention to the situation so you can ensure to avoid it in the future.	1	2	3	4	5
B	You keep talking to the person but you do not allow yourself to become emotional again.	1	2	3	4	5
C	You keep talking to the person but ensure that you have a way to leave if the need arises.	1	2	3	4	5
D	You change the subject of the discussion.	1	2	3	4	5
E	You completely leave the situation immediately.	1	2	3	4	5
F	You stop talking to the person.	1	2	3	4	5

Situation 4: *You are taking a walk by yourself when you find you are in an environment that reminds you of the traumatic event.*

A	You stay in the environment but ensure that you know a quick route to leave.	1	2	3	4	5
B	You stay in the environment but you do not allow yourself to become emotional while there.	1	2	3	4	5

C	You study the environment to ensure you will not be in that type of environment again.	1	2	3	4	5
D	You avoid the environment and other similar environments in the future.	1	2	3	4	5
E	You stay in the environment but avoid thinking about the traumatic event by distracting yourself with other things.	1	2	3	4	5
F	You quickly leave the environment.	1	2	3	4	5

Situation 5: *You are asked by a friend or family member to talk about the traumatic event.*

A	You avoid the conversation completely.	1	2	3	4	5
B	You distract yourself during the conversation; for example, by having a drink or thinking of other things.	1	2	3	4	5
C	You avoid that friend or family member in the future.	1	2	3	4	5
D	You have the conversation but ensure you have a reason to leave if the need arises.	1	2	3	4	5
E	You pay attention to the friend, family member, and situation to ensure that you do not find yourself in this situation in the future.	1	2	3	4	5
F	You have the conversation but do not allow yourself to become emotional during it.	1	2	3	4	5

Situation 6: *You experience upsetting recollections of the traumatic event (for example thoughts and images).*

A	You avoid telling anyone about the recollections and try to forget them.	1	2	3	4	5
B	You avoid situations that may trigger the recollections.	1	2	3	4	5
C	You take medications/alcohol/drugs to try to forget about the traumatic event and the recollections.	1	2	3	4	5
D	You allow yourself to talk about the recollections with others but stay emotionless while doing so.	1	2	3	4	5

E	You do not allow yourself to become emotional during the actual recollections.	1	2	3	4	5
F	You try to understand what caused the recollections to enable you to avoid them in the future.	1	2	3	4	5

Situation 7: *You realize that certain people or activities remind you of the traumatic event*

A	You allow yourself to interact with these people or engage in these activities, but you always ensure you have a way to remove yourself from the situation if the need arises.	1	2	3	4	5
B	You do not avoid the people or activities, but you do not allow yourself to become emotional around them.	1	2	3	4	5
C	You try to understand the situations so that you will not experience these activities or see these people in the future.	1	2	3	4	5
D	You completely avoid these people or activities.	1	2	3	4	5
E	When you find yourself in a situation with these people or activities you constantly distract yourself.	1	2	3	4	5
F	You avoid talking or thinking about these people or activities in the future.	1	2	3	4	5

Appendix C

DSM-IV-TR Diagnostic Criteria for PTSD

A. The person has been exposed to a traumatic event in which both of the following have been present:

(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others

(2) the person's response involved intense fear, helplessness, or horror.

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:

(1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.

(2) recurrent distressing dreams of the event.

(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated).

(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) inability to recall an important aspect of the trauma

(4) markedly diminished interest or participation in significant activities

(5) feeling of detachment or estrangement from others

(6) restricted range of affect (e.g., unable to have loving feelings)

(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty falling or staying asleep
(2) irritability or outbursts of anger
(3) difficulty concentrating
(4) hypervigilance
(5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than one month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Appendix D

Coping Styles Questionnaire for Social Situations

Participant #:

Coping Styles Questionnaire for Social Situations

Situation #1: Imagine that a friend set you up on a blind date. You are really hoping this works out. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f').

0 = Definitely Not Use
1 = Probably Not Use
2 = May Use
3 = Probably Use
4 = Definitely Use

		Definitely Not Use	Probably Not Use	May Use	Probably Use	Definitely Use
a.	Before the date, I would try and find out a lot of information about the other person.	0	1	2	3	4
b.	During the date, I would seek reassurance from the person to see if he or she is enjoying him or herself.	0	1	2	3	4
c.	After the date, I would call the friend for information on how the date went and what the person thought of me.	0	1	2	3	4
d.	Before the date, I would try not to think about it.	0	1	2	3	4
e.	After the date, I would discourage my friend from discussing the date.	0	1	2	3	4
f.	During the date I would distract myself from feeling too nervous by having a drink or thinking of other things.	0	1	2	3	4

	Extremely	Very	Moderately	Slightly	Not at all

How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4
How likely would you be to avoid this situation?	0	1	2	3	4
How frequently do you find yourself in this situation?	0	1	2	3	4

Situation #2: Imagine going to a party given by a co-worker/classmate. There will be a lot of people you don't know. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f').

		Definitely Not Use	Probably Not Use	May Use	Probably Use	Definitely Use
a.	Before the party I would call my co-worker or classmate and see who else would be at the party.	0	1	2	3	4
b.	When meeting new people at the party, I would try and read their responses (e.g., how they look, what they say) to see if they are enjoying talking to me.	0	1	2	3	4
c.	After the party, I would replay events to see if I made a good impression on others.	0	1	2	3	4
d.	During the party, I would not pay attention to how others are reacting to me.	0	1	2	3	4
e.	Before the party, I would avoid talking about it very much to my co-worker or classmate.	0	1	2	3	4
f.	The next day at work/school I would steer the conversation with my co-worker or classmate away from last night's party.	0	1	2	3	4

	Extremely	Very	Moderately	Slightly	Not at all
How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4

How likely would you be to avoid this situation?	0	1	2	3	4
How frequently do you find yourself in this situation?	0	1	2	3	4

Situation #3: Imagine that the day before attending a large family gathering you are asked to give a toast before dinner. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f').

		Definitely Not Use	Probably Not Use	May Use	Probably Use	Definitely Use
a.	I would purposely have an extra drink just before the toast.					
b.	I would try not to think about it beforehand.	0	1	2	3	4
c.	I would carefully plan every aspect of the toast beforehand.	0	1	2	3	4
d.	During the toast, I would pay close attention to people's reactions to what I say.	0	1	2	3	4
e.	After, I would ask a close family member how I did and if they thought the toast was a success.	0	1	2	3	4
f.	Afterward, I would avoid bringing up the topic of the toast, to avoid hearing other people's reactions.	0	1	2	3	4

	Extremely	Very	Moderately	Slightly	Not at all
How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4
How likely would you be to avoid this situation?	0	1	2	3	4
How frequently do you find yourself in this situation?	0	1	2	3	4

Situation #4: Imagine that you have to give a very important, 30 minute, formal presentation at work or school. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation

described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f').

		Definitely Not Use	Probably Not Use	May Use	Probably Use	Definitely Use
a.	I would avoid eye contact with the people in the audience because I wouldn't want to see their reactions	0	1	2	3	4
b.	I would try not to think about the presentation beforehand.	0	1	2	3	4
c.	I would try to find out as much as possible about who would be at the presentation.	0	1	2	3	4
d.	I would leave the room as quickly as possible after the presentation, to avoid having to talk about my performance.	0	1	2	3	4
e.	I would watch the audience members' faces throughout the presentation, looking for signs of how I was doing.	0	1	2	3	4
f.	After the presentation I would ask my co-workers or classmates for their reactions to my presentation.	0	1	2	3	4

	Extremely	Very	Moderately	Slightly	Not at all
How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4
How likely would you be to avoid this situation?	0	1	2	3	4
How frequently do you find yourself in this situation?	0	1	2	3	4

Situation #5: Imagine that you are sitting in the middle of a room filled with people listening to a presentation or lecture. It is well known that this speaker asks questions of audience members. You suspect that you could be called upon to answer a question. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f').

Definitely Not Use
Probably Not Use
May Use
Probably Use
Definitely Use

a.	Before the presentation, I would pre-read the lecture notes or seek out information to familiarize myself with the content of the presentation in order to prepare for any questions that may be directed my way.	0	1	2	3	4
b.	I would listen carefully during the presentation taking notes and anticipating possible questions.	0	1	2	3	4
c.	If I were asked a question, after the presentation I would ask other people whether my response was okay.	0	1	2	3	4
d.	I would avoid thinking about the presentation beforehand.	0	1	2	3	4
e.	I would avoid eye contact with the speaker or instructor.	0	1	2	3	4
f.	I would leave quickly after the presentation to avoid finding out what others thought of my response.	0	1	2	3	4

	Extremely	Very	Moderately	Slightly	Not at all
How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4
How likely would you be to avoid this situation?	0	1	2	3	4
How frequently do you find yourself in this situation?	0	1	2	3	4

Situation #6: Imagine that tomorrow you have an interview for a new job that is very important to you. Below are a number of coping strategies that could be used to cope with this situation. Rate how likely you would be to use each strategy to cope with the situation described above. Using the following scale, circle the number (ranging from 0 to 4) indicating your response in the space provided after each item ('a' through 'f')

.

	Definitely Not Use	Probably Not Use	May Use	Probably Use	Definitely Use

a.	I would try and anticipate questions and then rehearse answers.	0	1	2	3	4
b.	As people exit the interview ahead of me I would not ask them what kind of questions they received.	0	1	2	3	4
c.	After, I would compare my interview experience with similar experiences by others (e.g., my friends).	0	1	2	3	4
d.	I would try and divert my attention to other activities, to avoid thinking about the interview beforehand.	0	1	2	3	4
e.	I would watch my evaluators carefully and change my responses based on their facial expressions.	0	1	2	3	4
f.	After the interview, I would avoid talking or thinking about it until after I found out whether I got the job.	0	1	2	3	4
		Extremely	Very	Moderately	Slightly	Not at all
	How anxious, fearful or nervous would you expect to be in this situation?	0	1	2	3	4
	How likely would you be to avoid this situation?	0	1	2	3	4
	How frequently do you find yourself in this situation?	0	1	2	3	4

Appendix E

Miller Behavioural Style Scale

Participant #:

Miller Behavioural Style Scale

1. Vividly imagine that you are **afraid** of the dentist and have to get some dental work done. Which of the following would you do? Check **all** of the statements that might apply to you.

____ I would ask the dentist exactly what he or he was going to do.

____ I would take a tranquilizer or have a drink before going.

____ I would try to think about pleasant memories.

____ I would want the dentist to tell me when I would feel pain.

____ I would try to sleep.

____ I would watch all the dentist's movements and listen for the sound of the drill.

____ I would watch the flow of water from my mouth to see if it contained blood.

____ I would do mental puzzles in my mind.

2. Vividly imagine that you are being held hostage by a group of armed terrorists in a public building. Which of the following would you do? Check **all** of the statements that might apply to you.

____ I would sit by myself and have as many daydreams and fantasies as I could.

____ I would stay alert and try to keep myself from falling asleep.

____ I would exchange life stories with the other hostages.

____ If there was a radio present, I would stay next to it and listen to the bulletins about what the police were doing.

____ I would watch every movement of my captors and keep an eye on their weapons.

____ I would try to sleep as much as possible.

____ I would think about how nice it's going to be when I get home.

____ I would make sure I knew where every possible exit was.

3. Vividly imagine that, due to a large drop in sales, it is rumoured that several people in your department at work will be laid off. Your supervisor has turned in an evaluation of your work for the past year. The decision about layoffs has been made and will be announced in several days. Check **all** of the statements that might apply to you.

____ I would talk to my fellow workers to see if they knew anything about what the supervisor's evaluation of me said.

____ I would review the list of duties for my present job and try to figure out if I had fulfilled them all.

____ I would go to the movies to take my mind off things.

____ I would try to remember any arguments or disagreements I might have had with the supervisor that would have lowered his opinion of me.

____ I would push all thoughts of being laid off out of my mind.

____ I would tell my spouse that I'd rather not discuss my chances of being laid off.

____ I would try to think which employees in my department the supervisor might have thought had done the worst job.

____ I would continue doing my work as if nothing special was happening.

4. Vividly imagine that you are on an airplane, thirty minutes from your destination, when the plane unexpectedly goes into a deep dive and then suddenly levels off. After a short time, the pilot announces that nothing is wrong, although the rest of the ride may be rough. You, however, are not convinced that all is well. Check **all** of the statements that might apply to you.

____ I would carefully read the information provided about safety features in the plane and make sure I knew where the emergency exits were.

____ I would make small talk with the passenger beside me.

____ I would watch the end of the movie, even if I had seen it before.

____ I would call for the flight attendant and ask exactly what the problem was.

____ I would order a drink or a tranquilizer from the flight attendant.

____ I would listen carefully to the engines for unusual noises and would watch the crew to see if their behaviour was out of ordinary.

____ I would talk to the passenger beside me about what might be wrong.

____ I would settle down and read a book or magazine or write a letter.

Appendix F

Impact of Event Scale

Participant # :

Impact of Events Scale

Below is a list of comments made by people about stressful life events and the context surrounding them. Read each item and decide how frequently each item was true for you during the past seven (7) days, for the event and its context, about which you are dealing in treatment. If the item did not occur during the past seven days, choose the "Not at all" option. Circle the number that best describes that item. Please complete each item.

0 = Not at all
1 = Rarely
2 = Sometimes
3 = Often

		Not at all	Rarely	Sometimes	Often
1.	I thought about it when I didn't mean to.	0	1	2	3
2.	I avoided letting myself get upset when I thought about it or was reminded of it.	0	1	2	3
3.	I tried to remove it from memory.	0	1	2	3
4.	I had trouble falling asleep or staying asleep, because of pictures or thoughts that came into my mind.	0	1	2	3
5.	I had waves of strong feelings about it.	0	1	2	3
6.	I had dreams about it.	0	1	2	3
7.	I stayed away from reminders of it.	0	1	2	3
8.	I felt as if it hadn't happened or wasn't real.	0	1	2	3
9.	I tried not to talk about it.	0	1	2	3
10.	Pictures about it popped into my mind.	0	1	2	3
11.	Other things kept making me think about it.	0	1	2	3
12.	I was aware that I still had a lot of feelings about it, but I didn't deal with them.	0	1	2	3

13.	I tried not to think about it.	**0**	**1**	**2**	**3**
14.	Any reminder brought back feelings about it.	**0**	**1**	**2**	**3**
15.	My feelings about it were kind of dumb.	**0**	**1**	**2**	**3**

Appendix G

Social Interaction Anxiety Scale

Participant #:

Social Interaction Anxiety Scale

For each question, please circle a number to indicate the degree to which you feel the statement is characteristic or true of you. The rating scale is as follows:

0 = not at all characteristic of me
1 = slightly characteristic of me
2 = moderately characteristic of me
3 = very characteristic of me
4 = extremely characteristic of me

		Not at all	Slightly	Moderately	Very	Extremely
1.	I get nervous if I have to speak with someone in authority (teacher, boss, etc.).	0	1	2	3	4
2.	I have difficulty making eye-contact with others.	0	1	2	3	4
3.	I become tense if I have to talk about myself or my feelings.	0	1	2	3	4
4.	I find difficulty mixing comfortably with the people I work with.	0	1	2	3	4
5.	I find it easy to make friends of my own age.	0	1	2	3	4
6.	I tense-up if I meet an acquaintance on the street.	0	1	2	3	4
7.	When mixing socially, I am uncomfortable.	0	1	2	3	4
8.	I feel tense if I am alone with just one person.	0	1	2	3	4
9.	I am at ease meeting people at parties, etc.	0	1	2	3	4
10.	I have difficulty talking with other people.	0	1	2	3	4
11.	I find it easy to think of things to talk about.	0	1	2	3	4
12.	I worry about expressing myself in case I appear awkward.	0	1	2	3	4
13.	I find it difficult to disagree with another's point of view.	0	1	2	3	4
14.	I have difficulty talking to an attractive person of the	0	1	2	3	4

opposite sex.

15.	I find myself worrying that I won't know what to say in social situations.	**0**	**1**	**2**	**3**	**4**
16.	I am nervous mixing with people I don't know well.	**0**	**1**	**2**	**3**	**4**

Appendix H

Marlowe–Crowne Social Desirability Scale

Participant #:

MCSD

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally.

		True	False
1.	Before voting I thoroughly investigate the qualifications of all the candidates.	1	2
2.	I never hesitate to go out of my way to help someone in trouble.	1	2
3.	It is sometimes hard for me to go on with my work if I am not encouraged.	1	2
4.	I have never intensely disliked anyone.	1	2
5.	On occasion I have had doubts about my ability to succeed in life.	1	2
6.	I sometimes feel resentful when I don't get my way.	1	2
7.	I am always careful about my manner of dress.	1	2
8.	My table manners at home are as good as when I eat out in a restaurant.	1	2
9.	If I could get into a movie without paying and be sure I was not seen I would probably do it.	1	2
10.	On a few occasions, I have given up doing something because I thought too little of my ability.	1	2
11.	I like to gossip at times.	1	2
12.	There have been times when I felt like rebelling against people in authority even though I knew they were right.	1	2
13.	No matter who I'm talking to, I'm always a good listener.	1	2
14.	I can remember "playing sick" to get out of something.	1	2
15.	There have been occasions when I took advantage of someone.	1	2
16.	I'm always willing to admit it when I make a mistake.	1	2

17.	I always try to practice what I preach.	1	2
18.	I don't find it particularly difficult to get along with loud mouthed, obnoxious people.	1	2
19.	I sometimes try to get even rather than forgive and forget	1	2
20.	When I don't know something I don't at all mind admitting it.	1	2
21.	I am always courteous, even to people who are disagreeable.	1	2
22.	At times I have really insisted on having things my own way.	1	2
23.	There have been occasions when I felt like smashing things.	1	2
24.	I would never think of letting someone else be punished for my wrong-doings.	1	2
25.	I never resent being asked to return a favor.	1	2
26.	I have never been irked when people expressed ideas very different from my own.	1	2
27.	I never make a long trip without checking the safety of my car.	1	2
28.	There have been times when I was quite jealous of the good fortune of others.	1	2
29.	I have almost never felt the urge to tell someone off.	1	2
30.	I am sometimes irritated by people who ask favours of me.	1	2
31.	I have never felt that I was punished without a cause.	1	2
32.	I sometimes think when people have a misfortune they only got what they deserved.	1	2
33.	I have never deliberately said something that hurt someone's feelings.	1	2

Appendix I

Remaining Items of the CSQTE

Participant #:

Coping Styles Questionnaire for Traumatic Events

Section I:

What is your age? _____

What is your gender? Male_____ Female_____

Section II:

The following questionnaire is designed to assess one's reactions to stressful situations in the context of having experienced a traumatic event. Have you ever experienced, witnessed, or been confronted with one or more events that involved actual or threatened death, serious injury, or cruel, inhuman, or degrading treatment for yourself or others?

Yes ___ No ___

If yes, please continue to complete the following questionnaire.

Did your experience include you *witnessing* or *being involved* in any of the following? (If you have experienced multiple traumatic events, please choose the most recent)

Sexual Harassment ___ Combat ___ Workplace Accident___
Violent Crime ___ Physical Abuse ___ Loss of Parent ___
Loss of Child ___ Natural/Manmade Disaster__ Homicide ___
Automotive Accident ___ ATV/Snowmobile/Boating Accident___
Other (please specify) _____

Did your response to this situation include:

Intense fear? Yes___ No___
Helplessness? Yes___ No___
Horror? Yes___ No___

Section III:

Please read the following scenarios and imagine yourself experiencing them. Following each scenario are statements
regarding coping strategies for each situation. Please rate how likely you would be to use each strategy as honestly
and accurately as possible using the following scale:

1 = Definitely would not use this strategy
2 = Probably would not use this strategy
3 = May not use this strategy
4 = Probably would use this strategy
5 = Definitely would use this strategy

		Probably not use	May use	Probably use	Definitely use	
Situation 1: *You find yourself constantly having dreams about the traumatic event.*						
A	You try to think of other things before falling asleep (i.e your day, upcoming events).	1	2	3	4	5
B	You avoid discussing your dreams with other people.	1	2	3	4	5
C	You keep yourself occupied to avoid thinking about your dreams throughout the day.	1	2	3	4	5
D	**Removed from Scale**					
E	You attempt to find ways to avoid having the dreams again.	1	2	3	4	5
F	You allow yourself to think about and discuss your dreams, but are consciously prepared to leave the conversation if you become too emotional.	1	2	3	4	5
Situation 2: *You are going about your daily activities when you find yourself in a situation where you see, smell, or hear something that makes you feel like the traumatic event is happening all over again.*						
A	You immediately remove yourself from the situation.	1	2	3	4	5
B	You avoid the sight, smell or sound in the future.	1	2	3	4	5

C	**Removed from Scale**					
D	You stay in the situation, but you do not allow yourself to become emotional.	1	2	3	4	5
E	You stay in the situation, but ensure that you know a way to leave; in case it may become too difficult to stay.	1	2	3	4	5
F	You find ways to help you avoid the situation in the future.	1	2	3	4	5

Situation 3: *You are having a heated discussion with someone when you start to become very emotional.*

A	You pay attention to the situation so you can ensure to avoid it in the future.	1	2	3	4	5
B	You keep talking to the person but you do not allow yourself to become emotional again.	1	2	3	4	5
C	You keep talking to the person but ensure that you have a way to leave if the need arises.	1	2	3	4	5
D	You change the subject of the discussion.	1	2	3	4	5
E	You completely leave the situation immediately.	1	2	3	4	5
F	**Removed from Scale**					

Situation 4: *You are taking a walk by yourself when you find you are in an environment that reminds you of the traumatic event.*

A	You stay in the environment but ensure that you know a quick route to leave.	1	2	3	4	5
B	You stay in the environment but you do not allow yourself to become emotional while there.	1	2	3	4	5
C	You study the environment to ensure you will not be in that type of environment again.	1	2	3	4	5
D	You avoid the environment and other similar environments in the future.	1	2	3	4	5
E	**Removed from Scale**					
F	You quickly leave the environment.	1	2	3	4	5

Situation 5: *You are asked by a friend or family member to talk about the traumatic event.*

A	You avoid the conversation completely.	1	2	3	4	5
B	You distract yourself during the conversation; for example, by having a drink or thinking of other things.	1	2	3	4	5
C	You avoid that friend or family member in the future.	1	2	3	4	5
D	You have the conversation but ensure you have a reason to leave if the need arises.	1	2	3	4	5
E	You pay attention to the friend, family member, and situation to ensure that you do not find yourself in this situation in the future.	1	2	3	4	5
F	You have the conversation but do not allow yourself to become emotional during it.	1	2	3	4	5

Situation 6: *You experience upsetting recollections of the traumatic event (for example thoughts and images).*

A	You avoid telling anyone about the recollections and try to forget them.	1	2	3	4	5
B	You avoid situations that may trigger the recollections.	1	2	3	4	5
C	You take medications/alcohol/drugs to try to forget about the traumatic event and the recollections.	1	2	3	4	5
D	You allow yourself to talk about the recollections with others but stay emotionless while doing so.	1	2	3	4	5
E	**Removed from Scale**					
F	You try to understand what caused the recollections to enable you to avoid them in the future.	1	2	3	4	5

Situation 7: *You realize that certain people or activities remind you of the traumatic event*

A	You allow yourself to interact with these people or engage in these activities, but you always ensure you have a way to remove yourself from the situation if the need arises.	1	2	3	4	5
B	**Removed from Scale**					
C	You try to understand the situations so that you will not experience these activities or see these people in the future.	1	2	3	4	5
D	You completely avoid these people or activities.	1	2	3	4	5

E	When you find yourself in a situation with these people or activities you constantly distract yourself.	1	2	3	4	5
F	You avoid talking or thinking about these people or activities in the future.	1	2	3	4	5

Appendix J

Human Investigations Committee Ethics Approval Letter

January 30, 2009

Reference #08.174

Ms. E. Broderick
Department of Psychology
Memorial University

Dear Ms. Broderick:

RE: "**Assessing the use of monitoring and blunting coping strategies by individuals**"

This will acknowledge receipt of your email correspondence, dated January 29, 2009.

This correspondence has been reviewed by the co-chair under the direction of the Committee **Full approval** of this research study has been granted for one year effective January 22, 2009.

This is to confirm that the Human Investigation Committee reviewed and approved or acknowledged the following documents (as indicated):

- *Information sheet, approved*

This approval will lapse on **January 22, 2010**. It is your responsibility to ensure that the Ethics Renewal form is forwarded to the HIC office prior to the renewal date. *The information provided in this form must be **current to the time of submission** and submitted to HIC **not less than 30 nor more than 45 days** of the anniversary of your approval date.* The Ethics Renewal form can be downloaded from the HIC website http://www.med.mun.ca/hic/downloads/Annual%20Update%20Form.doc

The Human Investigation Committee advises THAT IF YOU DO NOT return the completed Ethics Renewal form prior to date of renewal,

- *Your ethics approval will lapse*
- *You will be required to stop research activity immediately*
- *You may not be permitted to restart the study until you reapply for and receive approval to undertake the study again*

Lapse in ethics approval may result in interruption or termination of funding

For a hospital-based study, it is **your responsibility to seek the necessary approval from Eastern Health and/or other hospital boards as appropriate.**

Modifications of the protocol/consent are not permitted without prior approval from the Human Investigation Committee. Implementing changes in the protocol/consent without HIC approval may result in the approval of your research study being revoked, necessitating cessation of all related research activity. Request for modification to the protocol/consent must be outlined on an amendment form (available on the HIC website) and submitted to the HIC for review.

This research ethics board (the HIC) has reviewed and approved the research protocol and documentation as noted above for the study which is to be conducted by you as the qualified investigator named above at the specified site. This approval and the views of this Research Ethics Board have been documented in writing. In addition, please be advised that the Human Investigation Committee currently operates according to *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* and applicable laws and regulations. The membership of this research ethics board is constituted in compliance with the membership requirements for research ethics boards as per these guidelines.

Notwithstanding the approval of the HIC, the primary responsibility for the ethical conduct of the investigation remains with you.

We wish you every success with your study.

Sincerely,

John D. Hamett, MD, FRCPC
Co-Chair
Human Investigation Committee

Fern Brunger, PhD
Co-Chair
Human Investigation Committee

C C Dr. C. Loomis, c/o Office of Research, MUN
Mr. W. Miller, c/o Patient Research Centre, Eastern Health
HIC meeting date: February 5, 2009

Appendix K

Eastern Health Ethics Approval Letter

Eastern Health

Date:

To: Mr. Wayne Miller, Senior Director, Corporate Strategy and Research

RE: Request for Interim Approval for Research

Re: HIC Ref. # 08.174 HIC Approval Date: January , 2009

Title: Assessing the Use of Monitoring and Blunting Copying Strategies by Individuals who have Experienced a Traumatic Event

Investigator: E. Broderick

Interim Approval given:

Signed: Michael Doyle Date: Feb 5, 2009

Dr. Michael Doyle
Director of Research
Corporate Strategy & Research
Chair, RPAC

This decision will be ratified at the next scheduled meeting of The Research Proposal Approval Committee