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**The Role of Inner Representations in the
Efficacy of Journal Writing**

by

Irina Goldenberg

A thesis submitted to the Faculty of Graduate Studies
and Research in partial fulfillment of the requirements
for the degree of Masters of Arts

Department of Psychology

Carleton University

Ottawa, Ontario

September, 1999

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Faculty of Graduate Studies and Research
Acceptance of the thesis:

The Role of Inner Representations in the Efficacy of journal Writing

submitted by

Irina Goldenberg

in Partial fulfillment of the requirements for
the degree of Master of Arts

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Chair

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Thesis Supervisor

Carleton University
September, 1999

Abstract

Systematic experimental research indicates that written disclosure about traumatic experiences in the form of brief journal writing leads to better psychological and physical well-being. However, although journalling is generally beneficial, it may not be helpful for individuals with negative inner representations. To examine these contentions, 95 participants were asked to journal about either traumatic or everyday life experiences for 20 minutes on 4 days, and administered questionnaires concerning their history of traumatic experiences, inner representations, coping styles, and well-being. Contrary to the predictions, journalling was not found to enhance well-being, regardless of the nature of participants' inner representations or their coping style. The nature of participants' inner representation and their use of negative coping strategies were both found to be predictive of posttraumatic symptomatology and life satisfaction. Number of traumatic events experienced predicted posttraumatic symptomatology, but not life satisfaction, over and above inner representation and coping scores. Implications and limitations of these findings are discussed.

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The Role of Inner Representations in the Efficacy of Journal Writing

The expression of emotions is important for well-being, as is exemplified by the work of Pennebaker and his colleagues (e.g., Pennebaker, 1997). In line with this, many people use journal writing as a way to express their feelings and to come to terms with past traumatic experiences. Thus, the present thesis examines the use of journalling as a therapeutic tool in dealing with traumatic experiences. The thesis will begin by discussing past research supporting the beneficial effects of writing about traumatic experiences. Next, a caveat to this premise will be examined – namely, that for some individuals (those whose core beliefs have been disrupted by trauma) writing about traumatic experiences may not be beneficial. Following from this, there will be a discussion concerning people's core beliefs or inner representations, and how these beliefs may be shattered as a result of trauma. It is contended that the utility of journalling in coping with the effects of traumatic experiences depends on the nature of the fundamental inner representations that are held by the individual. Specifically, restricted and overly biased negative representations are hypothesized to impede the effectiveness of journalling. Conversely, positive core beliefs are hypothesized to enhance the effectiveness of journalling in dealing with trauma. Coping and its relation to inner representations are discussed.

Therapeutic Benefits of Confiding about Traumatic Experiences

The inhibition of thoughts, feelings, and behaviours related to traumatic experiences is associated with increased physiological activity and, over time, with a heightened probability of stress-related disease (Pennebaker, 1993). Conversely, confiding or somehow translating the event into language reduces autonomic activity and

the probability of future illness (Pennebaker, 1993). When people cannot express thoughts and feelings about traumatic experiences, there is an increased probability of trying to make meaning of and obsessing about the event, and therefore an increased probability of illness. In holding back significant thoughts and feelings associated with an event, we typically do not think about the event in a broad and integrative way, which prevents us from understanding and assimilating the event. This would suggest that writing or talking about traumatic events could be beneficial in that it helps the individual to organize, structure, and make meaning of the experience, as well as attain closure. Once meaning is attained, the person should no longer need to inhibit the urge to make sense of the event by thinking about it or talking to others, which, in turn, results in decreased physiological and psychological stress.

Pennebaker and his colleagues postulate that to inhibit one's thoughts, feelings and behaviours requires physiological work (Pennebaker, 1997). Active inhibition means that people must consciously restrain, hold back, or in some way exert effort to not think, feel, or behave. Failing to talk about or to otherwise confront major upheavals that have occurred in one's life is viewed as a form of inhibition. Actively inhibiting one's behaviour, thoughts, and/or feelings over time places cumulative stress on the body and increases the probability of stress-related diseases (Pennebaker & Beall, 1986).

Pennebaker contends that like other stressors, inhibition can affect immune system functioning, the cardiovascular systems, and even the biochemical functioning of the brain and nervous systems. Therefore, excessive holding back of thoughts, feelings, and behaviours increases the risk for both major and minor diseases. Thus, according to Pennebaker (1985), trauma can lead to illness over time in that: (1) actively inhibiting

behaviour (such as not discussing or confiding the event to another) is stressful and related to stress-related diseases; (2) when people cannot express thoughts and feelings about trauma, there is an increased probability of obsessing about the event and therefore an increased probability of illness; and (3) confiding or somehow translating the event into language reduces autonomic activity, thereby reducing the probability of illness (for a review of the research surrounding these processes, see Pennebaker, 1985.) For example, with respect to the relationship between the expression of traumatic experiences and subsequent health, Pennebaker, Barger, and Teibout (1989) assessed the relationship between degree of disclosure of traumatic experience on long-term health following the disclosure in 33 Holocaust survivors. Participants were interviewed for 1-2 hours about their personal experiences during World War II, and 14 months after the interview, self-reports of their health were collected. It was found that the more participants disclosed during the interview, the better their long-term health after the interview.

Research from several domains indicates that confiding in others about trauma (or, at least translating it into language) can be beneficial in that it helps the person to organize, structure, and make meaning of the experience, as well as work through the event and attain closure (e. g., Horowitz, 1976, Silver, Boon, & Stones, 1983; both as cited in Pennebaker, 1985). These approaches assume that a major upheaval undermines the worldview of the person (to be discussed in greater detail in subsequent sections). In holding back significant thoughts and feelings associated with an event, we typically do not think about the event in a broad and integrative way. This prevents us from understanding and assimilating the event. Confronting the event, then, should help the individual categorize the experience into a meaningful framework.

By talking or writing about previously inhibited experiences, individuals translate the event into language. Once it is language-based, people can better understand the experience (Pennebaker, 1997). Pennebaker (1993) hypothesizes that by disclosing the trauma, individuals change the ways by which trauma-relevant events are represented in memory or consciousness. Pennebaker (1985) reasons that:

When we talk about an event, we are able to discuss several aspects of it. The mere translation into language may make the entire event more circumscribed and understandable. If we attempt to find meaning to the same event by merely thinking about it, the task becomes more difficult. It is quite easy to relive the same scenes over and over again in our mind. But when we are engaged in a conversation about the event, it is both difficult and rare to say the same thing to the same person repeatedly -- that is to say, in the way our mind works in isolation (Pennebaker, 1985, p. 90).

Similarly, Pennebaker (1997) has noted that when people write about the same trauma several days in a row the description of the event is gradually shortened and summarized. Irrelevant and tangential issues are dropped and central features of the traumas are highlighted and analyzed. Thus, the participants create a mental summary of their experience which often is psychologically less daunting. Pennebaker asserts that because writing promotes the integration of information, it can help to solve complex problems. There are several reasons for this. First writing forces people to sustain their attention on a particular topic for a longer period than they normally would if they were just thinking about it. Because writing is slower than thinking, each idea must be thought about in greater detail (Pennebaker, 1997). In addition, writing is more "linear" than thinking in that it forces an entire idea to be transcribed before another one is considered. In surveys sent out several months after participants (college students from several previous studies) journalled about either traumatic or superficial experiences, Pennebaker (1997) asked them to describe in their own words what long-term effects the writing

experiments had on them. All the participants who wrote about traumas described the study positively. Furthermore, approximately 80% identified greater insight as being the most beneficial aspect of their participation. Thus, rather than saying that it felt good to vent negative emotions, participants noted how they understood themselves better as a result of journaling about traumatic experiences. Pennebaker (1997) noted that words such as “realize,” “understand,” “resolve,” and “work through” appear in approximately half of the open-ended responses to questions about the general value of writing experiments.

In concordance with the above, psychotherapy, another form of self-expression (to a trained professional), may be viewed as an attempt to promote change in fundamental beliefs which may have been compromised by the experience of a traumatic event (Janoff-Bulman, 1992). Psychotherapy offers a safe and powerful setting for the disclosure of secrets, thoughts, and emotions. Therapists presumably possess ideal characteristics for eliciting honest self-disclosure: trust, nonjudgmental feedback, and safety from recrimination (Pennebaker, 1997). Virtually all therapeutic schools acknowledge that trauma acts as a powerful external event that disrupts the smooth functioning of an individual's internal processes (Prout & Schwartz, 1991). It is believed that negative beliefs are originally adopted as a way of making sense out of painful life situations and are maintained as they continue to protect the person from feelings of vulnerability and threat (Janoff-Bulman, 1992; McCann & Pearlman, 1990a; 1990b; 1992; McCann, Sakheim, & Abrahamson, 1988). The major process of therapy with traumatized individuals gradually challenges negative beliefs that are maladaptive and at the same time activates new beliefs that are adaptive (McCann, Sakheim, & Abrahamson,

1988). The therapist provides the client with strategies and appraisals that ultimately facilitate the integration of the traumatic event within the survivor's cognitive world. Over time, these new appraisals and interpretations facilitate the working through of trauma-related thoughts, feelings, and images (Janoff-Bulman, 1992). Large-scale studies indicate that psychotherapy of any form is effective in reducing physical health problems, depression, and a variety of major and minor thought and behaviour disorders (Pennebaker, 1997).

In sum, Pennebaker and his colleagues assume that to inhibit one's thoughts, feelings, and behaviours requires physiological work. Confiding in others about a traumatic event (or at least translating it into language) can be beneficial in that it helps the person to organize, structure, and make meaning of the experience. Once meaning is attained, the person no longer needs to inhibit his or her urge to assimilate the event by talking with others. Thus, confiding or somehow translating a traumatic event into language reduces autonomic activity, thereby reducing the probability of future illness. While a common strategy for translating traumatic experiences into language is through psychotherapy, another strategy is by journaling about these types of events.

Journal Writing as a Therapeutic Tool

Writing as a form of therapy has long been recommended by a number of therapists (Adams, 1994; Lazarus, 1980; Progoff, 1975; Rainer, 1978; all as cited in Pennebaker, 1997). Furthermore, a number of self-help books advise readers to journal when dealing with traumatic or stressful life events (Bass, 1994; Downs, 1996; Dupont, Spencer, & Dupont, 1998; Glass, 1995). Systematic experimental research indicates that the written disclosure of traumatic experiences, in the form of brief journal writing,

serves the same fundamental function as talking about it (Pennebaker, 1993; Pennebaker & Beall, 1986). Across several studies, it was found that individuals who are randomly assigned to write about deeply personal topics for 3-5 consecutive days are subsequently healthier than controls who write about relatively superficial topics. Study participants asked to write about traumatic experiences evidenced significant drops in health center and physician visits (Greenberg and Stone, 1992a, as cited in Pennebaker, 1993; Pennebaker & Beall, 1986), enhanced immune function (Esterling, Antoni, Kumar, & Schneiderman, 1990, as cited in Pennebaker, 1993; Pennebaker, Kiecolt-Glaser, & Glaser, 1988), fewer absentee days and improved liver enzyme function (Francis & Pennebaker, 1992a, as cited in Pennebaker, 1993), improved moods and more positive outlook (Pennebaker & Beall, 1986), and even more luck finding employment (Spera, Buhrfeind, & Pennebaker, 1994) than comparison participants who did not journal or who were asked to write about superficial topics. An important aspect of the anxiety and tension reduction is that the participants wrote about their thoughts and feelings surrounding the trauma as opposed to simply relating the facts of the experience (Pennebaker, 1993; Pennebaker & Beall, 1986).

Participants, themselves, recognize the value of journal writing about their traumatic experiences (Pennebaker & Beall, 1986; Pennebaker et al., 1988). For example, Pennebaker and Beall (1986) contacted participants four months after the journaling exercise and asked them to respond to the question, "Looking back on the experiment, do you feel as if it has had any long-lasting effects? Please answer this in your own words as well as rating it on a 1 to 7 scale." Although not statistically significant, those asked to journal about trauma felt that journaling had greater long-

lasting effects than those who journalled about superficial topics. Overall, 7 of the 31 participants who wrote about traumatic events rated the long-lasting effect as a 4 or higher along a 7-point scale. The responses to the open-ended question were uniformly positive. Some examples of these responses are: “It helped me think about what I felt during those times. In never realized how it affected me before.” “It helped to write things out when I was tense, so now when I’m worried I sit and write it out . . . later I feel better.” “It made me think a little deeper about some of the important parts of my life.” “If one writes down things that worry one, there is a tendency to feel better,” (Pennebaker & Beall, 1986, p. 279).

Through writing or talking about an upsetting experience, a person can presumably come to understand the causes and effects of the trauma better, which may ultimately eliminate the need for inhibition (Pennebaker, 1993). For example, Pennebaker et al. (1988) noted that several participants who wrote about the same traumatic experience day after day gradually changed their perspectives. As an illustration, they provided an example of one woman, who had been molested at the age of 9 years by a boy 3 years older, who initially emphasized her feelings of embarrassment and guilt. By the third day of writing, she expressed anger at the boy. By the last day, she had begun to put the experience into perspective. At follow-up 6 weeks later, she reported, “Before, when I thought about it, I’d lie to myself. . . . Now, I don’t feel like I even have to think about it because I got it off my chest. I finally admitted that it happened. . . . I really know the truth and won’t have to lie to myself anymore” (Pennebaker et al., 1988, p.244).

Through the content analysis of participants' journal entries, Pennebaker and his colleagues (Pennebaker, 1993; Pennebaker & Beall, 1986; Seudfeld & Pennebaker, 1997) identified the writing characteristics that were especially likely to lead to positive health outcomes. Participants whose health improved after journalling used significantly more negative emotion words (e.g., sad, hate, hurt) and fewer positive emotion words (e.g., happy, joy, peaceful) than those who did not improve. In addition, although there were no differences in overall usage of cognitive words, there were differences in changes over time; participants whose health improved evolved in their writing from fewer to more cognitive words (realize, understand, thought) from the beginning to the end of the writing days. Participants whose health did not improve, on the other hand, used the various cognitive words at consistent rates over time. Furthermore, participants whose health improved evidenced a significant drop in unique words (the actual number of different words that a person uses in a single essay divided by the total number of words) over time compared to participants whose health did not improve. This measure of unique words has been suggested as a crude indicant of psychological coherence; that is, a person focusing on a single topic should use more of the same words than someone whose writing is more scattered. Moreover, participants who improved in health received higher ratings of optimism and degrees of acceptance than those who failed to improve (Pennebaker, 1993). In addition, it was found that writing about both the facts and emotions surrounding a traumatic event led to the greatest long-term decreases in health problems (as evidenced by decreases in health centre visits and self-reported physical symptoms), followed closely by writing strictly about the emotions associated with a traumatic event. Writing only about the facts surrounding previous traumatic events,

without referring to emotions, was found to be no better for long-term health than writing about superficial topics (Pennebaker & Beall, 1986).

Finally, there was a significant relationship between complexity of journal entries and wellness: moderate complexity scores were associated with the most improvement, whereas both low and high cognitive involvement were associated with lower levels of well-being. Integrative complexity is a cognitive style variable that reflects characteristics of information processing occurring at a particular time or dealing with a particular issue. Complexity has two components: differentiation, the recognition of more than one dimension within or perspective upon a topic and integration, the recognition of relations among differentiated dimensions or perspectives (Seudfeld & Pennebaker, 1997). Thus, participants whose health improved were more likely to use more negative and fewer positive emotion words, to evolve from fewer to more cognitive words across writing days, to evidence greater psychological coherence across writing days, to evidence greater optimism and degree of acceptance, to have written about both the facts and emotions, or at least about the emotions, associated with their trauma, and to evidence entries of moderate (rather than high or low) complexity than participants whose health did not improve.

It is of note that although journalling about traumatic life events appears to be beneficial in the long run (i.e., several days to a week later), recounting intensely traumatic experiences does have some short-term costs. Indeed, Pennebaker (1988) has found that, immediately after writing, trauma survivors reported an increase in physical symptoms and negative moods. Thus, writing about trauma results in short-term increases in psychological arousal. Therefore, rather than resulting in immediate

emotional release accompanied by relief and contentment, writing about trauma makes people feel upset and depressed, especially if they are writing about emotions. However, despite these immediate short-term drawbacks, the benefits outweigh the costs. Not only does writing about a traumatic experience improve physical wellbeing, but it also reduces anxiety and depression in the long run (Pennebaker, 1993). For example, Brown (1998) conducted a study to assess how adult survivors of child sexual abuse fare as participants in research. Sixty-eight women were questioned about their experiences of participation in a study about their abuse seven to eleven months earlier. Consistent with the findings of Pennebaker and colleagues, it was found that although participants experienced some, typically small, adverse effects in the short term, they also found participation beneficial in the long run.

Thus, journalling about trauma helps individuals find meaning in their traumatic experiences and results in positive effects on health and in enhanced feelings of well-being. This is significant because journalling may be used as a convenient and inexpensive therapeutic tool by individuals trying to deal with traumatic or stressful life experiences.

However, is journalling always beneficial? There is some evidence indicating that for some individuals, or under certain conditions, it may actually be better to refrain from writing about, or otherwise relaying, information about traumatic experiences.

Caveat: The Let Sleeping Dogs Lie Hypothesis

Pennebaker (1985) points out one caveat to the above findings: under some circumstances, behavioural inhibition may actually be healthier than talking or writing about a problem. He recognizes that some events in life cannot be easily explained. For

example, Horowitz (1976, as cited in Pennebaker, 1985) notes that survivors of concentration camps may be healthiest if they are able to put the experience behind them rather than attempt to understand it. Similarly, Silver, Boon, and Stones (1983) argue that many incest survivors are never able to find meaning to their experience; over 50% of the participants in their study who were actively searching for meaning an average of 20 years after the incest had terminated reported that they were unable to make any sense of it. Forty-three percent of the women who had someone to talk to about the incest had still been unable to make sense of the experience. Thus, Silver et al. (1983) concluded that continued thinking and talking about the event might actually intensify the pain of such individuals. In their study, the more actively the incest survivors searched for meaning, the more they reported experiencing recurrent, intrusive, and disruptive ruminations about the incest experience as well as more psychological distress, greater impairment in social functioning, and lower self-esteem (Silver et al., 1983).

Pennebaker et al. (1989) refer to these two opposing predictions about the potential effects of dredging up memories and feelings about traumatic experiences as the *let sleeping dogs lie hypothesis* (which suggests that talking about traumas may simply bring back or maintain unpleasant feelings without any tangible benefits) versus the *inhibition-based model* (which argues that by confronting any type of trauma, individuals assimilate the experience to some degree, making subsequent memories less painful). Both of these predictions may be true to a greater or lesser extent.

Support for both of these hypotheses was evidenced in a study of 130 first year students entering college (Pennebaker, Colder, & Sharp, 1990, as cited in Pennebaker, 1997). Entering college was thought to be an ideal topic for studying the coping process

because it was thought to represent a major upheaval for most students since it involves leaving family and friendship networks, coping with new living arrangements, changing roles within their families and within society in general, and facing greater levels of social and academic competition than ever before. Students were asked to write either about superficial topics or about their deepest thoughts and feelings about coming to college. Generally, it was found that those students who wrote about coming to college evidenced less physician visits three months after the experiment than those who wrote about superficial topics. However, Pennebaker (1997) cautioned that despite these findings “we are dealing with statistics here” (p. 83) and that not everyone who journalled about the transition to college was helped. Overall, about 11% of the participants who wrote about college got sicker after participating in the study (many others were also unaffected). Similarly, Pennebaker et al. (1989) found that while for the majority of Holocaust survivors (those who disclosed to a moderate or high degree about their traumatic experiences during a 1-2 hour interview) the interview was associated with positive long-term (14 months) health after the interview, but that for a smaller subset of their sample (low disclosers) slightly negative health effects were evidenced in the long-term. Thus, dredging up old memories of the Holocaust for a minority of participants may have adversely affected their health. The researchers concluded that:

Although the “confession is good for the soul” hypothesis appeared to be generally true for the high disclosers and, to a lesser degree, the undifferentiated individuals, inspection of the low disclosers’ results suggests that this group may have suffered from a modified version of the “let sleeping dogs lie” prediction (Pennebaker et al., 1989, p.587).

Support for the ‘let sleeping dogs lie’ position comes from another area of research -- that on the normal process of aging and the role of trauma in the aging

process. Following Erikson's (1958) postulation that the critical conflict of old age is integrity versus despair, Krystal defines integration as the major task of old age (Krystal, 1981; 1988; both as cited in Danieli, 1995). Krystal (1995) emphasizes that aging is accompanied by losses of loved ones and by losses of one's own valued powers and qualities, and thus, successful adjustment to the natural changes in life depend upon the ability to grieve successfully. He posits that in this latter stage of the life cycle, as one's activity level and orientation towards the future decline, there is a shift in focus toward one's past, or what he terms one's "life review." He writes:

In old age there is a diminution of the things one can *do* to make one's self happy or even the previous ways that one could keep busy and keep directing one's attention to the future. Thus, I maintained that one is deflected from future goals and achievements as the illusiory pleasures diminish and one is forcibly, insistently propelled to a preoccupation with the past, with one's *life review* (Krystal, 1995, pp. 72-73).

According to Krystal (1981, as cited in Danieli, 1995), upon facing one's past, the elderly individual has the choice to either accept oneself and one's life lovingly or to reject it angrily. Butler (1963, as cited in Scogin & McElreath, 1994) also suggested that reviewing one's life is a central aspect of late life psychological functioning.

Some have proposed that traumatic life experiences, even those that occurred relatively early in the life cycle, affect the life review or reminiscence which occurs in old age. There are major obstacles faced by senior survivors of trauma that impede the evaluation of their lives (Danieli, 1995; Krystal, 1995). For example, Krystal (1995), who has worked extensively with Holocaust survivors, posits that posttraumatic effects such as alexithymia and anhedonia, the excessive use of defenses such as repression, denial, psychic splitting, and externalization, as well as the aftereffects of survivor's guilt,

shame, and difficulties in managing anger, impede successful integration and thus lead to despair in old age for these individuals.

Old age, and the life review process which accompanies this period in life, may be retraumatizing for survivors of trauma in general, as is evidenced by the onset of Posttraumatic Stress Disorder (PTSD) in war veterans years after the cessation of their combat experiences. PTSD is characterized by a constellation of symptoms following exposure to an extreme stressor that threatens a person's physical or psychological integrity and the aftereffects of trauma are often conceptualized within the framework afforded by this concept (American Psychiatric Association, 1994). The symptoms of PTSD, as defined in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994), fall into four major clusters: (1) persistent re-experiences of the traumatic event; (2) persistent avoidance of stimuli associated with the trauma; (3) persistent symptoms of increased arousal; and (4) numbing of general responsiveness. The syndrome is classified as acute if symptoms last less than three months, chronic if symptoms last three months or more, and with delayed-onset if symptoms begin 6 months or more after the traumatic event has taken place. A key finding of a study by Op den Velde, Falger, Hovens, Lasschuit, Van Duijn, and Schouten (1993, as cited in Hay, 1998) was the large amount of delayed-onset PTSD in Dutch resistance war veterans who had been held in concentration camps. While 31.7% of the men began experiencing symptoms within 5 years of repatriation, 17.9% of the men only began experiencing symptoms 6 to 20 years after repatriation, 29.3% between 21 and 30 years later, and 21% between 31 and 40 years after repatriation. In this population, then, delay of greater than five years before symptom onset was the norm

rather than the exception. In fact, for these men the period of greatest symptom severity occurred, on average, 19 to 39 years after the war. In their review of several cases, Snell and Padin-Rivera (1997, as cited in Hay, 1998) describe how physical disability, medical intervention, and environmental change all have the potential to trigger delayed-onset PTSD in war veterans because they elicit feelings of powerlessness reminiscent of veterans' war experiences.

In sum, this suggests that journalling and other forms of reflecting upon past traumas, such as engaging in the normative process of life review in seniors, may not always be beneficial – that is, these processes may not always be beneficial for survivors of severe trauma. It is important to identify when or for whom journalling or verbally relaying traumatic experiences will not be beneficial. Such individuals may be better off using other strategies for dealing with such experiences, or they may need to undergo some other form of healing before using self-expressive techniques such as journalling as a therapeutic tool. One reason journalling may not be beneficial is that the experience of severe trauma may cause fundamental changes in our worldviews – the ways in which we understand ourselves, others, and the world, and by which we make sense of our experiences. Thus, perhaps writing or reflecting upon past traumas is not beneficial for individuals with disrupted worldviews, and may even function to reinforce posttraumatic thoughts and reactions.

The Representational World

Inner representations (including the views we hold about ourselves, others, and the world), which are largely developed from early experiences, are used to organize information and to guide our thoughts and behaviours. New information fits into these

representations through the processes of assimilation and accommodation. Furthermore, inner representations are associated with specific emotions. These inner representations tend to be positively biased in a way that appears to be adaptive and to promote mental health (as well as physical health and positive social interactions). It is possible that this positive bias in one's inner representations is a necessary precursor to enhancing positive effects from journalling.

Each of us holds basic views of ourselves and our world that guide our thoughts and behaviours. Although different terms are used to label these basic views, including schemas, beliefs, assumptions, and representations, there is congruence of a single underlying phenomenon: a conceptual system, that is developed over time, and which provides us with knowledge and expectations about the world and ourselves. These internal representations guide our interactions with the environment and enable us to function effectively in the world (Janoff-Bulman, 1992).

According to the *constructivist self-development theory* (CSDT) of McCann, Pearlman, and their colleagues, human beings actively create and construe their representational models of the world. This becomes a framework within which the individual makes meaning of his or her experiences. A fundamental construct within CSDT is the notion of schemas; schemas refer to beliefs, expectations, or assumptions about oneself, other people, and the world. Individuals develop schemas through their experience and then use them to organize information and future experiences. Over time, these schemas come to be associated with specific emotions or feeling states. Thus the nature of individuals' schemas has profound implications for their emotions and interpersonal behaviour (McCann & Pearlman, 1992).

A major process underlying CSDT is Piaget's notion of assimilation-accommodation. Piaget uses these constructs to explain increasing differentiation of schemas over the course of the life span. Assimilation refers to the process whereby new information is integrated into existing schemas. Accommodation refers to the process by which previous schemas are modified to fit new, discrepant information (McCann & Pearlman, 1992). These processes are of significance, especially with respect to how new information provided by traumatic experiences modifies, or is integrated into, existing schemas. This will be discussed in greater detail in subsequent sections.

In the same vein, Beck (1976, as cited in McCann, Sakheim, & Abrahamson, 1988) defined schemas as stable cognitive structures that organize life experiences and are represented by beliefs about the self, others, and the world. According to Beck's theory, a person's earliest life experiences shape schemas about self, others, and the world. Schemas formed in childhood are activated later in life by conditions that resemble those present when they first developed (Kovacs & Beck, 1978, as cited in McCann et al., 1988). When latent schemas are activated, the cognitions associated with these schemas have an impact upon mood and behaviour. Furthermore, schemas organize new input from life experiences in ways that are consistent with these thoughts and feelings. Those experiences that provide a match between schema and input activate and solidify schemas. Alternatively, schemas may be modified as discrepant inputs from life experiences are perceived and assimilated. In essence, there is a dynamic interplay between the person and the environment in which life experiences shape schemas and schemas shape what one perceives about life experiences (McCann et al., 1988).

Bowlby posits that for a behavioural system to undergo developmental changes and remain organized around a specific goal, the system must be guided at the representational level (1969; 1982; both as cited in George, 1996). Specifically, he proposed that the child's attachment behaviour is based on a schematic cognitive representation of the child-parent relationship, a concept he termed the "internal working model" of attachment. Constructed from the child's actual experience with the parent in infancy and early childhood, Bowlby proposed that the infant uses his or her internal working model of attachment to perceive and appraise attachment-related information and to plan future behaviour. Further, Bowlby posited that the infant's representation of attachment is the foundation of personality development. Based on its internal working model of attachment, the infant (and later the child and adult) develops expectations about the self and others: the self as worthy or unworthy of care and protection and others as available or unavailable to provide care and protection (Bowlby, 1973; 1980; both as cited in George, 1996). More recently, a number of attachment theorists have been working to delineate more clearly the construct of internal working models (e.g., Bretherton, 1985; Main, Kaplan, & Cassidy, 1985; Sroufe & Fleeson, 1986; all as cited in George, 1996). Although there are differences in their approaches, there is general agreement about the fundamental characteristics of these models. The characteristics of working models are: (1) they are derived from experiences with the attachment figure; (2) they consist of mental structures or rules that are abstracted into a collective perceptual record of interactive experience and affect; (3) internal working models involve defensive processes that influence how the individual perceives and remembers his or her

experiences; (4) although internal working models become increasingly stable, they can be changed to accommodate new experiences (George, 1996).

Working models consist of rules that determine the individual's response to stress. That is, the cognitive schemas related to past experiences, including earlier attachment experiences, may influence the individual's future ways of coping with distress and his or her subsequent emotional adjustment over a wide range of situations (Mikulincer, Florian, & Weller, 1993). Thus, serious stressors are not merely objective events that carry predetermined meanings and predictable responses. Rather, these events can be understood only within the context of one's unique meaning system (McCann & Pearlman, 1992). Similarly, Horowitz (1979) notes that the mind must use existing inner models to interpret new events; models based on the past must interpret the present and be revised to meet the future. Furthermore, the mind favours the best balance between retention of earlier forms and the acceptance of new stimuli. He cautions, however, that the equilibrium between old inner models and new information is not easily or quickly balanced when present events are those of loss (to be discussed in greater detail in the subsequent section).

The Positive Valence of our Fundamental Assumptions. Taylor (1989) argues that rather than being firmly in touch with reality, the normal human mind tends to distort incoming information in a self-enhancing direction. That is, people's representational worlds, including their thoughts of themselves, their future, and their ability to influence their environment, are more positive than reality can sustain. She maintains that the human mind is orientated toward mental health and that at every opportunity it construes events in a manner that promotes benign fictions about the self, the world, and the future.

The healthy mind is a self-deceptive one; that is, normal human thought is distinguished by a robust positivity bias. Moreover, these illusions are not merely characteristic of human thought; they actually appear to be adaptive, promoting rather than undermining good mental health (for a review, see Taylor, 1989; Taylor & Brown, 1988). Taylor maintains that the positive emotions fostered by illusions are associated with better mental functioning, better physical health, and better social interactions. In essence, she postulates that it feels good to hold positive illusions, and there are positive outcomes related to feeling good. Adaptiveness derives not only from the positive emotions directly associated with these representations but also from their implications for motivation. Positively biased representations afford us the trust and confidence that are necessary to engage in new behaviours and to test our limits (Taylor, 1989; Taylor & Brown, 1988).

Given the positive biases characteristic of our internal representations, it appears that they might appropriately be described as illusions. Our internal representations/beliefs/ schemas/assumptions are, in part, illusions. However, it would not be accurate to portray people as deluded optimists who naively believe what they want to believe and ignore any evidence to the contrary. Rather, the illusionary nature of our internal representations derives from overgeneralization; the most fundamental representations in our conceptual system represent general expectations rather than specific ones. First formed in early childhood, they are generalizations across many experiences during a particular developmental period as well as generalizations across time and different developmental periods. That is, these representations are based on real experiences, beginning with relatively positive interactions with caregivers, but, over

time, are extended far beyond specific episodes (Janoff-Bulman, 1992).

Representations, Assumptions, Views, Illusions, Schemas, Working Models etc.:

Theories of our Representational World. Despite variation between psychologists in the exact content of our fundamental schemas, views, or assumptions, there is generally commonality in the underlying positive nature of these representations. Others allow for variability in the positive-negative valence of representations held by particular individuals, but generally maintain that positively valenced representations are more adaptive and more conducive to mental health(e.g., McCann & Pearlman, 1990a; 1990b; 1992). For example, Janoff-Bulman (1992) conceptualizes our representational world as being hierarchically organized, with our most fundamental assumptions being those that are most abstract, general, and pervasive in their applicability. She postulates that our fundamental assumptions are the bedrock of our conceptual system; they are the assumptions that we are least aware of and least likely to change. What exactly are these fundamental assumptions that most people hold? Specifically, she proposes that we hold three fundamental assumptions: (1) the world is benevolent; (2) the world is meaningful; and (3) the self is worthy.

Benevolence of the world refers to the general belief that the world is good. The “world,” in this context, is an abstract construct that refers to both people and events. When we assume other people are benevolent, we believe that they are basically good, kind, helpful, and caring. When we assume that events are benevolent, we believe in a majority of good outcomes and good fortune over negative outcomes and misfortune. In considering the benevolence of the world, people are actually considering the benevolence of “their” world. Generalizations move outward from experience, such that

our own experiences with people and events form the basis for more general assumptions about the world. We believe the world is benevolent because we see our own relatively limited world as benevolent. There is considerable research evidence demonstrating that people believe events in their lives have been predominantly pleasant (Janoff-Bulman, 1992).

Meaningfulness in the world refers to the belief that events in our world are meaningful, that they “make sense.” This assumption involves both beliefs about why events happen in our world and, more specifically, why these events happen to particular people. We seek to understand the distribution of good and bad outcomes in order to make meaning of these outcomes, and so we impose seemingly natural contingencies between people and their outcomes. A meaningful world is one in which a self-outcome contingency (a relationship between a person and what happens to him or her) is perceived. With respect to events that happen to people, we generally use accepted social rather than scientific laws to understand the distribution of good and bad events in our world. In Western society the social laws people are most likely to invoke to explain the reason events occur to certain individuals are those of justice and control. Invoking these laws allows us to believe that misfortune is not random and arbitrary, and there is a person-outcome contingency. According to widely accepted conceptions of justice, the principle of personal deservingness determines which events affect which people. From this perspective, the “goodness” of the individual becomes a primary factor to be considered in determining his or her lot in life. Thus, a good, decent, moral person deserves positive outcomes, whereas the morally corrupt person should be faced with misfortune.

According to Lerner's (1980, as cited in Janoff-Bulman, 1992) "just world theory" people have a need to believe in a just world, one in which people get what they deserve. We are deeply threatened by the possibility that negative events, if random, could happen to us. In a series of experiments, Lerner has demonstrated that innocent people are derogated and devalued by research participants, who are thereby able to maintain their own belief that the world is just and that people get what they deserve. If we believe in the negative qualities of victims, we can keep at bay the possibility that victimizations can be random and can strike the innocent, including ourselves. Furthermore, often we understand events not through consideration of people's character, but rather through consideration of their behaviours. We hold the assumption that we can directly control what happens to us through our behaviour. Thus, if we engage in appropriate precautionary behaviours we will be protected from negative events and good things will happen to us. Randomness, in contrast, denies the meaningfulness of events; there is no way to make sense of why particular events happen to particular people. In recognizing randomness, an individual must accept that ultimately there is nothing one can do or be to ward off misfortune or to guarantee good fortune; the person is not involved in shaping one's life and one's future (Janoff-Bulman, 1992).

The assumption of our own *self-worth* involves an evaluation of the self, and, in general, we perceive ourselves as good, capable, and moral individuals. Justice generally entails judgment of one's character, and one dimension of self-worth involves evaluations of one's essential goodness, decency, and morality. Similarly, control entails judgments of one's behaviour, and another dimension of self-worth involves evaluations of the wisdom and effectiveness of one's actions: whether we are doing things to maximize

successful outcomes for us. These self-evaluations include judgments of one's ability as well as of one's willingness to engage in appropriate behaviours. With very few exceptions, people evaluate themselves very positively. In study after study, people report themselves as better than others and certainly better than average in terms of their own abilities and personal qualities, and scores on self-esteem scales tend to be highly skewed towards the positive end of the scale (Taylor, 1989). Not only are our judgment and memory processes focused on the self, but we see ourselves as selectively responsible for certain outcomes; people have a tendency to recall and accept responsibility for success far more than for failure (Janoff-Bulman, 1992).

An essential aspect of these beliefs is that they are the earliest assumptions established in our internal world. It is during infancy that human beings begin to develop the essential components of a lifelong sense of safety and security. Through early social interactions, we develop a view of the world and ourselves that allows us to feel protected, even as this world expands far beyond its earliest, very limited boundaries. Our fundamental assumptions, originating from our early experience, equip us with a sense of confidence and trust. We maintain a general optimism that things will work out well and that we are safe and protected (Janoff-Bulman, 1992).

In sum, Janoff-Bulman (1992) postulates that we believe that we are good people who live in a benevolent, meaningful world. These three positive assumptions co-exist at the core of our assumptive world. They are not narrow beliefs, but broad, abstract conceptions that are also emotionally potent. Clearly it feels good to believe that we are decent and the world is benevolent and meaningful. Our basic beliefs do not exist independent of emotions; rather, positive feelings are inextricably tied to our fundamental

assumptions (Janoff-Bulman, 1992). Janoff-Bulman's theory of fundamental assumptions is fairly representative of theories concerning the nature of our inner representations in general, and thus was delineated here as an example of such theories. For a summary of other theories concerning the nature of our inner representations see Table 1.

Table 1

Theories of our Inner Representations

<u>Theorist(s)</u>	<u>Inner Representations</u>
Janoff-Bulman (1992)	Our fundamental assumptions are the bedrock of our conceptual system; they are the assumptions that are developed earliest, that we are least aware of, and that are least likely to change. These include: 1) the world is benevolent, 2) the world is meaningful, and 3) the self is worthy
Taylor (1989)	People hold positively biased perceptions (or illusions) about themselves and the environment, including: 1) self-enhancement – the perception that one's self, one's past behaviour, and one's enduring attributes are more positive than is actually the case; 2) an exaggerated belief in one's personal control – involving the perception that one can bring about primarily positive, but not negative, outcomes; and 3) unrealistic optimism – perceptions that the future holds an unrealistic number of positive outcomes and an absence of negative outcomes
Epstein (1991)	There are four fundamental beliefs which provide our lives with meaning, including: 1) the world is benign, a source of pleasure, a rewarding place; 2) the world is meaningful, predictable, controllable, and just; 3) the self is worthy (lovable, good, and competent; and 4) people are trustworthy and worth relating to
Horowitz (1987)	People hold three basic beliefs about the world: 1) the world is predictable; 2) the world is fair; and 3) the world is benevolent
Constructivist Self-Development Theory (McCann & Pearlman, 1990a; 1990b; 1992; McCann, Sakheim, & Abrahamson, 1988)	Schemas about self and others develop within five basic areas of psychological and interpersonal functioning, with various feelings being attached to these beliefs depending on if the schemas held in these areas are positive or negative. These basic areas are: safety, trust, power, esteem, and intimacy. The negative or positive thoughts associated with these schemas result in emotional, cognitive, biological, behavioural, and interpersonal response patterns.

Summary. We all hold inner representations of ourselves, others, and the world.

These representations are of paramount importance in that they are used to organize

information and to guide our thoughts and behaviours. Furthermore, these representations are associated with specific emotions and have an influence on both our mental and physical health.

But what happens if the positive nature of our fundamental representations is threatened? Traumatic experiences may challenge the positive nature of our fundamental beliefs, which is accompanied by psychological crisis. Psychological crisis may be related to two sources: one associated with the realization of personal vulnerability (either because the world and other people are not benevolent or because the self is not worthy or capable of protection) and the other associated with the survival of our conceptual system which is in a state of upheaval and disintegration (because one can no longer derive any cohesion from prior representations that are no longer adequate guides to the world). Furthermore, unlike normal representational change that is typically gradual and involves incremental change at the level of our narrowest representations, trauma involves a massive attack on our most fundamental representations. Indeed, empirical evidence indicates that the core inner representations of survivors of trauma are more negative than those of nonsurvivors, and that these negative representations are associated with other posttraumatic effects.

Trauma: An Assault upon Inner Representations

One thing that becomes evident from working with survivors of trauma is the extent to which we ordinarily rely upon, and take for granted, fundamental assumptions about ourselves and our world; these assumptions generally go unquestioned and unchallenged. In general, we feel relatively invulnerable to misfortune. Largely, we simply do not think about threats and negative life events. Even when we do recognize

the possibility of negative events, we do not believe that we, personally, will be affected by such events. The commonly held belief in invulnerability and the feeling that one is secure and protected is made very clear by people's reactions to their own traumatic life events (Janoff-Bulman, 1992).

In their research, Janoff-Bulman (1989, 1992) and her colleagues have observed that regardless of the population studied and the research approach adopted, remarkable similarities are found across different victim groups: the traumatic event has had a profound impact on their fundamental assumptions. Typically, we live our daily lives without considering or examining our fundamental assumptions. Our broadest schemas seem to serve us well, providing both a way of making sense of our world and the ability to tackle new experiences with relative confidence. In addition, pleasurable emotions are associated with these positively biased assumptions of feeling safe, secure, and protected. However, when trauma occurs, our fundamental assumptions are seriously challenged and an accompanying psychological crisis occurs. Trauma brings with it data that does not resemble normal change, which is typically gradual and involves incremental accommodation at the level of our narrowest schemas; rather, it involves a massive attack on our fundamental assumptions. Core assumptions are shattered by the traumatic experience (Janoff-Bulman, 1989).

Given the positive valence of our core beliefs, traumatic events are unexpected events. As a result, we are psychologically unprepared for them; they are not represented in our assumptive world. Furthermore, such events involve some type of emotional encoding in addition to any rational, more verbal, encoding of experience. Extreme negative or traumatic events are unique in that they force victims to come face to face

with their vulnerability. They are abnormally stressful, not the content of our daily lives. Thus, immediately after the occurrence of traumatic events, victims experience the reality of their own vulnerability. The confrontation with injury or death disrupts the complacency in our assumptive worlds and leads to a profound psychological crisis. What begins as a threat to an individual's physical survival becomes a threat to their psychological integrity as well. Suddenly, the individual becomes acutely aware of their vulnerability and realizes that bad things can indeed happen to them. Psychologically, people are also unprepared for this because at the base of their representational world they believe in their own security and protection. Intense shock, disbelief, and confusion are immediate reactions of survivors of severe trauma. Survivors are frequently preoccupied with questions about how and why such events occurred. The question is not why such traumatic events occur, but rather why such events happened to them. Nothing seems to be as they had thought and their inner world is in turmoil.

The predominant emotional experience of trauma survivors is intense fear and anxiety. According to Janoff-Bulman (1989; 1992), survivors' anxiety is related to two sources: one associated with the realization that one's safety may be jeopardized in a world that is frightening and unsafe, and the other associated with the survival of their conceptual system which is in a state of upheaval and disintegration. The same assumptions that had provided psychological coherence and stability in a complicated world are the very same assumptions that are shattered by the trauma. This anxiety occurs in addition to the initial fear that is experienced as a direct response to the traumatic event. The cognitions of anxious individuals contain themes of threat, danger, unpredictability and uncertainty, and these are also central to the emotional experience of

survivors of trauma. Yet for trauma survivors, it is not only the external world, but also the internal world, that is perceived as threatening; victims can no longer derive any cohesion from prior assumptions for they are no longer adequate guides to the world. The result is cognitive disintegration (Janoff-Bulman, 1992).

In their extensive research on the impact of trauma on people's fundamental assumptions, Janoff-Bulman (1989; 1992) and her colleagues have found that the assumptions held by survivors of traumatic events differ from those of nonsurvivors. For example, in one study, Janoff-Bulman and her colleagues compared the assumptive worlds of 83 survivors of traumatic events (death of a parent, death of a sibling, incest, rape, fire that destroyed home, and an accident that resulted in own serious disability) with 255 college students without traumatic histories. Three assumptions emerged as reliable discriminators between the two groups: perceived self-worth, chance as a distributional principle, and the benevolence of the impersonal world (Janoff-Bulman, 1989). Regardless of the type of traumatic event, survivor's basic assumptions about the benevolence of the world, the meaningfulness of the world, and their own self-worth are generally more negative than those of nonsurvivors. This is the case even ten to fifteen years after the occurrence of the traumatic event. Generally, survivors of trauma view the world and themselves less positively than individuals without traumatic histories. They are acutely aware that bad things happen more often than they thought, that people can be malicious, that events may be more random, less just, and less controllable than they had previously thought. They recognize that being a decent person does not guarantee protection against bad outcomes, or they maintain the belief that the world is just but no longer perceive themselves as decent and good. Regardless of the particular pattern of

basic assumptions affected, to the survivor of trauma, the world is no longer unquestioningly regarded as safe and they are no longer seen as invulnerable (Janoff-Bulman, 1992).

Janoff-Bulman (1992) posits that although the fundamental assumptions are interconnected, over time they appear to exist independently; although all three may be questioned after an overwhelming event, one may change without the other(s). Ultimately, the meaning of the event to the survivor (how the event is interpreted in context of the survivor's prior assumptions) determines which assumptions are most affected. The specific changes experienced may also, in part, reflect the nature of the victimization (for a greater discussion of reactions according to type of trauma see Janoff-Bulman, 1992). She maintains, however, that the breakdown of any single assumption is sufficient to jeopardize feelings of safety and security, be it because the world is now seen as hostile and malevolent, or events are seen as being randomly distributed, or one is unable to be protected through character and behaviour. Janoff-Bulman's ideas are fairly representative of theories concerning the effect of trauma on inner representations, and thus was presented here as an example of such theories. See Table 2 for a summary of other theories on the effects of trauma on our inner representations.

Table 2

Effects of Trauma on Inner Representations

<u>Theorist(s)</u>	<u>Effects of Trauma</u>
Janoff-Bulman (1992)	Trauma has a profound impact on people's fundamental assumptions, which may be observed across different victim groups. The inner representations of traumatized individuals are comprised of thoughts and images of malevolence,

	meaninglessness, and self-degradation
Roth & Newman (1993)	Trauma is likely to disrupt one's fundamental beliefs about the world, self, and others. The invalidation of these beliefs leads to a compensatory search for meaning. The modified belief system may be either adaptive or maladaptive.
Masse (1995)	When people experience traumatic events, they question the decisions that guide their lives. The decisions most likely to be challenged are that "bad things happen to other people," "you can trust most people," and "the world is generally a safe place."
Taylor (1989)	The positive illusions people hold, including self-enhancing thoughts, unrealistic optimism about their future, and their exaggerated belief in personal control, are compromised by the experience of traumatic events.
Horowitz (1979)	Serious, stress-inducing events affect homeostasis and if action cannot be used to change the situation, then inner models must be revised to conform to the new reality. A shift in dominant models of self and others, resulting from internalization of information about the trauma, is likely to occur.
Root (1992)	Trauma permanently changes one's construction of reality and the organizing principles by which we understand ourselves, others, and the environment. After the occurrence of trauma, people seem less benevolent, events less random, and living more burdened (because of the perceived need to prevent subsequent traumatic events).
Arntz (1994)	Chronic traumatic abuse or neglect in childhood leads to the development of almost unshakable fundamental assumptions about others (who are thought to be dangerous and malignant), about one's own capabilities (including feelings of powerlessness and vulnerability), and upon one's value as a person (including feeling that one is bad and unacceptable).
Constructivist Self-Development Theory (McCann & Pearlman, 1990a; 1990b; 1992; McCann et al., 1988; Pearlman & Saakvitne, 1995)	Particular cognitive schemas about self and others in the areas of safety, trust, power, esteem, and intimacy are affected by traumatic experiences. For example, disrupted esteem schemas of the self may be reflected by themes of self-blame, unworthiness, or badness. Disturbed esteem schemas with regard to others may be reflected by contempt for, or disillusionment about, other people. CSDT has been extended to the area of vicarious traumatization, which implies that much of a therapist's cognitive world will be altered by hearing about the traumatic experiences of their clients.
Antonovsky (1987)	Trauma disrupts three components of adaptation: comprehensibility, the extent to which one's surroundings can be perceived as structured, consistent, and predictable; manageability, the extent to which one's resources are adequate to meet the demands of the environment; and meaningfulness, the feeling that environmental demands are worth meeting with dedicated energy and commitment.
Parson (1994)	Defines psychological immunocompetence as one's capacity to protect existing homeostatically stable inner representations against the regression and sense of "absence-of-meaning-in-life" that may result from traumatic experience.

Effect of Trauma on Inner Representations: Empirical Evidence. In an empirical investigation of the disruption of inner representations in survivors of traumatic events,

Newman, Riggs, and Roth (1997) hypothesized that because the symptoms of complex PTSD are believed to reflect a trauma-induced change in affective, behavioural, and interpersonal regulation, complex PTSD symptoms may be related to disruption in trauma-related schemas. Complex PTSD is a newly proposed diagnostic concept which is being considered for inclusion in the DSM-V. It has been argued (and demonstrated) that this construct provides a better description of the profound effects that may result from prolonged, repeated, or severe traumatic events, and traumas with childhood onset and which are of an interpersonal nature, than the diagnosis of PTSD (Herman, 1992a; 1992b; 1995; Herman & van der Kolk, 1987; Root, 1992; van der Kolk, 1996).

In view of this, Newman et al. examined the schematic distinctions among three groups of treatment-seeking participants with trauma histories ($n = 89$): those with PTSD ($n = 20$); those with both PTSD and complex PTSD ($n = 23$); and those with neither diagnosis ($n = 39$). Participants were also administered the *Potential Stressor Events Interview* (Falsetti, Resnick, Kilpatrick, & Freedy, 1994; Kilpatrick, Resnick, & Freedy, 1991; both as cited in Newman et al., 1997) which measures life-time exposure to sexual and physical assault, rape, serious motor vehicle accident, additional bereavement, injury or property loss, evacuation, and other stressful life changes. The interview classifies each experience by age of onset. Newman et al. derived the total number of potentially traumatic events (PTEs) by counting the above 'high magnitude stressors' which were elicited during the interview. Finally, participants were administered the *Thematic Interview* (Roth & Newman, 1991; 1992b; 1993; all as cited in Newman et al., 1997) to assess schematic content and resolution. It was found that individuals who met the criteria for both PTSD and complex PTSD had significantly more unresolved schemas

(defined as schemas that are influenced by the trauma and provide an overly biased or confined way of relating to the world in a manner consistent with these disrupted schemas) and fewer nonrelevant schemas (defined as those which have not been disrupted by the trauma) than individuals without PTSD or participants that met the criteria for PTSD but not for complex PTSD. Contrary to the hypotheses, however, those with PTSD alone did not differ significantly on these schematic variables than those without PTSD. The authors interpreted these findings as being indicative of broader schematic disruption in individuals with complex PTSD, which involves greater difficulties resolving trauma-related issues and creative adaptive meaning in their current lives than individuals without PTSD or individuals with simple PTSD.

In a further analysis, they examined the possibility that disruption of schemas characterizes the trauma rather than individual resilience. Thus, they separated the total sample into two groups based on their exposure to PTEs: those who experienced at least one interpersonal assault ($n = 63$) and those who never experienced an interpersonal assault ($n = 19$). Indeed, it was found that those who experienced interpersonal traumas had more unresolved schemas and fewer nonrelevant schemas. Although those who had experienced interpersonal traumas also experienced their first PTE at a younger age and experienced more PTEs, differences in unresolved and nonrelevant schemas were still significant when controlling for these individuals. These latter findings indicate that different types of traumas may affect schemas differently, and that interpersonal trauma is associated with greater schematic disruption.

Dutton, Burghardt, Perrin, Chrestman, & Halle (1994) examined the cognitive schemas of 72 battered women in relation to their cognitions about the violence (i.e., the

“meaning” attached to the violence) and their posttraumatic reactions to violence. It was found that the meaning of the violence (e.g., expectations of recurrent violence and of severe/lethal violence, causal attribution) were significantly related to the women’s cognitive schemas about safety, self, and others. Furthermore, the measures of cognitive schemas [the *Attribution of Violence* (ATB) and the *Appraisal of Violence* (APV) questionnaires, developed by Dutton (1992b, as cited in Dutton et al., 1994)] were significantly related to various global and specific measures of posttraumatic stress. Significant correlations between measures of posttraumatic stress and all measures of the battered women’s cognitions about their experience with violence and abuse support the notion that the meaning attached to the traumatic experience by the battered woman influences its psychological impact. Thus the researchers stress the importance of assessing the impact of traumatic experiences on core cognitive beliefs as a component in the constellation of posttraumatic sequelae.

In reviewing the effects of trauma on children, Terr (1991) demonstrates the effect of trauma on children’s inner representations. She notes four characteristics that are particularly relevant for traumatized children regardless of the course other effects from the trauma may take and regardless of the age at which the trauma occurred. One of these characteristics is changed attitudes about people, aspects of life, and the future. Terr notes that the limitation of future perspective is particularly striking in traumatized children because ordinary children exhibit almost limitless ideas about the future. She maintains that limitations in scope and future perspective in traumatized children seem to reflect the ongoing belief that more traumas are bound to occur. Unlike children without

traumatic histories, traumatized children recognize profound vulnerability in all human beings, especially themselves (Terr, 1991).

Howe, Tepper, and Parke (1998) also demonstrate how traumatic experiences may affect children's inner representations. They compared the emotional understanding [as evidenced by positive or negative emotional valence and the uniqueness or strange quality of emotions (i.e., the atypicality of response in relation to the whole sample of responses)] of abused and nonabused children aged 6 – 10. The abused children's responses to open-ended questions about their feelings and emotions were found to be more negative and to have a more strange and bizarre quality to them. The researchers considered this to be evidence of abused children having negative "emotional working models" regarding expectations of others' responses to the children's feelings.

Schwartzberg and Janoff-Bulman (1991) examined the impact of bereavement on people's basic assumptions about themselves and their world. They compared 21 undergraduates who had recently lost a parent with 21 matched controls on a series of objective measures [namely Janoff-Bulman's (1989) *World Assumptions Scale* (WAS), Levenson's (1973) *Locus of Control Scales*, and Rosenberg's (1965) *Self-Esteem Scale* (all cited in Schwartzberg and Janoff-Bulman, 1991)]. The bereaved sample also participated in lengthy semistructured clinical interviews. Assumptions about meaninglessness of the world were found to be an important variable in both distinguishing between the bereaved and control samples and in accounting for differences in the grief responses of the bereaved sample. Compared with the matched controls, the bereaved students were less likely to believe in a meaningful world and the intensity of grieving was strongly associated with these beliefs.

Thus, trauma challenges the positive nature of our fundamental representations and is accompanied by psychological crisis. Empirical evidence indicates that the core inner representations of survivors of trauma are more negative than those of nonsurvivors, and that these negative representations are associated with other posttraumatic reactions. However, are the effects of trauma on inner representations permanent? It is clear that individuals attempt to deal with traumatic information to regain some of their previously held beliefs. Adaptive representational resolution to traumatic events is defined as the attainment of a conceptual system that is considered both a realistic guide for interacting with the world and yet is positive enough to minimize emotional pain (even though this new representational world is likely to be less pleasant and positive than the survivor's conceptual system prior to the experience of trauma).

Schematic Change

With respect to coping with a traumatic event, people are faced with the task of making the event, which has occurred in external reality, real inside the self (Horowitz, 1976; Parkes, 1975; both as cited in McIntosh, 1995). This involves integrating the data of the event into our prior schemas (Janoff-Bulman, 1989, as cited in McIntosh, 1995). Hastie (1981, as cited in McIntosh, 1995) noted that any specific event can be evaluated as congruent, incongruent, or irrelevant to a particular schema. How a particular event relates to important schemas is likely to have an impact on coping and adjustment. A major coping task of people who have experienced traumatic events is assimilating their experiences into their representational worlds or changing their basic schemas about themselves and their world (accommodation), or both (Horowitz, 1976; Janoff-Bulman,

1989; both as cited in McIntosh, 1995).

Janoff-Bulman (1992) emphasizes that although most recent literature on cognitive schemas has stressed the extent to which these schemas are resistant to change (Arntz, 1994; Beatson, 1995), it would be inaccurate to suggest that they never change, because they do. She identifies two characteristics which seem to characterize schematic change. First, change most often occurs at the level of our narrower schemas rather than our most fundamental assumptions. These are the schemas that are subjected to the "direct test of experience." Second, change is gradual and incremental rather than sudden and fast. The very process of learning involves changes in our conceptual systems, and thus we do alter our schemas. Piaget's concepts of assimilation and accommodation both operate, even if our preference is for one (assimilation) over the other (accommodation). Thus, normal change is likely to occur slowly and gradually and to occur in our narrower schemas -- the stability of our conceptual system is not jeopardized by such change (as compared to the sudden shattering in our most fundamental assumptions which often results from the experience of trauma). Although change in basic assumptions may occur in response to pervasive change in narrower schemas, such a situation is the exception rather than the rule, because cognitive conservatism is strongest and most influential at the level of our most fundamental assumptions. Slow, incremental change at this level of our representational worlds is especially important to ensure stability (Janoff-Bulman, 1992).

According to Janoff-Bulman (1992), after the occurrence of trauma, the survivor is stuck between two untenable cognitive-emotional choices: preexisting assumptions that are no longer viable in describing the world and oneself and new assumptions that

not only involve a total restructuring of prior beliefs, but that are themselves extremely negative and threatening. She stresses that when coping with the trauma is successful, both the cognitive and emotional systems are “satisfied.” That is, the new conceptual system should be considered a valid and reliable guide for interacting with the world, and should also be agreeable enough so as to minimize emotional pain (even though this new representational world is likely to be less pleasant and positive than the survivor’s prior conceptual system). She maintains that this restructuring is likely to involve integration of old and new views, such that the newly created assumptive world will fall somewhere between the two extremes.

Janoff-Bulman (1989; 1992) contends that although survivors of trauma may return to high levels of functioning, even after the most extreme experiences, they will rarely ever be the same as they were before the occurrence of trauma. She maintains that trauma survivors do not simply get over their experience, it is permanently changes their assumptive worlds -- “the legacy of traumatic life events is some degree of disillusionment” (Janoff-Bulman, 1992, p. 171). Thus, according to Janoff-Bulman, recovery from trauma occurs not when survivors return to their prior assumptive world but when they reestablish an integrated, comfortable assumptive world that incorporates the traumatic event. This integration involves appraisal and interpretation of the traumatic material so as to render it somehow less threatening. People who can think flexibly and creatively and who can review and reshape from multiple perspectives are likely to have an advantage in recovering from traumatic life events. According to Janoff-Bulman, the representational worlds of those who have recovered from traumatic events reflect acknowledgment of misfortune and awareness of vulnerability; survivors

know that their prior assumptions were naive, that trauma can strike, and that no one is invulnerable. That being said, however, their assumptive worlds are not entirely negative -- malevolence, meaninglessness, and self-deprecation do not characterize their schemas. Rather, survivors recognize the possibility of trauma but do not allow it to pervade their assumptive worlds. Eventually, they manage to minimize the extent to which the traumatic experience defines their fundamental assumptions. Rather than overgeneralize from the trauma to all aspects of their representational worlds, survivors eventually reestablish positive, yet not absolutely positive, fundamental assumptions -- "Survivors are often guardingly optimistic, but the raw absolutism of earlier days is gone" (Janoff-Bulman, 1992, p. 174).

Similarly, according to Horowitz (1979), after the occurrence of trauma, individuals usually go through an emotionally difficult period during which they attempt to make sense of their experience. This period is characterized by high levels of both intrusion of thoughts and feelings and denial of thoughts and numbing of emotions, both hallmarks of PTSD (American Psychiatric Association, 1994). During this period, changes occur in the survivor's schemas about the self, others, and the world. Some of these changes are due to alterations in dominance among models, and others are due to information of new models. These changes are based on the gradual processing of the new information provided by the traumatic event. Change in internal representations occurs because these representations are used to interpret new information and are revised to remain true to current reality. Thus, traumatic events present new information that will eventually change these internal representations.

Horowitz maintains, however, that final change is slow and that time is essential for review of the implications of the information and the available options for response. Thus, the mind continues to process important new information until the situation or the inner representations change, and reality and inner representations of reality reach accord. Horowitz terms this tendency to integrate reality with cognitive schemas as *completion tendency*. He posits that until completion occurs and the traumatic event is integrated into existing schemas, the new information and reactions to it are stored in *active memory*. With respect to very important information, such as that provided by traumatic events, termination in active memory will not occur until information processing is complete. Active memory has an intrinsic property of repeated representation; repetitive phenomena include intrusive thoughts and images about the trauma and are accompanied by periods of intense emotional experience. A complementary set of reactions during this period includes denial and emotional numbing; these are regarded as defensive processes that serve to protect individuals from becoming overwhelmed by powerful negative information provided by the traumatic experience and by sudden changes in core schemas. Thus, when information from the trauma is being processed and is stored in active memory, individuals oscillate between periods of intrusion of traumatic content and denial/numbing (this active memory period parallels what Janoff-Bulman outlined as the immediate impact of trauma, when core fundamental assumptions are suddenly 'shattered'). When information processing is complete, ultimately a gradual process, it will cease to be stored in active memory and the information will become a part of long-term representations and revised cognitive schemas (Horowitz, 1979).

Much like Janoff-Bulman and Horowitz, Roth and Newman (1991; 1993) posit that the invalidation of fundamental beliefs which often accompanies traumatic events, leads to a compensatory search for meaning. They argue that the construction of a modified belief system is required, and that this belief system may be either adaptive or maladaptive. They define adaptive schema resolution as the modification or accommodation of the belief system in a way that both incorporates information from the trauma and that allows for realistic coping with and enjoyment of life, while recognizing its limitations. By contrast, maladaptive schema resolutions provide an overly restrictive and biased way of relating to the world and tend to be accompanied by a chronic state of negative affect. They cite a study of individual differences in long-term recovery in 13 sexual assault survivors conducted by Dansky (1991, as cited in Roth & Newman, 1993) who administered a complete clinical interview as well as a battery of standardized coping and outcome measures. The results of this study indicated that progress in working through trauma-related maladaptive schemas and negative affects was directly related with fewer psychological difficulties, whereas characteristics of the assault, demographic variables, coping and social support measures, and a self-report measure of their themes were not predictive of psychological outcome.

In sum, after the experience of trauma, many survivors eventually integrate traumatic information into a modified belief system which incorporates information about the trauma to help guide future interactions with others and the world, but which is positive enough to allow for the subsequent enjoyment of life. However, some individuals may not be as successful as others at coming to terms with extremely traumatic experiences. Reflecting back on the findings of Pennebaker and his colleagues

that while generally “confession is good for the soul,” but that for some individuals “let sleeping dogs lie” is better for mental health, it is understandable why journalling may be beneficial for some, but certainly not for all, survivors. In particular, journalling may not be helpful for survivors of traumatic experiences who have failed to integrate traumatic content into their previously held representations. These individuals would likely think about past trauma with negative schemas and shattered assumptions that they have not been sufficiently worked through and assimilated. Their thinking, and therefore their journal entries, would likely to be permeated by cognitions of malevolence and ill-will in the world, and feelings of self-blame, worthlessness, and helplessness to protect the self. Thus, instead of journalling being a helpful process that further adds meaning to the traumatic experience for the survivor, it may only reinforce existing beliefs and the negative affects which accompany these beliefs.

Initially, this contention may seem paradoxical in that, as discussed previously, one of the functions of journalling is actually to help make meaning of traumatic experiences. However, it may be that in order for journalling, an independent and self-directed exercise, to be useful for this purpose, there needs to be some basic healing or some retention of positive beliefs about the self, others, and the world. In concordance with this, several authors have suggested that although recounting trauma is often seen as cathartic, simply recounting and reliving the trauma is not, in and of itself, therapeutic and can in fact lead to an increase in intrusive and painful thoughts, with an accompanying increase in distress and symptomology (Mollica & Lavelle, 1998; as cited in Young, 1998). Therefore, the clinician’s main goal is to help patients reframe what has happened to them; this reframing allows survivors to avoid getting stuck in the pain

by experiencing it in a more meaningful way (Agge, 1989; Lyndy, 1986; both as cited in Young, 1998).

Coping

It should be recognized that the response to any particular life event must be understood in terms of the particular individual involved, and how that event is appraised and interpreted by the that individual. Personality and social psychologists generally agree that any particular response is a function of both the person and the situation.

Theory and research have identified coping processes as a possible mediator of the relationship between stressful life events and subsequent psychological and physical well-being (e.g., Endler, 1988; Folkman, Lazarus, Gruen, & DeLongis, 1986; Locke, Hurst, Heisel, Kraus, & Williams, 1979; all as cited in Higgins & Endler, 1995). Coping may be defined as “an effortful (as opposed to automatic) response designed to manage external or internal demands appraised as taxing by the individual. Efforts to cope may include cognitive or behavioral responses and are not limited to those yielding successful outcomes” (Halstead, Johnson, & Cunningham, 1993, p. 337). Coping strategies play a significant role in a person’s adaptation to stressful life events. Particular coping strategies can either facilitate or impede both mental and physical health (Clark & Hovanitz, 1989; Endler & Parker, 1990a; 1990b; Suls & Fletcher, 1985; all as cited in Endler & Parker, 1994). Further, characteristics of the stressful situation and the individual, as well as how the individual appraises the situation, all appear to influence the coping response (Halstead et al., 1993). Moreover, individuals may have characteristic coping patterns or styles (Fleishman, 1984; Miller, Brody, & Summerton, 1988; both as cited in Endler & Parker, 1990; Higgins & Endler, 1995).

There are two dimensions of coping about which there is a good deal of agreement about in the literature: problem-focused coping, aimed at altering person-environment relationships, and emotion-focused coping (e.g., avoidance, wishful thinking, seeking social support), aimed at regulating emotional distress (Lazarus & Folkman, 1984; 1987; both as cited in Endler & Parker, 1994; Higgins & Endler, 1995). Although the distinction between problem-focused and emotion-focused coping is an important one, some have demonstrated that it is too simple. In general, researchers view factors other than problem-focused coping as variations on emotion-focused coping. However, these factors often diverge quite sharply in character, to the extent of being inversely correlated (Scheier, Weintraub, & Carver, 1986, as cited in Carver, Weintraub, & Scheier, 1989). Thus, it has been argued that emotion-focused responses are very different from each other, and they may have very different implications for a person's success in coping (Carver et al., 1989). In emotion-focused coping strategies such as wishful thinking, self blame, and avoidance have been found to be associated with greater psychological distress (Brombardier, D'Amico, & Jordon., 1990, as cited in Charlton & Thompson, 1996; Charlton & Thompson, 1996; Higgins & Endler, 1995) while the seeking out of social support has generally been found to predict better recovery from stressful events (Higgins & Endler, 1995).

The types of coping strategies utilized by an individual in dealing with traumatic experiences may influence the effect that these types of experiences have on the individual's inner representations. People who use more adaptive coping mechanisms (such as problem-focused coping or seeking social support) may establish more positive inner representations following the experience of trauma than individuals who use less

adaptive coping strategies (such as wishful thinking, avoidance, and self blame).

Furthermore, the use of different coping mechanisms may also affect one's ability to effectively use journalling. This effect may be indirect, due to the influence of coping on inner representations. There may also be a direct effect of coping style on the efficacy of journalling. For example, if strategies such as avoidance of the problem or blaming the self are used within journalling, journalling is not likely to be effective.

Present Study

Journalling about trauma helps individuals find meaning in their traumatic experiences and results in positive effects on health and in enhanced feelings of well-being. However, for some individuals, or under certain conditions, it may actually be better to refrain from writing about, or otherwise relaying information about traumatic experiences. The overall objective of this study was to examine the effects of journalling in dealing with traumatic experiences. It was contended that the effect of journalling in coping with, and ameliorating the effects of traumatic events depends on the nature of one's fundamental inner representations. Thus, restricted and overly biased negative core beliefs were thought to impede processes such as journalling about one's life or one's traumatic experiences and reviewing one's life in an attempt to achieve integrity in the latter phases of life. Conversely, positive core beliefs were thought to enhance these processes.

More specifically, the following hypotheses were examined. (1) Participants who have coped well with trauma (as indicated by measures of well-being) will be more likely to use more adaptive coping mechanisms, such as problem-focused coping or seeking social support, than will participants who did not cope as well, who will be more likely to

use less adaptive coping mechanisms, such as blaming themselves, wishful thinking, and avoidance. (2) As discussed previously, one effect of trauma is the shattering of core inner representations, with these shattered representations being associated with other posttraumatic effects. Furthermore, adaptive resolution seems to be the eventual restructuring of the conceptual system so that some positive aspects of the self, others, and the world are accepted so that inner representations are agreeable enough to minimize emotional pain. Thus, it was hypothesized that survivors who have coped well with trauma (as indicated by measures of well-being) will evidence more complex core schemas (i.e., that recognize both positive and negative aspects of self, others, and the world) than survivors who did not cope as well (who will evidence more unilaterally negative assumptions in these core areas). (3) Participants who use more adaptive coping mechanisms (such as problem-focused coping and seeking social support) will evidence more positive inner representations than those who used more maladaptive coping mechanisms (such as avoidance, wishful thinking, and self blame). (4) There will be an interaction effect whereby participants who hold more positive core schemas will obtain better scores on measures of well-being if they journal about traumatic experiences, whereas participants who hold negative core schemas will fare better if they write about superficial topics.

Method

Participants

Participants were 95 adults who had experienced traumatic events. They were recruited using university and community notices, networking among counseling and similar public services within the community, and media appeals, as well as through the

first year psychology student subject pool. The recruiting notice read: “We are looking for individuals who have experienced traumatic or very stressful life experiences to participate in a study investigating your coping process and how these experiences have affected your views of yourself, other people, and the world. You will also be asked to do some journal writing for 20 minutes on 4 consecutive days. Confidentiality assured.”

At first contact, participants were told about the nature of the study, that some of the questions would ask about traumatic experiences, and that the study might be upsetting for some individuals. Individuals who were currently engaged in therapy were encouraged to speak with their therapist prior to deciding to participate. Potential participants were also asked whether they were currently engaging in self-harmful actions or feeling suicidal. Several participants responded affirmatively and these individuals were asked to wait until they were more grounded before participating in this or another study. Upon completion, participants were debriefed (see Appendix I), provided with a list of community resources, and told that they were welcome to contact the researcher to report if their participation caused them any distress.

The participant mortality rate between the two testing sessions was quite low (11.6%). This indicates that participants took their involvement in the study seriously and that their responses should hold some validity.

Participants’ journal entries were read to ensure that they had followed the journalling instructions. Indeed, most participants did follow the journalling instructions they were given. However, five of the original 100 participants did not journal appropriately and were omitted for this reason.

Measures

A brief preliminary questionnaire for the assessment of demographic information, including questions about each participant's age, education, employment, income, ethnic background, relationship status, and number of children was given to all participants (see Appendix I for all research materials).

Participants were also administered an abbreviated version of the Mini-International Neuropsychiatric Interview (MINI) (Sheehan, Lecrubier, Janavs, Knapp, Weiller, et al., 1992). This is a clinician (or in this case researcher) administered interview covering a range of mental disorders comprised within the DSM-IV. The interview portions pertaining to major depression, generalized anxiety disorder, social phobia, psychotic disorders, posttraumatic stress disorder, and obsessive compulsive disorder were utilized in the current study. Questions within each disorder are comprised of the symptoms for that disorder that are set out in the DSM and participants are asked to respond either 'yes' or 'no' to each question (symptom). Number of responses to which the participant responded 'yes' within each subcategory of each disorder are summed, and the summary score indicates whether the participant has or does not have the disorder, based on guidelines from the DSM.

Trauma history. The Traumatic Life Events Questionnaire (TLEQ; Kubany, 1998) was used to assess participants' history of traumatic experiences. This 23-item questionnaire assesses exposure to a broad spectrum of potentially traumatic events. Events are described in behaviourally descriptive terms (consistent with DSM-IV stressor criterion A1). Specifically, the questionnaire assesses exposure to 22 types of potentially traumatic events, ranging from natural disasters, accidents, assaults, and childhood abuses. The frequency of occurrence of each event is assessed by participants indicating

if each event occurred never, once, twice, three times, four times, five times, or more than five times. When events are endorsed, respondents are asked if they experienced intense fear, helplessness, or horror (which is the PTSD stressor criterion A2 in the DSM-IV). TLEQ scores were calculated by summing the number of traumatic events reported by participants which they also reported as causing fear, helplessness, and/or horror.

In separate studies using samples of college students, Vietnam veterans, battered women, and residents of a substance abuse program, most items possessed adequate to excellent test-retest reliability. For example, in a sample of battered women in a self-help program, Kappa coefficients were above .40 for 20 of 21 items and at .60 or above for 12 items. The overall mean percentage of test-retest agreements ranged from 50% to 100% and averaged 86%. With respect to convergent validity, in a study comparing the TLEQ with a face-to-face structured interview of trauma history, the Traumatic Life Events Interview (TLEI; Kubany, 1995), which is composed of questions that correspond to questions on the TLEQ, the two yielded similar rates of disclosure. Comparison of agreements where the TLEQ and the TLEI were administered one week apart, Kappa coefficients were above .40 for 13 of 16 items (this was an earlier version of the TLEQ before some additional items were added) and above .60 for 5 items. For the 16 events, the overall mean percentage of questionnaire-interview agreements ranged from 72% to 100% and averaged 85%. In addition, the magnitude of the difference in disclosure rates between the TLEQ and TLEI were small and nonsignificant for each of the 16 specific types of trauma assessed. With respect to content validity, rates of trauma exposure were extremely high for both men and women in a residential substance abuse program sample; these results are consistent with those obtained in other studies (Dansky, Brady,

Saladin, Killeen, Becker, & Roitzch, 1996; Tremayne, Kubany, Leisen, Owens, 1998; both as cited in Kubany, Haynes, Leisen, Owens, Kaplan, Watson, Burns, & Martin, 1998).

Schema measures. The World Assumptive Scale (WAS; Janoff-Bulman, 1989) is a 32-item self-report questionnaire designed to assess an individual's basic assumptions. It examines three major categories of assumptions: the benevolence of the world, the meaningfulness of the world, and the worthiness of the self. These main scales consist of eight subscales representing more specific beliefs. 'Benevolence of the World' is made up of two 4-item subscales tapping the benevolence of people and the benevolence of the world; 'Meaningfulness of the World' is made up of three 4-item subscales assessing an individual's beliefs in justice, control, and randomness; and 'Self-Worth' is comprised of three 4-item subscales measuring beliefs about self-esteem, personal control, and luck. Sample items for each of the three core assumptions are: benevolence of the world ("The good things that happen in this world far outnumber the bad"), meaningfulness of the world ("If people took preventive actions, most misfortune could be avoided"), and self-worth ("I often think I am no good at all" -- reverse scored). Respondents are asked to indicate their agreement to each item on a 6-point Likert-type scale with 1 indicating 'strongly disagree' and 6 indicating 'strongly agree'. Mean scores across the relevant items for each of the subscales were obtained. Similarly, scores for the three core assumptions were computed by summing the subscales corresponding to each of the assumptions specified by Janoff-Bulman (1989). Janoff-Bulman (1989) found the eight 4-item subscales to have reliabilities between .67 and .78 and alphas from .67 to .83. Similarly, Schwartzberg and Janoff-Bulman (1991) obtained reliabilities of .87, .76, and

.80 for the 8-item Benevolence of the World scale, the 12-item Meaningfulness of the World scale, and the 12-item Self-Worth scale, respectively. Likewise, Ullman (1997) obtained reliabilities of .86, .74, and .87 for Benevolence of the World, Meaningfulness of the World, and Self-Worth, respectively.

The Trauma Constellation Identification Scale (TCIS; Dansky, Roth, & Kronenberger, 1990) is a 30-item self-report instrument designed to assess maladaptive cognitive schemas and negative affects associated with a stressful or traumatic life event. This instrument taps fifteen major categories (nine schemas and six affects) which were based upon the themes found in previous work on the effects of trauma (see Roth & Lebowitz, 1988; Roth & Newman, 1990; both as cited in Dansky et al., 1990). Four of the schema categories coincide with Epstein's (1990) fundamental maladaptive beliefs that may stem from traumatic experiences: (1) the malevolence of the world (Malevolent World), (2) the meaninglessness in the world (Meaningless World), (3) the lack of trust of others (Trust), and (4) the belief in personal unworthiness (Self-Worth). The additional five schema categories were conceptualized as more specific aspects of Self-Worth: (5) Alienation, (6) Self-blame, (7) absence of reciprocity in relationships (Reciprocity), (8) Isolation, and (9) lack of legitimacy of feelings (Legitimacy). The six affective categories include: (1) Helplessness, (2) Rage, (3) Fear, (4) Loss, (5) Shame, and (6) Overwhelming emotions. Two statements representing each of the fifteen categories comprise the scale; these were derived from actual statements made by trauma survivors during the course of group psychotherapy. For each statement, respondents are asked to circle the number which best indicates their level of agreement or disagreement ranging from (1) 'strongly disagree' to (7) 'strongly agree'. The TCIS has high internal

consistency reliability (Cronbach's $\alpha = .94$). The 15 subscales comprise two higher-order factors – the factor named 'Negative Self Schemata and Affects' includes affect and schema categories that involve negative feelings and attitudes about the self, and the factor named 'Hostile World' encompasses hostile feelings and attitudes toward the world or other people. With respect to construct validity, the TCIS is significantly related to intrusions, denial, and avoidance coping, all of which are core elements of posttraumatic stress disorder. The TCIS was used as a measure of inner representations in this study, and thus a composite of the 9 schema categories was used in the analyses (the six affective categories were disregarded). Thus, TCIS scores in subsequent sections refer to scores on the schema category subscales of this measure.

Measures of well-being. The Trauma Symptom Inventory (TSI; Briere, 1991) is a 100-item self-report measure used to assess posttraumatic stress and other psychological sequelae of traumatic experiences. It was created for the evaluation of traumatic symptomatology, including, but not limited to, the effects of rape, spousal abuse, physical assault, combat, major accidents, and natural disasters, as well as the lasting sequelae of childhood abuse and other childhood traumatic events. Participants indicate how frequently each item occurred for them over the prior 6 months using a 4-point scale ranging from 0 (never) to 3 (often) (Briere, 1991). The scales of the TSI assess a wide range of psychological impacts, including not only symptoms typically associated with Posttraumatic Stress Disorder (PTSD) and Acute Stress Disorder (ASD), but also the intra- and interpersonal difficulties often associated with more chronic psychological trauma. Specifically, the TSI is comprised of the following scales: Anxious Arousal, Depression, Anger/Irritability, Intrusive Experiences, Defensive Avoidance, Dissociation,

Sexual Concerns, Dysfunctional Sexual Behavior, Impaired Self-Reference, and Tension Reduction Behaviour. The Anxious Arousal scale measures symptoms of anxiety, especially those associated with posttraumatic hyperarousal; the Depression scale measures depressive symptomatology, in terms of both mood state (e.g., sadness) and depressive cognitive distortions (e.g., hopelessness); the Anger/Irritability scale measures anger or irritable affect, as well as angry cognitions and behaviour; the Intrusive Experiences scale measures intrusive symptoms associated with posttraumatic stress, including intrusive thoughts, flashbacks, and nightmares; the Defensive Avoidance scale assesses both cognitive and behavioural posttraumatic avoidance; the Dissociation scale measures dissociative symptomatology, including depersonalization, derealization, out-of-body experiences, and psychic numbing; the Sexual Concerns scale assesses sexual distress, including dissatisfaction, dysfunction, and unwanted sexual thoughts or feelings; the Dysfunctional Sexual Behavior scale assesses sexual behaviour that is dysfunctional, either due to its indiscriminant quality, its potential for self-harm, or its inappropriate use to accomplish nonsexual goals; the Impaired Self-Reference scale measures problems related to the 'self,' such as identity confusion, self-other disturbance, or a relative lack of self-support; and the Tension Reduction Behavior scale assesses the use of external methods of reducing internal distress, such as self-mutilation, angry outbursts, manipulative behaviour, and suicide threats. Total scores based on the 10 clinical scales of the TSI are internally consistent (with alphas of .86, .87, .84, and .85 in standardization, clinical, university, and military samples, respectively) and according to Briere (1991) exhibit good convergent, predictive, and incremental validity. For example, in a standardization sample of 449 participants, the TSI scales predicted PTSD

status (as assessed by other measures) for over 90% of the participants. Similarly, the TSI identified 89% of psychiatric inpatients independently diagnosed with Borderline Personality Disorder.

Finally, a global measure of life satisfaction, the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985) will be administered. The SWLS is a 5-item scale designed to assess one component of subjective well-being, namely global life satisfaction, and thus does not tap related constructs such as positive affect or loneliness. Ratings occur along a 7-point Likert scale ranging from “strongly disagree” to “strongly agree.” Scores are obtained by summing scores on the five items, so the possible range of scores on the questionnaire is from 5 (low satisfaction) to 35 (high satisfaction). Diener et al. (1985) reported the SWLS to have good psychometric properties, including high internal ($\alpha = .87$) and temporal reliabilities (test-retest correlation coefficient = .82). They note that scores on the SWLS correlate moderately to highly with other measures of subjective well-being, and correlate predictably with specific personality characteristics (e.g., self-esteem, neuroticism, emotionality, sociability, and impulsivity).

Coping. To assess participants’ coping behaviour, the Ways of Coping Checklist Revised (WCCL-R; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985), a revision of the widely used Ways of Coping Checklist (WCCL; Aldwin, Folkman, Shaefer, Coyne, & Lazarus, 1980; Folkman & Lazarus, 1980; both as cited in Vitaliano et al., 1985) was administered. This 42-item scale is made up of 5 subscales assessing the use of five different coping mechanisms: problem-focused coping, avoidance, wishful thinking, self blame, and seeking social support. Participants are asked to indicate the degree to which

they use the coping method represented by each item to deal with a particular problem using a 4 point scale, where 0 indicates 'do not use' and 3 indicates 'use a great deal'.

This scale is shorter and has been shown to have better psychometric properties than the original (Vitaliano et al., 1985). Bruchon-Schwietzer, Cousson, Quintard, Nuissier, & Rasle (1996) used this revised version of the WCCL for their French adaptation of the measure for the same reasons. Vitaliano et al. (1985) administered this scale to three groups (1) outpatients in a specialized treatment program for anger and dyscontrol ($n = 83$), (2) spouses of patients with Alzheimer's disease who were being seen supportively at a Hospital ($n = 62$) and (3) first and second year medical students ($n = 425$). The authors reported this scale to have respectable internal consistencies (ranging from .76 to .83) and construct and criterion validities. For example, the researchers investigated construct validity by using the guideline that associations between theoretical constructs should be replicated across at least two different samples. Overall, they found that there were 10 replicated relationships between the WCCL-R and appraisal of the stressful event and distress which would have been anticipated theoretically from the transactional model of stress (Lazarus & Launier, 1978, as cited in Vitaliano et al., 1985) and from the empirical findings of Folkman & Lazarus (1980, as cited in Vitaliano et al., 1985). For example, theoretically predicted associations of the coping scales with anxiety and depression provided strong evidence for the measure's construct validity. Finally, neither the WCCL or the WCCL-R were related to demographic factors.

Procedure

The researcher began by reiterating the nature of the study and receiving participants' informed consent (see Appendix I). The participants were then asked to complete a questionnaire booklet containing the measures described above, which appeared in randomized orders.

In concordance with the experimental paradigm of Pennebaker and his colleagues (1997), using random assignment, 36 of the participants were instructed to journal about an everyday topic of their choice for 20 minutes on four consecutive days (could have been the same topic or different topics for the different days). The other 59 participants were directed to journal about a traumatic event(s) in their lives for 20 minutes on 4 consecutive days (again they could have written about the same event or different events on different days).¹ Written instructions for the journalizing were provided to both groups. Participants asked to write about superficial topics were instructed as follows:

During each of the four writing days, please write for 20 minutes about some everyday topic (for example, what you had for breakfast, the tree outside your window, or who makes a better superhero, superwoman or spiderman). You may write on different topics each day or on the same topic for all four days. Do not worry about grammar, spelling, or sentence structure.

The instructions provided to the participants asked to write about the traumatic experiences of their lives read as follows:

During each of the four writing days, please write for 20 minutes about traumatic or stressful life events that you have experienced. You can write about different feelings or events each day or the same feelings/event for all four days. But whatever you choose, it should be something that has affected you very deeply. Do not worry about grammar, spelling, or sentence structure.

¹ Proportional rather than equal samples sizes were used because many of the originally planned analyses were to be carried out on the traumatic journaling group only, thus it was important to ensure a good power level for this sample.

Participants were asked to meet with the researcher two weeks after their last journal day to respond once again to some of the questionnaires contained in the questionnaire booklet (i.e., the WAS, the TCIS, the TSI, and the SWLS). It was decided to wait a couple of weeks before re-testing the participants on the above-mentioned measures because, as discussed previously, the immediate effects of journalizing about upsetting/traumatic experiences have been found to be negative, with these negative effects dissipating usually within a couple of days, or at most one week after the journalizing, and with the positive long-term effects of journalling emerging at this time (Pennebaker, 1997). Upon completion, participants were debriefed, provided with a list of community resources, and told that they are welcome to contact the researcher to obtain counseling if their participation caused them any distress.

Although journalling should be beneficial for most participants, it may be ineffective, or may function to reinforce posttraumatic effects for others. Participants were informed of these contentions in the consent form (see Appendix I). Furthermore, when participants met with the researcher two weeks after their last journalling day to obtain posttest scores, they were asked formally about any problems they may be experiencing as a result of their participation. Moreover, participants who responded 1 or higher on the Likert-type scale of the TSI [which ranges from 0 (never) to 3 (often)] for item 25 "threatening or attempting suicide" or who responded 'yes' to the MINI item "have you thought that you would be better off dead or have you thought about hurting yourself," were debriefed verbally (in addition to the written debriefing) and directed to the references provided in the written debriefing form. Finally, participants in the trauma journalling group were telephoned two weeks after their final participation session to

make sure that their participation did not have any ill-effects. Referral services available in the community were again provided. In addition, participants were advised that they may also contact the researcher to talk about any difficulties if necessary.²

Results

The initial analyses examined the sample's demographic characteristics, the internal consistency of the scales in the study and their interrelations, and the descriptive characteristics of the participants' scores on the conceptual variables of the study. The main analyses assessed the effect of journalling on well-being and the relations between well-being, inner representations, coping, and trauma. The last set of analyses examined the extent to which participants' demographic characteristics were related to key variables in order to identify potential confounding variables and to gain insight into the generalizability of the findings.

Initial Analyses

Demographic characteristics of the sample. Participants were between the ages of 19 and 62 ($M = 34.4$, $SD = 11.2$). The female to male ratio was about 3:1, in that 71 (74.7%) of the participants were women and 24 (25.3%) were men. Of the 95 participants, 59 (62.1%) were single, 12 (12.6%) were married, 6 (6.3%) were living with a partner, and 17 (17.9%) were divorced. About one third of the participants were parents, and the average number of children per parent was 2.1. On average, the participants reported having 15.2 years of education ($SD = 2.4$), which translates into an average of 2 years of post-secondary schooling. Twenty-two percent had completed at least secondary school and 78% had at least some post-secondary education. With regard

² The researcher has been a volunteer at the Ottawa Rape Crisis Centre as a counselor on the 24-hour crisis

to employment, 24.2% of the participants were employed full-time and another 26.3% were employed part-time, while 48.4% were either full- or part-time students. About a fifth (21.1%) were living on disability payments. Other participants described themselves as unemployed (12.6%), on social assistance (6.3%), as homemakers (6.3%), or as retired (1.1%). The mean family income reported by participants was between \$25, 000 and \$34, 999, but reported incomes ranged from less than \$15, 000 per year (32.6%) to over \$75, 000 (11.6%). With respect to ethnic background, 28 (29.5%) participants reported being Canadian, another 8 (8.4%) self-identified as French Canadian, 32 (33.7%) were of European origin, and 15 (15.8%) came from a visible minority background (largely Asian, East Indian, or Native American). According to the MINI, of the 95 participants, 35 (36.8%) had a diagnosable major depression disorder, 29 (30.5%) had a diagnosable anxiety disorder, and 52 (54.7%) had a diagnosable posttraumatic stress disorder. Seventy-eight (82.1%) of the participants had undergone some type of psychotherapy at some point in their lives, and 36 (37.9%) were currently in therapy. For those participants who had ever had any therapy, the average duration of the therapy was 5.2 years ($SD = 6.1$). Overall, then, the sample was largely composed of white individuals who had at least a high school diploma and engaged in a variety of occupations at a variety of income levels, and who suffered moderately from a number of mental health problems.

Scale homogeneity. Item analyses were conducted to examine the internal consistency of the two well-being measures, the Trauma Symptom Inventory (TSI) and the Satisfaction With Life Scale (SWLS), the two measures of inner representations, the World Assumptions Scale (WAS) and the Trauma Constellation Identification Scale

line since 1996 and volunteered at the London and District Distress Centre on a 24-hour hotline in 1994.

(TCIS), and the 5 coping subscales. As shown in Table 3, all of the scales showed good inter-item consistency, with alphas ranging from .75 to .98. Higher scale scores on each of the measures indicated more of the attribute in question.

Due to the low item-total correlation on the total scale score, one of the items from the World Assumptions Scale (“Life is too full of uncertainties that are determined by chance”) was deleted from the WAS total score and from the Meaningfulness of the World subscale to which it belonged, to achieve satisfactory homogeneity. Scale scores were formed by calculating the mean of participants’ responses across relevant items on this scale. It was decided to use the WAS total score, rather than the subscale scores because all subscales were highly correlated with the total score, and multicollinearity was a concern ($r = .70, p < .01$; $r = .58, p < .01$; $r = .81, p < .01$, for the relationship between WAS total scores and the Benevolence of the World, Meaningfulness of the World, and Self-Worth subscales, respectively).

Although there were some high intercorrelations between the coping subscales (correlations ranged from .02 to .68), a composite coping score was not used. This is because there is really no viable total score for this measure and each of the subscales represent distinct constructs (representing unique coping strategies) which cannot be averaged. In addition, unlike with the WAS, the subscales themselves are not all positively correlated. Thus analyses using these subscales had to be interpreted with caution.

Item analyses were not conducted for the TLEQ because this was a count variable where a score was obtained by counting the number of items endorsed. Further, items on this scale were not expected to be correlated because they, themselves, were qualitatively

different (e.g., having experienced combat does not make one more likely to have been raped or to have experienced a natural disaster).

Table 3

Summary of Scale Item Analyses

Measure	Number of items	Alpha
WAS total scale	32	.86
WAS – Benevolence of the world	8	.88
WAS – Meaningfulness of the world	12	.75
WAS – Self-worth	12	.83
TCIS	18	.93
TSI	100	.98
SWLS	5	.92
Coping:		
Problem-focused	14	.84
Blamed self	3	.77
Avoidance	10	.79
Wishful thinking	8	.85
Seeks social support	6	.84

Validity of the MINI. The validity of the MINI was examined because it was an interview with a fair degree of subjective interpretation. Moreover, the researcher administering the interview had not been trained to any extent in its administration. The Depression, Anxiety, and PTSD subscales of the MINI were analyzed for construct validity with other measures used in the study. The validity of the major depression diagnosis was checked using scores on the depression subscale of the TSI and scores on the SWLS. Indeed, those who were found to have major depression using the MINI obtained significantly higher scores on the depression subscale of the TSI ($M = 2.11$, $SD = .77$) than those who were not found to have major depression ($M = .95$, $SD = .65$), $t(92) = 7.87$, $p < .001$. Similarly, participants who were found to have major depression

using the MINI were found to score significantly lower on the SWLS ($\underline{M} = 2.62$, $\underline{SD} = 1.19$) than participants who were not found to have major depression ($\underline{M} = 4.41$, $\underline{SD} = 1.50$), $t(92) = -5.62$, $p < .001$. The validity of the MINI generalized anxiety disorder diagnosis was checked using the anxious arousal subscale of the TSI. Those who were found to be positive for generalized anxiety disorder according to the MINI scored significantly higher on the anxious arousal subscale of the TSI ($\underline{M} = 1.79$, $\underline{SD} = .63$) than those who were not ($\underline{M} = 1.27$, $\underline{SD} = .66$), $t(92) = 3.59$, $p < .01$. Three TSI subscales, the anxious arousal subscale, the intrusive experiences subscale, and the defensive avoidance subscale, were used to check the validity of the PTSD diagnosis of the MINI.

Participants who were diagnosable with PTSD according to the MINI, scored significantly higher on all three of these TSI subscales ($\underline{M} = 1.68$, $\underline{SD} = .66$; $\underline{M} = 1.62$, $\underline{SD} = .78$; $\underline{M} = 1.68$, $\underline{SD} = .68$, for anxious arousal, intrusive experiences, and defensive avoidance subscales, respectively) than participants who did not seem to have PTSD according to the MINI ($\underline{M} = 1.08$, $\underline{SD} = .62$; $\underline{M} = .95$, $\underline{SD} = .75$; $\underline{M} = 1.10$, $\underline{SD} = .75$, for anxious arousal, intrusive experiences, and defensive avoidance subscales, respectively), $\text{Pillai's } \underline{s} = .21$, $\underline{F}(3, 83) = 7.55$, $p < .001$. Thus, it seems that good content validity was demonstrated for this interview, and there is reason to have faith in the description of participants' mental health (provided in the demographic characteristics section) as assessed by this measure.

Descriptive statistics. Table 4 presents the descriptive statistics for participants' scores on the conceptual variables of the study. As shown there, participants experienced an average of 21.0 discrete traumatic events, although there was quite a bit of variability ($\underline{SD} = 18.9$). Due to the fact that one of the response options available for each event was

“greater than 5 times.” it was not possible to assess the actual number of times traumatic events had been experienced on average by each participant. On average, participants scored around the midpoint on both measures of inner representations, suggesting that they held moderately negative views of themselves, others, and the world (although it is not clear how these scores compare to individuals without traumatic histories). It may be of note that with respect to scores on the WAS, participants scored somewhat above the midpoint on the *Meaningfulness of the World* subscale and slightly below the midpoint on the *Benevolence of the World* and *Self-Worth* subscales. On average, participants’ scored well below the midpoint on the TSI, suggesting that they were not suffering from posttraumatic symptomatology to a great extent. In addition, participants scored slightly above the midpoint on the SWLS, suggesting that they were moderately satisfied with their current lives. With respect to coping, on average, participants scored at around the midpoint on blamed-self and avoidance coping, suggesting that they used these mechanisms moderately, and scored slightly above the midpoint on problem-focused, wishful thinking, and seeks social support coping, suggesting that they used these coping mechanisms slightly more frequently.

Table 4

Descriptive Statistics for the Conceptual Variables of the Study

Variable	Potential Range	<u>M</u>	<u>SD</u>
TLEQ score	N/A	21.02	18.89
WAS – Benevolence of the world	1-6	3.21	.60
WAS – Meaningfulness of the world	1-6	2.82	.99
WAS – Self-worth	1-6	2.90	.75
TCIS	1-7	3.48	1.34
TSI	0-3	1.07	.54
SWLS	1-7	3.75	1.72
Coping:			
Problem-focused	0-3	1.80	.55
Blamed self	0-3	1.59	.91
Avoidance	0-3	1.48	.65
Wishful thinking	0-3	1.70	.90
Seeks social support	0-3	1.86	.79

Relationships among the conceptual variables of the study were also examined.

Scores on the two measures of well being (TSI, SWLS; which were used as the dependent/criterion variables in the main analyses) were positively correlated, $r = -.53$, $p < .001$, indicating that greater posttraumatic symptomatology was related to lower life satisfaction.

The two measures of inner representations (WAS, TCIS) were significantly correlated ($r = .48$, $p < .001$), providing content validity for the two measures in that the more positive/negative one's inner representations on one of these measures the more positive/negative one's inner representations on the other were likely to be. TLEQ scores and WAS and TCIS scores were not found to be significantly correlated ($r = .04$, ns, and $r = .10$, ns, respectively). This lack of significant positive correlation between number of

traumatic events experienced and inner representation scores contradicts the theory set out in the introduction of this thesis and the findings of previous research.

With respect to the correlations among the coping strategies themselves (see Table 5), problem-focused coping and seeking social support were significantly positively correlated to one another, but were not significantly related to blamed self, avoidance, or wishful thinking coping. Similarly, blamed self, avoidance, and wishful thinking coping were significantly positively correlated with each other. Thus, it seems that the more one uses one positive coping strategy, the more likely one is to use the other positive coping strategy, and the more one uses one negative coping strategy, the more likely one is to use another negative coping strategy, but there is no ability to predict positive coping strategy use from knowledge of negative coping strategy use and vice versa. With respect to the correlations among coping and trauma (see Table 5), only problem-focused, and not seeks social support, blamed self, avoidance, or wishful thinking, coping were significantly related to TLEQ scores. Thus, the more discrete traumatic events experienced by participants, the greater their use of problem-focused coping.

Table 5

Intercorrelations Among Coping Subscales and Trauma

Scale	Problem-focused	Seeks support	Blamed self	Avoidance	Wishful thinking
Problem Focused	--				
Seeks support	.61***	--			
Blamed self	.08	-.02	--		
Avoidance	.03	-.03	.65***	--	
Wishful thinking	.02	.16	.58***	.68***	--
TLEQ	.22**	.14	.09	.05	.03

Main Analyses

The effect of journalling on well-being. Whether or not journalling had any effect on well-being was examined using a pretest-posttest control group design. Specifically, within each 2(journalling: traumatic, superficial) X 2(time: pretest, posttest) mixed factorial analysis of variance (ANOVA) on outcome well-being scores (as indicated by scores on the TSI and SWLS), journalling was a between groups factor and time was a within groups factor. The following assumptions were satisfied for both analyses: groups were drawn from populations that were normally distributed; additivity of effects. Homogeneity of variances, however, was violated in both analyses, Levene's $F(1, 93) = 8.48, p < .05$ and Levene's $F(1, 93) = 7.29, p < .05$, for the ANOVAs on TSI and SWLS scores, respectively.³ However, although participants were independently drawn from the population, they were not randomly assigned, but rather self-selected.

The main effect for time in both analyses was nonsignificant ($F_s < 1$), indicating that participants' scores did not change following their journalling experiences (see Table 6 for means and standard deviations within each condition). The effect of journalling on SWLS posttest scores was also nonsignificant ($F < 1$), indicating that the life satisfaction scores of the two journalling groups did not differ. The effect of journalling on TSI posttest scores was, however, significant, $F(1, 93) = 6.40, p < .05; \eta^2 = .06$. Upon further inspection, however, it seems that this difference came about not as a result of the journalling itself, but due to problems in random assignment in that the time by journalling interaction was not significant for either of the well-being measures, $F(1, 93) = 1.24, ns$, and $F(1, 93) = 3.19, ns$, for the TSI and SWLS, respectively, indicating that

journalling did not contribute to changes between pretest and posttest scores. Further, simple comparisons showed that the two journalling groups did in fact differ on TSI scores at pretest, $F(1, 93) = 5.38, p < .05, \eta^2 = .05$.

Table 6

TSI and SWLS Scores as a Function of Time and Journalling

Variable	TSI		SWLS	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Time				
Pretest	1.04	.06	3.71	.18
Posttest	1.04	.06	3.72	.18
Journalling				
Traumatic	1.18	.07	3.75	.21
Superficial	.89	.09	3.68	.27
Time X Journalling				
Traumatic Pretest	1.17	.07	3.86	.22
Traumatic Posttest	1.19	.07	3.64	.23
Superficial Pretest	.91	.09	3.56	.29
Superficial Posttest	.88	.09	3.79	.29

Although generally journalling did not appear to affect well-being scores, it was thought that perhaps journalling may have been effective for some people but not for others. More specifically, interactions between journalling and inner representations or coping style were expected. To examine this, two analyses of covariances (ANCOVAs) were conducted, one for each measure of posttest well-being (TSI, SWLS) as a criterion variable. The first ANCOVA for each dependent variable examined the moderating effects of inner representations, while the second examined moderating effects of coping style. Within each ANCOVA, the covariate (pretest well-being scores) was entered on

³ Since none of the subsequent analyses were significant, inflation of Type I error that may have resulted from the violations of the assumption of homogeneity of variances was not a concern.

the first step, followed by journalling on the second step, followed by the other main effects (either WAS and TCIS, or the five coping subscale scores), followed lastly by the interactions between the main effects (interaction between journalling and WAS scores and journalling and TCIS scores or the interaction between journalling and each of the coping measures).

With respect to the assumptions of the ANCOVA with inner representations, the covariate was related to the dependent variable in each of the analyses ($r = .93$, $p < .001$ for the relationship between pre- and posttest TSI scores, and $r = .75$, $p < .001$ for the correlation between pre- and posttest SWLS scores). The assumption of homogeneity of the regression coefficients was satisfied in each of the analyses in that the interactions between journalling and each of the pretest well-being scores, inner representation scores and pretest well-being scores, and coping scores and pretest well-being scores were all nonsignificant. The assumption that the pretest well-being scores and journalling not be related in a meaningful way was met for the analyses predicting SWLS scores, $r = -.09$, ns , but was not met for the analyses in which the TSI was used to assess well-being, $r = -.23$, $p < .05$. The ANCOVA was used despite this violation because this assumption exists to ensure that meaningful relationships are not obscured by taking out variability due to the covariate if it is indeed related to the independent variable in a meaningful way. In this case, however, as discussed earlier, it seems that the relationship between journalling condition and TSI scores was a result of the failure of random assignment and so it was regarded as optative to control for this variability. Thus, in this case, the inclusion of pretest TSI scores was not eliminating a meaningful relationship with

journalling, but rather the relationship between these two variables which may have resulted from the failure of random assignment.

The effect of journalling was not found to be significant either for the analysis with TSI well-being scores, $F_{\text{change}}(1, 92) = 1.52$, *ns*, or for the analysis with SWLS well-being scores, $F_{\text{change}}(1, 92) = 2.52$, *ns*, indicating as before that overall the type of journalling used was not a significant predictor of posttest well-being scores (for all zero-order and partial correlations, see Tables 7 through 10).

Similarly, neither the main effects of inner representations or of coping accounted for a significant amount of variability in adjusted TSI scores, both $F_{\text{change}} < 1$, indicating that neither inner representation scores nor coping scores were significant predictors of posttest TSI scores after accounting for variability explained by pretest TSI scores and journalling condition. The main effects of both inner representations and of coping did, however, explain a significant proportion of variability in SWLS scores after accounting for variability explained by pretest SWLS scores and journalling, $R^2_{\text{change}} = .07$, $F_{\text{change}}(2, 90) = 8.62$, $p < .001$ for inner representation main effects, and $R^2_{\text{change}} = .14$, $F_{\text{change}}(5, 87) = 8.78$, $p < .001$ for coping main effects. The inner representation scores were redundant predictors in that only TCIS scores predicted a significant proportion of unique variability in life satisfaction scores, although both had significant zero-order correlations. Negative inner representations, as indicated by higher TCIS (and WAS) scores, were associated with lower life satisfaction, as indicated by lower SWLS scores. Similarly, although together, the coping subscale scores explained a significant proportion of variability in life satisfaction scores, they were redundant predictors in that none explained a significant proportion of unique variability in life satisfaction (although greater use of

blaming the self, avoidance, and wishful thinking coping were all associated with lower life satisfaction when looking at the zero-order correlations; see Table 10).

While main effects of inner representations and coping scores were significant predictors of posttest SWLS scores even after accounting for pretest SWLS scores (and journalling), this does not speak to the moderating effect with journalling on SWLS well-being. To assess this, the interaction between inner representations and journalling and coping and journalling on posttest TSI and SWLS scores, respectively, were examined. None of these effects were found to be significant, $F_{\text{changes}} < 1$. This indicates that regardless of participants' inner representations or the type of coping they used, journalling did not seem to affect well-being.

Table 7

ANCOVA Results on TSI Well-Being with Inner Representations as a Main Effect

Predictor	r	b	B	Partial Cor ²	R ² change
Step 1					.86***
TSI pretest	.93***	1.10***	1.03***	.66***	
Step 2					.002
Journalling	-.26**	-.06	-.05	.02	
Step 3					.001
WAS	.39**	.02	.02	.001	
TCIS	.74**	-.02	-.04	.003	
Step 4					.003
Journalling X WAS	-.08	.11	.33	.02	
Journalling X TCIS	.29***	-.02	-.10	.005	

** p < .01, *** p < .001

Table 8

ANCOVA Results on TSI Well-Being with Coping as a Main Effect

Predictor	r	b	B	Partial Cor ²	R ² change
Step 1					.86***
TSI pretest	.93***	1.15***	1.08**	.26	
Step 2					.00
Journalling	-.26**	-.06	-.05	.02	
Step 3					.01
Coping:					
Problem-focused	-.03	.03	.03	.01	
Blamed self	.55***	-.01	-.01	.0005	
Avoidance	.64***	.03	.04	.004	
Wishful thinking	.60***	.04	.07	.01	
Seeks social support	-.01	-.03	-.05	.01	
Step 4					.01
Interactions between journalling and coping:					
Journalling X problem focused	-.23*	-.05	-.12	.002	
Journalling X blamed self	.31**	.09	.25	.02	
Journalling X avoidance	.28**	-.18	-.37	.03	
Journalling X wishful thinking	.29**	-.02	.05	.0005	
Journalling X seeks social support	-.22*	-.06	-.16	.001	

*p < .05, ** p < .01, *** p < .001

Table 9

ANCOVA Results on SWLS Well-Being with Inner Representations as a Main Effect

Predictor	r	b	B	Partial Cor ²	R ² change
Step 1					.57***
SWLS pretest	.75***	.39*	.39*	.57*	
Step 2					.01
Journalling	.04	.40	.11	.03	
Step 3					.07***
WAS	-.47***	-.12	-.04	.003	
TCIS	-.66***	-.40*	-.31*	.14*	
Step 4					.004
Journalling X WAS	-.16	.38	.39	.01	
Journalling X TCIS	-.40***	.03	.05	.0005	

*p < .05, *** p < .001

Table 10

ANCOVA Results on SWLS Well-Being with Coping as a Main Effect

Predictor	r	b	B	Partial Cor ²	R ² change
Step 1					.56***
SWLS pretest	.75***	.52*	.52*	.56*	
Step 2					.01
Journalling	.04	-.06	-.02	.03	
Step 3					.14*
Coping:					
Problem-focused	.14	.69	.22	.03	
Blamed self	-.55***	-.39	-.21	.05	
Avoidance	-.61***	-.82	-.31	.0003	
Wishful thinking	-.62***	-.81	-.42	.09	
Seeks social support	.09	.59	.27	.01	
Step 4					.03
Interactions between journalling and coping:					
Journalling X problem focused	.13	-.15	-.11	.001	
Journalling X blamed self	-.41***	-.01	-.01	.00002	
Journalling X Avoidance	-.38***	.58	.42	.02	
Journalling X wishful Thinking	-.42***		.20	.004	
Journalling X seeks social support	.11	-.31	-.25	.01	

*p < .05, *** p < .001

Inner representations, well-being, coping, and trauma. In light of the consistent findings that journalling did not influence adjusted scores on measures of well-being, it was decided to look at the correlational data between trauma, inner representations, coping, and well-being, even though these relations were not originally the main foci of this study. In contrast to the previous analyses, all subsequent analyses will involve pretest scores on the TSI and SWLS; because journalling had no effect on the scores.

there was no advantage to using posttest scores, particularly given the possibility of noise variability that may have been introduced as a result of the journalling manipulation.

To examine the extent to which coping mechanisms predicted inner representations, two linear regression analyses, one for each measure of inner representations (WAS, TCIS) were conducted. In both analyses, the following assumptions were satisfied: there was no systematic measurement error in inner representation scores; inner representation scores were normally distributed; errors in the observations were independent of each other; error in inner representation scores was the same across coping scores and this error was not correlated with coping scores, and the underlying relationship between inner representation scores and coping scores was linear. With respect to the predictor variables being fixed, although specific levels of coping scores were not selected a priori, it was assumed that this assumption was met nevertheless, because there was a wide range of coping scores on each of the five coping subscales, with many values at regular intervals between the two extreme values. Moreover, linear regression is fairly robust to the violation of this assumption.

In the regression examining the extent to which coping scores predicted WAS inner representations, combined, coping scores shared a significant amount of variability with WAS scores $R^2_{\text{adjusted}} = .143$; $F(5, 89) = 4.14$, $p < .01$. Examination of the zero-order correlations (see Table 11) indicates that the more negative one's inner representations as measured by the WAS, the more the individual used maladaptive coping strategies such as blaming the self, avoidance, and wishful thinking, and the less likely that the individual used positive coping strategies such as problem-focused coping and seeking social support. An examination of the regression weights for each of the variables,

however, suggested that while most of the coping styles had significant zero-order correlations with WAS inner representation scores (r between seeks social support coping and WAS was $-.15$, $p = .07$), blamed self, avoidance, wishful thinking, and seeks social support coping were all redundant when included together with problem-focused coping in the regression equation (see Table 11). Thus, a greater use of problem-focused coping was predictive of more positive inner representations (as indicated by lower scores on the WAS).

Table 11

Results of Regressing WAS Inner Representation Scores onto Coping Scores

Predictor	r	b	B	Semi-partial corr
Problem-focused	$-.24^{**}$	$-.28^*$	$-.25^*$	$-.19^*$
Blamed self	$.29^{**}$	$.08$	$.12$	$.09$
Avoidance	$.33^{**}$	$.17$	$.19$	$.12$
Wishful thinking	$.30^{**}$	$.07$	$.10$	$.07$
Seeks social Support	$-.15$	$-.004$	$-.01$	$-.004$

$p < .05$, $** p < .01$

In the regression examining the extent to which coping scores predicted TCIS inner representation scores, combined, coping scores shared a significant proportion of variability in TCIS scores, $R^2_{\text{adjusted}} = .43$, $F(5, 89) = 15.22$, $p < .001$. An examination of the zero-order correlations (see Table 12) indicated that, like with the WAS, the more negative one's inner representations as measured by the TCIS, the more likely one was to use negative coping strategies (blamed self, avoidance, and wishful thinking). However, participants' TCIS scores were unrelated to the use of positive coping strategies (problem-focused coping and seeking social support). An examination of the regression weights for the negative coping strategies indicated that wishful thinking was a redundant predictor when included together with blamed self and avoidance coping in the regression

equation (see Table 12). Thus, a greater use of blamed self and avoidance coping were predictive of more negative inner representations (as indicated by higher TCIS scores).

Table 12

Results of Regressing TCIS Inner Representation Scores onto Coping Scores

Predictor	r	b	B	Semi-partial corr
Problem-focused	-.06	-.05	-.02	-.02
Blamed self	.57***	.35*	.24*	.17*
Avoidance	.62***	.67*	.33*	.21*
Wishful thinking	.55***	.30	.20	.13
Seeks social support	-.10	-.18	-.10	-.08

$p < .05$, *** $p < .001$

To examine whether or not participants who coped well with trauma evidenced more complex core beliefs, used different coping strategies, and experienced fewer traumatic events than participants who did not cope as well, 2 hierarchical regression analyses, one for each measure of well-being (TSI, SWLS) were conducted. Scores on each respective measure of well-being were regressed first onto scores on each of the two measures of inner representations (WAS, TCIS), and second onto scores representing the coping measures. If this second step was significant, it would indicate that the coping style(s) one tends to use is predictive of well-being, over and above the nature of one's inner representations. On the third step, scores on each measure of well-being were regressed onto scores representing the trauma history measure (TLEQ). This would indicate whether or not the very experience of trauma affects well-being regardless of how individuals tried to cope with the experience(s) and what types of beliefs or inner representations they came to have. If TLEQ scores were not predictive of well-being in this analysis, it would indicate that it is not the experience of trauma, per se, but rather how it affects beliefs and how one copes with it which are important in determining how

one comes out of the experience. In both analyses, all of the assumptions discussed earlier were similarly satisfied.

In the analysis where well-being was assessed using the TSI, combined, WAS and TCIS scores accounted for a significant proportion of variability in TSI scores [$R^2_{\text{adjusted}} = .605$; $F(2, 92) = 72.87$, $p < .001$]. Inspection of the regression weights for scores on each of the inner representation variables, however, indicated that although both variables showed significant zero-order correlations with TSI scores, WAS scores were redundant when included together with TCIS scores in the regression equation (see Table 13). Thus, negative inner representations (as indicated by higher TCIS scores) were associated with greater symptomatology (as indicated by higher TSI scores).

Combined, the coping subscale scores accounted for a significant proportion of variability in TSI scores over and above the variability already explained by inner representation scores, $R^2_{\text{change}} = .07$, $F_{\text{change}}(5, 87) = 4.07$, $p < .01$. Thus, coping scores directly predicted TSI scores. Inspection of the zero-order correlations between the coping subscales and TSI scores indicated that, once again, only the maladaptive coping strategies were related to scores on this measure of well-being (see Table 13). The more posttraumatic symptoms experienced by participants, the greater their use of avoidance, wishful thinking, and blaming themselves. Inspection of the regression weights for scores on each of the three maladaptive coping subscales indicated that although all three showed significant zero-order correlations with TSI scores, they were redundant predictors when included together in the regression equation. It appears that avoidance coping scores were the best predictor of TSI scores in that even after partialling out the

variability shared with blamed self and wishful thinking scores, avoidance coping still shared a significant amount of unique variability with TSI scores.

TLEQ scores did account for a significant amount of variability in TSI scores even after accounting for the variability that could be explained with inner representation and coping scores, $R^2_{\text{change}} = .02$; $F_{\text{change}}(1, 86) = 4.51$, $p < .05$ (see Table 13 for zero-order and partial correlations). This indicates that regardless of how trauma may have affected one's inner representations, or the type of coping strategies one employed, the greater the number of traumatic events one experienced, the more posttraumatic symptomatology.

Table 13

Results of Regressing WAS and TCIS Scores, Coping Scores, and TLEQ Scores onto TSI Scores

Predictor	r	b	B	Semi-partial cor
Step 1				
WAS	.412***	.04	.05	.04
TCIS	.782***	.31**	.76***	.67***
Step 2				
Problem-focused	-.04	-.06	-.07	-.05
Seeks social support	.00	.06	.09	.07
Blamed self	.58***	.04	.06	.05
Avoidance	.67***	.16*	.20*	.12*
Wishful thinking	.62***	.07	.12	.08
Step 3				
TLEQ	.20*	.003*	.13*	.13*

* $p < .05$, *** $p < .001$

In the multiple regression where well-being was assessed using the SWLS, combined, WAS and TCIS scores shared a significant proportion of the variability in SWLS scores [$R^2_{\text{adjusted}} = .391$; $F(2, 92) = 31.12$, $p < .001$]. Inspection of the regression weights for each of the inner representation variables indicated that they both showed significant zero-order correlations with SWLS scores and that they both shared a significant amount of unique variability with SWLS scores (see Table 14). More

negative inner representations (as indicated by higher scores on the WAS and the TCIS) were associated with lower life satisfaction (as indicated by lower scores on the SWLS).

Once again, the coping subscale scores further accounted for a significant proportion of variability in SWLS scores over and above the variability already explained by inner representation scores, $R^2_{\text{change}} = .07$; $F_{\text{change}}(5, 87) = 2.47$, $p < .05$. Therefore, scores on the coping subscales again directly predicted well-being scores. Inspection of the zero-order correlations between coping subscale scores and SWLS scores indicated, as with the TSI, that only the negative coping strategies were related to SWLS scores (see Table 14). The less participants were satisfied with their lives, the greater was their use of avoidance, wishful thinking, and blaming themselves. Furthermore, inspection of the regression weights for scores on each of the three maladaptive coping subscales indicated that although all three showed significant zero-order correlations with SWLS scores, they were again redundant predictors when entered together in the regression equation (see Table 14). As with the TSI, avoidance scores were the best predictor of SWLS scores in that even after controlling for the variability shared with blamed-self and wishful thinking scores, avoidance coping still shared a significant amount of unique variability with SWLS scores.

TLEQ scores did not predict a significant proportion of variability in SWLS scores after accounting for variability that may be explained by inner representation and coping scores, $F_{\text{change}} < 1$ (see Table 14 for zero-order and partial correlations). This indicates that it is not the number of traumatic events experienced, but rather the inner representations one holds and the coping strategies used which predict how satisfied one will be with one's life.

Table 14

Results of Regressing WAS and TCIS Scores, Coping Scores, and TLEQ Scores on SWLS Scores

Predictor	r	b	B	Semi-partial cor
Step 1				
WAS	-.51***	-.88***	-.31***	-.27***
TCIS	-.58***	-.55***	-.43***	-.38***
Step 2				
Problem-focused	-.04	-.32	-.10	-.08
Seeks social support	-.03	-.08	-.04	-.03
Blamed self	-.40***	.14	.07	.05
Avoidance	-.54***	-.65*	-.25*	-.15*
Wishful thinking	-.48***	-.21	-.11	-.07
Step 3				
TLEQ	-.08	-.01	-.01	-.01

* $p < .05$, *** $p < .001$

Internal Validity of Findings. In this last set of analyses, the relationships between the sample characteristics and trauma, inner representations, coping, and well-being were examined to assess the generalizability of the findings across demographic factors. Of the 64 correlations calculated between the demographic variables and the predictor and criterion variables, only 5 (7.8%) were significant. Having completed more years of education and having a higher family income were associated with lower TCIS scores ($r = -.24$, $p < .05$ and $r = -.26$, $p < .05$, for education and income respectively). Similarly, having completed more years of education and having a higher family income were associated with lower TSI scores ($r = -.23$, $p < .05$ and $r = -.30$, $p < .05$, for education and income, respectively). Finally, having a higher family income was associated with less use of avoidance coping ($r = -.23$, $p < .05$). Given the small number and low magnitude of these correlations, the results were not considered to be confounded by demographic variables.

Correlations between the mental health characteristics (i.e., therapy and the MINI) and trauma, inner representations, coping, and well-being were also calculated. Twenty-four of these 36 correlations were found to be significant. These correlations were generally in line with what may be expected in this type of sample (see Table 15)⁴. For example, the more years of therapy an individual received, the more traumatic events the person was likely to have had, the more negative the inner representations were likely to be (as indicated by WAS and TCIS scores), the greater the posttraumatic symptomatology one was likely to experience (indicated by TSI scores), and the lower one's life satisfaction was likely to be (indicated by SWLS scores), all suggesting that those who had had the most therapy were the most troubled. Having major depression (as indicated by the MINI) was also related to more negative inner representations, more posttraumatic symptoms, lower life satisfaction, and a greater use of maladaptive coping strategies (blamed self, avoidance, and wishful thinking). Similarly, having generalized anxiety disorder (as indicated by the MINI) was associated with more negative inner representations, greater posttraumatic symptomatology, and blaming the self and wishful thinking coping, as well as problem-focused coping. Having a diagnosis of PTSD (as indicated by the MINI) was associated with a greater number of traumatic events experienced, more negative inner representations as indicated by the TCIS, more posttraumatic symptomatology, lower life satisfaction, and greater use of avoidance and wishful thinking, as well as seeking social support coping. These correlations are all in the expected directions, indicating that the results are internally valid.

⁴ Disorders assessed by the MINI were measured on two-point scales where a score of 1 indicated that a participant was positive for a disorder and a score of 2 indicated that a participant did not have the disorder. Therefore, lower scores on these variables indicate more of the attribute in question.

Table 15

Correlations Between Mental Health Sample Characteristics and the Conceptual Variables of the Study

Scale	How long in therapy	Depression (MINI)	Anxiety (MINI)	PTSD (MINI)
Number of traumatic events experienced	.42**	-.19	.05	-.29**
WAS	.27*	-.30**	-.22*	-.10
TCIS	.27*	-.52**	-.37**	-.36**
TSI	.44**	-.54**	-.33**	-.42**
SWLS	-.33**	.51**	.15	.34**
Blamed self coping	-.12	-.45**	-.23*	-.14
Avoidance coping	.20	-.51**	-.15	-.26*
Wishful thinking coping	.18	-.39**	-.21*	-.25*
Seeks social support				
Coping	.21	.07	.17	-.23*
Problem-focused coping	.15	.11	.21*	-.18

* $p < .05$, ** $p < .01$

Discussion

Research from several domains indicates that confiding about trauma can be beneficial in that it helps the person to organize, structure, and make meaning of the experience, as well as work through the event and attain completion (e.g., Horowitz, 1976; Silver, Boon, & Stones, 1983; both as cited in Pennebaker, 1993). One such strategy of translating traumatic experiences into language is by journalling about these types of events. Systematic experimental research indicates that written disclosure in the form of brief journal writing leads to better psychological and physical well-being (e.g., Pennebaker, 1993; Pennebaker & Beall, 1986; Pennebaker et al., 1988; Spera et al., 1994). It was the goal of the present study to examine the role of individuals' inner representations in relation to the effectiveness of journalling. Surprisingly, contrary to this body of literature, in the present study journalling was not found to lead to decreases

in posttraumatic symptomatology or to increases in life satisfaction. One reason why any effects of journalling were not evidenced may be that the time frame between the cessation of writing and the assessment of well-being (2 weeks) may have been too short for these changes to have been actualized. The follow-up period in the studies conducted by Pennebaker and his colleagues was much longer, ranging from 6 weeks (Pennebaker & Francis, 1996) to 14 months (Pennebaker et al., 1989) after the journalling manipulation.

Another possibility for why the effects of journalling may not have been evidenced is that the dependent measures used in this study (TSI, SWLS) may not have been sensitive to changes as a result of writing. The types of dependent measures used in the studies conducted by Pennebaker and his colleagues included, for example, immune functioning (Pennebaker et al., 1988), drops in physician visits and improved moods (Pennebaker & Beall, 1986).

Another possible reason for the lack of positive findings may be the presence of a self-selection bias. Participants in the present study may have been at a particular stage in their recovery. They may have already accomplished a good degree of healing from their experiences and so there may have been less potential change that could have resulted from the journalling. This is supported by the fact that participants already had an average of 5 years of therapy (indicating that they have been working on these issues for a long time), and on average were relatively life satisfied and did not have particularly negative world views. In accordance with this, Pennebaker (1997) points out that the majority of participants are not affected by writing one way or the other. This is because as many as half of all people naturally cope well with major traumas (Wortman & Silver,

1989, as cited in Pennebaker, 1997). Thus, these ‘roll-with-the-punches’ individuals are probably not helped significantly by writing about crises. Alternatively, the participants in this study had experienced a substantial number of traumas, and a fairly large proportion were either depressed, anxious, and/or displaying PTSD symptoms. Perhaps journalling is not a powerful enough strategy to potentiate a significant amount of change for such individuals. Future research is needed to elucidate how these factors come together in the use of journalling.

Another source of self-selection bias may have been that the individuals who were interested in participating may have been more likely to confide their experiences in others and less likely to inhibit their experiences than individuals who would not consider participating in a study in which they may have to talk or write about their traumas. Indeed, participants in this study did score slightly above the midpoint on seeking social support coping. Pennebaker and his colleagues have demonstrated that confiding about traumatic events is predictive of increased health and well-being, whereas the inhibition of traumatic events has negative consequences for well-being (Pennebaker, 1985; 1993). If the participants in this study were indeed more likely to be ‘confiders,’ then perhaps they have already reaped the benefits of expressing their thoughts and feelings about their experiences that may have otherwise come from journalling, and so journalling did not lead to enhanced well-being over and above their previous confiding.

Participants in this study were all survivors of traumatic experiences, as compared to most samples used by Pennebaker and his colleagues, which were first year undergraduate students, only some of whom had experienced trauma over and above their university experience (e.g., Pennebaker & Beall, 1986; Pennebaker et al., 1988;

Pennebaker & Francis, 1986). Perhaps for this type of sample, a journalling period of longer than 4 days may have been necessary to cause any meaningful changes in well-being, although 4 or so days of journalling may have been sufficient to lead to such changes in a sample of relatively healthy undergraduates. In Smyth's (1996, as cited in Pennebaker, 1997) meta-analysis, he found a trend suggesting that the more days over which the experiment lapses, the stronger the effects. Although this was only a trend, it suggests that writing once a week over a month may be more effective than writing 4 times within a single week. Thus, perhaps this community sample of trauma survivors, many of whom have been dealing with the effects of their experiences over a number of years, sometimes the majority of their lives, needed a broader time frame for the journalling, and time between the journalling days to allow for reflection and for what they have accomplished to sink in, more so than other types of samples, such as undergraduates. Future research should take into greater consideration the nature and extent of the trauma that was experienced. Indeed, even in the present study, the extent of trauma experienced was significantly related to well-being.

The possibility that journalling may have been effective for some individuals (those with certain inner representations and coping styles) than for others was also examined. However, regardless of participants' inner representations or the type of coping they used, journalling did not seem to affect well-being. This is in concordance with the conclusions of Pennebaker (1997) that no consistent personality or individual difference measures have distinguished who does and who does not benefit from journal writing. Despite this, future research may benefit from examining the role of inner representations and coping styles in a study where journalling had some overall effect.

Another finding which was contrary to what was expected was the lack of a relationship between trauma and the nature of participants' inner representations. The reason for this may be that TLEQ scores reflected the total number of traumatic events which elicited fear, helplessness, and/or horror experienced by participants. However, the actual number of traumatic events experienced may not be an important determinant of inner representations. Perhaps the types of events experienced are far more predictive of effects on inner representations. It may even be, as postulated by Janoff-Bulman (1992), that the experience of even one traumatic event often has profound effects on inner representations. Thus perhaps whether or not trauma was experienced may be more predictive of inner representations than the number of times traumatic events may have been experienced. This was not possible to assess this in the present study because all participants were survivors of some type of trauma.

Inner representation scores were, however, predictive of participants' posttraumatic symptomatology and life satisfaction. The more negative participants' beliefs about themselves, others, and the world, the more posttraumatic symptomatology they experienced and the less satisfied they were with their lives. This adds credence to the research indicating that the experience of trauma leads to more negative inner representations, because even though inner representations were not related to the number of traumatic events experienced, they were related to posttraumatic symptomatology. These findings also make sense conceptually. If an individual believes that she or he is no good, that others are malevolent and untrustworthy, and that the world is a dangerous place, it is understandable that the person may, for example, have impaired self-reference, feel depressed, experience a lot of anxious arousal (as a reaction to a dangerous world

with malevolent people), or practice a great deal of avoidance (so that these negative ‘realities’ are not being continuously contemplated). Similarly, a person who lives in such a world, with such people, and especially who has such low self-worth, is not likely to feel highly satisfied with his or her life. This also implies that survivors’ inner representations may be an appropriate target for intervention in helping these individuals recover from their experiences.

One way of affecting survivors’ inner representations may be through teaching them to use adaptive coping mechanisms. Greater use of negative coping strategies was associated with more negative inner representations on both measures of inner representations. Greater use of positive coping strategies was associated with more positive inner representations (but only on the WAS, and not on the TCIS). Thus, perhaps people who cope well establish more positive inner representations. These postulations must be taken with caution, however, due to the correlational nature of the data. Perhaps it is people who are feeling better that exhibit positive changes in their inner representations, or maybe it is people who have more positive inner representations that tend to use more adaptive coping strategies.

Again, although negative coping strategies were associated with more negative inner representations on both the WAS and the TCIS, positive coping strategies were associated with more positive inner representations only on the WAS, and were unrelated to TCIS inner representations. Perhaps this is partly due to the content of the subscales for these two measures. Both measures of inner representations assessed meaningfulness of the world, benevolence of the world, and self-worth. The TCIS, however, also included several subscales measuring several different constructs, such as alienation and

lack of legitimacy of feelings. Perhaps it is the inclusion of these subscales that accounted for the differential findings. The way the items were stated may have also caused participants to respond somewhat differently to the two measures. Most of the WAS items were stated as general comments to which participants indicated their degree of agreement (e.g., “Bad events are distributed to people at random,” or “There is more good than evil in this world”). Most of the TCIS items, by comparison, were stated in the first person (e.g., “I see the world as a bad place to live in” or “I don’t think justice exists in this world”). Perhaps due to these different item presentations, participants interpreted the TCIS items as a judgement of themselves to a greater degree and thus responded somewhat differently to these items. If these differential findings regarding the relationships between positive coping strategies and inner representations are replicable, the reasons for these findings may be an appropriate target for future research.

Maladaptive coping strategies (i.e., avoidance, wishful thinking, and blaming the self) were also significant predictors of posttraumatic symptomology and life satisfaction, with avoidance being the best predictor of lower well-being. Furthermore, the use of these strategies was predictive of well-being even after accounting for variability in well-being that could have been accounted for by participants’ inner representation scores. Thus, it seems that the greater one’s use of wishful thinking, blaming themselves, and particularly of avoidance coping, the more posttraumatic symptomatology one is likely to experience and the less satisfied with one’s life one is likely to be. These findings are generally consistent with those of previous research. For example, Brombardier, D’Amico, and Jordon (1990, as cited in Charlton & Thompson, 1996) studied a group of patients with chronic medical conditions and showed that the more depressed individuals

were more likely to report coping strategies such as wishful thinking, self blame, and avoidance. Similarly, Knussen, Sloper, Cunningham, and Turner (1992) found that wishful thinking was associated with higher levels of distress and lower levels of life satisfaction in parents of children with Down's syndrome. With respect to avoidance in particular, in a sample of 108 survivors of trauma attending a stress clinic, Charlton and Thompson (1996) found that avoidance coping in particular was consistently associated with high psychological distress. Similarly, Thorton (1992, as cited in Charlton & Thompson, 1996) found that avoidance was the main coping strategy reported by mental health workers scoring highly on measures of burnout. Finally, Higgins and Endler (1995) also found that distraction-avoidance was significantly positively correlated with psychiatric symptoms and somatization in a large community sample.

Problem-focused coping and seeking social support (an emotion-focused coping strategy) were not found to be related to well-being in this study. This is contradictory to the findings of previous research in that these strategies have generally been found to have positive effects on health and well-being (Aro, Hanninen, & Paronen, 1989; Blochl, 1984; Sarason, 1988; Shisana & Clemento, 1987; all as cited in Higgins & Endler, 1995; Higgins & Endler, 1995). The reason for this lack of relationship, at least for problem-focused coping, may lie partly in what it was that participants had to cope with. Generally, participants were faced with coping with events that happened in the past, which they could do nothing to change (e.g., childhood abuse, sudden death of a loved one, assault or accident causing bodily injury). Problem-focused coping may not be as applicable to these types of targets because often nothing can actually be done to change the situation, or what has occurred, and the individual is faced largely with the

tasks of coming to terms with, working through, and accepting what has occurred, and concentrating on their emotional well-being. Indeed, empirical findings have demonstrated a marked differentiation in the type of coping strategies individuals tend to select depending on what they are trying to deal with. Different kinds of coping are appropriate for different kinds of stressors (McCrae, 1982; 1984). For example, McCrae (1984) has suggested that future research may benefit from dividing different stressors into losses, threats, and challenges, and examining coping mechanisms that are used particularly with each group.

The meaning of the lack of positive relationship between seeking social support and well-being is more elusive. Perhaps the quality of the social support received by participants was not very good, and thus did not enhance well-being. Or maybe given earlier statements regarding self-selection, this group was fairly uniformly high in the use of this strategy. Also, although social support is generally predictive of recovery and improvement from traumatic experiences, opposite effects have also been found. For example, Charlton and Thompson (1996) found that seeking social support was associated with greater concurrent distress in their sample of trauma survivors. The conditions under which social support may or may not be beneficial is a target for future research.

These findings regarding coping and well-being have several implications with respect to future research and treatment of trauma survivors. First, it seems that much of the research on the use of coping is largely correlational, and so it is not clear whether 'maladaptive' coping styles lead to distress, or whether distressed individuals use maladaptive coping styles. For example, does avoidance of stressors lead to

psychological distress, or are those in too much emotional pain to face contemplating their problems tend to use avoidance (in which case, avoidance may actually be a positive strategy in that it minimizes pain when a person is not ready to deal with it and when doing so would only make that person worse off). If it is the case that using maladaptive coping strategies leads to psychological distress, then coping may be an appropriate target of intervention. Teaching survivors how to cope with their problems and distress may lead to decreased distress and greater life satisfaction.

With respect to the actual experience of traumatic events, the results of this study indicated that regardless of how individuals tried to cope with their experience(s) or what types of beliefs or inner representations they held, the greater the number of traumatic events they have experienced, the greater was their posttraumatic symptomatology. This is consistent with the findings of Higgins and Endler (1995) who demonstrated that in some cases, regardless of the coping style used, life event stress was related to distress. Number of traumatic events experienced did not, however, predict participants' life satisfaction over and above their inner representation and coping scores. Thus, it seems that it is not the number of traumas experienced, *per se*, but rather how one's beliefs are affected and how one deals with the experience(s), which are important in determining how satisfied one will be with his or her life. This implies that interventions which teach people to cope with their problems constructively (if coping is indeed a causal factor) and which help individuals obtain more positive beliefs about themselves, others, and the world (e.g., a form of cognitive therapy) may bolster the life satisfaction of survivors, regardless of their traumatic history.

Despite the lack of positive findings with respect to journalling, this study was thought to have certain advantages that suggest that further research is needed to explore the basis for the contrary results to past research. One such advantage was the use of a large community sample. Most studies in this area have been conducted on samples of undergraduate students (who were often participating in the experiment for credit) (Donnelly & Murray, 1991; Murray & Segal, 1994; Pennebaker & Beall, 1986; Pennebaker & Francis, 1996; Pennebaker et al., 1988). Thus, this study may be more representative of the general population of trauma survivors. Along these lines, all of the participants in the present study were survivors of some type of traumatic experience. Most other studies in this area were comprised of participants who were not all survivors of trauma per se, although certainly some of the participants in these samples had experienced very traumatic events. Others, however, experienced and journalled about events that certainly were stressful, but that are quite common and would not fall under the umbrella of trauma. For example, Murray and Segal (1994) gave an example of one woman who vowed never to trust a man when her parents were divorced and another young man who was unable to date for a long time after being rejected by his girlfriend. To assess how journalling may work for coping with traumatic life experiences in particular (rather than stressful life events), it seems best to assess its use in a sample of trauma survivors.

Another positive aspect of this study was the assessment of factors that may have mediated or moderated the effects of journalling, rather than simply examining the overall effect of journalling. Although journalling was not found to be effective in this study, it is clear that inner representations and the type of coping participants used were

predictive of well-being. Thus, future research on journalling may benefit from assessing the role of these variables in the efficacy of journalling, perhaps using different methodology than was used here.

It should also be noted that the participant mortality rate between the two testing sessions was quite low (11.6%). Thus, it seems that participants in the present study took their involvement seriously, and despite the fairly high demands involved (journalling for four days, lengthy questionnaires, two meetings) carried through with the study. This indicates that there is reason to believe that they responded as accurately and as seriously as they could, suggesting that their responses hold some validity.

All research has various limitations that place boundaries on the interpretation of the findings, and at least four such issues for the present study merit explication. One concern with the present research stems from the use of participants' self-reports. Certain factors may have come into play in the assessment of self-reported variables that may have compromised their validity, such as a social desirability bias or inaccuracy in responding due to participants' own psychological defenses or their lack of awareness of where they may actually stand on these types of variables. Independent corroboration of some of these self-reports would have been valuable. Because questions such as those concerning participants' inner representations can only be answered through self-report, there was little choice but to ask these questions directly.

A second concern with these findings is that participants' independent use of journalling or their degree of disclosure about their trauma before the study was not assessed. Many participants had used journalling on their own, sometimes for a number of years before participating (as they told the researcher informally). If this had been

assessed (as should be done in future studies), variability due to journalling use and disclosure may have been controlled for, and perhaps positive effects of journalling may have been detected. Relatedly, as mentioned earlier, there may have been a self-selection bias in the study, whereby those who had used journalling (or at least were interested in its use), and those who were more open to confiding about their experiences, were more likely to participate in the study. Obviously this would bias the results and limit the generalizability of findings.

Another limitation was the seeming variability in the time participants actually journalled. In the work of Pennebaker and his colleagues (1997), participants generally came into the lab to journal and the experimenter monitored their journalling time and asked them to stop at the appropriate time (usually 20 minutes). Although participants in the current study were provided with clear instructions (to journal for 20 minutes), many did not keep to this limit. Entries over the four days ranged from 3 pages to 30 pages. Obviously this may have confounded the present findings.

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Appendix I
Research Materials

Consent Form

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent must provide enough information so that you have the opportunity to determine whether you would like to participate in the study.

This research is being conducted by Irina Goldenberg, MA student, and Kim Matheson, Ph.D., Chair of Psychology, in the Psychology Department of Carleton University.

In this study you will be given various questionnaires asking you to describe your traumatic experience(s), your impressions of yourself, others, and the world, as well as questions about the impact of your traumatic experience(s) and how you have coped. You will then be asked to journal at home for 20 minutes on 4 consecutive days. About 2 weeks after your journal writing, you will be asked to meet with the researcher once again to deliver your journal and to respond to some of the questionnaires again. Responding to the initial questionnaires should take approximately 1 hour, journaling should take 1 hour and 20 minutes over 4 days, and responding to some of the questionnaires a second time should take approximately 45 minutes.

Although journalling is often beneficial, it may not always be helpful, or may reinforce negative thoughts and feelings for some people. It is important that you understand that your participation is completely voluntary. Some questions address sensitive issues, and you are free to refuse to answer any questions and you may withdraw from the study at any time, for any reason. Further, your answers will be totally anonymous and confidential.

If you have any questions about the research project, please contact Irina Goldenberg at 235-1927. Should you have any complaints or comments about ethical aspects of this study, you are welcome to contact Dr. Mary Gick, Chair of the Psychology Ethics Committee at 520-2600 ext. 2664, or Dr. Kim Matheson, Chair of Psychology, at 520-2600 ext. 2648.

Thank you in advance for your participation.

Irina Goldenberg, B.A.

Kim Matheson, Ph.D.

I have acknowledged that I have read the above information and willingly consent to participate in this study, while recognizing that I can stop participating at any time for any reason.

Participant signature: _____

Researcher signature: _____

Date: _____

Debriefing

Writing about traumatic life experiences is often beneficial in that it helps the individual to organize, structure, and make meaning of the experience. This can result in positive effects on health and in enhanced feelings of well-being. Therefore, journalling may be used as a convenient and inexpensive therapeutic tool by individuals trying to deal with trauma or stressful life experiences. However, although journalling is generally beneficial, there may be certain situations when it is actually better to refrain from writing about traumatic events.

Research has shown that we all hold certain, usually positive, beliefs about ourselves, other people, the world, and our personal control. However, traumatic events, when they occur, may threaten these positive beliefs. Empirical evidence indicates that the core beliefs of survivors of trauma are often more negative than those of individuals who have not experienced traumatic events. Positive resolution of this effect of trauma on inner beliefs seems to be the attainment of a belief system that both integrates information from the trauma (so that it can be used as a realistic guide to life) and yet is positive enough to allow for the enjoyment of life.

Journalling, although usually beneficial, may not be helpful for survivors of traumatic experiences who have not yet integrated traumatic information into their previously held beliefs. This is because these individuals may think about past trauma using the negative beliefs that they have not yet worked through. Therefore, instead of journalling being a helpful process that adds meaning to the traumatic experience, it may only reinforce existing negative beliefs and the negative emotions which may accompany these beliefs. Journalling about nontraumatic topics (i.e., the small events in our everyday lives), by comparison, should have no effect on well-being (therefore there were two groups of participants in this study, those asked to journal about traumatic life experiences, and comparison participants, who were asked to journal about superficial topics). This hypothesis will be examined in the present study, which is important given that the use of journalling is recommended as a self-directed therapeutic tool by therapists and self-help books.

Sometimes recalling or writing about unpleasant events in our lives can leave us feeling the need for support or consultation. If you are feeling the need for support or counseling, please contact any of the following 24-hour services for immediate crisis intervention: Distress Centre: 238-3311; the Gloucester Help Line: 745-4818; or Nelson House: 225-3129. In addition, you are welcome to contact me, Irina Goldenberg, at 235-1927 if you want to talk about any distressing effects you may feel as a result of the study in the next several weeks (although I am not a qualified long-term counselor). In addition, if you have journalled about your traumatic experiences, the researcher (Irina Goldenberg) will be giving you a call in two weeks to make sure that your participation in this study did not cause you any distress.

Should you wish to discuss this study you are welcome to contact Irina Goldenberg at 235-1927. Should you have any complaints or comments about the way this study was conducted or how you were treated, please contact Dr. Mary Gick, Chair of the Psychology Ethics Committee at 520-2600 ext. 2664, or Dr. Kim Matheson, Chair of the Department of Psychology at 520-2600 ext. 2648.

Again, thank you for your participation. Your time and effort are greatly appreciated.

BACKGROUND INFORMATION

1. Age: _____
2. Martial Status:
☐ Single
☐ Married
☐ Divorced
☐ Living with a partner
3. Number of Children _____
4. Ethnic Background: _____
5. Highest Year of Education Completed: _____
6. Employment/Student Status (circle all that apply):
(a) Employed full-time (35 or more hours/week)
(b) Employed part-time
(c) Unemployed
(d) Disability
(e) Social Assistance
(f) Homemaker
(g) Student full-time
(h) Student part-time
7. Total Gross Family Income per year (check one):

☐ under \$15,000	☐ \$45,000-\$54,999
☐ \$15,000-\$24,999	☐ \$55,000-\$64,999
☐ \$25,000-\$34,999	☐ \$65,000-\$74,999
☐ \$35,000-\$44,999	☐ \$75,000 or more

Mini-International Neuropsychiatric Interview
(Sheehan, Lecrubier, Janavs, Knapp, Weiller, et al., 1992)

Italics = interviewer only

Bolded Italics = diagnosis (interviewer only)

***** = go to end of disorder (***bold italics***), circle NO, and move to next disorder**

Participant: _____

Time interview began: _____ Time interview ended: _____ Total time: _____

A Major Depressive Episode

A1 In the past month, has there been a period of two weeks or more when you were feeling depressed or down most of the day nearly every day? NO YES

A2 In the past month, have you been less interested in most things or unable to enjoy the things you used to enjoy most of the time? NO YES

If A1 & A2 = NO, Circle NO in A4b and skip to B1

A3 In the past month, when you felt depressed or uninterested most of the time:

a) Has your appetite changed significantly or has your weight increased or decreased (at least 8 lbs.) without trying intentionally?	NO YES
b) Have you had trouble sleeping?	NO YES
c) Have you felt fidgety or restless nearly every day such that you were unable to sit still?	NO YES
d) Have you felt tired or without energy all the time?	NO YES
e) Have you felt worthless or guilty?	NO YES
f) Have you had trouble thinking or concentrating?	NO YES
g) Have you thought that you would be better off dead or have you thought about hurting yourself?	NO YES

A4

a) Are 3 or more items from A3 coded YES, or 4 items from A3 coded yes if A1 or A2 are coded no?	NO YES

Codes Positive for current MDD: (A1, or A2, & A4a = YES)? NO YES

Dysthymia (only if positive for MDD – A4b = YES)

A5 a) Are 1 or 2 items from A3 coded YES? NO*** YES

b) Have you felt consistently depressed for the last 2 years without a letup (greater than 2 months) of your depression symptoms?	NO YES

Codes positive for current dysthymia (mild depression)
(A1 or A2 & A5a & A5b = YES)

NO YES

Generalized Anxiety Disorder

B1

a) In the past 6 months, did you worry more than most others would in your situation?	NO*** YES
b) Do you worry about 2 or more things? (e.g., finances, health)?	NO*** YES
c) Are your worries excessive or out of proportion to the reality or have people told you that you worry too much?	NO*** YES

B2

a) In the past month, have you suffered from these worries?	NO*** YES

B3 During these worried periods when you are nervous, do you have any of the following?

a) Feel tense, restless, or have sore or achy muscles?	NO YES
b) Have shortness of breath or increased heart rate?	NO YES
c) Have lightheadedness, dizziness, dry mouth or hot and cold sensations?	NO YES
d) Feel keyed up, on edge or startle easily?	NO YES
e) Have difficulty concentrating or mind going blank?	NO YES
f) <i>Summary of B: Are at least 3 of B3 answers YES?</i>	NO YES

Codes positive for current GAD (B1a, b, c, B2, & B3f = YES)?	NO YES
---	---------------

Social Phobia

C

a) Have you ever been excessively uneasy doing things in front of others, like speaking in public, using public toilets, writing while someone watches, or been extremely self conscious when you were the focus of others attention or when you were in social situation more than other people would?	NO*** YES
b) Did you avoid these places or situations?	NO*** YES
c) Does this fear interfere with normal work or social functioning or cause you marked distress?	NO*** YES

Lifetime social phobia if Ca, Cb, & Cc = YES	NO YES
---	---------------

d) Do you NOW fear or avoid these places or situations?	NO*** YES

Current social phobia if Ca, Cb, Cc, & Cd = YES	NO YES
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Psychotic Disorders

D1

a) Has it ever seemed that people were talking about you or taking special notice of you? What about receiving special messages from the TV, radio, or newspaper, or from the way things were arranged around you? NO YES

b) *If YES, are you currently feeling this way?* NO YES

D2

a) Have you ever believed that someone or something outside of yourself meant you harm, or influenced your thoughts or actions? NO YES

b) *If YES, are you currently feeling this way?* NO YES

D3

a) Have your relatives or friends ever considered any of your beliefs strange or unusual? NO YES

b) *If YES, do you currently have these beliefs?* NO YES

D4

a) Have you ever heard things other people couldn't hear, such as voices? NO YES

b) *If YES, do you currently hear these things?* NO YES

D5

a) Have you ever seen things other people couldn't see? NO YES

b) *If YES, do you currently see these things?* NO YES

F6 *Is the participant currently exhibiting incoherence or marked loosening of associations or catatonic behaviour? (Clinician Observation)* NO YES

Codes positive for current psychosis (at least one Fb = YES) **NO YES**

Codes positive for lifetime psychosis (at least one Fa = YES) **NO YES**

Posttraumatic Stress Disorder

- E1 Have you ever experienced an extremely traumatic event (such as earthquakes, floods, serious accidents, fires, physical assault or rape, seeing people being killed or being in a war or combat)? NO*** YES
- E2 Have you re-experienced the event in a distressing way (such as in dreams, intense recollections, flashbacks, or physical reactions)? NO*** YES
- E3 Since the event:
- a) Have you avoided thinking about the event or have you avoided things that remind you of the event? NO YES
 - b) Have you had trouble remembering some important part of what happened? NO YES
 - c) Have you become less interested in hobbies, or social activities, noticed that your feelings are numbed, or felt detached from things? NO YES
 - d) Have you felt that your life will never be the same, that you've changed the way you think about or plan for the future? NO YES
- Summary of E3: Are at least 2 of E3 responses coded YES?* NO*** YES
- E4 Since the event:
- a) Have you had difficulty sleeping or concentrating, or have you been especially irritable or angry? NO YES
 - b) Have you been jumpy, or constantly on your guard? NO YES
- Summary of E4: Is at least one of E4 responses coded YES?* NO*** YES
- E5 Have symptoms noted above persisted for more than a month? NO YES
- Codes Positive for Posttraumatic Stress Disorder (E1, E2, E3 summary, E4 summary, E5 = YES)?** NO YES

Obsessive Compulsive Disorder

- F1 In the past month, have you ever experienced more than one hour per day when you had to do something over and over without being able to resist doing it, like washing your hands, counting or verifying things over and over? NO*** YES
- F2 Does the behaviour significantly interfere with your normal routine occupational functioning or usual social activities or relationships? NO*** YES
- F3 In the past month, have you been bothered by recurrent, unwanted, distasteful, or intrusive thoughts that were meaningless and kept coming back into you mind even when you tried to ignore or get rid of them? (e.g., idea that you were dirty or had germs, or of hurting someone even though you didn't want to)? NO*** YES
- F4 Do you think that these obsessions are the product of your own mind and that they are not imposed from the outside? NO YES
- Codes positive for current OCD (F1, F2, F3, & F4 = YES)?*** ***NO YES***

Traumatic Life Events Questionnaire (Kubany, 1998)

The purpose of this questionnaire is to identify significant life experiences in one's life. The events listed below are far more common than many people realize. Please read each question carefully and circle the answers that best describe your experience.

1. Have you ever experienced a natural disaster (a flood, hurricane, earthquake, etc.)?
never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror at what happened? yes/no
Were you seriously injured? yes/no
Was someone you cared about or close by seriously injured or killed? yes/no
Did you think you or a loved one was in danger of being killed by the disaster? yes/no

2. Were you involved in a motor vehicle accident for which you received medical attention or that badly injured or killed someone?
never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no
Were you seriously injured? yes/no

3. Have you been involved in any other kind of accident where you or someone else was badly hurt?
(examples: a plane crash, a drowning or near drowning, an electrical or machinery accident, an explosion, home fire, chemical leak, or overexposure to radiation or toxic chemicals)
never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no
Were you seriously injured? yes/no

4. Have you lived, worked, or had military service in a war zone? yes/no
If yes, were you ever exposed to warfare or combat? (for example: in the vicinity of a rocket attack or people being fired upon; seeing someone getting wounded or killed)
never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it

happened? yes/no

Were you seriously injured or wounded? yes/no

5. Have you experienced the unexpected and sudden death of a close friend or loved one?

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

6. Has a loved one (who is living) ever experienced a life threatening or permanently disabling accident, assault, or illness? (examples: spinal cord injury, rape, life threatening virus)

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

7. Have you ever had a life threatening illness?

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror at what happened? yes/no

8. Have you been robbed or been present during a robbery – where the robber(s) used or displayed a weapon?

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

Were you seriously injured? yes/no

9. Have you ever been hit or beaten up and badly hurt by a stranger or someone you didn't know very well?

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

Were you seriously injured? yes/no

10. Have you seen a stranger (or someone you didn't know very well) attack or beat up another someone and seriously injure or kill them?

never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

11. Has anyone threatened to kill you or cause you serious physical harm?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no
 stranger? yes/no friend or acquaintance? yes/no
 relative? yes/no intimate partner? yes/no

12. While growing up, were you physically punished in a way that resulted in bruises, burns, cuts, or broken bones?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

13. While growing up, did you see or hear family violence? (such as your father hitting your mother; or any family member beating up or inflicting bruises, bruises, or cuts on another family member)
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

14. Have you ever been slapped, punched, kicked, beaten up, or otherwise physically hurt by your spouse (or former spouse), a boyfriend/girlfriend, or some other intimate partner?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did your experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no
 Has more than one intimate partner physically hurt you?
 yes/no
 If yes, how many have hurt you? _____

15. Before your 13th birthday: Did anyone – who was at least 5 years older than You – touch or fondle your body in a sexual way or make you touch or fondle their body in a sexual way?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened:
 Was the person a stranger? yes/no friend or acquaintance? yes/no
 parent or caregiver? yes/no other relative? yes/no
 Was threat or force used? Yes/no
 Was there oral, anal, or vaginal penetration? yes/no

Did you experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no

16. Before your 13th birthday: Did anyone close to your age touch sexual parts of your body or make you touch sexual parts of their body –against your will or without your consent?

never once twice 3 times 4 times 5 times more than 5 times

If this happened:

Was this person a stranger? yes/no
 friend or acquaintance? yes/no relative? yes/no
 Was threat or force used? yes/no
 Was there oral, anal, or vaginal penetration? yes/no
 Did you experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no

17. After your 13th birthday and before your 18th birthday: Did anyone touch sexual parts of your body or made you touch sexual parts of their body – against your will or without your consent?

never once twice 3 times 4 times 5 times more than 5 times

If this happened:

Was the person a stranger? yes/no friend or acquaintance? yes/no
 relative? yes/no intimate partner? yes/no
 Was threat or force used? Yes/no
 Was there oral, anal, or vaginal penetration? yes/no
 Did you experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no

18. After your 18th birthday: : Did anyone touch sexual parts of your body or made you touch sexual parts of their body – against your will or without your consent?

never once twice 3 times 4 times 5 times more than 5 times

If this happened:

Was the person a stranger? yes/no friend or acquaintance? yes/no
 relative? yes/no intimate partner? yes/no
 Was threat or force used? Yes/no
 Was there oral, anal, or vaginal penetration? yes/no
 Did you experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no

19. Has anyone stalked you – in other words: followed you or kept track of your activities – causing you to feel intimidated or concerned for your safety?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened:

Was the person a stranger? yes/no friend or acquaintance? yes/no
 relative? yes/no intimate partner? yes/no
 Did you experience fear, helplessness, or horror when this happened? yes/no

20. Have you ever had a miscarriage?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no
 Did it (ever) happen after you were seriously injured? yes/no

21. Have you ever had an abortion?
 never once twice 3 times 4 times 5 times more than 5 times

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no

22. Have you experienced (or seen) any other events that were life threatening, caused serious injury, or were highly disturbing and distressing?
 (examples: lost in the wilderness; a serious animal bite; violent death of a pet; being kidnapped and held hostage; seeing a mutilated body or parts)
 never once twice 3 times 4 times 5 times more than 5 times

Please describe: _____

If this happened: Did you experience fear, helplessness, or horror when it happened? yes/no
 Were you seriously injured? yes/no

23. If any of the events (listed above) happened to you, which one event CAUSES YOU THE MOST DISTRESS?
 Indicate Item #: _____
 When did this event (last) happen (your age or date)? _____
 How much distress (anxiety, worry, sadness, or grief) does this event cause you?
 None happened no slight moderate considerable extreme
 to me distress distress distress distress distress

World Assumptions Scale
(Janoff-Bulman, 1989)

This questionnaire contains 32 items that you may or may not agree with. For each of the following statements, please indicate your agreement or disagreement by circling the most appropriate number beneath each statement. Possible responses include 1 (strongly agree), 2 (agree), 3 (agree somewhat), 4 (disagree somewhat), 5 (disagree) and 6 (strongly disagree).

1. Misfortune is least likely to strike worthy, decent people.
strongly agree 1 2 3 4 5 6 strongly disagree
2. People are naturally unfriendly and unkind.
strongly agree 1 2 3 4 5 6 strongly disagree
3. Bad events are distributed to people at random.
strongly agree 1 2 3 4 5 6 strongly disagree
4. Human nature is basically good.
strongly agree 1 2 3 4 5 6 strongly disagree
5. The good things that happen in this world far outnumber the bad.
strongly agree 1 2 3 4 5 6 strongly disagree
6. The course of our lives is largely determined by chance.
strongly agree 1 2 3 4 5 6 strongly disagree
7. Generally, people deserve what they get in this world.
strongly agree 1 2 3 4 5 6 strongly disagree
8. I often think I am no good at all.
strongly agree 1 2 3 4 5 6 strongly disagree
9. There is more good than evil in the world.
strongly agree 1 2 3 4 5 6 strongly disagree
10. I am basically a lucky person.
strongly agree 1 2 3 4 5 6 strongly disagree
11. People's misfortunes result from mistakes they have made.
strongly agree 1 2 3 4 5 6 strongly disagree
12. People don't really care what happens to the next person.
strongly agree 1 2 3 4 5 6 strongly disagree
13. I usually behave in ways that are likely to maximize good results for me.
strongly agree 1 2 3 4 5 6 strongly disagree
14. People will experience good fortune if they themselves are good.
strongly agree 1 2 3 4 5 6 strongly disagree
15. Life is too full of uncertainties that are determined by chance.
strongly agree 1 2 3 4 5 6 strongly disagree

16. When I think about it, I consider myself very lucky.
strongly agree 1 2 3 4 5 6 strongly disagree
17. I almost always make an effort to prevent bad things from happening to me.
strongly agree 1 2 3 4 5 6 strongly disagree
18. I have a low opinion of myself.
strongly agree 1 2 3 4 5 6 strongly disagree
19. By and large, good people get what they deserve in this world.
strongly agree 1 2 3 4 5 6 strongly disagree
20. Through our actions we can prevent bad things from happening to us.
strongly agree 1 2 3 4 5 6 strongly disagree
21. Looking at my life, I realize that chance events have worked out well for me.
strongly agree 1 2 3 4 5 6 strongly disagree
22. If people took preventive actions, most misfortune could be avoided.
strongly agree 1 2 3 4 5 6 strongly disagree
23. I take the actions necessary to protect myself against misfortune.
strongly agree 1 2 3 4 5 6 strongly disagree
24. In general, life is mostly a gamble.
strongly agree 1 2 3 4 5 6 strongly disagree
25. The world is a good place.
strongly agree 1 2 3 4 5 6 strongly disagree
26. People are basically kind and helpful.
strongly agree 1 2 3 4 5 6 strongly disagree
27. I usually behave so as to bring about the greatest good for me.
strongly agree 1 2 3 4 5 6 strongly disagree
28. I am very satisfied with the kind of person I am.
strongly agree 1 2 3 4 5 6 strongly disagree
29. When bad things happen, it is typically because people have not taken the necessary actions to protect themselves.
strongly agree 1 2 3 4 5 6 strongly disagree
30. If you look closely enough, you will see the world is full of goodness.
strongly agree 1 2 3 4 5 6 strongly disagree
31. I have reason to be ashamed of my personal character.
strongly agree 1 2 3 4 5 6 strongly disagree
32. I am luckier than most people.
strongly agree 1 2 3 4 5 6 strongly disagree

Trauma Constellation Identification Scale
(Dansky, Roth, & Kronenberger, 1990)

Please rate the following statements while keeping in mind a traumatic event, e.g., the loss of a loved one, a serious accident or illness, a sexual assault, etc. Circle the number beneath each statement which best indicates your level of agreement or disagreement. Statements range from 1 (strongly disagree) to 7 (strongly agree), with 4 indicating 'neither agree or disagree'.

BECAUSE OF MY STRESSFUL EXPERIENCE...

1. I am terrified of things.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I've lost a part of myself.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I feel responsible for the bad things that happen to me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I feel embarrassed.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. There is something very wrong with me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. Other people can never understand how I feel.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. I feel overwhelmed with emotions.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. I never trust anyone.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I see this world as a bad place to live in.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. I feel like there isn't anything I can do to manage what happens to me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
11. I have missed out on important parts of life.
strongly disagree 1 2 3 4 5 6 7 strongly agree
12. I'm afraid to allow myself to feel certain feelings.
strongly disagree 1 2 3 4 5 6 7 strongly agree
13. Nothing in this world is any good.
strongly disagree 1 2 3 4 5 6 7 strongly agree
14. I don't think that justice exists in this world.
strongly disagree 1 2 3 4 5 6 7 strongly agree

15. Nobody can understand my feelings.
strongly disagree 1 2 3 4 5 6 7 strongly agree
16. I don't like myself.
strongly disagree 1 2 3 4 5 6 7 strongly agree
17. I always end up taking care of others without getting anything in return.
strongly disagree 1 2 3 4 5 6 7 strongly agree
18. I feel isolated from others.
strongly disagree 1 2 3 4 5 6 7 strongly agree
19. I believe that I overreacted to what happened to me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
20. I believe that there is no rhyme or reason in this world.
strongly disagree 1 2 3 4 5 6 7 strongly agree
21. I feel unable to handle many situations.
strongly disagree 1 2 3 4 5 6 7 strongly agree
22. I feel angry in situations that don't seem to make others feel angry.
strongly disagree 1 2 3 4 5 6 7 strongly agree
23. I can't tell people what happened without feeling embarrassed.
strongly disagree 1 2 3 4 5 6 7 strongly agree
24. I don't trust other people.
strongly disagree 1 2 3 4 5 6 7 strongly agree
25. I blow things way out of proportion.
strongly disagree 1 2 3 4 5 6 7 strongly agree
26. I always give in my relationships and never receive.
strongly disagree 1 2 3 4 5 6 7 strongly agree
27. I often blame myself after bad things happen.
strongly disagree 1 2 3 4 5 6 7 strongly agree
28. I feel alone.
strongly disagree 1 2 3 4 5 6 7 strongly agree
29. I feel afraid.
strongly disagree 1 2 3 4 5 6 7 strongly agree
30. I find myself feeling angry at people.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Trauma Symptom Inventory (Briere, 1991)

This questionnaire contains 100 items describing experiences that may or may not have happened to you. Please circle the one answer that best indicates how often each of the following experiences have happened to you in the last 6 months.

Circle 0 if your answer is **NEVER**; 0 1 2 3
it has not happened at all in the last 6 months.

Circle 1 or 2 if it has happened in the last 6 0 1 2 3
months, but has not happened often. 0 1 2 3

Circle 3 if your answer is **OFTEN**; 0 1 2 3
it has happened often in the last 6 months.

Please answer each question as honestly as you can, and try to answer all of them.

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

1. Nightmares or bad dreams	0	1	2	3
2. Trying to forget about a bad time in your life	0	1	2	3
3. Irritability	0	1	2	3
4. Stopping yourself from thinking about the past	0	1	2	3
5. Getting angry about something that wasn't very important	0	1	2	3
6. Feeling empty inside	0	1	2	3
7. Sadness	0	1	2	3
8. Flashbacks (sudden memories or images of upsetting things)	0	1	2	3
9. Not being satisfied with your sex life	0	1	2	3
10. Feeling like you were outside of your body	0	1	2	3
11. Lower back pain	0	1	2	3

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

12.	Sudden disturbing memories when you were not expecting them	0	1	2	3
13.	Wanting to cry	0	1	2	3
14.	Not feeling happy	0	1	2	3
15.	Becoming angry for little or no reason	0	1	2	3
16.	Feeling like you don't know who you really are	0	1	2	3
17.	Feeling depressed	0	1	2	3
18.	Having sex with someone you hardly know	0	1	2	3
19.	Thoughts or fantasies about hurting someone	0	1	2	3
20.	Your mind going blank	0	1	2	3
21.	Fainting	0	1	2	3
22.	Periods of trembling or shaking	0	1	2	3
23.	Pushing painful memories out of your mind	0	1	2	3
24.	Not understanding why you did something	0	1	2	3
25.	Threatening or attempting suicide	0	1	2	3
26.	Feeling like you were watching yourself from far away	0	1	2	3
27.	Feeling tense or "on edge"	0	1	2	3
28.	Getting into trouble because of sex	0	1	2	3
29.	Not feeling like your real self	0	1	2	3
30.	Wishing you were dead	0	1	2	3
31.	Worrying about things	0	1	2	3
32.	Not being sure of what you want in life	0	1	2	3
33.	Bad thoughts or feelings during sex	0	1	2	3

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

34.	Being easily annoyed by other people	0	1	2	3
35.	Starting arguments or picking fights to get your anger out	0	1	2	3
36.	Having sex or being sexual to keep from feeling lonely or sad	0	1	2	3
37.	Getting angry when you didn't want to	0	1	2	3
38.	Not being able to feel your emotions	0	1	2	3
39.	Confusion about your sexual feelings	0	1	2	3
40.	Using drugs other than marijuana	0	1	2	3
41.	Feeling jumpy	0	1	2	3
42.	Absent-mindedness	0	1	2	3
43.	Feeling paralysed for minutes at a time	0	1	2	3
44.	Needing other people to tell you what to do	0	1	2	3
45.	Yelling or telling people off when you felt you shouldn't have	0	1	2	3
46.	Flirting or "coming on" to someone to get attention	0	1	2	3
47.	Sexual thoughts or feelings when you thought you shouldn't have them	0	1	2	3
48.	Intentionally hurting yourself (for example, by scratching, cutting, or burning) even though you weren't trying to commit suicide	0	1	2	3
49.	Aches and pains	0	1	2	3
50.	Sexual fantasies about being dominated or overpowered	0	1	2	3
51.	High anxiety	0	1	2	3
52.	Problems in your sexual relations with another person	0	1	2	3

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

53.	Wishing you had more money	0	1	2	3
54.	Nervousness	0	1	2	3
55.	Getting confused about what you thought or believed	0	1	2	3
56.	Feeling tired	0	1	2	3
57.	Feeling mad or angry inside	0	1	2	3
58.	Getting into trouble because of your drinking	0	1	2	3
59.	Staying away from certain people or places because they reminded you of something	0	1	2	3
60.	One side of your body going numb	0	1	2	3
61.	Wishing you could stop thinking about sex	0	1	2	3
62.	Suddenly remembering something upsetting from your past	0	1	2	3
63.	Wanting to hit someone or something	0	1	2	3
64.	Feeling hopeless	0	1	2	3
65.	Hearing someone talk to you who wasn't really there	0	1	2	3
66.	Suddenly being reminded of something bad	0	1	2	3
67.	Trying to block out certain memories	0	1	2	3
68.	Sexual problems	0	1	2	3
69.	Using sex to feel powerful or important	0	1	2	3
70.	Violent dreams	0	1	2	3
71.	Acting "sexy" even though you didn't really want sex	0	1	2	3
72.	Just for a moment, seeing or hearing something upsetting that happened earlier in your life	0	1	2	3

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

73.	Using sex to get love or attention	0	1	2	3
74.	Frightening or upsetting thoughts popping into your mind	0	1	2	3
75.	Getting your own feelings mixed up with someone else's	0	1	2	3
76.	Wanting to have sex with someone who you knew was bad for you	0	1	2	3
77.	Feeling ashamed about your sexual feelings or behaviour	0	1	2	3
78.	Trying to keep from being alone	0	1	2	3
79.	Losing your sense of taste	0	1	2	3
80.	Your feelings or thoughts changing when you were with other people	0	1	2	3
81.	Having sex that had to be kept a secret from other people	0	1	2	3
82.	Worrying that someone is trying to steal your ideas	0	1	2	3
83.	Not letting yourself feel bad about the past	0	1	2	3
84.	Feeling like things weren't real	0	1	2	3
85.	Feeling like you were in a dream	0	1	2	3
86.	Not eating or sleeping for 2 or more days	0	1	2	3
87.	Trying not to have any feelings about something that once hurt you	0	1	2	3
88.	Daydreaming	0	1	2	3
89.	Trying not to think or talk about things in your life that were painful	0	1	2	3
90.	Feeling like life wasn't worth living	0	1	2	3

0	1	2	3
Never			Often

IN THE LAST 6 MONTHS, HOW OFTEN HAVE YOU EXPERIENCED:

91. Being startled or frightened by sudden noises	0	1	2	3
92. Seeing people from the spirit world	0	1	2	3
93. Trouble controlling your temper	0	1	2	3
94. Being easily influenced by others	0	1	2	3
95. Wishing you didn't have any sexual feelings	0	1	2	3
96. Wanting to set fire to a public building	0	1	2	3
97. Feeling afraid you might die or be injured	0	1	2	3
98. Feeling so depressed that you avoided people	0	1	2	3
99. Thinking that someone was reading your mind	0	1	2	3
100. Feeling worthless	0	1	2	3

Satisfaction With Life Scale
(Diener, Emmons, Larson, & Griff, 1985)

Below are five statements with which you may agree or disagree. Using the scale below, circle the number beneath each item which most accurately indicates your agreement or disagreement. Possible responses include 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (neither agree nor disagree), 5 (slightly agree), 6 (agree), and 7 (strongly agree).

1. In most ways my life is close to my ideal.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. The conditions of my life are excellent.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I am satisfied with my life.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. So far I have gotten the important things I want in life.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. If I could live my life over, I would change almost nothing.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Ways of Coping Checklist –Revised
(Vitaliano, Russo, Carr, Maiuro, & Becker, 1985)

Listed below are several possible ways of dealing with problems and troubles in one's life. Try to think of one current problem or stressful situation. Keeping this stressful situation in mind, please indicate to what extent you have used each of the coping methods below to deal with this problem by circling the most appropriate number beneath each statement. Possible responses include (0) do not use, (1) use a little, (2) use quite a bit, and (3) use a great deal.

1. Bargained or compromised to get something positive from the situation.
do not use 0 1 2 3 use a great deal
2. Went on as if nothing had happened.
do not use 0 1 2 3 use a great deal
3. Concentrated on something good that could come out of the whole thing.
do not use 0 1 2 3 use a great deal
4. Hoped a miracle would happen.
do not use 0 1 2 3 use a great deal
5. Felt bad that I couldn't avoid the problem.
do not use 0 1 2 3 use a great deal
6. Talked to someone to find out about the situation.
do not use 0 1 2 3 use a great deal
7. Tried not to burn my bridges behind me, left things open somewhat instead.
do not use 0 1 2 3 use a great deal
8. Wished I was a stronger person – more optimistic and forceful.
do not use 0 1 2 3 use a great deal
9. Kept my feelings to myself.
do not use 0 1 2 3 use a great deal
10. Blamed myself.
do not use 0 1 2 3 use a great deal
11. Changed or grew as a person in a good way.
do not use 0 1 2 3 use a great deal
12. Slept more than usual.
do not use 0 1 2 3 use a great deal
13. Wished that I could change what had happened.
do not use 0 1 2 3 use a great deal

14. Made a plan of action and followed it.
do not use 0 1 2 3 use a great deal
15. Accepted sympathy and understanding from someone.
do not use 0 1 2 3 use a great deal
16. Accepted the next best thing to what I wanted.
do not use 0 1 2 3 use a great deal
17. Wished I could change the way that I felt.
do not use 0 1 2 3 use a great deal
18. Got mad at the people or things that caused the problem.
do not use 0 1 2 3 use a great deal
19. Came out of the experience better than when I went in.
do not use 0 1 2 3 use a great deal
20. Criticized or lectured myself.
do not use 0 1 2 3 use a great deal
21. Tried not to act too hastily or follow my own hunch.
do not use 0 1 2 3 use a great deal
22. Daydreamed or imagined a better time or place than the one I was in.
do not use 0 1 2 3 use a great deal
23. Changed something so things would turn out all right.
do not use 0 1 2 3 use a great deal
24. Tried to forget the whole thing.
do not use 0 1 2 3 use a great deal
25. Got professional help and did what they recommended.
do not use 0 1 2 3 use a great deal
26. Just took things one step at a time.
do not use 0 1 2 3 use a great deal
27. Tried to make myself feel better by eating, drinking, smoking, taking medication.
do not use 0 1 2 3 use a great deal
28. I know what had to be done, so I doubled my efforts and tried harder to to make things work.
do not use 0 1 2 3 use a great deal
29. Talked to someone who could do something about the problem.
do not use 0 1 2 3 use a great deal

30. Had fantasies or wishes about how things might turn out.
do not use 0 1 2 3 use a great deal
31. Avoided being with people in general.
do not use 0 1 2 3 use a great deal
32. Realized I brought the problem on myself.
do not use 0 1 2 3 use a great deal
33. Came up with a couple of different solutions to the problem.
do not use 0 1 2 3 use a great deal
34. Thought about fantastic or unreal things (like perfect revenge or finding a million dollars) that made me feel better.
do not use 0 1 2 3 use a great deal
35. Accepted my strong feelings, but didn't let them interfere with other things too much.
do not use 0 1 2 3 use a great deal
36. Asked someone I respected for advice and followed it.
do not use 0 1 2 3 use a great deal
37. Kept others from knowing how bad things were.
do not use 0 1 2 3 use a great deal
38. Changed something about myself so I could deal with the situation better.
do not use 0 1 2 3 use a great deal
39. Talked to someone about how I was feeling.
do not use 0 1 2 3 use a great deal
40. Wished the situation would go away or somehow be finished.
do not use 0 1 2 3 use a great deal
41. Stood my ground and fought for what I wanted.
do not use 0 1 2 3 use a great deal
42. Refused to believe it had happened.
do not use 0 1 2 3 use a great deal

Please briefly describe the problem or stressful situation:

Therapy Background

1. Have you ever had any kind of therapy?

_____ yes _____ no (if no, proceed to the next page)

2. How long were you in therapy? _____ years

3. How many therapists have you been to? _____

4. To indicate why you entered therapy, please rate the degree to which the following issues prompted you to seek any of your therapies. Please use the following scale and write the number of your answer in the space to the left of each statement.

1	2	3	4	5
not at all		moderately		a great deal

a) _____ alcohol/drug problems

b) _____ anxiety

c) _____ depression

d) _____ eating problems

e) _____ felt as if I was going crazy

f) _____ relationship problems

g) _____ sexual problems

h) _____ self-abuse (e.g., cutting, burning)

i) _____ other(s) explain: _____

5. Are you currently in therapy? _____ yes _____ no