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# **Emotional Writing Effectiveness:**

# **Do Coping Styles and Timing of the Event Predict Outcomes?**

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#### **ABSTRACT**

While research investigating the emotional writing paradigm has demonstrated its therapeutic effects, it is still unclear how the paradigm works. This study examined whether coping styles and timing of traumatic events (past versus ongoing) are related to writing outcomes. Participants wrote for 20 minutes on three different days within a five day period, and completed measures that assessed coping styles and timing of the traumatic event. Results indicated that timing of the trauma was not related to writing outcome, coping styles, however, were. Participants using rational, emotional, avoidance, or rumination as their primary coping strategies had better long-term outcomes associated with writing.

#### INTRODUCTION

The emotional writing paradigm has generated a wealth of research indicating that writing about emotionally distressing experiences can have therapeutic effects, including increasing psychological well-being and improving physical health (Pennebaker & Beall, 1986; Smyth 1998). The emotional writing paradigm asks participants to write about a traumatic or stressful life event for 15 – 30 minute sessions over a span of 3 to 5 days. During the writing sessions, participants are instructed to explore via writing their deepest thoughts and feelings regarding a traumatic or stressful life event. Control group participants are assigned to write about emotionally neutral topics, such as their plans for the day, for the same time period. Compared to their control group counterparts, participants in the emotional writing condition experience improved mood, heightened psychological well-being, and decreased health center

visits (for reviews, see Pennebaker, 1997; Smyth, 1998). A recent meta-analysis demonstrated that emotional writing leads to a 23% greater improvement on factors related to physical health, psychological well-being, immunological functioning, and role functioning (Smyth, 1998).

While the emotional writing paradigm's effectiveness has been well-established with healthy participants, such as college students, newer investigations have studied whether the paradigm would lead to such robust effects in less healthy individuals. One line of research has extended the writing paradigm for use with individuals with on-going medical concerns. The findings from these studies suggest that emotional writing effectiveness extends well beyond the already-healthy populations: those with chronic illnesses such as rheumatoid arthritis or asthma have been shown to benefit from the emotional writing paradigm (Smyth, Stone, Hurewitz, & Kaell, 1999), as have those women who have been diagnosed and are pursuing treatment for breast cancer (Stanton et al., 2002). More recently, researchers have advocated extending the writing paradigm as a therapeutic tool for those suffering from psychological disorders, including stress-related disorders and PTSD (Smyth & Helm, 2003; Sloan & Marx, 2004).

Although the writing paradigm's effectiveness has been clearly demonstrated, there is less certainty regarding why it works. Pennebaker (1989) initially proposed a disinhibition theory to account for the paradigm's efficacy, suggesting that inhibiting a strong, negative emotional event, such as a trauma, causes increased psychological and physical strain, thus increasing the likelihood of illness and disease. Writing, Pennebaker reasoned, allowed for a disinhibition of the negative emotions associated with the trauma, thus alleviating psychological and physiological stressors. Although the theory is compelling, it has failed to receive consistent support. Most problematic is the fact that several studies have demonstrated that writing participants benefit about equally whether they are disclosing an event that they never have disclosed or an already-disclosed topic (Greenberg & Stone, 1992). Other theories suggest that the emotional writing paradigm may allow for a reorganization of a traumatic event so that the event becomes a more coherent and structured memory (Smyth & Greenberg, 2000), or that writing about traumatic events plays a role in the making of meaning of such events (Park & Blumberg, 2002).

While these larger theoretical frameworks may ultimately clarify why writing leads to such widespread gains, other factors, such as psychological characteristics of the participants themselves may, in part, explain the emotional writing effects (Smyth, Anderson, Hockemeyer, & Stone, 2002). The finding that not all participants benefit from emotional writing suggests that individual differences in the writers themselves may predict writing outcomes (Smyth, Anderson, Hockemeyer, & Stone, 2002). Sheese and associates (Sheese, Brown, & Graziano, 2004) examined whether individual differences in mood and personality might serve as moderators of emotional writing effectiveness. Their results suggested that more extraverted individuals and those with high social support benefited the most from the writing. Writer gender also seems to be related to writing outcome. Smyth (1998) found in his meta-analysis that males benefited more from emotional writing than did females. Related to this gender difference in writing outcome may be that males tend to use different types of coping strategies when faced with a stressor. Previous research has demonstrated that males are more likely to use problem-

focused styles of coping (Ptacek, Smith, & Zanas, 1992), which may account for why emotional writing is more effective with males than females (Smyth, 1998). Additionally, factors unique to the traumatic event itself may be related to writing outcome. For instance, those participants who wrote about current traumas had better outcomes than participants who were allowed to choose the trauma that they wrote about, past or present (Smyth, 1998).

The purpose of the current study was to examine possible factors related to writing outcome. We examined whether individual differences in coping styles were related to writing effectiveness, as well as the nature of the trauma itself in terms of whether the writer considered the trauma to be an ongoing trauma or one clearly in the past.

# Coping Measures

Coping styles refer to relatively stable, individual differences in confronting and managing stressful situations (Krohne, 1996). Each coping style delineates patterns of behavior in terms of how individuals respond emotionally and cognitively to a stressor, as well as their propensity towards seeking social support as a means of coping. While coping styles are thought to be relatively stable, situational factors including the environment, type of stressor, and duration of the stressor interact and may elicit different patterns of coping as the event unfolds (Folkman & Lazarus, 1988b). In this sense, coping styles can be viewed as both trait concepts which are stable across time, and also as state concepts, which suggests that some situations or environments may require different types of coping (Lazarus, 1993). Given that coping styles differ in terms of the amount of emotional and cognitive processing they require, we predict that the emotional writing process will have different outcomes based on the type of coping styles that the participant uses. Although there are numerous categories of coping styles, we limited our investigation to seven distinct coping styles.

Folkman and Lazarus (1988b) initially distinguished between two types of coping: emotion-focused and problem-focused coping. Emotion-focused coping refers to coping styles that attempt to modify emotional responses to the stressor itself. Problem-focused coping refers to attempts to modify or change the situation for the better. More recently, Endler and Parker (1990) further expanded the initial conceptualization of two coping styles by adding avoidance as a third coping dimension, which refers to the extent that an individual tries distraction or avoiding thoughts of the stressor. Other coping styles include detached coping (Folkman & Lazarus, 1988a), which refers to attempts to create emotional distance from the event, while still acknowledging that the event happened. Thought suppression (Wegner & Zanakos, 1994) also can be viewed as a type of coping style, in that it describes an individual's conscious attempt to limit emotional thoughts surrounding a trauma. Cognitive rumination (Nolen-Hoeksema, 1991) describes a method of coping with trauma that includes repeated thoughts of one's own cognitions and emotional state. Emotional expression (Wenzlaff & Meier, 2001) refers to the emotional disclosure and processing that an individual engages in when dealing with a stressor, including seeking social support, disclosing the event, and allowing time to process the emotions surrounding the event.

Whether coping styles lead to beneficial outcomes depends, in part, on the event itself. Stressors which are amenable to change may respond well to problem-focused coping styles, whereas events that are unchangeable may be better handled by more emotion-focused styles of coping (Folkman & Lazarus, 1988a; Smyth, 1998). Other coping styles that stifle emotional or cognitive processing of a trauma may be helpful in the short-term but harmful in the long-run. Thought suppression, for instance, has been found to lead to a 'rebound effect' in which the suppressed thought actually increases in frequency after attempts to suppress it (Wegner, Schneider, Carter, & White, 1987). Further, the suppression of emotional thoughts surrounding a traumatic event has been associated with heightened emotionality and physiological arousal (Wegner & Zanakos, 1994; Richards & Gross, 1999), as well as dampened immune functioning and poorer health (Petrie, Booth, & Pennebaker, 1998). Similarly, avoidant thinking has been associated with increased distress over time (Stanton & Snider, 1993). Conversely, research suggests that coping through emotional expression may lead to a host of benefits. Emotion expression predicted positive adjustment in women undergoing cancer treatment (Stanton, Danoff-Burg, et al., 2000), as well as fewer medical appointments and increased self-perceived health on the part of the patients (Stanton, Kirk, Cameron, & Danoff-Burg, 2000). Where emotional expression ends and rumination begins, however, is unclear. Rumination is associated with less positive outcomes, including more intrusive thoughts regarding the traumatic events, which may reflect the failure of rumination in cognitively integrating the stressful event (Lepore, 1997; Lepore et al., 2000). More focused expressive techniques, such as emotional writing, may be beneficial for those who rely on ruminative coping (Lapore, Reagan, & Jones, 2000).

Two studies are particularly relevant to the relation between coping style and emotional writing outcomes. Petrie and associates (Petrie, Booth, & Pennebaker, 1998) actively manipulated thought suppression by asking writing participants to either actively suppress thoughts regarding a traumatic event that they had just finished writing about or instead to actively think about what they had just written regarding a traumatic event. Compared to the no-suppression group, the suppression group experienced poorer immune functioning. These findings offer support for the idea that thought suppression as a normally employed coping strategy may lead to poor immunological functioning and, in turn, poorer health.

Smyth and associates (Smyth, Anderson, Hockemeyer, & Stone, 2002) examined the role of emotional non-expressiveness and avoidance in predicting writing outcomes. They found that individuals who used cognitive avoidance or denial as coping styles were less likely to have structured narratives when they completed emotional writing exercises. Although the less structured narratives in this particular study were not related to poor health or mood outcomes, previous researchers have predicted that those participants with the most structure in their narratives would benefit the most from the writing paradigm (Smyth et al., 2001).

Our study further explores the relationship between coping styles and emotional writing outcomes. We predict that the emotional writing exercises will lead to better outcomes for those who use coping styles that help them avoid or suppress their emotions and thoughts regarding a traumatic or stressful life event. That is, participants who rely on thought suppression, avoidance, detachment, or

problem-focused coping are predicted to benefit the most from emotional writing as the writing paradigm will allow for an emotional and cognitive exploration of the event. Those who rely on cognitive rumination also are predicted to benefit from the writing paradigm as it allows for an integration of both the thoughts and emotions surrounding the event. For those who already use emotionally-oriented coping styles, such as emotional expression and emotion-focused coping, we predict that the writing paradigm may not lead to any added benefit.

## Timing of the Event

In addition to coping styles, the timing of the traumatic event itself may be a mechanism that predicts who experiences more benefits from the writing paradigm. Previous writing studies have documented that the majority of participants either write about traumatic events that have already ended or traumatic events that are still ongoing (Smyth, 1999, King & Miner, 2000; Spera, Buhrfeind & Pennebaker, 1994). Smyth's (1998) meta-analysis established that participants writing about current traumas experienced superior outcomes compared to participants who were allowed to choose whether to write about past or current traumas. Bower (1999) extended the literature by examining the impact of emotional disclosure on not only on-going events but anticipated negative life events as well. Participants were asked to write about the loss of a close relative to breast cancer and their own perceived risk of developing the disease. Bower's study is unique in that subjects processed their anticipation of a future trauma. Results of this study suggest that written emotional disclosure did not have the beneficial outcomes common to past writing studies. It is unclear whether the timing of the event is related to whether the writing exercises are beneficial. These contradictory findings suggest that the timing of the traumatic event in written emotional disclosure tasks may function as a moderating variable. Thus, the purpose of the current investigation is to examine both the timing of traumatic events and coping styles as they relate to emotional writing outcomes.

#### **METHOD**

# **Participants**

Undergraduate students from a junior-senior upper division university were recruited for this study. At the onset of the study, a total of 86 students agreed to participate. Sixty-four participants chose to write about an event that had clearly ended while 11 participants wrote about on-going traumatic events. Out of the original 86 participants, 75 (58 women) completed the entire study. Participants' ages ranged from 20 to 56 (M = 29).

#### Measures

Participants completed a questionnaire that assessed general demographic information as well as information concerning the trauma itself in terms of whether the participant perceived the event as something that may occur in the future but had not happened yet, an on-going trauma, or one that had clearly ended.

Participants also completed the Impact of Events Scale (IES) (Horowitz, Wilmer, & Alvarez,

1979) to measure the impact of the traumatic event at pre-writing, immediately after the third day of writing, and at 6-week follow-up. The IES includes 15 items asking participants the extent to which they experienced intrusive thoughts about the stressful event and the extent to which they attempted to avoid reminders of the stressful event. Each item was scored from 0 (not at all) to 3 (often).

The Coping Styles Questionnaire (CSQ) was administered at pre-test to measure participants' use of rational, avoidance, detachment, and emotion-focused coping strategies (Roger, Jarvis, & Najarian, 1993). The Wenzlaff Meier coping scale was administered to measure thought suppression and emotional expression coping styles (Wenzlaff & Meier, 2001). A 10-item version of the 22-item Ruminative Responses Scale was administered to measure rumination coping (Jackson & Nolen-Hoeksema, 2001). Participants were instructed to complete the coping measures in terms of the coping strategies that they generally used.

#### Procedure

On the first day of the study, participants completed a packet of pre-test questionnaires, including the IES, the CSQ, a demographic questionnaire, the Wenzlaff Meier and Ruminative Responses Scale. Participants then were instructed to write about a traumatic event, preferably one that they have not discussed with anyone previously. Participants wrote for 20 minutes on three different days within a five day period.

We did not include a control group in this study. Our rational for excluding a control group was based on the goal of our current study and the strength of previous studies before ours. Many well-designed factorial designs have previously established that the emotional writing paradigm serves as a robust therapeutic tool for helping college students work through negative, emotional events (Smyth, 1998). The purpose of our investigation was not to further demonstrate that emotional writing works but rather to examine individual differences in coping and the timing of the emotional event in predicting emotional writing outcomes.

On the third day of writing, participants were again asked to complete the IES. At the six week follow-up, participants completed a follow-up packet that included the IES.

## **RESULTS**

# Coping Styles

We conducted 2 x 2 x 3 RM ANOVAs using a Bonferroni correction for IES scores across time, coping, and gender. Table 1 presents the mean IES scores over time for each coping category which had a main effect for coping style. Tables 2 and 3 present the overall mean IES scores over time for each coping strategy.

Table 1: IES Mean Score for High versus Low Coping

	Avoi	Avoidance		Emotion		Thought		Rumination	
	I.ow	Hioh	Low	Hioh	Low	Hioh	I .ow	Hioh	
Pre Test	2.569	2.131	2.483	2.215	2.218	2.48	2.161	2.548	
Post Test	2.622	2.297	2.595	2.324	2.355	2.562	2.319	2.607	
6-wk Follow-Up	2.207	1.781	2.161	1.825	1.743	2.245	1.869	2.123	

<sup>\*</sup>Lower scores indicate less impact of traumatic event

Table 2: IES Mean Score. Across Coping Strategies Wenzlaff Meier. Nolen-Hoeksema

	<b>Emotional</b>	Thought	Rumination	
	Expression	Suppression	Ttorrination	
Pre Test	2.350	2.349	2.355	
Post Test	2.460	2.459	2.463	
6-wk Follow-	1.989	1.994	1.996	

<sup>\*</sup> Lower scores indicate lower impact of the traumatic event

Table 3: IES Mean Score, Across Coping Strategies Coping Styles Questionnaire

	Avoidance	Rational	Detached
Pre Test	2.350	2.350	2.349
Post Test	2.459	2.461	2.472
6-wk Follow-Up	1.994	1.995	1.998

For avoidant coping, there was a main effect for time (F(2,72) = 11.3, p < .001), with IES scores significantly decreasing by the six week follow up. There also was a main effect for avoidant coping (F(2,72)=5.3, p=.02); those classified as low avoidant copers had higher IES scores at 6-week follow up (M = 2.2) than those classified as high on avoidant coping (M = 1.8). There was not an interaction, however, between avoidant coping and time (F(2,72) = .4, p = .7). There was not a significant main effect or interaction effect for gender.

For the ruminative coping style, there was also a main effect for time (F(2,72) = 11.5, p < .001) and a main effect for rumination coping (F(2,72) = 6.8, p = .01). Low ruminators scored lower on the IES at 6 week follow up (M = 1.9) than high ruminators (M = 2.1). There was no interaction between time and level of rumination (F(2,72) = .5, p = .6). There was not a significant main effect or interaction effect for gender.

For emotion-focused coping, there was a main effect for time (F(2,72) = 9.5, p < .001) and a

main effect for level of emotional coping (F(2,72) = 5.05, p < .05). Those participants categorized as low emotional copers scored higher on the IES (M = 2.41) than those categorized as high emotional copers (M = 2.12). There was no interaction between time and level of emotional coping. (F(2,72) = .11, p = .90).

For thought suppression, there was also a main effect for both time (F(2,72) = 11.3, p < .001) and for level of thought suppression (F(2,72) = 4.7, p = .034). Those participants low in thought suppression scored lower on the IES (M = 1.7) at six week follow-up than those high in thought suppression (M = 2.3). There was no interaction between time and level of thought suppression coping (F(2,72) = .5, p = .06). There was not a significant main effect or interaction effect for gender.

Rational coping, detached coping, and Wenzlaff Meier emotional expression each revealed a main effect for time (F(2,72) = 11.1, p < .001; F(2,72) = 11.2, p < .001; F(2,72) = 10.7, p < .001) but no main effects for coping style or gender, nor any interaction effects between time and level of coping. However, there was a trend toward a significant interaction effect for Wenzlaff Meier emotional expression and gender (F(1,71) = 3.7, p = .06).

## Timing of the Event

A 2 x 3 repeated measures ANOVA was conducted, using a Bonferonni correction, for timing of the traumatic event (past or ongoing) and IES scores at pre-test, post-test, or 6 week follow-up. There was a main effect for the timing of the three IES assessments (F(2,146) = 9.2, p < .001). Participants indicated that the negative impact of the event significantly decreased at 6-week follow-up compared to pre-test and immediate post-test levels.

There was not a significant main effect for timing of the negative event itself (F(1,73) = 2.3, p = .13), although IES scores revealed a trend suggesting that events in the past were perceived as having less negative impact (M = 2.2) than ongoing events (M = 2.5). Nor was there a significant interaction effect (F(1,73) = .4, p = .5), although ongoing events were rated as more negative at the beginning of the writing study than past events (M = 2.7 and M = 2.3, respectively) and at the 6-week follow-up (M = 2.2) and (M = 2.0), respectively).

## **DISCUSSION**

The primary purpose of the current study was to determine whether coping styles were related to emotional writing outcomes. The findings offer tentative support for the notion that coping styles may be related to writing outcomes. Participants who used detached or emotion expression coping did not show an improvement in IES scores across time, whereas most other participants did show improvement. Those who used rational, emotional, avoidance and rumination as their primary coping strategies indicated that the impact of the traumatic event lessened after the emotional writing.

It is of particular interest that participants identified as using emotion expression (as identified by the Wenzlaff Meier scale) as a primary coping strategy did not show significant improvement after

writing, while those using emotion-focused coping (as identified by the CSQ) did improve. These conflicting findings may be attributed to the design of each of the scales in question. While the Wenzlaff Meier attempts to capture individual tendencies to express emotion in the face of stressful events, the CSQ appears to focus on the tendency to internalize emotions (Roger, Jarvis, & Najarian, 1993). Thus, while the scales may appear similar, they are actually capturing very different strategies. This is relevant to the findings of the present study, because it would appear that individuals who have not previously found an avenue of emotional expression may benefit more from the experience of writing than those who have found their emotional outlet elsewhere.

Participants using detachment coping as their primary strategy also failed to show a statistically significant change in the impact of their traumatic event over time. This may be due to the emotional distance than Folkman and Lazarus identify as a key feature of detached coping (1988a). That is, individuals who rely on this coping strategy may maintain their emotional distance even during the writing process.

The second purpose of the investigation was to determine whether timing of the event was related to writing outcome. Though there was a modest trend suggesting that individuals writing about events in the past might benefit less from the emotional writing paradigm as compared to ongoing negative events, the findings cannot clearly support the idea that timing of event is related to emotional writing outcome.

#### Limitations

While the results add to our knowledge of psychological factors that may be related to writing outcome, several methodological concerns limit our findings. Although our sample size was actually larger than the mean sample size of 62 that Smyth (1998) reported for the 13 studies included in his meta-analysis, a much larger sample size may be necessary to detect moderators of emotional writing (Sheese, Brown, & Graziano, 2004).

Another possible limitation of our study stems from our conceptualization of coping. Folkman and Lazarus indicated that coping is a fluid process, influenced by the combined effects of the environment, the individual, and emotions (1988b). In attempting to quantify and measure coping styles, the present study assumed that coping was, at least to some extent, a static characteristic. Additionally, there certainly is the potential for overlap among various coping strategies and our study did not allow for an examination of possible interactions between combinations of coping strategies. Participants were identified with their primary coping strategies based on a median split. However, even within groups, coping is a highly individualized process, varying from person to person, and within individuals varying across situations and the duration of a stressor (Gianakos, 2002). Thus, the process utilized to identify the coping strategies preferred by subjects did not allow the researchers to control for the possibility that a single participant may actually fall in more than one group.

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