Evaluating the Benefits of Expressive Writing Interventions on Workplace Variables: Job Satisfaction, Stress, and Perceived Well-Being

Amparo Sadovnik

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EVALUATING THE BENEFITS OF EXPRESSIVE WRITING INTERVENTIONS ON WORKPLACE VARIABLES: JOB SATISFACTION, STRESS, AND PERCEIVED WELL-BEING.

by

Amparo Sadovnik

A Master's Thesis Submitted to the Faculty of Montclair State University

In Partial Fulfillment of the Requirements For the Degree of Psychology, Industrial & Organizational Psychology Concentration (M.A.)

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Abstract

The following thesis project outlines the possible benefits of the use of different types of writing interventions on workplace variables. The objective of this research project was to find supporting evidence to the idea that writing interventions such as traditional multisession writing activities, and one-time expressive letter writing, can help individuals enhance their perceived well-being, decrease their perceived levels of stress, and improve their job satisfaction. Sixty three participants from an undergraduate student population at a local state university, including 55 females and with an average age of 23 years, were asked to either write three consecutive times about a negative workplace experience involving incivilities, hostility, or work aggression, or to write a letter directed to the person, event, or organization that may have caused the hostility or aggression experienced at work. Results did not support the relationship between workplace variables and expressive writing interventions. Nonetheless, there is an extensive amount of research indicating that expressive writing interventions can help individuals’ relieve their feelings of frustration and improve their overall well-being.
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AMPARO SADOVNIK

Montclair State University

Montclair, NJ

2011
# EXPRESSIVE WRITING IN A WORKPLACE SETTING

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>Title Page</td>
<td>2</td>
</tr>
<tr>
<td>CHAPTER I: Introduction</td>
<td>5</td>
</tr>
<tr>
<td>CHAPTER II: What is Expressive Writing?</td>
<td>7</td>
</tr>
<tr>
<td>Variations of Expressive Writing Techniques</td>
<td>8</td>
</tr>
<tr>
<td>Benefits of Expressive Writing</td>
<td>11</td>
</tr>
<tr>
<td>Benefits of EW from physiological and psychological perspectives</td>
<td>11</td>
</tr>
<tr>
<td>Benefits of EW from an emotional perspective</td>
<td>13</td>
</tr>
<tr>
<td>Expressive writing as a part of a treatment or support program</td>
<td>13</td>
</tr>
<tr>
<td>Why Does Expressive Writing Work?</td>
<td>15</td>
</tr>
<tr>
<td>CHAPTER III: Expressive Writing in the Workplace</td>
<td>16</td>
</tr>
<tr>
<td>Incivilities, Aggression, and Hostility in the Workplace</td>
<td>17</td>
</tr>
<tr>
<td>Basis for research</td>
<td>20</td>
</tr>
<tr>
<td>Perceived well-being</td>
<td>21</td>
</tr>
<tr>
<td>Stress</td>
<td>22</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>23</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>23</td>
</tr>
<tr>
<td>Hypothesis 1:</td>
<td>24</td>
</tr>
<tr>
<td>Hypothesis 2:</td>
<td>25</td>
</tr>
<tr>
<td>Hypothesis 3:</td>
<td>25</td>
</tr>
<tr>
<td>CHAPTER IV: Method</td>
<td>25</td>
</tr>
<tr>
<td>Participants</td>
<td>25</td>
</tr>
<tr>
<td>Procedure</td>
<td>26</td>
</tr>
<tr>
<td>Measures</td>
<td>29</td>
</tr>
<tr>
<td>CHAPTER V: Results</td>
<td>31</td>
</tr>
<tr>
<td>Test of Hypotheses</td>
<td>37</td>
</tr>
<tr>
<td>CHATER VI: Discussion</td>
<td>39</td>
</tr>
<tr>
<td>Research findings</td>
<td>40</td>
</tr>
</tbody>
</table>
Evaluating the Benefits of Expressive Writing Interventions on Workplace Variables: Job Satisfaction, Stress, and Perceived Well-being.

Multiple studies support the idea that expressive writing (EW) interventions, where participants are asked to disclose information regarding experience(s), can be used as successful tools to reduce or relieve stress (Dalton & Glenwick, 2009; Lyubomirsky, Sousa & Dickerhoof, 2006; Manier, & Olivares, 2005; Radcliffe, Lumley, Kendall, Stevenson, & Beltran, 2007; Smyth & Helm, 2003; Soper & Von Bergen, 2001), decrease symptoms of depression and anxiety as result of a negative or traumatic experiences (Dellasega, 2001; Emmerik, Kamphuis, & Emmelkamp, 2008; Kallay & Baban, 2008; Soper & Von Bergen, 2001), improve perceived health (Antal & Range, 2005; Deters & Range, 2003), temporarily enhance a person’s mood and improve sleep patterns (Mosher & Danoff-Burg, 2006), decrease symptoms resulting from chronic illnesses such asthma and fibromyalgia (Broderick, Junghaenel, & Schwartz, 2005; Lowe, 2006; Smyth, Stone, Hurewitz, & Kaell, 1999), and even boost a person’s immune system (Lowe, 2006; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Radcliffe et al, 2007) among other things. Research supports the notion that simply writing about traumatic experiences can help individuals reduce some of their distress symptoms and improve their overall perceived well-being.

Given that most of the research on this writing technique has taken place in laboratory or clinical settings (Broderick, Junghaenel, & Schwartz, 2005; Emmerik, Kamphuis, & Emmelkamp, 2008; Kallay & Baban, 2008; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Smyth, Stone, Hurewitz, & Kaell, 1999), applications to other areas such as work settings remains limited. Recent research in the workplace indicates it is not uncommon for individuals to encounter acts of verbal, and sometimes even physical, aggression and hostility from their peers and supervisors (Barlin, Dupre, & Kelloway, 2009; Keashly, Trott,
Sometimes hostile and uncivil behaviors include bullying, making fun of other individuals, and even giving others the silent treatment (Mitchell & Ambrose, 2007; Bandow & Hunter, 2007; Lapierre, Spector, & Leck, 2005). Studies also indicate that individuals who are exposed to aggression, incivility, and hostility at work are more likely to experience decreased job satisfaction (Bandow, & Hunter, 2007; Lapierre, Spector, & Leck, 2005), and that workplace mistreatment (e.g., including but not limited to abuse from supervisors or co-workers), as well as excessive job demands and stress are related to diminished well-being (Penhaligon, Louis, & Restubog, 2009; Dupre & Barling, 2006; Holman, 2002). Therefore, taking expressive writing (EW) interventions from a laboratory setting to the work place may help individuals deal with workplace problems including stress and hostility, and perhaps improve their perceived well-being.

Research conducted by Barclay and Skarlicki (2009) indicates that even though many individuals experience organizational injustice, they have limited outlets to express their feelings and thoughts about their experiences. Barclay and Skarlicki’s research also supports that by helping employees express their emotions in conjunction with their thoughts about the situation, they are more likely to experience an improved perception of their well-being. The use of writing interventions could in fact serve as an innovative tool to help organizations and employment counselors provide employees with an instrument to deal with and attempt to make sense out of the negative experiences encountered by many in their work setting. However, additional research involving workplace issues is needed in order to determine whether expressive writing interventions such as free-writing, journaling, or letter writing are in fact beneficial to work attitudes and experiences. The goal of this thesis is to determine whether different variations of EW can help employees cope with work-related experiences and feelings of distress and discomfort (Cortina, & Magley, 2003). This study will also
evaluate whether variations of the traditional EW interventions (i.e., letter writing versus multiple session writing) have any significant impact on variables such as job satisfaction, perceived well-being, and stress.

The next chapter will explore the definition and history of EW as an intervention. The first part of this chapter will review the effectiveness of EW interventions as well as differences in approaches of this type of interventions, particularly multiple writing sessions versus single writing session interventions. The second part of chapter two will outline the benefits of EW in from both psychological and physiological standpoints along with different uses of EW as a support technique. Later, chapter three will explore different criteria that can be affected by expressive writing interventions, and discuss how job satisfaction, stress levels, and perceived well-being of employees might be affected by EW. Chapter three will also introduce the reader to the hypotheses that will be evaluated in this research project, which will be followed by a chapter in the methods used to complete this study. The last chapters will go over the results of the study as well as final discussion and limitations of this research.

**What is Expressive Writing?**

Research supports the idea that writing about feelings and emotions attached to an event may help improve an individual mental or physical health (Barrett & Wolfer, 2001; Mackenzie, Wiprzycka, Hasher, & Goldstein, 2007). Interest on EW was spurred on by findings by James W. Pennebaker who "re-discovered" EW in a 1986 study regarding emotional disclosure (Kallay & Baban, 2008). It was the outcome of that 1986 study by Pennebaker and Beall that demonstrated EW to be a promising technique. Based on their findings, Pennebaker and Beall felt that EW could help individuals improve their overall physical and mental health. Since this 1986 study was published, multiple variations of
EW interventions have been developed, many by Pennebaker and others such as Ames, et al’s. (2007) research in the area of tobacco cessation; Dalton and Glenwick’s (2009) research in the benefits of EW in upcoming events such as standardized testing; Kallay and Baban’s (2008) explored the benefits of EW on cancer patients; and Greenberg and Stone’s (1992) investigated levels of emotional disclosure using EW.

Expressive writing is a technique where participants are asked to articulate in writing their feelings, thoughts, and ideas about a situation, person, or events in their lives. The writing assignment may vary depending on the researcher’s or therapist’s intentions, but the concept remains constant. The idea is that writing about one’s deepest thoughts, feelings, or ideas about a situation, person, or event may lead the individual to a cathartic experience as noted by Freud in the early 1900’s (Pennebaker & Beall, 1986), or perhaps help them develop clarity and make sense of difficult, traumatic, or uncontrollable events. The literature supports the idea that EW interventions where participants are asked to write about their traumatic or emotional experiences, while attempting to make sense of the same, can result in a display of benefits including improved health in terms of immune responses, less doctor visits (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), and even less stress or anxiety (Barrett & Wolfer, 2001; Mackenzie, et al., 2007).

Variations of EW Techniques

There are different variations of structured writing interventions as defined by Barrett and Wolfer (2001). Manier and Olivares (2005) defined traditional EW interventions as those where participants are asked to write for three to five consecutive days for a predetermined amount of time (approximately 15 to 30 minutes) about a
personal event or situation. Most of Pennebaker's EW studies have had a common setting where participants in the experimental group are asked to write about their deepest thoughts or emotions regarding an event or object for anywhere from three to five consecutive days for 20 minutes at a time (Pennebaker & Beall, 1986; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Spera, Morin, Buhrfeind, & Pennebaker, 1994). This methodology for EW interventions has been replicated by many researchers other than Pennebaker and colleagues (Ames, et al., 2007; Barrett & Wolfer, 2001; Daton & Glenwick, 2009; Greenberg & Stone, 1992; Kallay & Baban, 2008; Margola, Facchin, Molgora, & Revenson, 2010). Another variation of the traditional EW intervention is assigning individuals to conditions where one group will be asked to write about their experience in terms of feelings, another group will be asked to write about their experience in terms of facts, and lastly another group may be asked to write in terms of both feelings and facts (Pennebaker & Beall, 1986; Sloan, Feinstein, & Marx, 2009). Research indicates that participants will closely follow the instructions of the researcher and will write about their negative experiences in terms of feelings or facts according to the instructions.

Another variation to the traditional EW intervention, proposed by Pennebaker (1986) and colleagues, is where participants are assigned to write about a traumatic event that may or may have not been ever disclosed to others (Greenberg & Stone, 1992). In addition, research indicates that writing over an extended period of time such as once a week over a period of three weeks can result in more significant findings (Smyth as cited by Ames et al., 2007; Soper & Von Bergen, 2001). Furthermore, the location where the writing activity takes place may influence the final outcome of the intervention. For
example, a study by Nazarian and Smyth (2010) found that participants who were asked to write at home during their own time reported less benefits from the assigned EW intervention than those who completed the assignment in a laboratory setting. On the other hand, making participants aware of their assigned condition may also influence the results of the EW exercise. For example, in Deters and Range’s study, participants may have become aware of their assigned condition as result of the prescreening process for post traumatic stress disorder where they were asked if they have experienced a traumatic event (2003). Such awareness appears to have influenced on the ultimately outcome of the study as researchers found improvement for both participants in the control and experimental conditions (Deters & Range, 2003).

In addition to the classical, multi-session, timed version of EW, where participants are asked to write about the most traumatic or negative experience, there is also literature that supports that writing a letter directed to a specific person or situation that may have caused the individual’s distress may be as beneficial and more economical (Mosher & Danoff-Burg, 2006) than the classical intervention. In Mosher and Danoff-Burg’s study, participants were asked to write a letter directed to either a person that hurt them, a person that helped them, or a school official for no specific reason. Writing about the distressing situation or writing a letter to the potential aggressor (co-worker, professor, etc.) may allow participants to restore balance and experience less negative behaviors against those that have mistreated them, which may also result in a decrease of displaced aggression and deviant behavior.

As noted in the studies previously described, EW interventions appear to enhance the reports of perceived well-being and mental health of those who write about traumatic
experiences, those who write about their feelings and/or facts in relation to personal negative experiences, or those who write about experiences that may have never been previously disclosed to others. In addition, expressive letter writing has also proven to be an effective alternative to the traditional multisession EW exercise which may be easier and faster to implement than a traditional EW intervention. Research seems to support the idea that EW interventions may work at different levels in different settings; however, there is limited research that directly compares the different types of EW exercises such as letter versus traditional EW interventions. Therefore, the following thesis will explore the effectiveness of expressive writing letter interventions versus the traditional writing intervention in a work oriented setting. If both techniques are equally effective, it would be safe to assume that expressive letter writing may be more economical and easier to implement in an organizational or workplace setting.

**Benefits of Expressive Writing**

**Benefits of EW from physiological and psychological perspectives.** Studies in EW have demonstrated that this type of intervention may help individuals improve the overall perceived psychological and physiological well-being. A 1988 study by Pennebaker, Kiecolt-Glaser, and Glaser measured health benefits of writing about a traumatic event that may have or not been disclosed to others. The results of Pennebaker et al. study demonstrated that individuals who wrote about a traumatic event experienced positive immune responses and reported less visits to the health clinic than those that were asked to describe an event or item in an objective manner (1988). In a similar scenario, the results in Mosher and Danoff-Burg study indicates that writing about a negative experience (or eliciting such experience) resulted in better sleep in comparison to individuals in the control group (2006).
In a clinical setting, EW has been shown to decrease the report of symptoms of depression in cancer patients who write for 20 minutes for four consecutive days about their thoughts and feelings regarding their illness (Kallay & Baban, 2008). Kallay and Baban’s study indicates that even though EW will not resolve all of the patients’ symptoms of depression, it can act as a moderator to reduce the severity of those symptoms and even improve the individual’s outlook on life (2008). In another study, a detailed analysis of the results of participants who reported “severe” trauma indicated that this group reported less health symptoms post intervention when compared to those who reported less severe trauma (Greenberg & Stone, 1992).

In a clinical study, patients with asthma and rheumatoid arthritis experienced improved lung function and reported fewer symptoms after participating in an EW exercise where they were asked to write about their most stressful experience ever for three consecutive days (Smyth, Stone, Hurewitz, & Kaell, 1999). A similar study with participants suffering from fibromyalgia demonstrated a reduction of their symptoms of pain and fatigue following an EW intervention where they were asked to write about a traumatic event or situation (Broderick, Junghaenel, & Schwartz, 2005). In many clinical studies such as Smyth et al., 1999, Kallay and Baban, 2008, among others, patients or participants are not asked to write directly about their illness or clinical condition, but rather about their experiences of stress or trauma which seems to result in an improved perceived well-being and a reduction in the report of symptoms related to their illness or diagnosis.

In addition, writing about abuse and experiences from physically and mentally abusive relationships may help individuals decrease their symptoms of anxiety (Barrett & Wolfer, 2001). In a self administered protocol of EW and therapy, a master’s student in social work tells her tale about abuse and some of its consequences such as increased anxiety; this student also talks about how creating a regimen of EW in combination with formal therapy
helped her overcome some of her anxiety symptoms and develop a more positive outlook for her life (Barrett & Wolfer, 2001).

**Benefits of EW from an emotional perspective.** As described by Margola, Facchin, Molgora, and Revenson (2010), writing about an unfortunate event may help the individual regulate their overall feelings and emotions surrounding the situation and ultimately help them make sense of the same. In other situations, EW may help the individual confront an upcoming important event. Dalton and Glenwick’s (2009) study demonstrated that EW may also be beneficial when participants write about a future experience such as an upcoming standardized test such as the GRE (Graduate Record Examination). Participants in Dalton and Glenwick’s experimental condition were asked to write about the upcoming experience either once or three times for three consecutive weeks for approximately 15 minutes (2009). Participants in this condition obtained better results in the standardized test and also experienced lower levels of distress than participants in the control condition.

Expressive writing also seems to help caregivers of elderly adults in terms of stress reduction and providing them with a better outlook in their well-being (Mackenzie, Wiprzycka, Hasher, & Goldstein, 2008). Mackenzie et al. (2008) also found that caregivers whose writing has a positive undertone are more likely to find more health benefits from the same. Just as outlined in the research by Dalton and Glenwick (2009), it appears that positive visualization of one’s future may result in more positive outcomes (e.g. better score in standardized test).

**Expressive writing as a part of a treatment or support program.** As noted by Barrett and Wolfer (2001), EW can be used as part of treatment to deal with the effects of abusive relationships. EW can also be used in combination with other techniques such as
smoke cessation therapy. Participants in a 2007 study conducted in conjunction with the Mayo Clinic were assigned to a condition where they received a classical brief intervention in smoke cessation in combination with an EW activity (Ames et al., 2007). Participants in this study, who were asked to write about their thoughts and feelings about the smoke cessation experience, demonstrated higher levels of smoking abstinence immediately after the intervention (Ames et al., 2007). Nevertheless, levels of smoke cessation fell to the same levels as the control group at the 24 and 52 week post-assessments.

Researchers and therapists must be careful not to overestimate the power of expressive writing. A 2006 article by Lowe illustrates how participants in one particular study were asked to write about their feelings and thoughts regarding a negative event, which elicited negative feelings and accelerated their symptoms of the existing diagnosis of post traumatic stress disorder (PTSD). Lowe notes that expressive writing should not be used without another support or coping mechanism, especially when dealing with participants with a diagnosis such as PTSD. On the other hand, research indicates that the use of EW techniques in an employment setting may serve as a support technique for counselors that are assisting individuals with stressful situations such as job loss (Soper & Von Bergen, 2001).

As described in throughout the different sections of this chapter, the available literature in EW supports claims that this type of intervention can help different populations on a variety of diverse settings from care givers to patients with chronic diseases such as rheumatoid arthritis (Smyth, Stone, Hurewitz, & Kaell, 1999) and even those with cancer (Kallay & Baban, 2008). Despite the vast literature on EW, research in the area of EW research in a workplace setting and in relation to workplace issues is needed. Research in this area should help individuals and organizations evaluate the different pros and cons of EW and its adaptability to organizational settings. Additional research in this area will also help organizations and experts determine whether investing resources on EW could potentially
enhance employees’ job satisfaction and overall well-being and ultimately increase productivity levels, decrease attrition, and lead to happier employees.

**Why Does Expressive Writing Work?**

Research in the area of EW indicates that emotional disclosure in writing form may allow individuals to utilize cognitive processes, which may ultimately help them rationalize and organize their thoughts regarding the negative situation and therefore experience less negative feelings (Barrett & Wolfer, 2001; Kallay & Baban, 2008; Lyubomirsky, Sousa, & Dickerhoof, 2006, Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Soper, & Von Bergen, 2001), and improve health along with general life satisfaction (Lyubomirsky, Sousa, & Dickerhoof, 2006). According to Margola Facchin, Molgora, and Revenson (2010), an EW intervention may help individuals regulate their emotional responses while making sense of an event, such as the death of a classmate. Emotional disclosure through writing may also help individuals relieve some of the cumulative stress that may lead to physical and mental health problems (Greenberg & Stone, 1992) and to avoid rumination which for some may increase their chances of becoming depressed (Sloan, Marx, Epstein, & Dobbs, 2008).

It is also relevant to understand that the literature in EW indicates that this modality of emotional release does not work for all individuals equally. For example, individuals whose level of distress or anxiety is either too low or too high seem to find little benefit from EW (Kallay & Baban, 2008; Mackenzie, et al., 2007, Manier & Olivares, 2005). In addition, an individual’s willingness to disclose feelings and emotions about a situation or event may also determine the success of the EW intervention (Manier & Olivares, 2005; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Soper, & Von Bergen, 2001). Furthermore, an individual’s baseline in terms of health
and emotional distress may also affect the level of improvement to be achieved during an EW intervention (Margola, Facchin, Molgora, & Revenson, 2010).

Thus far this review has explored the benefits of EW in relation to traumatic experiences and the benefits that it presents to participants such as improvement in reports of perceived well-being, decrease in their symptoms of depression, improved outlook in life, among many other benefits. The next chapter will explore the benefits of EW interventions as a tool that could be used in the workplace setting to help individuals cope with situations involving hostility and aggression, high levels of stress, and to increase job satisfaction.

**Expressive Writing in the Workplace**

As described in the previous chapter, in traditional settings research in EW has focused on exercises that ask individuals to write about a traumatic, negative, or distress related topic for a predetermined amount of time in a span of two to four consecutive sessions or weeks while asking participants to analyze and process the available information to make sense of the cause behind their feeling(s) of distress (Lyubomirsky, Sousa, & Dickerhoof, 2006). In addition, to the traditional EW intervention research by Mosher and Danoff-Burg has demonstrated that individuals may also benefit from writing a letter targeted to the individual or cause of their distress (2006), which may be more economical and easier to implement in settings other than the laboratory. A one-time EW intervention where participants are free to write a letter targeted to the individual, person, problem, etc., that may be the main source of their negative experiences at work may be more appealing to organizations in terms of effectiveness and cost. A one-time intervention would be easier to implement and more affordable than conducting a traditional EW intervention involving multiple sessions and follow ups.
The benefits of EW interventions, as outlined in previous chapters, are indicators that this type of intervention may be applicable to other settings such as organizations. In a workplace setting, EW interventions may allow individuals to make sense out of their negative experiences at work and even develop a strategy to cope with the stressful event (hostility) which will most likely result in a more positive perception of their well-being (Elfering, et al., 2005).

The goal of utilizing EW interventions in a workplace setting is to provide organizations and occupational counselors as well as employees with a new outlet or technique to deal with issues such as hostility, incivility, aggression, unfairness and organizational injustice at work in a controlled setting. Research by Lyubomirsky, Sousa, and Dickerhoof (2006) supports the idea that writing or even talking about an event or circumstance can help an individual make sense of their experience, which may ultimately reflect on improved well-being and health. Soper and Von Bergen's (2001) research supports the idea that employment counselors could use expressive writing as a part of their techniques to assists individuals dealing with a stressful situation at work including job loss. If writing interventions have proven functional in the job loss scenario, it should be safe to predict that allowing workers to express their feelings or thoughts regarding an event or negative experience at work involving aggression or hostility from a co-worker or manager could lead to a decrease in stress while achieving an improved perception of well-being and job satisfaction.

**Incivilities, Aggression, and Hostility in the Workplace**

Many, if not most individuals, have or will experience some form of aggression and hostility at their work place which may include yelling, screaming, use of derogatory names or language and even e-mail notes, omitting important information
(obstructionism), ridiculing or making fun of an individual in front of others, giving someone the silent treatment, etc (Barlin, Dupre, & Kelloway, 2009; Bandow & Hunter, 2007; Brown & Sumner, 2006; Lapierre, Spector, & Leck, 2005; Mitchell & Ambrose, 2007), also known as incivilities (Martin & Hain, 2005). A 2009 study by Barlin, Dupre and Kelloway indicates that close to 70% of employees will report some act of aggression at the workplace (WA). Schat and Kelloway defined aggression in the workplace as “behavior by an individual or individuals within or outside an organization that is intended to physically or psychologically harm a worker or workers and occurs in a work-related context” (Barlin, Dupre, & Kelloway, 2009, p. 673).

Research by Mitchell and Ambrose indicates that some individuals believe that mistreatment from supervisors can result in negative behaviors from employees, and even hostility (2007). In addition, research in the area of hostility and aggression indicates that many individuals would assume that hostile verbal and non-verbal interactions with supervisors or managers are more socially acceptable than acts of physical violence (Keashly, Trott, & MacLean, 1994) and therefore more frequently experienced in the workplace. Covert hostile behaviors such as obstructionism by taking advantage of office supplies or omitting information are typically perceived as commonplace and perceived as less severe acts of aggression (Brown & Sumner, 2006). Research also indicates that the degree of WA may depend on the perceiver’s gender or their own individual perception of hostility (Brown & Sumner, 2006). Variations of abuse and aggression may not necessarily be violent in nature (Barlin, Dupre, and Kelloway, 2009) but could potentially lead to acts of physical violence (Bandow & Hunter, 2007; Dupre & Barling, 2006).
Incivilities and WA can trigger a series of negative responses from employees, including but not limited to decreased productivity levels and decreased organizational citizenship behaviors, and ultimately have a negative impact for employers (Bandow & Hunter, 2007). Abusive behavior foments the proliferation of deviant acts against the organization, management, and well as co-workers such as leaving clutter behind, and creating rumors about co-workers (Mitchell, & Ambrose, 2007). Furthermore, research indicates that “psychological violence” results in higher rates of feelings such as anger, fear and stress; and also leads to disruption of the workforce and productivity (Keashly, 2001; Keashly, Trott, & MacLean, 1994; Bandow & Hunter, 2007). Employees who perceive unjust and unfair treatment may seek organizational justice or reparation (Dupre & Barling, 2006; Mitchell & Ambrose, 2007). On the other hand, employees who perceived that they have more control over their actions at the workplace are less likely to exhibit aggressive or deviant behaviors (Dupre & Barling, 2006).

Judge, Scott and Ilies demonstrated that deviant behavior at the workplace the result of a combination of different factors including job satisfaction, feelings (anger and hostility), unfair treatment as well as personalities (2006). Research by Kirk, Schutte, and Hine (2011) confirmed that emotional intelligence and self-efficacy are important determinants on how an individual will react to incivilities in a workplace setting. Furthermore, literature in this topic indicates that an individuals’ personality is an important factor on how people (targets of abuse) will interpret their peers, and supervisor’s actions (Judge, Scott, & Ilies, 2006; Keashly, 2001; Riordan & Street, 1999); and that individuals with low self-esteem are more susceptible to aggression (Barlin, Dupre and Kelloway, 2009). Furthermore, a 1999 article from Riordan and Street
indicates that employees with "type A" personalities are very likely to exhibit traits of hostility and aggression as they have a more difficult time dealing with time constraints, but this does not necessarily mean that only "type A" individuals exhibit these type of feelings.

Basis for Research

Considering that numerous studies in the area of EW have demonstrated to help individuals cope with negative or traumatic events and even improve outlooks on life, this thesis will measure whether EW interventions can assist employees as well as employers to cope with the negative consequences of incivilities, hostility, and WA in the workplace. One of the main objectives of this thesis is to demonstrate whether letter writing and traditional EW interventions are effective on a variety of criteria. To date, most studies on EW have focused in measuring the effects of this type of interventions in terms of perceived well-being, health, and psychological well-being as the main criteria to establish its effects. Multiple studies in EW interventions have modeled their method after the original studies in EW such Pennebaker and Beall (1986) and have incorporated a variable to measure well-being or health through self-assessments such as general health questionnaires, physical symptoms checklists, or even The Pennebaker Inventory of Limbic Languidness (Dalton & Glenwick, 2009; Lu & Stanton, 2010; Mackenzie, Wiprzycker, Hasher, & Goldstein, 2008; Richards, Beal, Seagel, & Pennebaker, 2000; Spera, Morin, Buhrfeind, & Pennebaker, 1994). Even Barclay and Skarlicki (2009), who developed one of the few studies in EW interventions that has observed workplace criteria (organizational justice), incorporated a measurement of physical well-being measurement in their analysis. In order to maintain homogeneity with studies in the area
of EW, this thesis will incorporate perceived well-being as one of the criteria to establish the benefits of EW interventions.

**Perceived well-being.** Research indicates that positive and negative work experiences including stress and/or aggression can affect an employee’s well-being as well as their self perception (Hoobler, Rospenda, Lemmon, & Rosa, 2010). Research by Yang, Che, and Spector (2008) highlighted the importance of a person-environment fit as a determinant of well-being. Furthermore, research in the area of well-being indicates that employers have the potential of helping their employees achieve happiness and even enhance employees’ perception of psychological well-being, by allowing them to work in an environment that foments positive events and fosters individuals’ potentials (Avey, Luthans, Smith, and Palmer, 2010). On the other hand, workplace mistreatment and incivilities, including but not limited to abuse from supervisors or co-workers, as well as excessive job demands and stress are related to diminished well-being (Dupre & Barling, 2006; Holman, 2002; Kirk, Schutte, & Hine, 2011; Penhaligon, Louis, & Restubog, 2009).

Research also indicates that those individuals who are chronically exposed to the same stressors tend to report “poorer” well-being (Elfering, et al., 2005). Elfering et al. research indicates that “problem-focused coping” (pg. 239) leads to a better general perceived well-being; developing understanding or strategy to cope with the stressful (hostility event) could promote a more positive perceived well-being. EW may serve as a tool help individuals identify what may be causing their distress and improve their perceived well-being.
As outlined in this section, well-being seems to have a significant impact in the development and retention of employees. Therefore, a measurement of perceived well-being was incorporated in this study. Furthermore, since research indicates that perceived well-being is a multidimensional concept (Rothmann, 2008), and to maintain consistency with previous research in this topic, well-being would be measured in terms of perceived health. Other variables assumed to be related to well-being in a workplace setting, such as stress and job satisfaction, will also be measured in this study.

**Stress.** As indicated in the previous session, it would appear that the concept to stress is significantly intertwined with the concepts of well-being and health (Briner & Reynolds, 1999). It is believed that individuals under constant pressure as result of work demands, etc, are less likely have a positive perception of well-being (Yang, Che, & Spector, 2008). Several studies (Kanji & Chopra, 2009; Ongori & Agolla, 2008) and even the National Institute of Occupational Safety and Health (Nash, 2010) concur on the idea that stress is the result of imbalance of demands and the resources available to meet those demands. There is also indication in the available research that stress can impact other aspects of employment such as increases psychological distress, diminishes health and decreases job satisfaction (Briner & Reynolds, 1999, Klink, Blonk, Schene, Aart, & Dijk, 2001).

Among major stressors identified by the literature include lack of decision making power and poor communication between employees and management (Briner & Reynolds, 1999; Ongori & Agolla, 2008). Bullying is also considered a significant stressor for the target and may result in decreased job satisfaction and perceived well-being (Rodríguez-Muñoz, Baillien, De Witte, Moreno-Jiménez, & Pastor, 2009). Even
though it is believed that individuals will identify their own coping mechanism against stress (Koeske, Kirk, & Koerske, 1993), EW interventions may provide individuals with an opportunity to express their thoughts and feeling regarding the relationship with the perpetrator (bully) or their stressors. EW may even serve as a tool for individuals to help them identify the problem and privately disclose some of their feelings of discomfort and disagreement with such problem or individual.

Chronic stress can have a negative impact for both individuals and organizations as it may lead to increase use of health care as result of increase illness such as depression, increase in work related injuries, and decrease job satisfaction (Nash, 2010). Since the literature seems to indicate that stress, well-being, and job satisfaction are concepts that may be impacted by one another, this study will also evaluate the effects of EW interventions in terms of job satisfaction (JS).

**Job Satisfaction.** A 1994 study by Keashly, Trott, and MacLean demonstrated that there is a significant relationship between job satisfaction and the amount of perceived abuse at the work place. Keashly et al. also indicate that job satisfaction may also influence how employees perceived others’ behaviors (1994). Among the main factors of job dissatisfaction identified in the literature include poor relationships between employees and supervisors along with WA and the number of job incivilities experienced by an employee (Bandow & Hunter, 2007; Burmeister, 2004; Kirk, Schutte, & Hine, 2011; Lapierre, Spector, & Leck, 2005).

**Hypotheses**

As outlined in the previous chapters and sections, research seems to support the idea that EW interventions can help individuals cope with traumatic or negative
expresses (Pennebaker & Beal, 1986). Several studies have demonstrated that EW interventions can result in a decrease in the number of reported health symptoms (Pennebaker & Beal, 1986; Pennebaker, Kiecolt-Glaser, & Glaser, 1988). EW has also been shown to be a tool to help individuals enhance their reports of perceived well-being as well as to regulate feelings regarding a negative event (Margola, Facchin, Molgora, & Revenson, 2010). Research also indicates that EW prevents rumination which can lead to negative feelings and even depression (Sloan, Marx, Epstein, & Dobbs, 2008); helps care givers enhance their outlook in life (Mackenzie, Wiprzycka, Hasher, & Goldstein, 2008); and reduces the number of symptoms reported by cancer patients (Kallay & Baban, 2008).

Considering that EW interventions have been found to be successful in many settings, it would only be ideal to transition some of the benefits of this type of intervention to a workplace setting. Many organizations are concerned about the well-being and job satisfaction of their employees; therefore, it would be valuable to be able to provide organizations with alternatives on how to cope with stressors, and negative experiences in the work setting that may be jeopardizing employees' well-being, productivity, and job satisfaction. EW interventions may be the right fit for many organizations in need of tools or techniques to help their employees overcome common issues such as stress, incivilities, hostility, WA, and diminished job satisfaction.

_Hypothesis 1:_ Individuals who complete a one-time expressive letter writing assignment will experience decreased stress levels, enhanced job satisfaction, and improved overall perceived well-being in terms of health when compared to baseline measurements.
Hypothesis 2: Individuals who complete a multisession EW assignment where they write three times during a time span of three weeks in reference to work will experience decreased stress levels, enhanced job satisfaction, and improved overall perceived well-being in terms of health when compared to baseline measurements.

Hypothesis 3: Comparing one-time expressive letter writing with a traditional multisession EW intervention will explore their relative effectiveness and determine whether there are significant differential effects between the two techniques.

Method

Participants

Participants in this study were a sample group of 63 undergraduate psychology students from Montclair State University who volunteered their participation for credit(s) to fulfill program requirements. Participants were recruited electronically through the school research management system that allows students to access various studies and surveys, and schedule times to complete the research requirement. The study was administered in an online format; participants were provided with an outline of the study in e-mail format and were asked to log in to a link to initiate their participation. Out of 92 participants that signed the consent form to participate in the study, 63 completed all sessions of the study. The final group of participants consisted of 55 females and 8 males with an average age of 23 years. A total of 50 participants, or 79.37% of the sample group, were employed at the time of the study. Participants were primarily native English speakers; approximately 79% confirmed that English was their first language.
Procedure

Students interested in participating in this study received an introductory e-mail with more information regarding the goal and emphasis of the study along with instructions on how to access the online link that would give them access to the same. As participants logged in to the study link they were asked to create a unique user name and password that would be used to access the main link to complete the entire study.

Participants were randomly assigned by the database to one of three groups consisting of the traditional EW group (n = 19), letter writing group (n = 32), and control group (n = 12). After the log in process was successfully completed, participants were asked to fill out an electronic version of the consent form, which outlined their rights as participants along with the risk and possible benefits of their participation, and provided them with an overview of the study (see Appendix B).

Participants in the traditional EW group and control group were asked to log in to the study a total of three times to complete three writing assignments with instructions to write for a target of 10 minutes about either an event of hostility at work or a neutral topic, such as the last movie they watched or the last book they read. During the first section participants in the traditional and control groups filled out the consent form followed by a series of baseline survey questions regarding stress, well-being, and job satisfaction as outlined in the methods section, and completed the first writing assignment.

Instructions for writing assignment for the control group:

During this session, I would like you to think about the last movie or book that you read or watched. Then, I would like you to write for the next 7 to 10 minutes about your
Experience, any thoughts or feelings that you may have experienced as result of reading this book or watching this movie. DO NOT worry about spelling, grammar, content, etc. Your writing will be kept confidential. (Adapted from Pennebaker, Kielcolt-Glaser, and Glaser, 1988).

Instructions for writing assignment for traditional EW group:

During this session, I would like you to think about an event or circumstance at work where you felt or experienced some form of hostility or aggression. If not presently employed, think of any past work experiences (e.g. I was told by my supervisor in a "mean way" that I should know the answer to my question; one of my coworkers was purposely refusing to answer my phone calls and then bragged about it around the office; my coworker refuses to take the late or weekend shift indicating that they have been working for the company longer than me, etc).

Then, I would like you to write for the next 7 to 10 minutes about this experience, any thoughts or feelings that you may have experienced as result of this event. DO NOT worry about spelling, grammar, content, etc. Feel free to change or omit names. And remember that your writing will be kept confidential. (Adapted from Pennebaker, Kielcolt-Glaser, and Glaser, 1988)

Upon completion of the first section participants in the traditional and control groups were asked to log back in a week to complete a second writing assignment, which contained the same set of instructions from the first writing assignment for both groups. Upon completion of the second writing assignment, participants in the traditional and control groups were then instructed to log in a week later in order to complete the third and final writing assignment and complete the same set of survey questions that they answered at the beginning of the study, which will serve as post-intervention measurements.
Participants in the letter condition were asked to log in a total of two times. During the first section participants in this condition completed the consent form along with a series of baseline measurements in job satisfactions, stress, and perceived well-being and were asked to log back in a week. During the second section, participants in the letter group were asked to write a letter to the person, organization, or event that may have lead them to experience hostility or aggression in their workplace.

Instructions for letter writing assignment:

During this session, I would like you to think about an event or circumstance at work where you felt or experienced some form of hostility or aggression. If not presently employed, think of any past work experiences (e.g. I was told by my supervisor in a "mean way" that I should know the answer to my question; one of my coworkers was purposely refusing to answer my phone calls and then bragged about it around the office; my coworker refuses to take the late or weekend shift indicating that they have been working for the company longer than me, etc).

Then, I would like you to write a letter to the person responsible for your feelings and thoughts. Please take the next 15 minutes to write this letter and DO NOT worry about spelling, grammar, content, etc. Your writing will be kept confidential; this letter will not be released to any outside parties. Feel free to omit or leave out names as you see fit.

(Adapted from Mosher and Danoff-Burg, 2006).

Upon completion of the expressive letter writing assignment, participants in the letter condition completed the same series of survey questions in relation to perceived well-being, stress, and job satisfaction as they had previously completed during the first section.
Measures

In this first section, participants in all conditions were asked to complete the consent form along with a series of surveys including a general demographics form (see Appendix B and C). The demographic form included general questions regarding gender, present work status, and first language (see Appendix C). In addition to the consent and demographics questions, participants were also asked to complete a series of questionnaires including The Pennebaker Inventory of Limbic Languidness (PILL) (Dalton & Glenwick, 2009) (see Appendix C), The Job Descriptive Index (JDI) developed by Smith, Kendall, & Hulin (Smucker & Kent, 2004) (see Appendix C), along with Perceived Stress Scale developed by Sheldon Cohen (see Appendix C).

The PILL is a 54 item self-rating scale (Richards, Beal, Seagal, & Pennebaker, 2000) designed to measure the individual’s perception of well-being in terms of health. The PILL measures the frequency of symptoms experienced by participants such as “running nose” or “chills” in a 5 point scale ranging from never/almost never to two plus [+ ] per week. The figures assigned to each rating in this scale are then added to determine participants’ final score; in this scale “never” equals 0 and two plus [+ ] times per week equals 4 (Dalton & Glenwick, 2009). According to Kaysen, et al., individuals who score high on the PILL tend to be more aware of their symptoms (2008). Pennebaker noted a mean of 17.9 with a coefficient alphas ranging from .88 to .99 (as cited by Dalton & Glenwick, 2009). The PILL has a positive correlation with other health factors such as the number of visits to a health professional and correlates moderately with other health measurements such as the Hopkins Symptom Checklist ($r= .48, N=213$) (Kaysen et al., 2008).
To measure job satisfaction, participants completed The Job Descriptive Index (JDI) developed by Smith, Kendall, & Hulin in 1969 (Smucker & Kent, 2004). This index includes 72 items divided in five different dimensions of job satisfaction including pay, promotions, supervision, co-worker, and work (Smucker & Kent, 2004). The pay and promotion subscale contain 9 items each; work, supervision, and coworkers contain 18 items each (Smucker & Kent). Answers are either adjectives, or short qualifying sentences, to which participants will answer “Y (yes)” for true, “N (no)” for false, or “?” for uncertain to indicate whether the items accurately describe their job (e.g. Satisfying-Y, N, ?; Boring- Y, N, ?). Yes is worth 3 points, no is worth 0 points, and “?” is worth 1 point, which will be added at the end of each section to determine the participant’s satisfaction under this particular level (Smucker & Kent). The scores of subscales with 9 items are doubled in order to be comparable to the other subscales (Smucker & Kent). Moorman, Niehoff, and Organ reported a coefficient alpha of .84 (1993). Kass, Vodanavich, and Callender reported a coefficient alpha of .88 reported across multiple studies along with an internal consistency of .90 (2001).

The Perceived Stress Scale (PSS) developed by Sheldon Cohen was used to obtain baseline and post interventions measures of stress. PSS is a 10 item self-assessment scale that asks participants to rate stress related statements (e.g. In the last month, how often have you felt nervous and “stressed”? ) in a five point scale ranging from “Never” to “Very Often”, where Never equals 0 points and Very Often equal 4 points. Answers to positive statements such “… how often have you felt confident about your ability to handle your personal problems?” are reversed in order to estimate the actual stress level of a participant. Cohen, Kamarck, and Mermelstein (1983) reported
coefficient alphas of .84, .85, and .86 based on the results of their study to evaluate the validity and reliability of PSS.

**Results**

Following the data gathering process, data from the participants in the three conditions was coded and scored to enable further analysis. The data were analyzed using SPSS version 19. Prior to conducting any analysis of data, the reliability of the measurements used to observed perceived well-being (PILL), perceived stress (PSS), and job satisfaction (JDI), was measured. Reliability coefficients for all three scales confirmed that all three measurements have reliabilities of .70 or above (see table 1).

Table 1

*Reliabilities for criteria*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Items</th>
<th>( \alpha ) Time 1</th>
<th>( \alpha ) Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PILL</strong></td>
<td>54</td>
<td>.960</td>
<td>.961</td>
</tr>
<tr>
<td><strong>PSS</strong></td>
<td>10</td>
<td>.884</td>
<td>.803</td>
</tr>
<tr>
<td><strong>JDI – Work</strong></td>
<td>18</td>
<td>.810</td>
<td>.839</td>
</tr>
<tr>
<td><strong>JDI – Pay</strong></td>
<td>9</td>
<td>.866</td>
<td>.859</td>
</tr>
<tr>
<td><strong>JDI – Promotion</strong></td>
<td>9</td>
<td>.844</td>
<td>.742</td>
</tr>
<tr>
<td><strong>JDI – Coworker</strong></td>
<td>18</td>
<td>.883</td>
<td>.904</td>
</tr>
<tr>
<td><strong>JDI – Supervisor</strong></td>
<td>18</td>
<td>.882</td>
<td>.922</td>
</tr>
</tbody>
</table>

Note: \( \alpha \) represents Cronbach's Alpha at during baseline assessment (time 1) and post intervention assessment (time 2). PILL (The Pennebaker Inventory of Limbic Languidness); PPS (Perceived Stress Scaled by Cohen); JDI subscales [work, pay, promotion, coworker, supervisor] (Job Descriptive Scale by Smith, Kendall, & Hulin).

In fact, all measurements other than the promotion scale under JDI have reliability coefficients of .80 or higher which is consistent with Cohen, Kamarck, and
Mermelstein (1983) reported coefficients for PSS; reported coefficients for the JDI by Moorman, Niehoff, and Organ (1993); and Pennebaker’s reported coefficient of reliabilities from .88 to .99 (as cited by Dalton & Glenwick, 2009).

Upon confirmation of reliability of the measurements of the dependent variables, descriptive measures were computed for each condition and each time period. Descriptive statistics from the sample population and the results from each measurement are presented in Table 2. Lastly, a repeated measures mixed model MANOVA was conducted to evaluate the effects of the independent variable or group condition (traditional EW, letter writing, or control group) and the effects within and between groups on the dependent variables (perceived well-being, stress and job satisfaction).
Table 2

Descriptive Statistics for Perceived Well-being, Stress, and Job Satisfaction at Time 1 and Time 2

| Dependent Variables | Time 1 | Time 2 | | | |
|---------------------|--------|--------|--------|--------|
| PILL                |        |        |        |        |
| Traditional        | 18     | 55.00  | 32.34  | 18     | 50.83  | 28.82 |
| Letter             | 32     | 64.28  | 32.78  | 32     | 66.78  | 38.81 |
| Control            | 12     | 67.17  | 25.84  | 12     | 69.25  | 20.88 |
| PSS                |        |        |        |        |
| Traditional        | 18     | 20.56  | 7.61   | 18     | 19.17  | 6.13  |
| Letter             | 32     | 18.94  | 6.05   | 32     | 20.75  | 5.42  |
| Control            | 12     | 19.25  | 6.99   | 12     | 20.83  | 5.52  |
| JDI – Work         |        |        |        |        |
| Traditional        | 18     | 26.11  | 8.74   | 18     | 25.83  | 11.12 |
| Letter             | 32     | 26.53  | 12.83  | 32     | 25.53  | 12.69 |
| Control            | 12     | 29.83  | 10.56  | 12     | 25.83  | 11.95 |
| JDI – Pay          |        |        |        |        |
| Traditional        | 18     | 25.00  | 17.52  | 18     | 24.89  | 17.56 |
| Letter             | 32     | 26.62  | 17.74  | 32     | 24.75  | 16.04 |
| Control            | 12     | 27.00  | 19.15  | 12     | 26.50  | 18.13 |
| JDI – Promotion    |        |        |        |        |
| Traditional        | 18     | 14.11  | 11.93  | 18     | 17.44  | 16.02 |
| Letter             | 32     | 18.75  | 15.76  | 32     | 18.50  | 14.05 |
| Control            | 12     | 24.50  | 15.28  | 12     | 15.83  | 16.32 |
| JDI – Co-worker    |        |        |        |        |
| Traditional        | 18     | 37.72  | 12.98  | 18     | 36.06  | 13.45 |
| Letter             | 32     | 36.91  | 13.57  | 32     | 36.72  | 15.31 |
| Control            | 12     | 33.00  | 12.51  | 12     | 31.33  | 12.02 |
| JDI – Supervisor   |        |        |        |        |
| Traditional        | 18     | 35.56  | 14.86  | 18     | 35.28  | 17.40 |
| Letter             | 32     | 41.22  | 11.85  | 32     | 38.13  | 14.60 |
| Control            | 12     | 39.17  | 12.45  | 12     | 35.58  | 16.50 |

Note: PILL (The Pennebaker Inventory of Limbic Languidness); PPS (Perceived Stress Scaled by Cohen); JDI subscales [work, pay, promotion, coworker, supervisor] (Job Descriptive Scale by Smith, Kendall, & Hulin).

The means noted in Table 2 under the PILL as a dependent variable measure are relatively higher than the average reported by Pennebaker of 17.9 (as cited by Dalton &
Glenwick, 2009). In the PILL, individual results can be as much as 216 (total score) which will indicate that the individual experiences every symptom outlined in this self-assessment (54 items) at least twice per week. Lower scores indicate that the person is relatively healthy but does experience some of the symptoms outlined in the PILL in an infrequent manner. PILL measurements were consistent for all three groups where the traditional group had relatively less reports of health symptoms at time one (M = 55.00) and time two (M = 50.83) than the control and letter writing conditions (M > 64). Furthermore, participants in the traditional EW intervention reported slightly less symptoms at time two when on the other hand participants in the control and letter writing group had a small increase in the number of symptoms reported at time two, which may be attributed to the sample size. The higher PILL scales might reflect typical cough, cold and flu symptoms typical of the fall and winter seasons.

The reported means and standard deviations for PSS indicate that the sample group is above the norm reported by Cohen of approximately 14.2 for an age group of 18-29 or 13.7 for females (Cohen, 1994). According to Cohen’s scale, higher scores are the results of more stress.

Under the JDI subscales, a higher number indicates a higher level of satisfaction with the specific construct that is been evaluated. The standard deviations throughout the subscales indicate consistency among the specific independent variable or group. However, the means indicate that not all groups were equally satisfied with a specific concept. For example, participants in the traditional EW group have a relatively low mean under the promotion subscale. In general it appears that the participants have lower satisfaction scores for the work, pay, and promotion with means ranging from 14 to 27
compared to higher scores in the supervisor and co-workers scales with means ranging from 33 to 41. The means reported in Table 2 may be consistent with the type of jobs that would be available for undergraduate college students such as retail, food industry, or part-time clerical work. Such jobs tend to be low pay, have limited opportunities in promotion, and not very rewarding in general, although the coworkers and supervisors may be liked and appreciated.

Following the descriptive statistics displayed in Table 2 are the correlations between the dependent variables at time one and time two (see Tables 3 and 4). The correlations were evaluated to determine whether there were any significant relationships between the different constructs used to measure the dependent variables in this study (see table 3 and table 4). At time one, there were significant correlations between the perceived well-being measurements and the JDI subscale for work \((p > .05)\). Perceived stress scale was strongly correlated to JDI subscales for work and pay \((p > .05)\). And as anticipated, all JDI subscales were strongly correlated among each other (work, pay, promotion, co-worker and supervisor).
### Table 3

**Correlations - Dependent Variables at Time 1**

<table>
<thead>
<tr>
<th>Variable &amp; Time</th>
<th>PILTL</th>
<th>PSSTL</th>
<th>WorkTL</th>
<th>PayTL</th>
<th>PromotionTL</th>
<th>CoworkerSTL</th>
<th>SupervisortL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILTL</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSSTL</td>
<td>.331**</td>
<td>1.00</td>
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<td>Sig.</td>
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<tr>
<td>WorkTL</td>
<td>-.265*</td>
<td>-.296*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sig.</td>
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<td>.018</td>
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<tr>
<td>PayTL</td>
<td>-.107</td>
<td>-.273*</td>
<td>.394</td>
<td>1.00</td>
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<tr>
<td>Sig.</td>
<td>.402</td>
<td>.031</td>
<td>.001</td>
<td></td>
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<tr>
<td>PromotionTL</td>
<td>.057</td>
<td>-.213</td>
<td>.389</td>
<td>.261*</td>
<td>1.00</td>
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<tr>
<td>Sig.</td>
<td>.659</td>
<td>.094</td>
<td>.002</td>
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<tr>
<td>CoworkerSTL</td>
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<td>-.084</td>
<td>.418</td>
<td>.288*</td>
<td>.265*</td>
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<tr>
<td>Sig.</td>
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<td>.514</td>
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<td>.022</td>
<td>.036</td>
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<tr>
<td>SupervisortL</td>
<td>-.110</td>
<td>-.020</td>
<td>.462</td>
<td>.438**</td>
<td>.392**</td>
<td>.372**</td>
<td>1.00</td>
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<tr>
<td>Sig.</td>
<td>.391</td>
<td>.879</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
<td>.003</td>
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</tbody>
</table>

Suffix TL stands for time 1
n = 63 for all correlations
**Correlation is significant at the 0.01 level (2-tailed); * correlation is significant at the 0.05 level (2-tailed).**

Correlations of measurements at time two, or post intervention, demonstrated a correlation between the perceived stress measurement and perceived well-being measurement. At time two there were no strong correlations between perceived stress and the JDI subscale for work or between perceived stress and JDI subscales for work and pay. As anticipated, all JDI subscales had significant correlations among each other at time two (see table 4).
Table 4

**Correlations- Dependent Variables at Time 2**

<table>
<thead>
<tr>
<th>Variable &amp; Time</th>
<th>PILLt2</th>
<th>PSSt2</th>
<th>Workt2</th>
<th>Payt2</th>
<th>Promotiont2</th>
<th>Coworkert2</th>
<th>Supervisort2</th>
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</thead>
<tbody>
<tr>
<td><strong>PILLt2</strong></td>
<td>1.000</td>
<td></td>
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<tr>
<td><strong>Sig.</strong></td>
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<td><strong>PSSt2</strong></td>
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<td>.448**</td>
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<td>-.152</td>
<td>.428**</td>
<td>.262*</td>
<td>.300*</td>
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<td><strong>Sig.</strong></td>
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<td>.466</td>
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</table>

Suffix t2 stands for time 2
n = 62 for all correlations
** Correlation is significant at the 0.01 level (2-tailed); * correlation is significant at the 0.05 level (2-tailed).

**Test of Hypotheses**

The results from the repeated measures mixed model MANOVA indicate that we cannot assume equal covariance among all measurements (Box’s M = 212.095; F = 1.284; Sig. = .028); therefore, the statistical test used to evaluate all effects is Pillai’s Trace. The findings of the multivariate test conducted to assess whether there were any significant finding within each dependent variable or group, or whether there was a significant interaction between groups, are outlined in Table 5.

Table 5

**Summary of Multivariate Tests**

<table>
<thead>
<tr>
<th>Effect</th>
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<tr>
<td>Time</td>
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<td>7.00</td>
<td>.095</td>
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<tr>
<td>Time x Group</td>
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<td>1.964</td>
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<td>.027</td>
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The results as outlined in Table 5 indicate that there is a significant interaction in the time and group condition. There are no significant results for group treatment or over time, failing to support Hypothesis 1 and Hypothesis 2, which proposed that participants the one-time expressive letter writing condition as well as in the traditional EW intervention, will report enhanced reports of well-being and job satisfaction along with decreased levels of stress. The results of this analysis of variance indicate that there is no significant changes between measurements in time one and time two to indicate that the independent variables had any effect on the dependent conditions (well-being, stress, and job satisfaction). In addition, there are no significant findings to support hypotheses 3 that expressive letter writing and traditional EW have a significant impact on the dependent variables when compared to each other.

The results of test between subject effects and within subjects effects are displayed in Tables 6 and 7 respectively. According to this table there is a significant interaction ($p < .001$) between the time and group measurement. Specifically, this effect is due to the promotion satisfaction variable. No other interaction effects on other variables were found. Promotion satisfaction increased in the traditional EW program from 14.11 to 17.44 over time, and stayed relatively stable in the letter writing condition across sessions at 18.74 and 18.50 at times one and two respectively. In the control condition, however, promotion satisfaction decreased over sessions from 24.50 to 15.83, accounting for this interaction effect.
Table 6

*Test of Between Subjects Effect*

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group PILL</td>
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<td>2337.387</td>
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<td>.005</td>
<td>.995</td>
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<td>195.179</td>
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<td>97.589</td>
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<td>.674</td>
</tr>
<tr>
<td>JDI-Pay</td>
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<td>23.479</td>
<td>.045</td>
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<tr>
<td>JDI-Promotion</td>
<td>314.283</td>
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<td>157.142</td>
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<td>422.845</td>
<td>2</td>
<td>211.422</td>
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Table 7

*Test of Within Subjects Effects*

<table>
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<th>df</th>
<th>Mean Square</th>
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<td>31.579</td>
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**Discussion**

Multiple studies support the idea that EW can be beneficial for individuals who have experienced some form of trauma or negative experience. Literature also indicates that individuals who write about their experiences are likely to report improved well-
being along with a reduction in symptoms of general illnesses as demonstrated in the 

studies by Pennebaker and Beall (1986) among others. Pennebaker, Kiecolt-Glaser, and 

Glaser (1988) demonstrated that participants who wrote about a traumatic event or 

experience are likely to experience positive immune responses and even report less visits 

to the health clinic. Research has shown that EW interventions can help individuals with 

chronic illnesses such asthma or rheumatoid arthritis as such patients will report less 

onset of symptoms following the EW intervention (Smyth, Stone, Hurewitz, & Kaell, 

1999). In addition, EW has also demonstrated to help patients with illness such as cancer 
improve their outlook in life and even report less depression like symptoms (Kallay & Baban, 

2008).

The workplace is an important aspect of a person's life. Individuals spend a 
significant portion of their days and lives at work. According to Barlin, Dupre and Kelloway 
(2009) up to 70% of employees will report some act of aggression at the workplace. And 
even though negative experiences are not limited to WA, hostility, and incivilities, they 
do play an important role in other factors such as perceived well-being, organizational 
justice, stress, and job satisfaction. Therefore, one of the main goals of this thesis was to 
evaluate the possible benefits of EW interventions in a workplace setting while 
introducing a more economical and easier to implement technique such one-time 
expressive letter writing (Mosher & Danoff-Burg, 2006).

**Research findings.** As outlined in the results section, the data analysis did not 
support the hypotheses proposed on this study. Hypothesis 1 and Hypothesis 2 proposed 
that both the one-time expressive letter condition as well as the traditional EW 
intervention will result in decreased stress levels, enhanced job satisfaction, and
improved overall well-being. The results from the data analysis did not identify any significant findings on the dependent variables for either condition. The findings indicate that participants did not experience any improvement in their overall well-being in terms of health; did not experience a reduction in their stress levels; and did not find an increase on their job satisfaction. Nevertheless, the findings on the multivariate test do indicate that there was a significant interaction between the time and group conditions under the JDI subscale for promotion ($p < .001$).

Even though the data analysis showed significant numeric interaction between the time variable and the promotion subscale of the JDI (see Table 7, Time X JDI- promotion $= p > .01$), these findings may be coincidental in nature considering that this intervention could not have a significant impact in the way a company establish opportunities for promotion. This effect is likely due to some incidental or unusual event associated with a participant in that condition. Coupled with a small sample size, this effect is somewhat unreliable and likely a chance occurrence. Another assumption could be that some of the participants, who reported higher levels of job satisfaction under the promotion subscale, may have in fact been promoted or found a new job which may have led them to report higher levels of satisfaction. Such findings do not support causal relationship between the variables measured in this study and findings on the statistical analysis.

The third hypothesis compared the results of the one-time expressive letter writing condition versus the traditional EW intervention. However, since there were no significant findings within groups, the results indicate that neither condition had an impact on the dependent variables (job satisfaction, perceived well-being, or stress). Therefore, this study was unable to demonstrate that expressive letter writing could be as
beneficial as traditional EW interventions. Further research is warranted to determine the value of single session over the traditional multisession EW interventions.

**Limitations.** Manier and Olivares (2005) noted that there may be a glass ceiling as to who much improvement can be obtain from EW interventions as individuals who low levels of distress or anxiety may not demonstrate any significant improvement. Manier and Olivares claim may be one of the many explanations as to why there were no significant findings for the letter and traditional EW conditions. A relatively healthy individual with low levels of stress and relatively satisfied with their current job is likely to find report little to no improvement after completing a traditional EW or a one-time expressive writing letter writing intervention. Baseline measurements in terms of health and well-being can have an impact on the overall reported improvement (Kally and Baban, 2008; Margola, Facchin, Molgora, & Revenson, 2010; Mackenzie, et al., 2007) as individuals with extreme baseline levels (too high or too low) do not benefit from EW interventions. In addition to individual’s baselines in terms of well-being there is also the concern that some individuals do not fully disclose their emotions or how they feel about a situation or event which could ultimately impact the findings in the dependent variables following an EW intervention (Manier & Olivares, 2005; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Soper, & Von Bergen, 2001).

Considering the fact that the information gathered for this study was obtained from a small sample population of undergraduate students, we can assume that most of them in are in their early 20s (average age of 23 years old) and may have had limited exposure to incivilities or hostility in a workplace setting. Further analysis of the writing from participants in the traditional and letter writing condition may indicate whether the
experiences of hostility and aggression are in fact severe enough to impact a person's well-being, job satisfaction or stress levels. Furthermore, a three week period may not be enough time identified any significant reports of improved well-being, job satisfaction, and decrease in stress levels.

In addition, even if the individual perceived some form of improvement following the EW assignment, these types of interventions do not work in a social vacuum. A single intervention may be able to resolve all issues or negative experiences that an individual may encounter in their workplace. According to Kanji and Chopra, organizations need to take a holistic perspective to improve well-being and health among its employees (2009). Research by Briner and Reynolds (1999) indicate that interventions focused on stress relief should look at the bigger picture rather than just undertake an individual’s concerns. Therefore, EW interventions may need to be administered in combination with other forms of support system (Kellyway & Day, 2005; Soper & Von Bergen, 2001) in order to lead to significant findings. Consequently, even if the EW interventions presented in this research were successful in helping individuals disclose their feelings about a particular individual or situation in their workplace, the EW intervention by itself cannot change their overall work experience, which may act as a confounding variable resulting in non-significant findings.

Another factor that may have had an impact on the findings of this study is that there was no physical interaction with the principal researcher as the entire process was administered in an online basis. A study by Rogers, Wilson, Gohm, and Merwin (2007) indicates that the interaction between participants and the researcher or administrator can influence participants’ engagement. It appears that the level of warmth exhibited by
administrators can determine how engage a participant may if writing about a traumatic event or experience (Rogers et al, 2007). And since this writing study was online based and interaction with the research was only via e-mail then one can assume that some participants may not have been as engaged as they could have possible been if they are interacted with the researcher in a face to face setting. A similar effect was also noted in research by Nazarian and Smyth (2010) who noted that participants who were asked to write in their own, without direct supervision, reported less benefits from the EW intervention when compared to those that completed the assignment in a controlled laboratory setting.

**Future research.** Future research involving EW interventions and its possible effects in workplace variables such as perceived well-being, job satisfaction, organizational justice, etc., may divide the traditional EW group into two subsets where one group would write strictly about their emotions regarding the negative work experience and another group where they would write strictly about their thoughts regarding the situation in order to closely follow the model developed by Pennebaker (as cited by Barclay & Skarlicki, 2009).

In addition future research comparing the effect and possible benefits of traditional EW versus one-time expressive letter writing should also analyze the writing of the participants using well-establish measurement tools such as the Linguistic Inquiry and Word Count Software (Barclay & Skarlicki, 2009) in order to assess whether participant are in fact using words consistent to their condition. For example, participants under an emotion EW condition are anticipate to use common words such as sad, happy,
anxious, etc., while participants in the fact or thoughts EW condition are expected to use more objective or causation words such as because, as result, etc (Barclay, & Skarlicki).

Another challenge of future research is that there is limited, if not minimal, research that supports the benefits of one-time expressive letter writing in a workplace setting. Therefore, any significant findings as the ones identified by Mosher and Danoff-Burg (2006) need to be compared against a well established and studied EW intervention such as the traditional EW discovered by Pennebaker (Pennebaker & Beall, 1986). Since the set up for both interventions is significantly different, future research should account for such differences and set up a time line where both groups either write for the same number of sessions, or complete pre or post intervention measurements at the same exact time in order to avoid additional intervening factors. In addition, future research should incorporate a larger sample size as well as similar numbers in the sample population for each condition. Ideally each group should have from 25 to 30 participants per condition.
References


Appendix A

Introductory e-mail:

Subject title: Research study on writing interventions

Hello,

My name is Amparo Sadovnik, a graduate student in the Industrial and Organizational program at Montclair State University. I am conducting research on "The use of expressive writing interventions as a tool to improve perceived well being while reducing the effects of hostility and aggression at the work place." The main goal of this study is to determine whether writing interventions are a useful tool to cope with situations and events involving unfriendliness often experienced at the work place. And I would be deeply thankful if you would consider participating in this research study.

This study can be completed online and at your own convenience. You will complete a set of simple questionnaires and subsequently participate in an expressive writing intervention. The writing session will require your ability to tell a story and express your thoughts about a situation at a basic level. Upon completion of the expressive writing intervention task, you will complete another set of simple questionnaires. This study will take anywhere from 25 to 50 minutes per session, and up to three sessions.

The risks are no greater than those in ordinary life and your answers will be kept confidential. Your answers will not be shared with any members of the faculty, instructors, parents, or peers. You are free to stop your participation at any given time during this process without any consequences. We anticipate that your participation in this study may help you improve your general well-being; you may also learn new techniques on how to deal with some events while at work or school.

If you agree to participate, I will send you a follow up e-mail with the information to access the survey site and additional instructions on how to complete the questionnaires and writing activities.

If you have questions about this study, please feel free to email me at sadovnika1@mail.montclair.edu. If you have any questions about your rights as a participant in this study or about your rights as a student at Montclair State University, you may also contact the Montclair State University Institutional Review Board Chair, Debra Zellner (reviewboard@mail.montclair.edu or 973-655-4327).

Thank you in advance for your time,

Amparo Sadovnik
Graduate Student at Montclair
Sadovnika1@mail.montclair.edu
CONSENT FORM FOR ADULTS

Please read below with care. You can ask questions at any time, now or later. You can talk to other people before you fill in this form.

**Study’s Title:** The use of expressive writing interventions as a tool to improve perceived well-being while reducing the effects of hostility and aggression at the work place.

**Why is this study being done?** The main goal of this study is to determine whether writing interventions are a useful tool to cope with situations and events involving unfriendliness often experienced at the work place.

**What will happen while you are in the study?** You will first complete a set of simple questionnaires and subsequently participate in an expressive writing intervention. Upon completion of the expressive writing intervention task, you will complete another set of simple questionnaires.

**Time:** This study will take about 25 to 50 minutes per session, and up to three sessions.

**Risks:** In general the risks of this study are no greater than those in ordinary life. Nevertheless, talking about events at the work place or answering questions about health and life in general may raise or evoke feelings of anxiety for some participants.

Should you need assistance in understanding or coping with any feelings evoke during your participation in this study, please feel free to contact Montclair State Counseling and Psychological Services (CAPS). (Telephone: (973) 655-5211).

**Benefits:** Participation in this study may help you improve your general well-being; you may also learn new techniques on how to deal with events that may cause stress at the work place. Your participation is very important as it will help us further the limited knowledge on the impact of expressive writing interventions in relation with work place situations.

**Who will know that you are in this study?** You will not be linked to any presentations. We will keep who you are confidential to the law. The information collected in this study will be kept private and confidential by the researchers within the parameters allowed by State and Federal law.

We will not disclose any of the information provided by you without your permission. The information collected on this study will not include your name, questionnaires and corresponding answers will be properly identified by codes. The information outlined in your writing will not be part of the data analysis for this study. All information collected for this research will be properly locked in cabinets; the data will be kept separate from information including your name and personal information. You are free to rename, use made up names, omit the names of any individuals that may be part of your personal experiences, or omit specific details of your personal experience describe during this exercise.

**Do you have to be in the study?**
You do not have to be in this study. You are a volunteer! It is okay if you want to stop at any time and not be in the study. You do not have to answer any questions you do not want to answer. Nothing will happen to you.

**Do you have any questions about this study?** Please feel free to contact Amparo Sadovnik, Grad. Psychology Student at Montclair via e-mail at sadovnikal@mail.montclair.edu

**Do you have any questions about your rights?** Phone or email the IRB Chair, Debra Zellner (reviewboard@mail.montclair.edu or 973-655-4327).

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<tbody>
<tr>
<td>Please initial: ______ Yes ______ No</td>
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Please note that data collected in this study may be used in future research.

The copy of this consent form is for you to keep (if submitted electronically, feel free to copy or print a copy of this form for your records).

If you choose to be in this study, please fill in your lines below.

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<th>By typing your name, you are consenting to participate in this study</th>
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Appendix C

Expressive Writing Interventions- QUESTIONNAIRES Section

Please enter your user name here: 

GENERAL DEMOGRAPHICS QUESTIONNAIRE

Please fill out the following demographics questionnaire. Please feel free to skip questions that are not applicable to you.

**Gender**
- Male
- Female
- Other

**Age (e.g. 21 - digits only)**

**Ethnicity:**
- Caucasian
- African American/Black
- Hispanic/Hispanic-American
- Asian/Asian American
- Other (please specify) 

**Year in College**
- First Year
- Sophomore
- Junior
- Senior
- Graduate Student
- Doctorate Student
- Other (please specify) 

**Are you presently employed in a paid job?**
- Yes
- No

**How long have you been employed at your present job?**
- 0-3 months
EXPRESSIVE WRITING IN A WORKPLACE SETTING

- 4-12 months
- Over a year
- N/A- not presently employed

If not currently employed, have you ever been employed?
- Yes
- No

Your most recent job was...
- 3 months ago
- 6 months ago
- Over a year ago
- Not applicable- currently employed

Is English your first language?
- Yes
- No

If English is not your first language, what is your native language?

QUESTIONNAIRES

Please answer the following questions to the best of your knowledge. Please remember that your answers will be kept confidential.

PILL Questionnaire

Several common symptoms or bodily sensations are listed below. Most people have experienced most of them at one time or another. We are currently interested in finding out how prevalent each symptoms is among various groups of people. Below please check how frequently you experience each symptom. For all items use the following scale:

A- Have never or almost never experienced the symptom
B- Less than 3 or 4 times per year
C- Every month or so
D- Every week or so
E- More than once every week

1. Eyes water
   - A  B  C  D  E

2. Itchy eyes or skin
   - A  B  C  D  E

3. Ringing in ears
   - A  B  C  D  E
4. Temporary deafness or hard of hearing
   A B C D E
5. Lump in throat
   A B C D E
6. Choking sensations
   A B C D E
7. Sneezing spells
   A B C D E
8. Running nose
   A B C D E
9. Congested nose
   A B C D E
10. Bleeding nose
    A B C D E
11. Asthma or wheezing
    A B C D E
12. Coughing
    A B C D E
13. Out of breath
    A B C D E
14. Swollen ankles
    A B C D E
15. Chest pains
    A B C D E
16. Racing heart
    A B C D E
17. Cold hands or feet even in hot weather
    A B C D E
18. Leg cramps
    A B C D E
19. Insomnia or difficulty sleeping
    A B C D E
20. Toothaches
    A B C D E
21. Upset stomach
    A B C D E
22. Indigestion
    A B C D E
23. Heartburn or gas
    A B C D E
24. Abdominal pain
25. Diarrhea  
26. Constipation  
27. Hemorrhoids  
28. Swollen joints  
29. Stiff or sore muscles  
30. Back pains  
31. Sensitive or tender skin  
32. Face flushes  
33. Tightness in chest  
34. Skin breaks out in rash  
35. Acne or pimples on face  
36. Acne/pimples other than face  
37. Boils  
38. Sweat even in cold weather  
39. Strong reactions to insect bites  
40. Headaches  
41. Feeling pressure in head  
42. Hot flashes  
43. Chills  
44. Dizziness
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<tr>
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<th>A</th>
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<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td><strong>45.</strong> Feel faint</td>
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<tr>
<td><strong>46.</strong> Numbness or tingling in any body part</td>
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<td><strong>47.</strong> Twitching of eyelid</td>
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<tr>
<td><strong>48.</strong> Twitching other than eyelid</td>
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<tr>
<td><strong>49.</strong> Hands tremble or shake</td>
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<tr>
<td><strong>50.</strong> Stiff joints</td>
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<tr>
<td><strong>51.</strong> Sore muscles</td>
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<tr>
<td><strong>52.</strong> Sore throat</td>
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<tr>
<td><strong>53.</strong> Sunburn</td>
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<tr>
<td><strong>54.</strong> Nausea</td>
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</tbody>
</table>

Since the beginning of the school year, how many:

- Visits have you made to the student health center or private physician for illness?

Please enter number of days in digits

- Days have you been sick?

Please enter number of days in digits (estimates are acceptable)

- Days your activity has been restricted due to illness?

Please enter number of days in digits

---

**PSS Questionnaire**

The questions in this scale [Below] ask you about your feeling and thoughts during the last month. In each case, you will be asked to select how often you felt or thought a certain way.

For all items below use the following scale:

0- Never
1- Almost Never
2- Sometimes
3- Fairly Often
4- Very often
1. In the last month, how often have you been upset because of something that happened unexpectedly?
   0 1 2 3 4

2. In the last month, how often have you felt that you were unable to control the important things in your life?
   0 1 2 3 4

3. In the last month, how often have you felt nervous or stressed?
   0 1 2 3 4

4. In the last month, how often have you felt confident about your ability to handle your personal problems?
   0 1 2 3 4

5. In the last month, how often have you felt that things were going your way?
   0 1 2 3 4

6. In the last month, how often have you found that you could not cope with all the things that you had to do?
   0 1 2 3 4

7. In the last month, how often have you been able to control irritations in your life?
   0 1 2 3 4

8. In the last month, how often have you felt that you were on top of things?
   0 1 2 3 4

9. In the last month, how often have you been angered because of things that were outside of your control?
   0 1 2 3 4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
    0 1 2 3 4

JDI Questionnaire

Think of the work you do on your present job (or most recent job). How well do each of the following words or phrases describe your work?

Please select one of the options below following each word or phrase

Y for "yes" if it describes your work
N for "no" if it does not describe your work
? if you cannot decide

Fascinating
   Y N ?

Routine
   Y N ?
Think of the pay you receive on your present job (or most recent job). How well do each of the followings words or phrases describe your pay?

Please select one of the options below following each word or phrase

Y for "yes" if it describes your work
N for "no" if it does not describe your work
? if you cannot decide

Income adequate for normal expenses
Think of the opportunities for promotion on your present job (or most recent job). How well do each of the following words or phrases describe your opportunities for promotion?

Please select one of the options below following each word or phrase:

Y for "yes" if it describes your opportunity for promotion
N for "no" if it does not describe your opportunity for promotion
? If you cannot decide

Good opportunities for promotion

Opportunity somewhat limited

Promotion on ability

Dead-end job

Good chance for promotion

Unfair promotion policy

Infrequent promotions
Think of the co-workers you have on your present job (or most recent job). How well do each of the following words or phrases describe your co-workers?

Please select one of the options below following each word or phrase:

Y for "yes" if it describes your co-workers
N for "no" if it does not describe your co-workers
? If you cannot decide

Stimulating

Boring

Slow

Ambitious

Stupid

Responsible

Fast

Intelligent

Easy to make enemies

Talk too much

Smart

Lazy

Unpleasant

No privacy
Think of the supervisor you have on your present job (or most recent job). How well do each of the following words or phrases describe your supervisor?

Please select one of the options below following each word or phrase:

Y for "yes" if it describes your supervisor
N for "no" if it does not describe your supervisor
? if you cannot decide

Asks my advise

Hard to please

Impolite

Praises good work

Tactful

Influential

Up to date

Doesn't supervise enough

Quick tempered

Tells me where I stand

Annoying

Stubborn

Knows job well
Think of your job in general (or your most recent job). How well do each of the following words or phrases describe your job (or most recent job)?

Please select one of the options below following each word or phrase.

Y for "yes" if it describes your work
N for "no" if it does not describe your work
? if you cannot decide

Pleasant  
Bad  
Intelligent  
Leaves me on my own  
Around when needed  
Lazy  

Waste of time  
Good  
Undesirable  
Worthwhile  
Worse than most  
Acceptable  
Superior  
Better than most
EXPRESSIVE WRITING IN A WORKPLACE SETTING

Disagreeable

Makes me content

Inadequate

Excellent

Rotten

Enjoyable

Poor

Please click "submit" AND return to the main screen for further instruction.

Thank you!