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Stress and anxiety reduction due to writing diaries, journals, e-mail, and weblogs

Abstract

Stress and anxiety are very common factors in the everyday lives of college students. Although some students have found ways to reduce them, others have not. Student participants (*N* = 165) indicated whether they used one or more of four different mediums for personal writing, and, if so, when and why they started to use them, how frequently they used them, and whether the use relieved their stress and reduced their anxiety. These four mediums included two traditional styles of writing (diary and journal) and two newer styles of writing (e-mail and weblogs). Results showed that e-mail was used most frequently; however, following emotional hardship, students were more likely to turn to journaling. Diary writers started at a younger age than webloggers, and diary writers tended to be younger than individuals who relied on none of these mediums for stress relief and anxiety reduction.

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Stress and Anxiety Reduction due to Writing Diaries, Journals, E-mail, and Weblogs

by

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In partial fulfillment of the Honors Program in Psychology

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Abstract

Stress and anxiety are very common factors in the everyday lives of college students. Although some students have found ways to reduce them, others have not. Student participants (N = 165) indicated whether they used one or more of four different mediums for personal writing, and, if so, when and why they started to use them, how frequently they used them, and whether the use relieved their stress and reduced their anxiety. These four mediums included two traditional styles of writing (diary and journal) and two newer styles of writing (e-mail and weblogs). Results showed that e-mail was used most frequently; however, following emotional hardship, students were more likely to turn to journaling. Diary writers started at a younger age than webloggers, and diary writers tended to be younger than individuals who relied on none of these mediums for stress relief and anxiety reduction.

Introduction

For many centuries, writing has been an important form of self-description, self-reflection, and self-therapy. Self-disclosure, which consists of writing about one's thoughts and feelings, is one of the important factors that make emotional writing therapeutic (Pennebaker, 1997). One of the main benefits of emotional expression is that it can release pent-up emotional energy, and this has positive health effects (Pennebaker, Colder, & Sharp, 1990). For example, writing about emotional topics has been associated with fewer physician visits (Pennebaker, 1997). When participants of a study were asked to recall traumatic events from their past, they reported less anxiety and insomnia in a follow up thirty weeks after the writing study took place (Sheffield, Duncan, Thomson, Johal, 2002). Moreover, personal writing has been known to cause effects other than positive ones immediately following

writing. In this same study participants showed less positive moods immediately after writing about their traumatic experience. Another study found three common effects of home-based personal writing using a group which wrote about a previously undisclosed traumatic event (the Emotive group) and another which did not (the Unemotive group). First, on the day participants wrote, the Emotive group reported less positive moods than the Unemotive group. They also reported more physical symptoms and took off more days from college due to illness. Second, the Emotive group reported less anxiety and insomnia and an enhanced positive mood following the study (Sheffield, Duncan, Thomson, & Johal, 2002). Thus, writing has been shown to have positive effects in the long run but the short-term effects of writing may be either positive or negative.

Kerner and Fitzpatrick (2007) reviewed the research of different studies done on personal writing, and found that the research suggests that multiple populations can benefit from writing. These populations included victims of severe trauma, clients suffering from a terminal illness, and clients experiencing symptoms of depression and anxiety. They concluded that personal writing can have positive benefits for those who have had difficulties in their past or present. Other research suggests that writing can also benefit other members of society who are not affected by serious illnesses or victims of a severe trauma. For example, free writing was found to be a good method for relieving tensions, conflict, and anxiety, and for moderating periods of confusion for many college students (Mckinney, 1976). The results of another experiment demonstrated that writing about basic thoughts and feelings about coming to college reduced the number of illnesses which led college freshman to visit a health center (Pennebaker, Colder, & Sharp, 1990).

These studies suggest that students of many different backgrounds usually benefit from writing. The amount of time spent disclosing, in order to be beneficial, can vary. Frattaroli (2006) reported that the effects of disclosing tended to be larger when the disclosure sessions lasted at least 15 minutes. Pennebaker, Kiecolt-Glaser, and Glaser (2004) found enhanced immune function in college students who were asked to write about their most traumatic experiences for 15-20 minutes per day for four days. This past research shows that writing for at least 15 minutes a day can be beneficial, but for how many days or years may vary. Lepore, Greenberg, Bruno, and Smyth (2002) reported that expressive writing interventions are exciting to clinicians and researchers because of their effects on mental and physical health outcomes, and their relative simplicity. It is clear that personal writing has been around for a long time, but the way in which it is being done changes with the time. The medium in which the writing is done has changed dramatically as technology has changed. From writing in journals and diaries to writing e-mails and weblogs, these different mediums have produced different content, personal development, privacy issues, and stress and anxiety reducing effects.

Diaries

Many women write diaries. This is one of the oldest forms of personal writing.

Diaries have often been associated with young women, so men sometimes feel as though diaries are not the proper way of expressing their emotions. The diary has been around for so long because of its ability to help in the coping process, act as a friend to confide in, and much more. Miller (2003) states that diary writing can be used as a tool for reflection, self-improvement, emotional-release, preserving family history, and recording milestones or events. Davis (1987) reviewed the diaries of the pioneer women involved in the westward

migration and hypothesized that keeping a diary could be seen as a mechanism for coping with the need to adjust to hardships, freedom, and challenges. She also stated that diaries could function as souvenirs, by writing down their experiences and memories in order to make sure they are not forgotten. This article clearly shows the benefits of confiding in a diary throughout a person's life. Hymer (1991) states that a diary can serve as a time capsule to conserve one's thoughts and feelings from critical periods in their life. Kawaura, Kawakami, and Yamashita (1998) classified diaries into four types: memoirs (records of fact oriented toward the self); journals (records of fact oriented toward the reader); narrowly defined diaries (expressions of sentiment oriented toward the self); and open diaries (expressions of sentiment oriented toward a reader). There are many ways to classify a diary; however, diaries are usually considered to be a medium of expression and a record of fact as seen by the writer.

The thereapeutic effects of diaries are often researched as well. Many studies have concluded that the writing processes involved in diary writing can be very therapeutic. Processes involved in diary writing include self-reflection, self-analysis, and narcissistic enhancement (Hymer, 1991). Writing can help people organize their thoughts, and this helps them to find a reasonable solution to their problem and reducing the stress or anxiety caused by these thoughts. Lynton and Salovey (1997) found that people who were experiencing a negative mood while writing tended to write in diary form. They felt that their writing helped to clarify their moods, and they tended to feel better about finding solutions. They concluded that nearly all of their participants' moods were improved as a result of the writing.

As well as assisting in finding solutions, there are many reasons why a diary can help promote self-therapy and better health. Hymer (1991) points out that a diary can become a

special object that is commonly viewed as a friend or even a surrogate therapist, and, therefore, it is seen as safe. This is a very important factor as to why people write in diaries, namely, the writer feels that he or she can trust the diary and will reveal information not otherwise revealed. Another reason someone might choose to confide in a diary might be that it can serve as a barometer for their self-esteem by reflecting changes (Hymer, 1991). Finally, by providing a kind of audience for the author's private feelings, diaries can address the loneliness sometimes felt by the men and women writers (Davis, 1987). Thus, there are many reasons why people have chosen to confide in diaries; these include writing to organize thoughts and feelings, reflecting on changes, reducing stress and anxiety, monitoring changes in self-esteem, addressing loneliness, and providing a means for recording milestones in a person's life.

Journals

A second medium used for personal writing is in a journal. The term "journal" seems to be a more generic label than "diary," making it more comfortable for men to take part in the writing process. Journals are very similar to diaries when it comes to content, except that they are different in that they require less privacy. One study regarding journals found that two thirds of the research participants said they were willing to share their journals, and some had already done so (Brady & Sky, 2003). Since journals require less privacy, many educators are using journals in their curriculum. Cisero's (2006) study on reflective journal writing in her undergraduate psychology course showed that students with lower grades (C and D) were positively impacted by the chapter prompt that required the student participants to reflect in their journal on what they read. However, there was only a slight increase in the impact of students with higher grades (A and B).

Journals also can be used as a therapeutic tool. Brady and Sky (2003) found that older adults who write journals benefited in three different areas: coping, joy of discovery, and the nurturing of voice and spirit. Journals, like diaries, are known to provide a medium for reflection and self-understanding, and thus they are a form of therapy. In a study about journals and reflection, Spalding and Wilson (2002) reported that reflective thinking begins with doubt, hesitation, or perplexity and then moves to searching to resolve, clarify, or at the least address the doubt; journals offer a person a medium to do this in. Other than just choosing to do personal writing in a journal, attitudes are important when it comes to selfreflection. Open-mindedness (freedom from prejudice and other such habits), wholeheartedness, and responsibility, are the attitudes to be considered when partaking in selfreflection (Spalding & Wilson, 2002). Self-reflection by means of the journaling process may provide more benefit to a person who is open-minded than to a person who is closed-minded. Journaling has been found to have its advantages on regular people just wanting to reflect on everyday life, but journals have also been found to help people who have been through traumatic events. One study that used journal writing as a therapy, found that structured writing improved symptoms of traumatic stress in as little as three sessions (Largo-Marsh & Spates, 2002). They provided a structured writing treatment in which they asked the participant to visualize the event, label it, and then rate their level of distress. They found the structured writing therapy most effective when it targeted a specific memory and the emotions that are tied up with it. In a study by Brady (2005) the interviewer asked, "What benefits do you derive from keeping a journal?" The participants found that the journals helped them learn to cope, and thirteen of fifteen respondents talked about their journals being some form of self-therapy. Brady also found that journals helped the respondents

clarify feelings about relationships and increased awareness about these relationships. Students from a private university in Northern California who were not directly impacted by the attacks on 9/11 showed significant improvements in trauma symptoms after writing in their journals for 20 minutes for four consecutive days after the attacks. This strategy is known as the Pennebaker's paradigm (Honos-Webb, Sunwolf, Hart & Scalise, 2006).

Personal writing in journals has been found to have positive outcomes in people who take part in the process; however, some problematic issues also have been found. Peterson and Jones (2001) discussed a few barriers that journal writers might experience. These barriers included attitudinal barriers, situational barriers, and institutional barriers. The attitudinal barriers had to do with self-doubt, lack of trust in the journal writing process, and fear of exposure. The situational barriers included lack of time. The institutional barriers referred to the teachers who did not know how to evaluate their classroom journals efficiently, thereby making the journal process less effective. Whether the reason a person takes up journal writing is for personal or academic reasons, journal writing, like diary writing, promotes self-reflection and, therefore, may provide therapeutic help.

E-mail

Writing on the Internet, using electronic mail is one of the newest forms of writing. E-mail is an electronic message sent between users. It is very similar to how letters would be sent through the U.S. postal system, but it is much faster and more efficient. The mailer can choose to write the e-mail and send it to just one person or send it to many more. Emarketer, an online company that researches trends on the Internet, reported that in 2008, 100.4 million females and 93.5 million males went online at least once a month (Williamson, 2008). With these large numbers online, the use of e-mail has gone up as well. Although e-mail is

generally used for communication, some people find e-mailing to be helpful when it comes to their personal feelings and emotions. Some studies have shown the effects that e-mailing can provide. If a person is looking to communicate with someone in order to receive feedback about a certain situation, e-mail seems ideal. An e-mail message can be very personal like the writer's voice (Roy & Gillet 2008). E-mails can be helpful, because distance is never a factor. If a person is uncomfortable talking about certain subjects face-toface, e-mail can become an alternative. Roy and Gillet (2008) found that e-mailing gave their patient a sense of distance and control, so that the patient wouldn't become overwhelmed. Their patient had control over the information sent to her and sent from her, and this could ultimately lead to a sense of safety. E-mail can increase the amount of direct contact between patients and clinicians (Yager, 2003). In fact, he also found that patients felt as though they had constant access to clinicians at all times. This type of access to clinicians over the Internet can help a person using e-mail feel a sense of belonging and relief, knowing they can get in contact with help whenever needed. However, Roy & Gillet (2008) also found some disadvantages to e-mail, such as, having to bring up difficult subjects gradually, because they could not gauge how their patient was feeling through a single e-mail. Another possible negative effect of using e-mail for personal writing and therapy has to do with privacy. Unwanted disclosures to third parties can have a negative effect on e-mail writing. Privacy becomes more of an issue if the patient shares a computer or an e-mail address with anyone else (Yager, 2003). E-mail is different than other forms of personal writing in the sense that the type of therapy most people experience through e-mail involves another party, while diaries and journals typically just involve the author's thoughts and feelings.

Weblogs

Weblogs are the newest form of personal writing to date. Weblogs, also known as "blogs" are webpages that contain entries that are presented in reverse chronological order. These webpages are frequently updated and modified. Weblogs have been found to have many different uses and effects on a person similar to the other mediums used for personal writing. However, blogs are different in one major aspect from the other mediums discussed so far in that the author starts a blog knowing and willing to let other people read the entries. Blogs may be started by private and self-conscious authors in order to gain better understanding of themselves. Authors who expect to be understood by others may start writing a blog in order to verify these expectations (Miura & Yamashita, 2007). Research has shown that 52% of weblogs authors were males and 48% were females (Herring, Scheidt, Kouper, & Wright, 2006). They also found that 51% of blog authors were adults older than 25; 10% were emerging adults between the ages of 20 and 25; and finally, 39% of blog authors were teens under 20 years old. Further they found that the content in weblogs consisted of three different types. Filters were blogs that discuss world events and what was happening online. This included news or politics. Filter information was considered external to the writer. Personal Journals were more internal to the author. This internal information included the author's thoughts, emotions, and internal workings. Finally, k-logs (knowledgelogs) included information and observations from the blogger (Herring, Scheidt, Bonus & Wright, 2006). Moreover, they also found that gender and age varied with blog type. The journal type of blog was found to be the most common blog written. Teenage females wrote the most journal blogs, and emerging males between the ages of 20 and 25 wrote the second most journal blogs. Teenage females and emerging females between the ages of 20 and 25

took no interest in writing filter blogs, with adult males writing the most filter blogs. And finally, K-logs were the least frequent written blogs for all male and female age groups.

One of the major differences between personal writing through blogs and personal writing through journaling is the aspect of the peer community (Baker & Moore, 2008). This peer community offers an opportunity for dialogue which is not offered through personal writing on paper. This "peer community" also gives blogging different privacy issues compared to diaries and journals which are usually for the eyes of the author, close friends, or family only. Blogs, however, are open to the community. One study found that differences in age, gender, and education did not influence network size or the experience of friends and family using blogs to enhance communication opportunities (Stefanone & Jang, 2008). Research has shown that the therapeutic effects of personal writing using blogs were not as positive as the effects of using diaries and journals. Schmitt, Dayanim, and Matthias (2008) found through their research that adolescents experienced feelings of mastery from blogging. They also concluded that youths' personal homepage creations were used to help communicate their expression, socialization, and intimacy. Further, communicating these things helped in the formation of the youths' identity. However, over time a blog could become more sentimental. Baker and Moore (2007) found that bloggers were more distressed than non-bloggers and that bloggers used self-blame and venting more frequently. These selfblame and venting strategies suggested a confessional type of blog that aired the bloggers' negative self-thoughts (Baker & Moore, 2008). There were no differences between bloggers and non-bloggers on positive re-framing. Yet a blog that was updated on a regular basis became richer and more meaningful with time. This could imply that bloggers started writing with the intention of writing for a long time (Miura & Yamashita, 2007). Another function of the blog was to create a social interaction that could help the writer feel socially accepted (Miura & Yamashita, 2007). Further, they found that the satisfaction of being accepted by others had the strongest effect on a writer continuing a blog.

Purpose of this study

Past research has shown that personal writing of diaries and journals have had both positive and negative effects immediately after writing; whereas long term effects measured in days to weeks after writing in journals have been positive. E-mail use has been shown to have positive benefits when used between a clinician and patient. Finally, weblogs have had the least amount of positive effects noted. Clearly, taking part in personal writing has been shown to help a person's health and attitude, and it can be a form of self-therapy. A lot of the past research has shown that personal writing can be therapeutic, but it has not narrowed down the ways in which personal writing is therapeutic. The purpose of this study is to find how much stress is reduced and how much anxiety is relieved from personal writing. Also, we will look at each of the mediums of writing, diaries, journals, e-mail, and weblogs to find which medium produced the most benefits for stress and anxiety.

Hypotheses

- Hyp. 1: Personal writing in diaries and journals will reduce significantly students' stress and anxiety.
- Hyp. 2: Personal writing in diaries and journals will reduce stress and anxiety more than personal writing in e-mail.
- Hyp. 3: Personal writing through weblogs will reduce stress and anxiety the least.
- Hyp. 4: Personal writing in diaries and journals (paper based) will reduce more stress and anxiety than personal writing in e-mail and weblogs (computer based).

Method

Participants

There were 165 participants (mean age of 22.43 years, SD of 4.74) who filled out a survey in which they indicated whether they used one or more of these mediums for personal writing.

Survey

A survey consisting of questions about past and present writing habits of diaries, journals, e-mails, and weblogs was created specifically for this study; see the Appendix. The questions asked about the form of writing which the participant used, when he or she began writing and why, etc. Each participant was asked which medium he or she preferred, if any, and what effect the use of the mediums has had on him or her.

Procedure

The survey, which was approved by the Human Subjects Review Committee of the College of Arts and Sciences, took about 10 minutes to complete. Volunteers were sought from classes, through announcements in university hallways and on the research bulletin board. The survey was available in designated classrooms, and students were informed about the times and places. Those who indicated that they were willing to participate after reading the Informed Consent were given the survey. Some student received extra-credit from an instructor, and, for this purpose, they were given a receipt to fill out and give to the instructor for the extra-credit.

Results

Descriptions of mediums used

Of the 165 participants, only 14 participants used all four mediums. Of these, 8 were men and 6 were women; 6 were African American, 7 were Caucasian, and one did not

indicate. There were 12 participants who used diaries only. Ten of these participants were female and 2 did not say; 2 were African American, 1 Asian American, 8 Caucasian, and 1 did not say. There were 13 participants who used journaling only. Of these, 2 were male and 11 were female; 2 were African American, 1 Asian American, and 10 Caucasian American. Ten participants used e-mail only. Of these 4 were male and 6 were female; 7 were Caucasian, 2 Hispanic American, and 1 Middle Eastern American. Finally, 7 participants used weblogs only; 3 were male and 4 were female; 1 African American, 4 Caucasians, 1 Hispanic, and 1 Middle Eastern American.

Table 1

Frequency of Students Using the Four Mediums in the 165 Student Participants

All Four Mediums	Men 8	Women 6	Didn't Say	Total 14
Diary Only		10	2	12
Journaling Only	2	11		13
E-mail Only	4	6		10
Weblog Only	3	4		7
Anyone Using Diary	11	34	2	47
Anyone Using Journaling	13	26	2	41
Anyone Using e-mail	17	29	2	48
Anyone Using weblog	15	16		31
Not Using Any of these	16	35		51

The number and gender of participants who reported the mediums is shown in Table 1 and described below. There were 47 participants who used a diary as at least one of the mediums. Eleven diary users were male, 34 were female, and 2 did not say; 11 were African American, 1 was Asian, 26 were Caucasian, 3 were Hispanic, 1 was other, 1 was multicultural, and 4 did not indicate. Forty-one participants used journaling. Of these, 13

participants were males, 26 were females, and 2 did not say. Ten were African American, 2 were Asian American, 26 were Caucasian, and 3 did not indicate their race. Third, there were 48 participants who said they used e-mail for personal writing. Of these 17 of these participants were male, 29 were female, and 2 did not indicate their gender; 9 were African American, 1 was Asian American, 28 were Caucasian, 3 were Hispanic, 1 Middle Eastern, 1 other, and 5 did not indicate. Finally, there were 31 participants who used weblogs for personal writing. Of these 31 participants, 15 were male and 16 were female. Seven were African American, 19 were Caucasian, 2 were Hispanic, 1 was Middle Eastern, 1 indicated other, and 1 did not say.

Hypotheses

Correlations were calculated to test the hypotheses. None of the hypotheses were supported. Hyp. 1 indicated that personal writing in diaries and journals would significantly reduce students' stress and anxiety. This hypothesis was not supported. Hyp. 2 suggested that personal writing in diaries and journals would reduce stress and anxiety more than personal writing in e-mail. This hypothesis also was not supported by the data collected. Hyp. 3 suggested that personal writing through weblogs would reduce stress and anxiety the least. This hypothesis was not supported by the data collected. Finally, Hyp. 4 indicated that personal writing in diaries and journals (paper based) would reduce more stress and anxiety than personal writing in e-mail and weblogs (computer based). This hypothesis too was not supported by our data.

Further findings

A one-way analysis of variance showed that students e-mailed much more frequently than they used the other three mediums (diary, journaling, weblog), $F_{3,160}=19.14$, p<.01.

There was no difference in the stress reduction or anxiety relief between those who wrote e-mails and those who did not (p > .05); however, students used e-mails less frequently than journaling following emotional hardship, $F_{3,162}$ = 2.78, p < .05, albeit that there were no differences in other comparisons between mediums.

When comparing participants who did not use any of these medium for personal writing to those participants who used one of more of these four mediums, no difference was found in the anxiety or the stress levels of these two groups (p > .05) or in what made the students anxious or stressed (p > .05). Further, there was no difference by gender, marital status, or race/ethnic group in their anxiety level, stress level, or what caused stress or anxiety (p > .05). However, students who did not write in any medium tended to be older (Mean age of 22.36, SD = 4.27) than those who wrote in diaries (Mean age of 20.93, SD = 2.69), $t_{90} = 3.54$, p = .06. Furthermore, diary writers started to write at a younger age than weblog users, but there were no significant differences in other age comparisons, $F_{3.162} = 3.44$, p < .02.

Discussion

It has been established that writing can be helpful for reducing students' stress and anxiety. This study compared the efficacy of writing in a diary, journaling, blogging, and e-mailing. It had been hypothesized that the personal, paper-based strategies of writing in diaries and journaling would reduce students' stress and anxiety and do so to a greater degree than personal, computer-based e-mailing, which, in turn, would reduce stress and anxiety more than computer-based, public blogging. These hypotheses were not supported. This could be due to several reasons. First, the sample was relatively small, and the age range was very small. (The *SD* was 4.27 around the mean of 22.36 years.) Furthermore, the sample included only college students, many of whom may be very busy with full time jobs and full

time enrollment, so that they do not have time for personal writing. This certainly is consistent with the finding that the students who did not use any of these four mediums were older on average than those who wrote in diaries. It also may be that people choose the method which works best for them, so that each of these mediums worked equally well for the people who used them. Also mediums change and are added rapidly, and this provides more options for people to choose what would work best for them as a function of what they have access to and what they need at the moment. Thus students used e-mail most frequently, but following emotional hardship, they journalled more frequently. Further, writers who relied on the personal, paper-based strategy of diary writing started at a younger age than public, computer-based blogging.

References

- Baker, J. R., & Moore, S. M. (2008). Blogging as a social tool: A psychosocial examination of the effects of blogging. *CyberPsychology & Behavior*, 11(6), 747-749.
- Brady, E. M., & Sky, H. Z. (2003). Journal writing among older adults. *Educational Gerontology*, 29(2), 151 163.
- Brady, E. M. (2005). *In awe of the ordinary: Older learners and their journals*. Portland, Maine: Osher Lifelong Learning Institute, University of Southern Maine
- Cisero, C. A. (2006). Does reflective journal writing improve course performance? *College Teaching*, *54*(2), 231-236
- Davis, B. G., Scriven, M., & Thomas, S. (1987). *The evaluation of composition instruction*. (2nd ed.) New York, NY: Teachers College Press.
- Davis, M. H., & Franzoi, S. L. (1987). Private self-consciousness and self-disclosure. In
 V. J. Derlega, & J. H. Berg, (Eds.), Self-disclosure: Theory, research, and therapy.
 Perspectives in social psychology. (pp. 59-79). New York, NY: Plenum Press.
- Davis, P. J. (1987). Repression and the inaccessibility of affective memories. *Journal of Personality and Social Psychology*, *53*(3), 585-593.
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin*, 132(6), 823-865.
- Herring, S. C., Scheidt, L. A., Wright, E., & Bonus, S. (2005). Weblogs as a bridging genre.

 *Information Technology & People, 18(2), 142-171
- Herring, S. C., Scheidt, L. A., Kouper, I., & Wright, E. (2006). A longitudinal content analysis of weblogs: 2003-2004. In M. Tremayne (Ed.), *Blogging, Citizenship and the Future of Media*. London: Routledge.

- Honos-Webb, L., Sunwolf, Hart, S., & Scalise, J. T. (2006). How to help after national catastrophes: Findings following 9/11. *The Humanistic Psychologist*, 34(1), 75-97.
- Hymer, S. (1991). The diary as therapy: The diary as adjunct to therapy. *Psychotherapy in Private Practice*, *9*(4), 13-30.
- Kawaura, Y., Kawakami, Y., & Yamashita, K. (1998). Keeping a diary in cyberspace. *Japanese Psychological Research*, 40(4), 234-245.
- Kerner, E. A., & Fitzpatrick, M. R. (2007). Integrating writing into psychotherapy practice:

 A matrix of change processes and structural dimensions. *Psychotherapy: Theory, Research, Practice, Training, 44(3), 333-346.*
- Largo-Marsh, L., & Spates, C. R. (2002). The effects of writing therapy in comparison to EMD/R on traumatic stress: The relationship between hypnotizability and client expectancy to outcome. *Professional Psychology: Research and Practice*, 33(6), 581-586.
- Lepore, S. J., Greenberg, M. A., Bruno, M., & Smyth, J. M. (2002). Expressive writing and health: Self-regulation of emotion-related experience, physiology, and behavior. In S. J. Lepore, & J. M. Smyth (Eds.). *The writing cure: How expressive writing promotes health and emotional well-being* (pp. 99-117). Washington, DC: American Psychological Association.
- Lynton, H., & Salovey, P. (1997). The effects of mood on expository writing. *Imagination, Cognition and Personality*, 17(2), 95-110.
- McKinney, F. (1976). Free writing as therapy. *Psychotherapy: Theory, Research & Practice*, 13(2), 183-187.

- Miura, A., & Yamashita, K. (2007). Psychological and social influences on blog writing: An online survey of blog authors in Japan. *Journal of Computer-Mediated Communication*, 12(4), 1452-1471.
- Miller, S. D. (2003). How high and low challenge tasks affect motivation and learning: Implications for struggling learning. *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 19(1), 39-57.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process.

 *Psychological Science, 8(3), 162-166.
- Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990). Accelerating the coping process. *Journal of Personality and Social Psychology*. 58(3), 528-537.
- Pennebaker, J. W., Kiecolt-Glaser, J. K. & Glaser, R. (2004). Disclosure of traumas and immune function: Health implications for psychotherapy. In R. M. Kowalski & M. R. Leary (Eds.), *The interface of social and clinical psychology: Key readings in social psychology* (pp. 301-312). New York, NY: Psychology Press.
- Peterson, E. A., & Jones, A. M. (2001). Women, journal writing, and the reflective process.

 New Directions for Adult and Continuing Education, 90 (Summer), 59 67.
- Roy, H., & Gillett, T. (2008). E-mail: A new technique for forming a therapeutic alliance with high-risk young people failing to engage with mental health services? A case study. *Clinical Child Psychology and Psychiatry*, 13(1), 95-103.
- Schmitt, K. L., Dayanim, S., & Matthias, S. (2008). Personal homepage construction as an expression of social development. *Developmental Psychology*, 44(2), 496-506.
- Sheffield, D., Duncan, E., Thomson, K., & Johal, S. S. (2002). Written emotional expression and well-being: Result from a home-based study. *Australasian Journal of*

- *Disaster and Trauma Studies, 6(1),* [np]
- Spalding, E., & Wilson, A. (2002). Demystifying reflection: A study of pedagogical strategies that encourage reflective journal writing. *Teacher College Record*, 104(7), 1393-1421.
- Stefanone, M. A., & Jang, C. (2008). Writing for friends and family: The interpersonal nature of blogs. *Journal of Computer-Mediated Communication*, *13*(1), 123-140.
- Williamson, G. L. (2008). A text readability continuum for postsecondary readiness. *Journal* of Advanced Academics, 19(4), 602-632.
- Yager, J. (2003). E-mail therapy for anorexia nervosa: Prospects and limitations. European Eating Disorders Review, 11(3),198-209.
- Yager, J., & Freedman, J. (Ed) (2003). Monitoring patients with eating disorders by using e-mail as an adjunct to clinical activities. *Psychiatric Services*, *54*(12), 1586-1588.

Appendix

S	ur	V	ev
\sim		•	• .,

Please use a number 2 pencil and enter on the scantron your answers to the following questions about your experiences with personal writing. Use the definitions of anxiety and stress to guide your answers.

Anxiety: a feeling of worry, nervousness, unease, typically about an approaching event or something with an uncertain outcome.

Stress: state demanding of			train or tension	resulting f	From advers	e or very
1. How ofter A. Never	•		D. Weekly	E. Daily	F. Multipl	e times per day
2. How often A. Never	•		D. Weekly	E. Daily	F. Multipl	e times per day
A. Worl	k B. S		C. Children			E. Spouse e indicate here:
A. Worl	k B. S		C. Children			E. Spouse e indicate here:
5. Have you e-mails, o A. Yes	r blogs?	ou still do an	y personal wri	ting, such a	as writing d	iaries, journals
If no, please	go to page _	<u>7.</u>				
If yes, please	e continue to	the next que	stion.			
Please use th	ne following	scale to indic	cate how freque	ently you v	vrite:	
A B	_	C	D	E	F	G

Never Rarely Every few months Monthly Weekly Daily Multiple time per day

- 6. In a diary
- 7. In a journal
- 8. E-mail

9. Weblo	gs						
					<u>lief</u> you get from v ticular medium, ma		ı each
A Not Applicable	B None	C Very Little	D Less than Half	E Half	F More than Half	G A lot	H Completely
10. Diary 11. Journ 12. E-ma 13. Webl	ial il						
					<u>ef</u> you get from wr ular medium, mark		each of
A Not Applicable	B None	C Very Little	D Less than Half	E Half	F More than Half	G A lot	H Completely
14. Diary 15. Journ 16. E-ma 17. Webl	al il						
Journals, E-mails,	please go please g please go	to page2_ o to page3 o to page5_ go to page6					
	_	ersonal writing short. Thank		medium	, please fill out eac	ch of the	relevant
This sec 18. How A. M F. I u	ction be frequent ultiple ting sed to wi	egins with quality do you write mes per day	uestion 18. Pleate in your diary? B. Daily but don't any more	ry, pleaso ase ans C. Weekl	e answer the follow wer on the scar by D. Monthly	itron.	
19. At w	-	id you begin v B. 15-18	writing in a diary? C. 19-2	2	D. 22-35 E	E. 36 or c	older
	prompte ragic eve	ed you to start ent	a diary? B. No one to talk	to	C. Project for	a class	

D.	Someone else you kn	ew did it	E. Other, Please indicate here:.			
A. D.	ary writing helps me: Find solutions to prob Remember the past Other, Please indicate	E. Fo	ake and set go orget the past		rol my emotions the time	
22. Di	ary writing makes me	feel less anxio	ous			
	A	В	C	D	E	
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
23. D	iary writing makes me	feel less stres	S			
23. D	A	B	C	D	${f E}$	
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
A. B. C. D. E. F. 25. If A. B. C. D. E.	 24. If diary writing helps you feel less anxious, why? A. The feedback I receive from a person who reads my diary. Please indicate here who this is in generic terms (No names, please)					
A.	117	laxed C. Rel	ief D. Sati			
E.	Sad F. Angry	G. Other, Plo	ease indicate h	nere:.		
	Journal					
-	have done any perso	nal writing in	a journal, pl	lease answer t	he following	
questi		augstion 2	7 Plages ar	newer on the	coantron	
27. Ho A. F.	section begins with ow frequently do you very Multiple times per day I used to write in a dia Other, Please indicate	vrite in your jo y B. Daily ry, but don't a	ournal? C. Weel			

	_	id you beg B. 15-18	in writing in C. 19-		D. 22-35	E. 36	6 or older
A.	hat prompte Tragic eve Someone	ent	art a journal B. No one new did it	to talk to	Other, Plea	•	for a class e here:.
A. D.	urnal writin Find soluti Remember Other, Plea	ons to prob	olems B.		set goals past		trol my emotions the time
31. Jo	urnal writin	g makes m	e feel less an	ixious			
	A		В	C)	E
	Strongly I	Disagree	Disagree	Neutra	l Ag	ree	Strongly Agree
32. Jo	urnal writin	g makes m	e feel less str	ress			
	\mathbf{A}		В	C	I)	${f E}$
	Strongly I	Disagree	Disagree	Neutra	l Ag	ree	Strongly Agree
A. wh B. C. D. E.	 33. If journal writing helps you feel less anxious, why? A. The feedback I receive from a person who reads my diary. Please indicate here who this is in generic terms (No names, please) B. Putting my thoughts on paper helps me think things through C. Putting my thoughts and feelings on paper helps me feel less anxious D. I feel like I am talking to a friend E. Gives me something to do other than worry or think about whatever is bothering me F. Other, Please indicate here: G. I do not feel less anxious 						
 34. If journal writing helps you feel less stress, why? A. The feedback I receive from a person who reads my diary. Please indicate here who this is in generic terms (No names, please) B. Putting my thoughts on paper helps me think things through C. Putting my thoughts and feelings on paper helps me feel better D. I feel like I am talking to a friend E. Gives me something to do other than worry or think about whatever is bothering me F. I do not feel less stress G. Other, Please indicate here: 							
35. Af	ter you writ	te in your j	ournal how d	lo you feel:	?		
	Нарру		lm/Relaxed	_	. Relief		tisfied
F.	Sad	F. Ang	gry G	6. Other, Pl	ease indicat	e here:.	

E-mail

If you have done any personal writing through E-mail, please answer the following questions.

This section begins with question 36. Please answer on the scantron.

36.		mes per day rite in a dia	B. Daily ry, but don't an		kly D. Month	nly E. Rarely
37.	At what age d A. 0-14	id you begi B. 15-18	n writing E-ma C. 19		D. 22-35	E. 36 or older
38.	What prompte A. Tragic eve D. Someone	ent	B. No one to		C. Projec , Please indicate	et for a class here:.
39.	E-mailing help A. Find solution D. Remember G. Other, Plea	ons to problethe past	E. Fo	ake and set grget the past		ntrol my emotions
40.	E-mailing mal A Strongly D		В	C Neutral	D Agree	E Strongly Agree
41.	E-mailing mal A Strongly D	kes me feel Disagree	В	C Neutral	D Agree	E Strongly Agree
42. If E-mailing helps you feel less anxious, why? A. The feedback I receive from a person who reads my diary. Please indicate here who this is in generic terms (No names, please) B. Putting my thoughts on paper helps me think things through C. Putting my thoughts and feelings on paper helps me feel less anxious D. I feel like I am talking to a friend E. Gives me something to do other than worry or think about whatever is bothering me F. I do not feel less stress G. Other, Please indicate here:						
43.	F. I do not feel less stress G. Other, Please indicate here:. 43. If E-mailing helps you feel less stress, why? A. The feedback I receive from a person who reads my diary. Please indicate here who this is in generic terms (No names, please) B. Putting my thoughts on paper helps me think things through C. Putting my thoughts and feelings on paper helps me feel better D. I feel like I am talking to a friend E. Gives me something to do other than worry or think about whatever is bothering me					

	F.	I do not feel les	s stress	G. Other, Ple	ease indicate	here:.	
44.	A.	iter you write an l Happy Sad	E-mail, how d B. Calm/Rel F. Angry	-	C. Relief G. Other, Pl	D. S lease indicate l	Satisfied here:.
Th	is s Ho A. F.	have done any pasection begins ow frequently do Multiple times particularly in the control of th	with questi you write in y er day B. a diary, but d	on 45. Plea your weblog? Daily C.	og please ans se answer Weekly		tron.
46.		what age did you 0-14 B.	a begin writing 15-18	g in a weblog? C. 19-22	D. 22-33	5 E. 30	6 or older
47.	47. What prompted you to start a weblog? A. Tragic event B. No one to talk to C. Project for a class D. Someone else you knew did it E. Other						
48.	A. D.	ogging helps me: Find solutions to Remember the p Other, Please inc	problems ast	B. Make an	_	C. Control r F. Pass the t	•
49.	Blo	ogging makes me A Strongly Disagr	В	C	D al Agr		E congly Agree
50.	Blo	ogging makes me A Strongly Disagr	В	C	D al Agr		E rongly Agree
51.	A. B. C. D. E.	The feedback I r this is in generic Putting my thou Putting my thou I feel like I am t Gives me somet I do not feel less	eceive from a c terms (No na ghts on paper ights and feeli talking to a fri thing to do oth	person who reames, please) helps me thin ngs on paper lend	k things thro nelps me feel or think abo	ugh less anxious ut whatever is	

A. The feedby this is in genus B. Putting man C. Putting man D. I feel like E. Gives man F. I do not for the state of the	eric terms (No names, please) ny thoughts on paper helps me ny thoughts and feelings on pa e I am talking to a friend	who reads my diary. Please indicate here who think things through aper helps me feel better worry or think about whatever is bothering me r, Please indicate here:. "Unified Properties of the			
E. Sau	r. Aligry	G. Other, Please indicate here:.			
	~ _	nic Questions			
54. My gender is A. Male	B. Female				
55. My marital status is: A. Never married B. Divorced or separated C. Widowed D. Unmarried. Committed Homosexual Relationship E. Unmarried. Committed Heterosexual Relationship F. Married or remarried					
A. African A B. Asian Ar C. Caucasia D. Hispanic E. Native A F. Middle E G. Other, Pl	nerican (including Indian and n or Euro-American American; Latino, Latina merican	Pacific Island regions)			
	ur scantron in the quest e questionnaire.	ionnaire, and answer the last question			
57. My age is	years				
•	r your participation! comments, please write the	m here or let the researcher know.			