

THE PSYCHOLOGICAL BENEFITS OF POSITIVELY-FOCUSED WRITING

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Title

The Psychological Benefits of Positively-Focused Writing

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MASTER OF SCIENCE

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## ABSTRACT

Writing about potent positive events has been shown to be associated with physical health benefits in a manner similar to the expressive writing paradigm originally espoused by Pennebaker and Beall (1986). Little has been done to date, however, to explore the potential association of positive writing with aspects of psychological well-being. This project attempted to substantiate results of previous studies that have shown positive writing to be linked with not only the promotion of physical health, but indicators of psychological health such as life satisfaction and positive affect. Participants answered questions regarding their affect, life satisfaction, perceived stress, and physical symptoms in the prior week. They then wrote about either an extremely positive life event or a neutral topic. Participants completed the same questionnaires online a week later. While the writing exercise impacted momentary positive affect, it showed no effect on physical or psychological well-being after one week.

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## INTRODUCTION

Since 1986, considerable research has been conducted on the effects and benefits of expressive writing. Pennebaker and Beall (1986) were the first to introduce the idea that the act of writing about traumatic events, which is now often called expressive writing, may be a cathartic intervention that would afford long-term health benefits. Many studies have since employed this paradigm, but relatively little has been done to date on the effects of writing about positive, rather than adverse, experiences. This thesis will discuss some of the discovered benefits of expressive writing, talk about what has been done thus far with a positive writing paradigm, and describe a new study conducted with the intent to discern any psychological effects of positive writing.

In Pennebaker and Beall's original study looking at the physical benefits of trauma narratives (1986), the authors recruited 46 undergraduates and randomly assigned them to four different groups. Each group wrote for fifteen minutes on four consecutive evenings. Those in the control condition were assigned to write about neutral topics in each session, such as a description of their living room or a description of the shoes they were wearing. Those in the experimental conditions could write about the same traumatic event each time: the difference was the way in which they wrote about it. Those in the trauma-emotion condition wrote about their feelings associated with the trauma. Those in the trauma-fact condition were instructed to write about the facts surrounding the traumatic events. Finally, those in the trauma-combination condition wrote about both their feelings and the facts surrounding their trauma. Blood pressure and heart rate, as well as self-reported mood and physical symptoms, were collected prior to writing and after participants wrote. Participants completed questionnaires regarding their health four

months after study completion. The authors also obtained consent from participants to access their health records for the next two years. The authors found that writing about traumatic experiences was associated with short-term increases in physiological arousal, as well as long-term alleviation of health issues (Pennebaker & Beall, 1986).

Interestingly, the results were most pronounced in those who wrote about both the trauma and their feelings about it, while those who wrote only about the facts of their trauma, without referring to their emotions about it, were similar to the control condition in most of the physiological, health, and self-report assessments.

The preliminary study by Pennebaker and Beall (1986) paved the way for much more research on expressive writing as an intervention. Replicative studies with specific clinical populations have shown, for example, that expressive writing about a first myocardial infarction led to fewer general practitioner and hospital visits, reduced use of prescription medication, fewer reported cardiac symptoms, lower diastolic blood pressure and improved subjective well-being (Willmott et al., 2011). Expressive writing also appeared to have some benefit for individuals with post-traumatic stress disorder, including a decrease in dysphoric mood and attenuation of physiological responses, as well as enhanced recovery, when presented with traumatic reminders (Smyth, Hockemeyer, & Tulloch, 2008).

This writing paradigm has also been shown to have effects in the social realm. Expressive writing by couples about their relationships, for example, has been associated with subsequent longevity of the relationship, as well as increases in emotional language use in their communication (Slatcher & Pennebaker, 2006). Another study, in which recently reunited military couples engaged in expressive writing, found that emotional



writing by soldiers was associated with greater couple satisfaction after one month—especially when that soldier was exposed to heavy combat—and that yelling had decreased in the relationship at a six-month follow-up (Baddeley & Pennebaker, 2011).

Though research on expressive writing has typically involved writing about one's emotions surrounding traumatic events, research using this paradigm has been inching its way towards considering the benefits of positively-focused writing. Some studies, for example, have compared the original expressive writing paradigm to a modified paradigm in which positive aspects of traumatic or adverse experiences are considered. In a novel variation of the expressive writing paradigm, King and Miner (2000) sought to determine whether writing about positive benefits from traumatic events would also relate to enhanced health. They employed four conditions, in which participants were instructed to write about one of the following: their most traumatic life experience; a traumatic life experience and how they have grown or benefited as a result; the positive aspects of and how they have grown or benefited as a result of a traumatic experience; or, as a control, their plans for the following day and a description of their shoes (King & Miner, 2000). Essentially, the experimental conditions differed with respect to whether or not participants wrote about a trauma alone, a trauma and any positive aspects of that trauma, or simply the positive aspects of a trauma, without reference to the trauma itself. Consistent with prior research, the authors found that writing about trauma was associated with fewer health center visits. In addition, they found that writing about the perceived benefits of trauma instead of the trauma itself was associated with the same physical benefits as writing about the trauma. Writing about both the trauma and its perceived benefits showed some health benefits as well, but they appeared to fade more

quickly in comparison to the other two conditions. The authors suggest that writing about perceived benefits may serve to spur self-regulatory processes that help individuals deal effectively with a traumatic event, and perhaps even find meaning (King & Miner, 2000). In this manner, writing about positive life experiences may encourage self-regulatory processes similar to those induced by expressive writing, and thus lead to similar benefits.

Another study, by Danoff-Berg et al. (2006), modified the expressive writing paradigm with a population of adults with either lupus or rheumatoid arthritis. Participants were assigned to one of three writing conditions: a benefit-finding condition, in which participants were asked to write about any positive thoughts and feelings regarding their illness experience; a standard expressive writing group, in which participants were asked to divulge their deepest thoughts and feelings regarding their illness; and a “fact control” group, in which participants were asked to provide a “detailed account of the facts” regarding their illness and treatment, without infusing their emotions into their writing (Danoff-Berg et al., 2006). Results of this study suggested that a benefit-finding condition produced similar health benefits to those seen in the traditional expressive writing paradigm, such as a reduction in fatigue three months after the study’s completion for both the benefit-finding and traditional expressive writing groups in comparison to the fact control group.

The literature on expressive writing has evolved from examining not only the potential benefits of writing about traumatic experiences, but whether or not similar benefits are produced by considering any positive aspects of traumatic experiences as well. To take the expressive writing paradigm another step further, a growing body of

research has considered the effects and possible benefits of writing about solely positive experiences, as opposed to any aspects of traumatic ones. This research comes on the heels of research conducted on the possible benefits of positive emotions by such investigators as Barbara Fredrickson. Fredrickson's broaden-and-build theory (1998, 2001) posits that positive emotional experiences serve to promote psychological growth and overall well-being, as well as broaden the array of thoughts and actions that come to mind while building personal resources. Studies examining the functions and benefits of positive emotions have found that positive emotions play a role in broadening individuals' scope of attention (Fredrickson & Branigan, 2005), serve as a buffer against the cardiovascular effects of negative emotions (Fredrickson & Levenson, 1998) and are involved in the promotion of individual resilience (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009). The investigated benefits of experiencing positive emotions provide a basis for speculating that positive writing, to the extent that it generates positive emotions, might lead to similar effects.

Burton and King (2004) conducted a study in which participants were randomly assigned to write about an intensely positive experience, or IPE, for 20 minute sessions on each of three days. Participants in a control group described either their plans for the rest of the day, the shoes they were wearing, or what their bedroom looked like. The authors found that those who wrote about an IPE showed enhanced positive mood; rated the exercise as engaging and important; and found health benefits similar to those shown in expressive writing paradigms. Benefits to participants who wrote about IPEs included a buffer against illness at three-month follow-up in comparison to the control group (Burton & King, 2004).

In a later study, Burton and King (2009) used the broaden-and-build theory put forth by Fredrickson to inform the positive writing paradigm and investigated whether writing about positive experiences led to broadened cognition as well as predicted health benefits. They also predicted that their measure of broadened cognition, the same as was used by Fredrickson and Branigan (2005), would mediate those predicted health benefits. The authors had participants write about either an IPE or a control topic for 20 minutes in three consecutive sessions. After their last sessions, all participants completed a global-local visual processing task. This is a task in which participants are presented images, and then asked to indicate which of three subsequent choices most resembles the initial image. Responding in a way that indicates attention to local details of the image, such as texture, is said to indicate a narrow focus, whereas a response that indicates attention was allocated to more global features, such as the shape of an object, suggests a broader focus (Burton & King, 2009). The authors likened global focus on this task to broadened cognition. The authors found that participants who had written about an IPE were higher in their measure of global focus than controls, and also had fewer physical health complaints in a four to six week follow-up. As well, the authors found a partially mediating effect of their measure of broadened cognition on physical health effects (Burton & King, 2009).

Few studies have compared traditional expressive writing and positive writing side by side. One of these was carried out by Marlo and Wagner (1999), in which participants were assigned to write about their feelings regarding their most negative, traumatic experiences; those regarding their most positive life experiences; or a neutral event in a factual, rather than emotional, fashion. Notably, this study incorporated

measures of psychological well-being to determine whether writing had psychological benefits, as well as the typically examined physical health benefits. The authors predicted that writing about negative or positive life events would show improvements in physical and psychological health, and that writing about negative life events would show the most improvements (Marlo & Wagner, 1999). Their results showed no significant changes in physical health among participants in each writing condition at one-month follow-up. They did, however, find significant differences in psychological health improvements. Interestingly, these differences were not in the predicted manner. Participants who wrote about positive life experiences reported the most improvements in psychological health as assessed by such measures as the Profile of Adaptation to Life, which appraises psychological and physical symptoms in social, emotional, spiritual and other areas of life, and the Symptom Checklist 90-Revised, which gauges psychological symptomatology such as psychosis, depression, and somatization (Marlo & Wagner, 1999).

Pennebaker and Beall (1986) asked their participants to engage in their expressive writing paradigm over four sessions on consecutive days. Much of the subsequent research mimicked their design, often asking participants to write for 20 minutes a day over three consecutive days. However, this admittedly had no theoretical justification: it was a decision of practicality based on lab space availability made by the original researchers (Chung & Pennebaker, 2008). Thus, some studies have experimented with a shorter writing intervention to establish whether or not similar health benefits elicited by the original paradigm would be evident. Chung and Pennebaker (2008) found that expressive writing done at fifteen-minute intervals over the course of an hour with ten

minute breaks in between promoted comparable benefits in physical health to the traditional three day time period. Impressively, Burton and King (2008) found that writing about either a positive or traumatic experience for only two minutes for two consecutive days were both associated with fewer physical symptoms than controls at a four to six week follow-up.

The expressive writing paradigm has been most commonly used to examine the effects of writing about traumatizing experiences on physical health, with most results indicating that health benefits are evident after writing about aversive events. Much of the limited research on positive writing has followed this tradition, with results indicating that positive writing may also promote physical health. Relatively little, however, has been done to specifically identify any psychological benefits positive writing may afford. One of the few studies intended to fill this gap in research was conducted by Wing, Schutte, and Byrne (2006). They found that positive writing was related to an increase in reported levels of life satisfaction as well as emotional intelligence.

Because so few studies focus on psychological outcomes of a positive writing intervention, there is much more to be explored. For example, while there is some evidence to suggest that positive writing yields cognitive benefits (Burton & King, 2009), what about other benefits that may be predicted in context of the broaden-and-build theory of positive emotions? Is positive writing an intervention that can consistently induce positive emotions, and are those positive emotions associated with other outcomes that may indicate broadening or the building of personal resources? For instance, would positive writing be associated with increases in positive social experiences, which could be interpreted as the building of social resources? Would positive writing predict an

upward spiral of positive emotions, such that the experience of momentary positive emotions during the intervention would lead to increases in positive emotional experiences? Can the link between positive writing and other indicators of psychological well-being, such as life satisfaction, be supported? Answers to all of these questions could lead to evidence supporting the broaden-and-build theory.

This study was conducted with the intent to reinforce existing evidence that positive writing is directly related to physical health benefits, increases in positive affect, and some psychological benefits, and extend these findings by examining the relationship of positive writing to other gauges of psychological well-being. It was predicted that a positive writing exercise would be associated with higher levels of positive affect immediately following the writing session in comparison to writing about a neutral topic. Those in the positive writing condition were also posited to report experiencing fewer physical symptoms, higher levels of positive affect, more pleasant events, higher levels of life satisfaction and lower levels of perceived stress at a one week follow-up in comparison to those who wrote about a neutral event.

## METHODS

### *Participants*

Eighty-six participants were recruited from a subject pool made up of undergraduate psychology students at North Dakota State University. There were no inclusion or exclusion criteria for this study. All participants were at least 18 years of age, and all received extra credit towards a psychology course for participating. The study was conducted in two sessions: a classroom session and an online follow-up session. As an additional incentive to complete the follow-up session for this study, four \$25 Target store gift cards were offered. Of the eighty-six undergraduate participants who took part in the initial classroom session, eighty-four ultimately completed the online follow-up surveys and had their responses included in the analysis. Each participant received a unique survey link via e-mail on the seventh day after the initial experimental session. Most participants responded within one or two days of receiving their follow-up prompt to complete the online survey. Three participants included in the analysis were late in submitting their follow-up, such that their responses came 12 (in one case) or 13 days after their initial session. The final undergraduate sample was comprised of 62 females and 22 males who primarily identified as White (90.5%), with others reporting their ethnic background as: Black (4.8%), Asian (1.2%), Hispanic (1.2%) and Other (1.2%).

### *Measures*

#### Mood

*The Positive and Negative Affect Schedule (PANAS).* The Positive and Negative Affect Schedule, or PANAS (Watson, Clark, & Tellegen, 1988) is a self-report measure comprised of two 10-item scales designed to measure positive and negative affect, respectively. Scores are determined based on participants' ratings of how they are feeling



on a scale of 1 (very slightly or not at all) to 5 (extremely). Higher scores indicate greater levels of emotion experienced during the time frame indicated in the measure instructions. For this study, the time frame was “during the past week” on both the PANAS filled out before the writing manipulation and at the follow-up assessment.

The PANAS was also used as a manipulation check. Immediately following the writing exercise, participants completed this questionnaire using the time frame “right now, that is, at the present moment.” When used with short term instructions (such as to what extent participants are feeling queried emotions “right now”), the scales have been shown to be sensitive to fluctuations in mood, and have also shown significant convergent and discriminant validity with related measures of underlying mood factors (Watson, Clark, & Tellegen, 1988).

#### Life perspective

*The Satisfaction with Life Scale.* The Satisfaction with Life Scale, or SWLS (Diener, Emmons, Larsen, & Griffin, 1985), is a five-item measure designed to assess global life satisfaction. Participants rate on a scale of 1 (low satisfaction) to 7 (high satisfaction) the extent to which they agree with presented statements, such as “In most ways my life is close to ideal.” Each item is scored on the 1 to 7 scale, so that possible scores are in the range of 5 (low satisfaction) to 35 (high satisfaction). In previous research, the scale has shown strong internal reliability (Diener, Emmons, Larsen, & Griffin, 1985) as well as construct validity (Neto, 1992; Pavot & Diener, 1993).

*The Revised Life Orientation Test.* The Revised Life Orientation Test, or LOT-R (Scheier, Carver, & Bridges, 1994), is a 10-item measure designed to assess the construct of optimism, though only six items are actually used to derive an optimism score. Of

these six, three items are keyed in a negative direction, and three in a positive direction. Participants are asked to indicate the extent to which they agree with items on a scale of 0 (strongly disagree) to 4 (strongly agree). Responses to items such as “In uncertain times, I usually expect the best” are summed to compute an overall optimism score, with a possible range of 0 to 24. The LOT-R has been shown to have acceptable internal consistency and test-retest reliability, as well as an adequate level of predictive and discriminant validity (Scheier, Carver, & Bridges, 1994).

#### Positive life events

*The Positive Event Scale.* The PES has been developed through several studies (Maybery & Graham, 2001; Maybery, 2004) as a reliable, valid 41-item uplift measurement incorporating interpersonal events (an area that had been lacking in earlier uplift measures) in domains especially relevant to university students, including work, close relations, and friends. Participants are asked to consider a list of items that can be positive events, and rate whether or not they occurred in the last month (again, this time frame was necessarily changed to one week for the purposes of this study). Then they are asked to consider how uplifting it was. A score of 0 indicates the event did not occur, while a score of 1 means the event occurred but there was no uplift, 2 means an event occurred and was a little uplifting, and so on. The highest score an event may be given is 5, which means an “event occurred and was extremely uplifting.” Scores are summed to yield an overall score indicating the amount of uplift individuals experienced from recent positive events. It would be possible to obtain overall scores on this measure in a range of 0 (no positive events occurred) to 205 (all events occurred and they were extremely uplifting).

*The Pleasant Events Schedule.* The Pleasant Events Schedule (MacPhillamy & Lewinsohn, 1976) is comprised of 320 items designed to assess the frequency with which individuals experience potentially reinforcing events as well as their subjective pleasantness. This study will only use the Mood Related (MR) subscale of the Pleasant Events Schedule, which is composed of 49 items that initial studies showed were significantly correlated with reported mood. Participants will be asked to rate each item on the following scale: “0” to indicate the event has not happened, “1” to indicate that this happened a few (1-6) times, and “2” to indicate that this has happened often (7 or more) times in the past week. Participants will then be asked to look back at the items they rated and indicate how pleasant the event was on a scale of 0 (this was not pleasant) to 2 (this was very pleasant). Summed scores indicate a greater number of experienced pleasant events.

#### Perceived stress

*The Perceived Stress Scale.* The Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) is a 14-item scale designed to assess the degree to which one considers events in life stressful. Participants are asked to rate how often certain events have occurred in the last month on a scale of 0 (never) to 4 (very often). For the purposes of this study, the time frame was also altered to refer to the last week. For example, “In the last week, how often have you been upset because of something that happened unexpectedly?” A PSS score is obtained by reverse scoring the seven positive items and then summing across all 14 items, with possible scores ranging from 0 to 56. The instrument has shown substantial reliability and validity (Cohen, Kamarck, & Mermelstein, 1983) and is widely used as a global measure of experienced stress.

### Physical symptoms

*The Pennebaker Inventory of Limbic Languidness.* The Pennebaker Inventory of Limbic Languidness, more commonly referred to as the PILL, is a 54-item measure designed to assess the frequency with which individuals experience common physical symptoms. The measure uses a letter scale, with A indicating that respondents “have never or almost never experienced the symptom”; B indicating “less than 3 or 4 times per year”; C indicating “every month or so”; D indicating “every week or so”; and E indicating “more than once every week”. Because the scale is often used in studies that utilize a university student population, three questions at the end of the measure ask “Since the beginning of the semester, how many: ‘Visits have you made to the student health center or private physician for illness’; ‘Days have you been sick’; and ‘Days your activity has been restricted due to illness’”. Scores are obtained by converting the letters to numerical values: in the case of this study, A=0, B=1, C=2, D=3, and E=4. Values for answers to each of the 54 questions were then summed. The PILL has been used extensively to assess physical symptomatology since the expressive writing paradigm was introduced (Pennebaker & Beall, 1986).

### *Procedure*

Participants were recruited from a subject pool of undergraduate psychology students at North Dakota State University through an online sign-up system. At sign-up, participants were required to commit to two sessions for the study: the initial experimental session and an online follow-up session one week afterward. Participants were run in groups in a classroom where individual desks were separated enough for privacy. Envelopes containing informed consent forms, the assessment instruments, and

instructions for the writing task were given to each participant as they entered the classroom and signed an attendance sheet. Participants were randomly assigned to groups in this manner, as the envelopes already contained either the positive or neutral writing prompt. The session began with a statement by the researcher thanking the students for their participation, and then the following explanation was read:

“This study is looking at the relationship between writing and daily experience. A lot of people are participating in social media these days to share their thoughts as well as to put their own thoughts and feelings in perspective. I am curious whether writing about personal events is related to the way you feel and experience life on a daily basis. Thus, I’m going to ask you about what you’ve been doing and how you’ve been feeling lately. Then I’m going to ask you to write about a personal experience for 20 minutes. Everyone here is assigned different topics about which to write, and instructions for your individual writing task are printed on a sheet in your envelope. I would like to ask that you follow the instructions on your individual sheet as closely as possible and attend carefully to your writing. Also, please use all of the time allotted; if you find that you still have time left, feel free to go back and add as much detail as possible about your given topic. As indicated in your informed consent forms, your responses will be kept confidential and unidentifiable, so please be as honest and detailed as you can. In one week, I will e-mail you a link to a survey that will ask you to complete similar measures. After completion of the entire survey, you will be entered in a drawing to win one of four \$25 Target gift cards.”

Participants were then instructed to turn their attention to their information and consent forms, which were verbally summarized by the researcher, and then asked to sign a copy and take a second copy with them for reference. Each participant was then asked to complete the aforementioned assessment instruments, which were placed in their envelopes in this order: the PANAS, the SWLS, the LOT-R, the Positive Event Scale, the MR subscale of the Pleasant Event Schedule, the Perceived Stress Scale, and finally, the PILL. Then the participants, having been randomly assigned to either the positive writing group or the neutral writing group upon entry to the session, were asked to engage in their assigned writing exercises for 20 minutes. Those in the positive writing condition received the following instructions, adapted from Burton and King, 2004:

“Think of the most wonderful experience or experiences in your life: the happiest moments or ecstatic moments, stemming perhaps from being in love, or listening to music, or being profoundly impacted by a piece of literature, a piece of art, or some other great creative moment. Choose one such experience or moment. Take some time to try to imagine yourself in that moment, including all the feelings and emotions associated with the experience. Now, please write about the experience in as much detail as possible, attempting to include the feelings, thoughts, and emotions that were present for you at the time. Please try your best to re-experience and convey the emotions involved.”

Participants in the neutral condition were given this set of instructions:

“Please think back to your schedule *yesterday* and the activities in which you engaged. In as much detail as possible, please describe what you did, including

with whom you interacted, from the time you woke up until the time you went to bed.”

After 20 minutes, participants were asked to stop writing and complete the PANAS again, this time with instructions to report on how they are feeling “right now,” before exiting the classroom. When the measures and writing sheets had been put away in each participant’s envelope, participants were reminded that they were to complete their online follow-up session in one week’s time. Once participants handed in their envelopes, they were dismissed from the room. One week later to the day of their respective initial sessions, participants were e-mailed a link to a follow-up survey. They were asked to complete the same battery of measures administered at the beginning of the study, and those who completed them in their entirety were entered into the aforementioned drawing for an additional incentive.

## RESULTS

### *Manipulation check*

A one-way analysis of variance, or ANOVA, was conducted on the scores of both positive and negative affect (of the Positive and Negative Affect Scales, or PANAS) taken before the writing exercise and immediately afterwards as a manipulation check to discern whether or not the writing exercise impacted reported momentary affect. Prior to the writing exercise, participants in the two conditions did not significantly differ on their scores on PANAS scales asking them to report on their feelings of the past week,  $F(1,82) = .07, p = .79$  for positive affect, and  $F(1,82) = 1.17, p = .28$  for negative affect. This suggests that randomization of conditions was successful in distributing recent affect.

Following the writing exercise, participants in the positive writing condition reported significantly higher positive affect ( $M=32.6, SD=8.5$ ) than their counterparts in the control condition ( $M=28.1, SD=8.0$ ),  $F(1,82) = 6.03, p = .02$ . Participants in these conditions did not differ in their reports of negative affect,  $F(1,82) = .64, p = .43$ . This indicates that the positive writing exercise had the hypothesized effect on the emotional experience of the participants.

### *Primary analyses*

Each of the dependent measures was entered into a mixed-design analysis of variance with experimental condition as the between-groups factor and time of response as the within-subjects factor. The means and standard deviations (in parentheses) for the scores of each dependent variable at each time point and in each condition are shown in Table 1. The first ANOVA was conducted to see if participants reported any changes in positive affect in the week following the experimental manipulation. The analysis of scores on the positive affect scale of the PANAS showed no main effects for time,



$F(1,82) = 2.46, p = .12$ , condition,  $F < 1.0$ , or their interaction,  $F < 1.0$ . Similarly, the analysis of scores on the negative affect scale of the PANAS revealed no main effect for time,  $F(1,82) = 2.33, p = .13$ , condition,  $F(1,82) = 2.01, p = .16$ , or their interaction,  $F < 1.0$ .

No main effects of time,  $F < 1.0$ , condition,  $F < 1.0$ , or the interaction of time and condition,  $F(1,82) = 2.38, p = .13$  were found for life satisfaction, measured by scores on the SWLS. The analysis of scores on the LOT-R, designed to assess the construct of optimism, showed no main effects for time,  $F < 1.0$ , condition,  $F < 1.0$ , or their interaction,  $F(1,82) = 1.23, p = .27$ .

<b>Table 1</b>				
<i>Means and Standard Deviations for Dependent Measures Across Time and Conditions</i>				
	<b>Neutral Writing Condition</b>		<b>Positive Writing Condition</b>	
	<b>Time 1</b>	<b>Time 2</b>	<b>Time 1</b>	<b>Time 2</b>
<b>PANAS PA</b>	33.14 (6.66)	32.24 (7.41)	33.50 (5.38)	32.33 (6.02)
<b>PANAS NA</b>	19.48 (5.22)	18.31 (5.57)	20.71 (5.29)	19.98 (5.88)
<b>SWLS</b>	26.64 (5.80)	27.33 (5.23)	26.79 (4.42)	26.36 (4.83)
<b>LOT-R</b>	15.07 (3.52)	14.74 (3.80)	15.05 (2.74)	15.26 (3.36)
<b>PES</b>	98.10 (34.10)	98.43 (39.31)	99.93 (26.70)	90.67 (32.86)
<b>PES-MR</b>	102.33 (25.94)	99.98 (32.61)	98.40 (25.82)	98.64 (29.63)
<b>PSS</b>	24.17 (8.04)	25.31 (6.06)	25.44 (5.71)	25.54 (6.54)
<b>PILL</b>	64.19 (24.67)	59.29 (34.05)	61.26 (23.65)	52.57 (24.18)

*Note.* The acronyms listed in Table 1 each stand for one of the dependent measures utilized in this study. They are as follows: PANAS PA=Positive and Negative Affect Scales-Positive Affect; PANAS NA=Positive and Negative Affect Scales- Negative Affect; SWLS=Satisfaction with Life Scale; LOT-R=Life Orientation Test-Revised; PES=Positive Event Scale; PES-MR= Mood-Related Subscale of the Pleasant Event Schedule; PSS=Perceived Stress Scale; and PILL=Pennebaker’s Inventory of Limbic Languidness.

The analysis of scores on the Positive Events Scale showed no main effects for time,  $F(1,82) = 2.89, p = .09$ , condition,  $F < 1.0$ , or their interaction,  $F(1,82) = 3.33, p = .07$ . The analysis of scores on the Mood-Related Subscale of the Pleasant Events Schedule, or PES-MR, revealed no main effects for time,  $F < 1.0$ , condition,  $F < 1.0$ , or their interaction,  $F < 1.0$ . Perceived stress was also analyzed using scores from the PSS, for which no main effects of time,  $F < 1.0$ , condition,  $F < 1.0$ , or their interaction,  $F < 1.0$ , were found. One score in the experimental group was excluded in the PSS analysis because of an incomplete measure. Finally, the analysis of scores on the PILL, an indicator of physical health, did reveal a main effect of time,  $F(1,82) = 8.34, p = .01$ . However, no main effects of condition,  $F < 1.0$ , or the interaction of time and condition,  $F < 1.0$ , were shown.

## DISCUSSION

Many authors exploring positive writing to date have examined its physical health benefits, following the expressive writing paradigm introduced by Pennebaker and Beall (1986). Past studies have shown positive writing to be associated with physical health benefits at a three-month follow-up (Burton & King, 2004) and in as little as four to six weeks (Burton & King, 2009). Limited findings have also suggested that positive writing is associated with increases in positive affect (Burton and King, 2004), and impacts indicators of psychological well-being such as life satisfaction (Wing, Schutte, and Byrne, 2006). This study attempted to not only support these findings, but expand on them by investigating other possible psychological health benefits.

First and foremost, is positive writing a manipulation that can consistently promote positive affect? The manipulation check examining the effect of a writing manipulation on participants' reported affect showed that participants who wrote about positive life events indicated significantly more positive affect after writing than those who wrote about neutral events. This finding supports existing evidence that positive writing does promote positive affect immediately following the writing exercise.

Was the finding that positive writing is associated with alleviation of physical symptoms sustained? Analysis of a measure of physical symptomatology before and after the writing manipulation ultimately yielded no significant effects, and thus did not support the claim that positive writing alleviates the experience of physical symptoms reported by participants.

Does the positive affect cultivated by positive writing lead to the development of further personal resources, such as positive social resources, or set the stage for future

positive emotional experiences? Was the link between positive writing and indicators of psychological well-being, such as life satisfaction, substantiated? Unfortunately, the results of this study were unable to provide evidence that positive writing led to increases in the number of pleasing life events or positive life experiences reported by participants, or corroborate previously established findings regarding the link between positive writing and life satisfaction. Results did not indicate that positive writing was associated with decreases in perceived stress or reported negative affect either. The hypotheses that positive writing would foster physical as well as psychological health were wholly unsupported, adding little to the shallow pool of existing literature. Though positive writing had a clear impact on current mood, that effect appears to have been very temporary and did not translate to longer term behavioral, physical, or psychological outcomes.

A discussion of some issues with the current method may elucidate the results. While the study had a desirable number of participants in terms of lending power to the manipulation, those participants came from a specified population of university students. University students are often faced with pressures unique to individuals who are part of a campus community: pressure to do well on assignments and exams, to participate in sports, music or other extracurricular activities, and to be social. That being said, responsibilities, obligations and social engagements can vary greatly from week to week. Perhaps one week is too short a time frame to discern potential effects of a positive writing manipulation, because of the different degrees of both stress and opportunity for pleasant events and interactions the week in question may afford. Past research also involving university students has allowed more time between the manipulation and

measurement of dependent variables, which may offer the chance for stresses and opportunities to engage in pleasant events to balance out.

Past research has also largely followed Pennebaker and Beall's (1986) original expressive writing experimental design, which had participants write for several sessions on consecutive days. While this has been said to have been instituted mainly out of convenience for the researchers (Chung & Pennebaker, 2008), perhaps such a paradigm does strengthen the method due to repeated exposure to the manipulation over a longer span of time. It is possible that this study's one-time writing session hindered potential results as well. In addition, prior studies have not utilized an online follow-up. Perhaps extraneous variables—multi-tasking, listening to music—impacted participant responses in such a way as to weaken the follow-up data.

Alternatively, perhaps the fact that no significant results were found after one week is in itself telling. It is conceivable that a significant difference in momentary positive affect alone after a positive writing exercise is not enough to influence psychological variables or future behavior in the hypothesized way. Previous studies have produced findings that may not quite support the notion of a direct relationship between positive affect and physical or psychological benefits. For example, one study found that enhanced mood did not mediate physical health benefits (Burton & King, 2004), and another found that a measure of broadened cognition, instead of positive affect, had a partially mediating effect on resultant physical benefits (Burton & King, 2009). In addition, as previously discussed, some studies have found that positive emotions buffer against the cardiovascular effects of negative emotions (Fredrickson & Levenson, 1998) or are involved in the promotion of individual resilience (Cohn, Fredrickson, Brown,

Mikels, & Conway, 2009). This evidence suggests the possibility that while positive affect may play a role in the personal benefits derived from positive writing, its relationship to those benefits is indirect. That is, perhaps positive affect is actually impacting a third variable, such as emotional intelligence, coping skills, or other cognitive mechanisms, which is more immediately responsible for those benefits. In context of the broaden-and-build theory of positive emotions, perhaps cognitive benefits derived from momentary positive affect are what are actually strengthened and “built” over time, and those benefits may have been seen had this study allowed more time for them to emerge.

Future research may consider changes to the current methodology as well as further theoretical tests. First, extending the time frame of the study may impact results in the direction hypothesized in this study. For instance, participants may be asked to write in several sessions instead of just one over the course of consecutive days, as previously discussed. Future studies could also compare a shorter and longer time interval between manipulation and measurement to examine whether that length of time is truly impactful to hypothesized results. As well, future researchers may want to consider keeping the experimental environment consistent, and implementing a follow-up that is conducted in the same manner as the initial session, thereby reducing the potential impact of extraneous variables. To examine theoretical questions, future positive writing studies could try to capture some of the more cognitive mechanisms previously mentioned, such as emotional intelligence or coping skills, to discern whether or not they mediate any demonstrated physical or psychological benefits.

The fact remains that this is one study in a burgeoning field. While there is much support for the broaden-and-build theory of positive emotions and the hypothesized function of positive emotions, there is much yet to be explored about their utility and possible benefits. It is not clear from this study that positive writing is a method that consistently promotes both positive emotions and positive behavioral outcomes. The inconsistent results indicate that the methods, mechanisms, and outcomes of this intervention merit further investigation.

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## APPENDIX A. THE PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Please indicate to what extent you have felt this way **during the past week**. Use the following scale to record your answers:

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

interested  
 distressed  
 excited  
 upset  
 strong  
 guilty  
 scared  
 hostile  
 enthusiastic  
 proud

irritable  
 alert  
 ashamed  
 inspired  
 nervous  
 determined  
 attentive  
 jittery  
 active  
 afraid

## APPENDIX B. THE SWLS

Below are five statements with which you may agree or disagree. Using the 1 to 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree

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

## APPENDIX C. THE LOT-R

Please consider the items below and indicate the extent to which you agree with each of them using the following scale:

0	1	2	3	4
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Keep in mind that there are no right or wrong answers. Please be as accurate and honest as you can with each of your responses.

1. \_\_\_\_ In uncertain times, I usually expect the best.
2. \_\_\_\_ It's easy for me to relax.
3. \_\_\_\_ If something can go wrong for me, it will.
4. \_\_\_\_ I'm always optimistic about my future.
5. \_\_\_\_ I enjoy my friends a lot.
6. \_\_\_\_ It's important for me to keep busy.
7. \_\_\_\_ I hardly ever expect things to go my way.
8. \_\_\_\_ I don't get upset too easily.
9. \_\_\_\_ I rarely count on good things happening to me.
10. \_\_\_\_ Overall, I expect more good things to happen to me than bad.

## APPENDIX D. POSITIVE EVENT SCALE

The positive event scale asks you to think about the positive (uplifting) events that you have *experienced in the last week*. Positive daily events are the small day to day happenings that lead people to feel uplifted. From such events people can feel inspired, alert, attentive or active. Positive events can also lead to feeling emotions such as interest, excitement, strength, pride, determination and enthusiasm.

Below are lists of items that can be positive events. For each item, consider first if the event occurred *during the last week*, and second how **uplifted** (i.e. the amount of positive uplifting emotion) it made you feel. Mark **0** if it did not occur, **1** if the event occurred but you did not experience any uplift, **2** if it occurred and was a little uplifting, **3** if it occurred and was somewhat uplifting, **4** if it occurred and was a lot of an uplift, and **5** if the event occurred and was extremely uplifting.

**Please remember that it is important that you:**

- \* mark one number for *each item even if there was no uplift*.
- \* consider each item only with *the last week in mind*.

---

How <u>uplifted</u> did you feel by this positive event?	<b>0</b> = Did not occur
	<b>1</b> = Event occurred but was no uplift
	<b>2</b> = Event occurred and a little uplifting
	<b>3</b> = Event occurred and somewhat uplifting
	<b>4</b> = Event occurred, a lot uplifting
<b>In the last week</b>	<b>5</b> = Event occurred and extremely uplifting

---

How uplifted did you feel by this positive event?

0= Did not occur

1= Event occurred but was no uplift

2= Event occurred and a little uplifting

3= Event occurred and somewhat uplifting

4= Event occurred, a lot uplifting

5= Event occurred and extremely uplifting

**In the last week**

<b>Your Friends</b>							
1	Support received from friend/s	0	1	2	3	4	5
2	Support given to friend/s	0	1	2	3	4	5
3	Positive feedback from your friend/s	0	1	2	3	4	5
4	Positive communication with friend/s	0	1	2	3	4	5

<b>Work</b>							
5	The nature of your job/work (only if employed)	0	1	2	3	4	5
6	Your job security	0	1	2	3	4	5
7	Use of your skills in your work	0	1	2	3	4	5
8	The ideas you have at work	0	1	2	3	4	5

<b>Teachers/Lecturers</b>							
9	Support received from teacher/s, lecturer/s	0	1	2	3	4	5
10	Support given to teacher/s, lecturer/s	0	1	2	3	4	5
11	Positive communication with teacher/s, lecturer/s	0	1	2	3	4	5
12	Positive feedback from teacher/s, lecturer/s	0	1	2	3	4	5
13	Doing enjoyable things with teacher/s, lecturer/s						

<b>Social Events</b>							
14	Going to a party	0	1	2	3	4	5
15	Going out for drinks (e.g. friends place)	0	1	2	3	4	5
16	Going to the pub	0	1	2	3	4	5
17	Recent social events	0	1	2	3	4	5

<b>Your Course</b>							
18	Nature of your course/study	0	1	2	3	4	5
19	Your study load	0	1	2	3	4	5
20	Study/course deadlines	0	1	2	3	4	5
21	University (college) life	0	1	2	3	4	5

<b>Relationship with Spouse/Partner (boy/girl friend)</b>							
22	Intimate times with someone	0	1	2	3	4	5
23	Doing enjoyable things with your spouse/partner (boy/girl friend)	0	1	2	3	4	5
24	Positive feedback from spouse/partner (girl/boy friend)	0	1	2	3	4	5
25	Positive communication with spouse/partner (girl/boy friend)	0	1	2	3	4	5
26	Support given to spouse/partner (girl/boy friend)	0	1	2	3	4	5
27	Support received from spouse/partner (girl/boy friend)	0	1	2	3	4	5



How uplifted did you feel by this positive event?      **0**= Did not occur

1= Event occurred but was no uplift  
2= Event occurred and a little uplifting  
3= Event occurred and somewhat uplifting  
4= Event occurred, a lot uplifting  
5= Event occurred and extremely uplifting

**In the last week**

<i>Parents or Parents-in-law</i>							
28	Positive feedback from your parents or parents-in-law	0	1	2	3	4	5
29	Positive communication with your parents/parents-in-law	0	1	2	3	4	5
30	Good times with your parents/parents-in-law	0	1	2	3	4	5
31	Support given to your parents/parents-in-law	0	1	2	3	4	5
32	Support received from your parents/parents-in-law	0	1	2	3	4	5

<i>Other Students</i>							
33	Support received from other student/s	0	1	2	3	4	5
34	Support given to other student/s	0	1	2	3	4	5
35	Positive communication with other student/s	0	1	2	3	4	5
36	Positive feedback from other student/s	0	1	2	3	4	5

<i>Interactions at Work</i>							
37	Support given to your supervisor/employer	0	1	2	3	4	5
38	Support received from other workers	0	1	2	3	4	5
39	Support given to other workers	0	1	2	3	4	5
40	Positive feedback from other workers	0	1	2	3	4	5
41	Doing enjoyable things with other workers	0	1	2	3	4	5

## APPENDIX E. PES-MR

This schedule is designed to find out about the things you have enjoyed during the **past week**. The schedule contains a list of events or activities that people sometimes enjoy. You will be asked to read through the list and make two ratings. For each item, rate how many times it has happened to you in the past week. Then you are to rate the pleasure obtained from each event. If the event happened rate how much pleasure you felt. If the event did not occur, rate how much pleasure you think you would have experienced if it did happen. There are no right or wrong answers.

Please rate every event. Work quickly; you will not be asked to make fine distinctions on your ratings. Since this list contains events that might happen to a wide variety of people, you may find that many of the events have not happened to you in the past week. It is not expected that anyone will have done all of these things in a week.

### Directions: Question A

On the following pages you will find a list of activities, events, and experiences. **How often have these events happened in your life in the past week?** Please answer this question by rating each item on the following scale:

0 = This has not happened in the past week.

1 = This has happened a few times (1 to 6) in the past week.

2 = This has happened often (7 or more) in the past week.

### Directions: Question B

This time the question is, **how pleasant, enjoyable, or rewarding was each event during the past week?** Please answer this question by rating each event on the following scale:

0 = This was not pleasant. (Use this rating for events which were either neutral or unpleasant.)

1 = This was somewhat pleasant. (Use this rating for events which were mildly or moderately pleasant.)

2 = This was very pleasant. (Use this rating for events which were strongly or extremely pleasant.)

If an event has happened to you more than once in the past week, try to rate roughly how pleasant it was on the average. If an event has not happened to you during the past week, then rate it according to how much fun you think it would have been.

The list of items may have some events which you would not enjoy. The list was made for a wide variety of people, and it is not expected that one person would enjoy all of them.

PES-MR – Indicate your rating by crossing out the number associated with frequency and pleasure.

	Event	A. How often?				B. Pleasure		
		Not	Few	Often		Not	Some	Much
1	Being in the country	0	1	2		0	1	2
2	Meeting someone new of the same sex	0	1	2		0	1	2
3	Planning trips or vacations	0	1	2		0	1	2
4	Reading stories, novels, poems, or plays	0	1	2		0	1	2
5	Driving skillfully	0	1	2		0	1	2
6	Breathing clean air	0	1	2		0	1	2
7	Saying something clearly	0	1	2		0	1	2
8	Thinking about something good in the future	0	1	2		0	1	2
9	Laughing	0	1	2		0	1	2
10	Being with animals	0	1	2		0	1	2

	Event	A. How often?				B. Pleasure		
		Not	Few	Often		Not	Some	Much
11	Having a frank and open conversation	0	1	2		0	1	2
12	Going to a party	0	1	2		0	1	2
13	Wearing informal clothes	0	1	2		0	1	2
14	Being with friends	0	1	2		0	1	2
15	Being popular at a gathering	0	1	2		0	1	2
16	Watching wild animals	0	1	2		0	1	2
17	Sitting in the sun	0	1	2		0	1	2
18	Seeing good things happen to my family or friends	0	1	2		0	1	2
19	Planning or organizing something	0	1	2		0	1	2
20	Having a lively talk	0	1	2		0	1	2
21	Having friends come to visit	0	1	2		0	1	2
22	Wearing clean clothes	0	1	2		0	1	2
23	Seeing beautiful scenery	0	1	2		0	1	2
24	Eating good meals	0	1	2		0	1	2
25	Doing a job well	0	1	2		0	1	2
26	Having spare time	0	1	2		0	1	2
27	Being noticed as sexually attractive	0	1	2		0	1	2
28	Learning to do something new	0	1	2		0	1	2
29	Complimenting or praising someone	0	1	2		0	1	2
30	Thinking about people I like	0	1	2		0	1	2
31	Kissing	0	1	2		0	1	2
32	Feeling the presence of the Lord in my life	0	1	2		0	1	2
33	Doing a project in my own way	0	1	2		0	1	2
34	Having peace and quiet	0	1	2		0	1	2
35	Being relaxed	0	1	2		0	1	2
36	Sleeping soundly at night	0	1	2		0	1	2
37	Petting, necking	0	1	2		0	1	2
38	Amusing people	0	1	2		0	1	2
39	Being with someone I love	0	1	2		0	1	2
40	Having sexual relations	0	1	2		0	1	2
41	Watching people	0	1	2		0	1	2
42	Being with happy people	0	1	2		0	1	2
43	Smiling at people	0	1	2		0	1	2
44	Being with my partner (husband, wife, boyfriend, girlfriend)	0	1	2		0	1	2
45	Having people show interest in what I have said	0	1	2		0	1	2
46	Having coffee, tea, a Coke, etc. with friends	0	1	2		0	1	2

	Event	A. How often?				B. Pleasure		
		Not	Few	Often		Not	Some	Much
47	Being complimented or told I have done well	0	1	2		0	1	2
48	Being told I am loved	0	1	2		0	1	2
49	Seeing old friends	0	1	2		0	1	2

## APPENDIX F. THE PSS

The questions in this scale ask you about your feelings and thoughts during the last week. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question circle one of the following alternatives:

0 = never

1 = almost never

2 = sometimes

3 = fairly often

4 = very often

	Never	Almost never	Sometimes	Fairly often	Very often
1. In the last week, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last week, 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 week, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last week, how often have you dealt successfully with irritating life hassles?	0	1	2	3	4
5. In the last week, how often have you felt that you were effectively coping with important changes that were occurring in your life?	0	1	2	3	4

	Never	Almost Never	Sometimes	Fairly often	Very often
6. In the last week, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
7. In the last week, how often have you felt that things were going your way?	0	1	2	3	4
8. In the last week, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
9. In the last week, how often have you been able to control irritations in your life?	0	1	2	3	4
10. In the last week, how often have you felt that you were on top of things?	0	1	2	3	4
11. In the last week, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
12. In the last week, how often have you found yourself thinking about things that you have to accomplish?	0	1	2	3	4
13. In the last week, how often have you been able to control the way you spend your time?	0	1	2	3	4
14. In the last week, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

## APPENDIX G. THE PILL

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 symptom is among various groups of people. On the page below, write how frequently you experience each symptom. For all items, use the following scale:

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

For example, if your eyes tend to water once every week or two, you would answer "D" next to question #1.

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| <p>___ 1. Eyes water</p> <p>___ 2. Itchy eyes or skin</p> <p>___ 3. Ringing in ears</p> <p>___ 4. Temporary deafness or hard of hearing</p> <p>___ 5. Lump in throat</p> <p>___ 6. Choking sensations</p> <p>___ 7. Sneezing spells</p> <p>___ 8. Running nose</p> <p>___ 9. Congested nose</p> <p>___ 10. Bleeding nose</p> <p>___ 11. Asthma or wheezing</p> <p>___ 12. Coughing</p> <p>___ 13. Out of breath</p> <p>___ 14. Swollen ankles</p> <p>___ 15. Chest pains</p> <p>___ 16. Racing heart</p> <p>___ 17. Cold hands or feet even in hot weather</p> <p>___ 18. Leg cramps</p> <p>___ 19. Insomnia or difficulty sleeping</p> <p>___ 20. Toothaches</p> <p>___ 21. Upset stomach</p> <p>___ 22. Indigestion</p> <p>___ 23. Heartburn or gas</p> <p>___ 24. Abdominal pain</p> <p>___ 25. Diarrhea</p> <p>___ 26. Constipation</p> <p>___ 27. Hemorrhoids</p> | <p>___ 28. Swollen joints</p> <p>___ 29. Stiff or sore muscles</p> <p>___ 30. Back pains</p> <p>___ 31. Sensitive or tender skin</p> <p>___ 32. Face flushes</p> <p>___ 33. Tightness in chest</p> <p>___ 34. Skin breaks out in rash</p> <p>___ 35. Acne or pimples on face</p> <p>___ 36. Acne/pimples other than face</p> <p>___ 37. Boils</p> <p>___ 38. Sweat even in cold weather</p> <p>___ 39. Strong reactions to insect bites</p> <p>___ 40. Headaches</p> <p>___ 41. Feeling pressure in head</p> <p>___ 42. Hot flashes</p> <p>___ 43. Chills</p> <p>___ 44. Dizziness</p> <p>___ 45. Feel faint</p> <p>___ 46. Numbness or tingling in any part of body</p> <p>___ 47. Twitching of eyelid</p> <p>___ 48. Twitching other than eyelid</p> <p>___ 49. Hands tremble or shake</p> <p>___ 50. Stiff joints</p> <p>___ 51. Sore muscles</p> <p>___ 52. Sore throat</p> <p>___ 53. Sunburn</p> <p>___ 54. Nausea</p> |
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Since the beginning of the semester, how many:

\_\_\_\_\_ Visits have you made to the student health center or private physician for illness

\_\_\_\_\_ Days have you been sick

\_\_\_\_\_ Days your activity has been restricted due to illness