EMOTIONAL BENEFITS OF EXPRESSIVE WRITING IN A SAMPLE OF ROMANIAN FEMALE CANCER PATIENTS

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ABSTRACT

The main purpose of the present study was to investigate the possible positive effects of the Expressive Writing paradigm on a sample of Romanian female cancer patients. The major tenet of this paradigm is that if individuals with high levels of distress express in writing, for three or four consecutive writing sessions, their deepest thoughts and emotions regarding the activating event and its consequences, on the follow-up assessment they would experience significantly lower levels of distress, and improved physical and/or psychological functioning. Our study has evinced, that the participants of the sample we investigated has experienced at the follow-up assessment significantly lower levels of distress, and significantly higher levels of positive meaning in life and benefit finding, however, the results may depend on the pre-intervention levels of depression. Nevertheless, the Expressive Writing task has not significantly contributed in our sample to the enhancement of the levels of positive emotions.

KEYWORDS: Expressive Writing paradigm, distress, meaning in life, benefit finding.

Humans have an innate need to share the emotions they experience. The expression of emotions might create a link between our internal experiences and the outside world. Studies investigating the social sharing of emotions have revealed this human propensity elicited by even insignificant, everyday events (Rimé, Herbette, & Corsini, 2004; Rimé, Mesquita, Philippot, & Boca, 1991; Rimé, 1987). These studies have evinced that the inclination to share certain emotions evoked by even minor events is neither education nor culture dependent.

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Asians, North Americans, Europeans, regardless of their levels of education, need to share with others the fear, anger, sadness, happiness, affection, etc., induced by all sorts of events (Rimé, Herbette, & Corsini, 2004; Pennebaker, Zech, & Rimé, 2001).

The study of Emotional Expression has a long history, which dates back to the 1870s with scientific investigations undergone by Charles Darwin who emphasized the biological utility of emotional expression. His theory contributed to the development of an evolutionary-expressive approach to emotion, which suggests that emotions exist because they contribute to survival. Kennedy-Moore and Watson (1999) regard emotional expression as having four central functions, the promotion of arousal regulation, self-understanding, the development of coping skills and finally, to help improve interpersonal relationships.

It has also been noticed that the propensity to socially share emotions is not accounted for several personality traits. As Pennebaker et al. (2001) have stated “general personality dimensions such as the “Big Five” have no predictive value for the social sharing of emotion” (p. 522). However, as expected, alexithymia - a particular personality dimension, which involves a marked difficulty to use appropriate language to express and describe feelings, and to differentiate them from bodily sensations, a striking paucity of fantasies and a utilitarian way of thinking (Sifneos, 2000), has been repeatedly found to negatively correlate with emotional sharing (especially regarding negative emotions) (Taylor, Bagby, & Parker, 1997). Gross (2002) claims that expression plays a crucial part in the way we process emotions and in reducing distress which results from negative emotional experience.

Nevertheless, it has also been observed that even if people need to share all sorts of emotions, guilt, shame, and frustration are less frequently expressed and socially shared (Rimé, Herbette, & Corsini, 2004; Finkenauer & Rimé, 1998). This apparently paradoxical phenomenon has to do with attitudes that reflect the socially, culturally (and sub-culturally) imposed norms regarding the acceptability and/or unacceptability of sharing certain emotions with other people.

The need to share one’s emotions is even more imperative in the cases when the individual experiences negative emotions of high intensity. Research has shown that the need of socially sharing emotions strongly depends on the degree of destructiveness of the event, namely, the more negative, disruptive the event, the higher the frequency of sharing it (Pennebaker et al., 2001). The inclination to share such debilitating emotions has been steadily noticed after oil platform disasters (Ersland, Weisoeth, & Sund, 1989), earthquakes (Pennebaker & Haber, 1993), war (see effects of the Persian Gulf War in Pennebaker & Haber, 1993), and other more individualized negative events, such as the loss of a loved one (Schoenberg, Carr, Peretz, Kutscher, & Cherico, 1975), chronic illness (e.g., diagnosis with cancer, see Mitchell & Glickman, 1977), or assaults, sexual abuse, severe, life-threatening illness, divorce, etc. (Janoff-Bulman, 1992). To put it briefly, research within reactions after confronting traumatic experiences has evidenced that such events intensify the subject’s need to be with other people and
to share with them the events and especially the emotions experienced (Rimé, Herbette, & Corsini, 2004; Lehman, Wortman, & Williams, 1987; Schoenberg et al., 1975).

If humans indeed have this propensity, what would the rewards, benefits of it be? Common sense has instinctually associated emotional disclosure, verbalization of emotional experiences with significant reduction of the emotional charge (Pennebaker et al., 2001).

Different forms of emotional expression have constantly been found to have positive effect on both mental and physical health, as well as on different forms of social functioning as social integration, better interpersonal relationships, etc. (e.g., Pennebaker & Graybeal, 2001; Esterling, Antoni, Kumar, & Schneiderman, 1990; Fawzy, Fawzy, Hyun, Elashoff, Guthrie, Fahey, & Morton, 1993; Baban, 2000).

To emphasize the findings within emotional disclosure, the approach targeting emotional inhibition has revealed its detrimental effects on both physical and mental health (e.g., Florin, Freudenberg, & Hollander, 1985; Larson, 1990, etc.). The suppression of both thoughts and emotions has a negative effect on the individual’s physical functioning (e.g., deterioration in the functioning of the immune system, see Petrie, Booth, & Pennebaker, 1998). The refraining from expressing negative events and the collateral negative emotions has been associated with poorer physical health and lower psychological functioning (Finkenauer & Rimé, 1998). Interestingly, not only the suppression of negative emotions, but also the deprivation of experiencing, or inhibition of expressing positive emotions has been found to have a similar effect (Zautra, 2003).

In other words, we could say that the disclosure of emotions related especially to a negative event seems to help the individual to organize the experiences he/she has confronted with, and make sense (find meaning, sometimes create meaning) of the event and its possible aftermaths (Park & Blumberg, 2002), thus attaining a better overall functioning.

The two main research areas and approaches investigating the effects of emotional disclosure are those effectuated in Rimé’s laboratory, and those by James Pennebaker and colleagues (Pennebaker et al., 2001). Rimé’s research has mainly had a double focus: (i) the verbalization of emotionally charged events, and (ii) the effects of this verbalization on the emotional recovery from such events [emotional recovery being defined as “the evolution over time of the arousal still elicited when a given emotional memory is re-accessed” (Pennebaker et al., 2001, p. 519)]. On the other hand, Pennebaker and colleagues have thoroughly investigated the effects of disclosing personal events on both physical and psychological health.

The mechanisms underlying emotional disclosure are not yet fully understood. Some authors attain that emotional disclosure integrates cognitive and emotional processes. This in turn would offer the patient the possibility of increasing at least insight, self-reflection, organization and analysis of the experience (Smyth & Graybeal, 2001), and not only of venting emotions. Some
theories sustain that through habituation, the process of cognitive restructuring of trauma-related thoughts is facilitated, subsequently leading to a perception of diminished levels of stress (Foa & Kozak, 1986; Lepore, 1997). Other theories sustain that by disclosing his/her emotions, the individual acquires greater insight and self-understanding (Pennebaker & Francis, 1996), and cognitive resolution (Lepore, Ragan, & Jones, 2000). Thus, disclosure would be much more helpful than the simple expression of emotions.

In this regard, Pennebaker and colleagues have developed a special form of emotional expression, the method called Expressive Writing (EW). In their first published study (Pennebaker & Beall, 1986) college students were asked to write about their most traumatic and/or upsetting experiences on 4 consecutive days, for 15 minutes daily. The control group on the other hand had to write about trivial topics in the same time-frame conditions. The results revealed that those students who wrote about their most stressful events reported 4 months later significant benefits in physical functioning compared to the control group (e.g., less frequent visits to medical centers). The constantly growing research within this paradigm over the last 20 years has proven its beneficial effects on emotional and physical functioning in individuals who had to confront highly stressful events (Baikie & Wilhelm, 2005).

In the following, we will present the main aspects of Expressive Writing.

Expressive Writing

Briefly stated, this paradigm sustains that after subjects express through writing their deepest thoughts about a negative event, their level of distress would decrease, symptoms of depression would remit, and even positive changes in their overall health would be observable. As Smith’s (1998) meta-analysis evidences, Expressive Writing has been given an important role in the study and practice of reactions following exposure to highly stressful negative events.

The standard procedure of this paradigm is as follows: subjects, after being assessed on their levels of physical and/or psychological functioning, have to complete the typical 3 or 4 day writing session, in which they daily have to write about their deepest feelings and thoughts for 15-20 minutes. Some studies have also suggested that the lengthening of writing sessions may lead to even better results (Smyth, 1998). After 4 to 6 weeks, the subjects are assessed again on the initially evaluated dimensions (posttest) to assess the impact of the procedure.

Different studies have used different types of instructions. Usually, the experimental group is instructed to write either about their deepest thoughts (trauma fact group), their deepest emotions about the event (trauma emotion group), or both (trauma-combo group). Usually, the control group is instructed to write about life-events of minor importance (e.g., describe their home, write about their shoes, etc.). Data support the idea that the trauma-combo group benefits most from the Expressive Writing paradigm.
Nevertheless, research within this paradigm has started positing questions whether the method would in all cases lead to emotional and health benefits, who would benefit most out of it (males, females, individuals with high or low education), as well as the timing of intervention. Would individuals benefit as much if they were instructed to write about their deepest thoughts and feelings immediately after the negative event, or a certain amount of time should have elapsed between event and intervention?

a. Immediate and long-term effects

As oftentimes observed, the immediate impact of expressive writing is a momentary increase of distress and negative mood (Baikie & Wilhelm, 2001). When trying to remember different aspects of the event, or re-experience the produced emotions in order to conform to the instruction, people tend to re-experience similar, nevertheless less intense emotions, as those experienced around the event. Thus, even if in the immediate aftermath of the intervention participants tend to feel a slightly higher level of distress, the long-term benefits surpass the short-term emotional inconveniences.

b. Benefits of Expressive Writing

Expressive Writing leads to benefits observable both objectively (e.g., significantly reduced number of visits to the doctor, improved immune system functioning, reduced blood-pressure, etc.), and through self-reports, regarding (i) improvement of physical health, and (ii) improvement of emotional health (Baikie & Wilhelm, 2005). Self-reported improvements have been observed in positive changes in mood/affect (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), psychological well-being (Park & Blumberg, 2002), reduction of depressive symptoms in students before exams (Lepore, 1997), etc.

As Baikie and Wilhelm (2005) notice, the most robust and consistent findings regarding the benefits of Expressive Writing have been observed in positive changes within different aspects of physical health.

c. Who benefits?

Benefits after sessions of Expressive Writing have been observed in two main domains: medical and psychological conditions. Regarding medical conditions, research reveals that asthma patients, those with rheumatoid arthritis (Broderick, Stone, Smyth, & Kaell, 2004), cancer patients (Stanton & Danoff-Burg, 2002), showed after participating in the Expressive Writing paradigm improved physical functioning (for more details see Baikie & Wilhelm, 2005; Smyth, Stone, Hurewitz, & Kaell, 1999), while patients with HIV showed improved immune functioning (Petrie, Fontanilla, Thomas, Booth, & Pennebaker, 2004).

From the point of view of psychological functioning, Expressive Writing has resulted in more or less consistent improvements in posttraumatic reactions (Schoutrop, Lange, Hanewald, Davidovich, & Salomon, 2002), and other aspects
of psychological functioning (Deters & Range, 2003). Nevertheless, several studies have proven that Expressive Writing has detrimental effects on adult survivors of childhood sexual abuse (Batten, Follette, Rasmussen Hall, & Palm, 2002).

On the overall, the perusing of the literature suggests that the most benefits from Expressive Writing tend to be more often experienced by participants with considerable levels of distress.

The Expressive Writing paradigm has previously been quite successfully applied to a sample of Romanian students (Opre, Coman, Kallay, Rotaru, & Manier, 2005). This study has shown that the experimental group benefited from the expressive writing technique, by reducing the students’ psychological distress scores (BDI, POMS - NAS), and improving their physical and mental health scores measured by a self-reported health scale (SRH). Seeing these encouraging results we have thought of investigating the effects of Expressive Writing on a sample of Romanian female cancer patients, where the results may have clinical implications as well.

As known, the levels of distress after the diagnosis with different forms of cancer is considerably high (Degi, Kallay, & Vincze, 2006). It is also well known that the diagnosis with cancer has a huge impact on peoples’ lives. In the period following the diagnosis, some may succumb, others be negatively affected for a long period of time, while still other recover, and/or bounce back to their previous levels of functioning (O’Leary & Ickovics, 1995; Bonanno, 2004). The diagnosis-induced distress, especially if prolonged and extremely intense, might have serious detrimental effects on the patients’ psychological and/or physical functioning. One of the main aspects of human functioning that might contribute to a better adaptation to the diagnosis and the distress it implies is highly dependent on the patients’ ability to find benefit in the event (Tedeschi & Calhoun, 2004), and a positive meaning for life (for more details see Kallay & Miclea, 2006; Kallay & Miclea, 2007).

OBJECTIVES

Our study is an exploratory investigation, and has two major objectives:

(i) To investigate whether Romanian female cancer patients might benefit from the Expressive Writing technique, benefits that would be represented by reduced levels of distress, and higher levels of positive emotions.

(ii) If the Expressive Writing technique would also lead to higher levels of positive meaning in life, and stress-related growth, that might indicate the individual’s ability to find some benefits in the threatening life event (diagnosis with cancer).
METHOD

Participants
We have investigated 82 female cancer patients hospitalized at “Ion Chiricuta” Oncological Institute, Cluj-Napoca, Romania, with ages between 41 and 55 years (mean = 50.09), with 4 months to 16 months elapsed between diagnosis and assessment (mean = 8.12). 78% of the patients were diagnosed with breast cancer and 20% with cervical cancer, the remaining 2% with pulmonary and stomach cancer. The patients’ level of education varied between 8 and 18 years. Even if 82 patients agreed to participate in the study, only 45 patients completed the four writing sessions and the 4-week follow-up assessment.

Materials
Depression was measured with the Beck Depression Inventory (BDI).
Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item, multiple-choice format inventory, designed to measure the presence of depression in adults and adolescents. Each of the 21 items assesses a symptom or attitude specific to depression, inquiring its somatic, cognitive and behavioral aspects. By its assessments, single scores are produced, which indicate the intensity of the depressive episode. Scores ranging from 0 to 9, represent normal levels of depression. Scores situated between 10 and 18 represent mild to moderate depression; values between 19 and 29 represent moderate to severe depression, while scores above the value of 30 represent severe depression. The reliability figures of the BDI are usually above .90.
Internal consistency shows a correlation coefficient of .86 for the test items. For the assessed population in this study, the value of internal consistency was .84.

Mood states and emotions were assessed by Profile of Mood States (POMS) (McNair, Lorr, & Droppleman, 1971).
POMS is a 48-item inventory, that measures general and specific distress (e.g. anxiety, depression, hostility, confusion), but also contains a positive mood/emotion subscale.
The test asks participants to answer how they are feeling (a particular mood state) by specifying a degree ranging from “not at all” (0) to “extremely” (4). The POMS was shown to be 92% reliable for tension/anxiety; 95% for depression/dejection; 92% for anger/hostility; 94% for vigor; 94% for fatigue, and 87% for confusion.
Cronbach’s alpha for the subscales of the original POMS varies from .87 to .95, while on the population assessed in our study from .73 to .94. Cronbach’s alpha for the global POMS has the value of .92.
The subjective meaning of life was assessed by the Life Regard Index (LRI) (Battista & Almond, 1973).

LRI is a 28-item self-report questionnaire designed to assess positive and negative life regard, more specifically the degree to which individuals can envision their lives within some meaningful perspective or have derived a set of motivating life goals. Assessed individuals are asked to indicate on a 3-point scale (ranging from 1 to 3), whether they agree or not with each of the 28 statements.

The LRI was repeatedly found to strongly discriminate between distressed and non-distressed subjects (Debats, van der Lubbe, & Wezeman, 1993). The internal validity of the original scale is situated between .79 to .87, and test-retest reliability with an interval of two weeks $r = .94$ Cronbach’s alpha for the positive and negative sub-scales of the LRI on the assessed cancer-diagnosed population was .87 for positive life regard, and .74 for negative life regard.

Posttraumatic growth has been assessed with: The Stress Related Growth Scale (SRGS) short version (Park, Cohen, & Murch, 1996).

The SRGS is a 15-item questionnaire, attempting to measure positive outcomes determined by the struggle with a highly stressful event (in our case the diagnosis with cancer). Thus, patients are asked to choose among 3 response choices: 0 = not at all, 1 = somewhat, and 2 = to a great deal, regarding perceived growth determined by the occurrence of the negative event (e.g., Because of this stressful event: I learned to be nicer to others: 0-1-2). The scale offers a global score, with scores ranging from minimum 0 to maximum 30.

The SRGS’s original internal consistency (Cronbach’s alpha) is .96 (Tedeschi, Park, & Calhoun, 1996), and test-retest reliability of .81 (Park et al., 1996). As the authors of the scale have mentioned (Park et al., 1996), the results of subsequent studies have revealed that the acceptable internal consistency and test-retest reliability are not influenced by social desirability. Another study conducted by the same authors has revealed that the SRGS responses were significantly related to those provided by relatives and friends (Park et al., 1996). The internal consistency of this scale on the population assessed in Study 1 has been found to be .78.

Procedure

After agreeing to participate at the study (the entire procedure has been thoroughly explained to the participants), all patients were assessed at T1 with all the above mentioned scales (demographic, BDI, POMS, LRI, SRGS). Afterwards, four consecutive days, all participants were asked to write daily for 20 minutes about their deepest thoughts and emotions regarding their illness and its implications. After 4 weeks from the last day of writing task, all participants were assessed again on all the dimensions assessed at T1. Even if at T1 the number of patients who agreed to participate was 82, only 45 patients participated to the end of the study, thus the percentage of drop-out is quite considerable (almost 55%).
RESULTS

In order to investigate the possible changes produced by the Expressive Writing paradigm, we have conducted a paired samples t-test, thus comparing scores at T1 with those at T2 (significant differences are presented in Table 1).

Table 1
*Significant differences at paired samples t-test comparing scores at T1 and T2*

<table>
<thead>
<tr>
<th>N=45</th>
<th>SCALES</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Mean</th>
<th>St. dev.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T1</td>
<td>T2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td>12.22</td>
<td>9.55</td>
<td>6.7820</td>
<td>5.6228</td>
<td>3.15</td>
<td>.00</td>
</tr>
<tr>
<td>LRI positive</td>
<td></td>
<td>35.33</td>
<td>36.93</td>
<td>4.836</td>
<td>4.6534</td>
<td>-3.60</td>
<td>.00</td>
</tr>
<tr>
<td>SRGS</td>
<td></td>
<td>20.68</td>
<td>21.97</td>
<td>7.5613</td>
<td>6.6691</td>
<td>-2.67</td>
<td>.01</td>
</tr>
<tr>
<td>POMS depression</td>
<td></td>
<td>18.42</td>
<td>14.51</td>
<td>10.4457</td>
<td>8.9560</td>
<td>3.02</td>
<td>.00</td>
</tr>
<tr>
<td>POMS fury</td>
<td></td>
<td>5.04</td>
<td>3.68</td>
<td>3.5926</td>
<td>3.5150</td>
<td>2.60</td>
<td>.01</td>
</tr>
</tbody>
</table>

Another issue we have been interested in is that of who would benefit most from this paradigm, regarding especially initial levels of depression. In the literature, the results are quite inconsistent – some studies suggest that individuals with moderate levels of distress benefit more, while other studies indicate that in some cases even those who experience really high levels of distress might significantly benefit from this paradigm.

Consequently, we have separated our participants in two groups, based on their initial (T1) levels of depression measured on BDI. Thus, in group 1 (Gr 1) entered those participants who had levels of depression lower that the score of 18 (scores between 0-9 represent normal levels, while between 10-18 mild), and in group 2 (Gr 2) those participants who had scores higher than 18 (which represents moderate and severe). Next, we have conducted a paired samples t-test for investigating changes from T1 to T2 split on these two groups (see significant results in Table 2).
In the following step, we wanted to investigate whether the differences between these groups on their scores at T2 are significant (results are presented in Table 3).

Table 3  
Independent samples t-test for scores at T2 between normal/mild and severe T1 levels of depression

<table>
<thead>
<tr>
<th>SCALES</th>
<th>Group (N)</th>
<th>Mean</th>
<th>St. dev.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI at T2</td>
<td>1 (35)</td>
<td>8.51</td>
<td>5.86</td>
<td>-2.45</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>13.20</td>
<td>2.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LRI negative at T2</td>
<td>1 (35)</td>
<td>21.60</td>
<td>5.99</td>
<td>-2.90</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>27.60</td>
<td>4.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POMS positive at T2</td>
<td>1 (35)</td>
<td>23.48</td>
<td>5.11</td>
<td>4.65</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>14.80</td>
<td>5.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POMS anxiety at T2</td>
<td>1 (35)</td>
<td>10.17</td>
<td>4.22</td>
<td>-3.14</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>14.60</td>
<td>2.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POIMS depression at T2</td>
<td>1 (35)</td>
<td>11.28</td>
<td>7.01</td>
<td>-6.10</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>25.80</td>
<td>4.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POMS fury at T2</td>
<td>1 (35)</td>
<td>2.48</td>
<td>2.95</td>
<td>-5.57</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>7.90</td>
<td>1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POMS confusion at T2</td>
<td>1 (35)</td>
<td>5.25</td>
<td>1.73</td>
<td>-3.50</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>2 (10)</td>
<td>7.50</td>
<td>1.95</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSIONS AND CONCLUSIONS

As the results presented in Tables 1 show, after participating at the expressive writing task, participants’ level of depression has significantly lowered $t = 3.15$ at $p < .01$, as well as their levels of depressive states measured with POMS $t = 3.03$ at $p < .01$, and fury $t = 2.60$ at $p < .01$. By the same token, participants have significantly found more positive meaning in life $t = -3.60$ at $p < .01$, and significantly more benefit in the event $t = -2.60$ at $p < .01$. Nevertheless, we have not found, as expected any significant positive change in activation of positive emotions. The expressive writing task has not significantly improved patients’ levels of positive emotions. However, the fact that the technique has significantly lowered the patients’ levels of depression and depressive mood is in itself an encouraging result. On the other hand, the fact that the patients tend to significantly find and/or search for more positive meaning in life, and benefits in the afterwards of the event, might in the long run contribute to the enhancement of positive emotions.

The second, a posteriori part of our statistical investigation intended to inquire whether there might be differences in the way patients, depending on their initial levels of distress measured with BDI, would benefit from the Expressive Writing paradigm.

Consequently, we have found that those with relatively low initial levels of depression, after participating at the Expressive Writing technique find significantly higher levels of positive meaning in life ($t = -2.71$ at $p < .05$), and experience significantly lower levels of depressive mood on POMS ($t = 2.70$ at $p < .01$), fury ($t = 2.89$ at $p < .01$), and fatigue ($t = 2.14$ at $p < .05$). In the meanwhile, those who initially had higher levels of depression, benefit from the Expressive Writing paradigm by significantly reduced levels of depression on BDI ($t = 22.93$ at $p < .01$), significantly higher levels of positive meaning in life ($t = -4.94$ at $p < .01$), and benefit in the event ($t = -2.94$ at $p < .01$). The results have also shown that the differences between these two groups are also significant on their levels of depression ($t = -2.45$ at $p < .01$), in the sense that even if the Expressive Writing has reduced their level of depression, those with initially higher levels of depression still have significantly higher levels at T2. Thus, the Expressive Writing task reduced the initially experienced levels of depression, but does not even these levels between the groups. In the same fashion, the levels of different manifestations of negative mood measured on POMS (anxiety, depression, fury and confusion), have the same fate (see Table 3). Consequently, we may say that in our case the Expressive Writing technique reduces negative reactions to the diagnosis with cancer, it does not even the scores. However, these last findings presented in Tables 2 and 3 represent only possible directions for future research, since the number of participants in group 2 is really low ($N = 10$). This aspect is one of the main limitations of this study.

Other limitations of this exploratory study are that we did not have a control group, and the study was conducted only on female cancer patients. We
propose that future studies would investigate these very important aspects (gender differences in the effectiveness of Expressive Writing paradigm, and experimental vs. control groups) as well.

A very important aspect we would like to highlight refers to the fact that the Expressive Writing task has significantly lowered the levels of depression in cancer patients, which might contribute at least to the enhancement of quality of life. In the same manner, this task has activated in patients the search for higher, more positive meanings in life, aspect that might contribute to the activation and elevation of the levels of positive emotions.

Since this type of intervention is relatively simple, and implies low costs (the task may also be given to patients as home assignment, not only effectuated in highly controlled laboratory environments) (Baikie & Wilhelm, 2001), we encourage its thorough, more detailed investigation in other areas of chronic illness in our geographic area. If future research could be completed with data regarding physical functioning, the data would offer a more complex image regarding the effects of Expressive Writing.

REFERENCES


