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Who does expressive writing work for? Examination of alexithymia, splitting, and repressive coping style as moderators of the expressive writing paradigm

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Objective. This paper examines the moderating influence of alexithymia, splitting, and repressive coping style in the expressive writing paradigm.

Method. Eighty-eight university students randomized to four weekly 20-minute expressive or neutral writing sessions, with 1-month follow-up.

Results. Expressive writing was more beneficial for individuals scoring higher on alexithymia and splitting, but not repressive coping.

Conclusions. Future research should include personality measures in explorations of expressive writing to further understand the boundary conditions of the expressive writing paradigm.

This paper examines three personality constructs as potential moderators of the health benefits of expressive writing. Alexithymia, splitting, and repressive coping style were chosen since they (1) develop out of or are associated with trauma, (2) are related to the ways people experience and process their emotions, and (3) are associated with physical and psychological health problems and somatic complaints.

Alexithymic individuals have difficulty identifying and labelling their emotions and exhibit a characteristic externally oriented thinking style (Taylor, Bagby, & Parker, 1997). Previous studies of alexithymia and expressive writing find mixed results; however, methodological and statistical problems prevent clear conclusions being drawn (see Lumley, Tojek, & Macklem, 2002; Pennebaker & Chung, 2007).

Splitting is the hallmark defence mechanism characteristic of borderline, narcissistic, schizoid, and antisocial personality disorders, involving the internal or cognitive

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separation of positive and negative feelings about self and others (Akhtar & Byrne, 1983). There are no published studies exploring splitting in expressive writing.

Repressive coping style refers to the tendency to routinely avoid and deny one's affective responses, without apparent conscious intent or recognition and despite objective evidence to the contrary, operationally defined as those scoring low on trait anxiety but high on defensiveness (Weinberger, 1990). Several previous studies suggest less benefits for repressors with expressive writing, however, none used the recommended method of assessing repressive coping (see Lumley *et al.*, 2002).

Method

Design

The standard expressive writing paradigm was followed closely (see Baikie & Wilhelm, 2005). Participants were randomized to 20-minute expressive or neutral writing over four weekly sessions. Measures were administered 1 week before first writing and 4 weeks after fourth writing.

Participants

First and third year undergraduate university students were recruited. The final sample included 45 expressive writing and 43 control participants. Mean age was 24.77 years ($SD = 8.07$) with 62 (70.5%) females.

Measures

Measures tapped trauma history and disclosure (APT and APD; Greenberg, Wortman, & Stone, 1996), physical health symptoms (PILL; Pennebaker, 1982), days out of role due to illness, positive and negative affectivity (PANAS; Watson, Clark, & Tellegen, 1988), posttraumatic symptomatology (TSC-40; Elliott & Briere, 1992; and IES-R; Weiss & Marmar, 1997), alexithymia (TAS-20; Bagby, Parker, & Taylor, 1994), splitting (SI; Gould, Prentice, & Ainslie, 1996), and repressive coping style (MCSDS; Crowne & Marlowe, 1960; and MAS; Taylor, 1953). Objective data on illness visits were obtained from participants' designated general practitioner (GP) for consultations over 6 months before and 6 months after the study, coded as average visits per month before versus after writing. Participants also self-reported number of visits to any health professionals over the previous month.

Results

Groups were matched at baseline apart from a higher frequency of traumatic events in controls ($M = 8.56$, $SD = 4.92$) compared with expressive writing ($M = 5.60$, $SD = 4.00$) ($t_{86} = 3.10$, $p < .01$). The 2 (Time) × 2 (Group) mixed design ANOVAs were performed on all outcome measures, repeated with trauma frequency as a covariate. For 77 participants with valid GP data, a significant Time × Group interaction emerged for GP illness visits ($F(1, 75) = 4.31$, $p = .041$), which approached significance with trauma frequency as a covariate ($F(1, 74) = 2.88$, $p = .094$). GP illness visits increased for controls compared with no change for expressive writing. For health professional visits, a trend towards a significant Time × Group interaction emerged ($F(1, 86) = 3.21$, $p = .077$), which reached significance when trauma frequency was included ($F(1, 85) = 6.80$, $p = .011$). Health professional visits

decreased for expressive writing compared with no change for controls. Expressive writing had no differential impact on the other outcome measures.

For alexithymia and splitting, 2 (Time) × 2 (Group) mixed design ANOVAs were conducted with personality as a covariate, and the three-way interactions of Time × Group × Personality were considered. For repressive coping style, both MAS score and MCSDS scores were entered as covariates, with the four-way interaction of Time × Group × MAS × MCSDS being considered. A significant interaction means the relationship between group and outcome over time is different at different levels of the personality variable. Significant interactions were interpreted by graphical inspection of the relationship between personality and outcome change score for each group. This is the most appropriate and rigorous way of assessing the influence of possible moderating variables (Baron & Kenny, 1986; Lumley *et al.*, 2002).

The moderating effects of alexithymia and splitting are shown in Table 1. For repressive coping style, significant four-way interactions emerged for IES-R intrusion ($F(1, 84) = 4.13$, $p < .05$) and IES-R hyperarousal ($F(1, 84) = 6.14$, $p < .05$) only. Graphical interpretation showed that repressors evidenced similar outcomes in both groups, suggesting no differential effect for repressors.

Discussion

Expressive writing produced benefits for objectively assessed GP visits for illness and self-reported health professional visits, but not for other physical or psychological health outcomes. Expressive writing effects are often more robust with physical than psychological outcomes (Frattaroli, 2006; Smyth, 1998). The health benefits of expressive writing were moderated by both splitting and components of alexithymia but not repressive coping style.

Individuals with difficulties describing feelings had greater benefits in terms of GP illness visits, depression symptoms, and sleep disturbance; however, individuals with more externally oriented thinking showed increased intrusion and hyperarousal symptoms. Expressive writing may provide an opportunity for alexithymic individuals to process emotional material without accurate emotional labelling or the interpersonal interaction of talking therapies. Since increased intrusions and hyperarousal indicate early stage cognitive processing of traumatic memories (Foa, Steketee, & Rothbaum, 1989), externally oriented thinkers may begin to process traumatic material during writing, but because of their tendency to not think about or analyse their emotions, they may need additional sessions or support to ensure more complete processing.

Splitters had better outcomes in terms of GP illness visits, PILL physical symptoms, and trauma-related depression symptoms, with a reduction in positive affectivity. Splitters who see themselves and the world in terms of all good and all bad are likely to defensively report extreme scores on both positive and negative affectivity. A reduction in positive affectivity suggests that splitters are less extreme and less defensive after writing. No moderating effect for negative affectivity also suggests that splitters did not experience a flooding of negative affect, implying that expressive writing does not risk adverse outcomes for splitters.

These results suggest that expressive writing has particular benefits for individuals scoring higher on alexithymia and splitting. The study's strengths are in the use of the most well-known, well-validated, and highly recommended self-report measures for each personality construct, as well as adherence to standard expressive writing

Table 1. Moderating effect of alexithymia and splitting on physical and psychological health measures by group

	Time × Group × Alexithymia interaction $F(1, 84)$				Time × Group × Splitting interaction $F(1, 84)$			
	Alexithymia total scale	Difficulty Identifying Feelings subscale	Difficulty Describing Feelings subscale	Externally Oriented Thinking subscale	Splitting total scale	Splitting of Self Image subscale	Splitting of Family Images subscale	Splitting of Others' Images subscale
Physical health								
GP illness visits[a]	5.25*[b]	3.34	4.80*[b]	0.96	5.54*[b]	4.69*[b]	1.22	6.66*[b]
Health professional total visits	0.72	1.64	0.89	0.37	0.77	1.11	1.57	1.13
Illness days out of role	1.67	1.76	0.03	1.47	0.03	0.00	0.03	0.18
PILL score	3.59	1.52	2.62	1.78	7.08**[b]	0.07	15.25***[b]	5.30*[b]
PANAS								
Positive affectivity	0.44	2.31	0.01	0.04	6.40*[b]	1.08	11.01**[b]	1.47
Negative affectivity	0.03	0.50	0.13	0.88	0.05	0.05	0.11	0.71
IES-R								
Total	1.62	0.16	0.00	7.09**[c]	0.03	0.03	0.02	0.96
Intrusion	2.31	0.17	0.11	8.32**[c]	0.02	0.00	0.27	1.08
Avoidance	0.24	0.06	0.06	1.15	0.00	0.00	0.01	0.06
Hyperarousal	1.16	0.10	0.20	6.56*[c]	0.14	0.38	0.07	1.41
TSC-40								
Total	1.97	0.72	3.64	0.44	2.68	0.32	2.47	0.51
Anxiety	0.14	0.00	1.00	0.03	2.96	0.39	3.28	0.16
Depression	2.84	1.10	6.51*[b]	0.23	8.05**[b]	1.52	8.57**[b]	2.52
Dissociation	0.43	1.30	0.08	0.02	0.51	0.20	2.25	0.00
Sexual abuse trauma index	0.00	0.58	0.43	0.01	0.00	0.00	0.00	0.05
Sexual problems	0.00	0.09	0.20	1.41	0.10	1.24	0.53	0.40
Sleep disturbance	2.31	1.35	5.06*[b]	0.04	0.64	0.65	0.92	0.10

Note. PILL = Pennebaker Inventory of Limbic Languidness; PANAS = Positive and Negative Affect Schedule; IES-R = Impact of Event Scale-Revised; TSC-40 = Trauma Symptom Inventory-40.

[a] For GP illness visits per month, *df* is 1, 73. Control group: $N = 38$, Trauma group: $N = 39$.

[b] Higher personality scores associated with decreasing health outcome scores in expressive writing compared to increasing scores in controls.

[c] Higher personality scores associated with increasing health outcome scores in expressive writing compared to decreasing scores in controls.

*$p < .05$; **$p < .01$; ***$p < .001$.

methodology. Although alexithymia and splitting are associated with a trauma history, health outcomes were not moderated by self-reported frequency or severity of traumatic events. Something specific about these two personality styles seems to enable individuals to use written disclosure more effectively. These personality styles are more prevalent in clients with psychosomatic disorders and personality disorders who often have poorer outcomes with talking therapies. Time-limited, structured writing may provide alexithymics and splitters with the opportunity to begin processing traumatic material in a safe way allowing them to control how much they disclose, effectively enabling them 'to determine their own dose' (Pennebaker, 2002, p. 544). These findings point to the value of including personality measures in future expressive writing studies, so that we can better understand when and for whom expressive writing works.

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