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Writing about emotions versus goals: Effects on hostility and medical care utilization moderated by emotional approach coping processes

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Objectives. The study compared emotionally disclosive writing and writing about goals as the 'best possible self' to a control condition and evaluated coping through emotional processing (EP) and expression (EE) as moderators of effects at 1-month follow-up.

Method. Undergraduates ($N = 63$) were randomly assigned to emotional disclosure (EMO), best possible self (BPS), or a control condition (CTL). Outcomes were hostility, medical visits, depressive symptoms, physical symptoms, and blood pressure.

Results. At 1 month, hostility decreased in high-EP participants in EMO relative to BPS and decreased in low-EP participants in BPS relative to EMO. Low-EP participants had fewer medical visits in BPS, whereas high-EP participants had more visits in BPS relative to other conditions.

Conclusions. Benefits may accrue when the expressive task is matched to the individual's preferred coping strategy.

Discussing priorities for expressive writing research, Pennebaker (2004) urged researchers to 'find out when it does and does not work and with whom' (p. 141). Furthermore, the heterogeneity of many effects in Frattaroli's (2006) meta-analysis of writing trials indicates the importance of examining moderators. Austenfeld, Paolo, and Stanton (2006) demonstrated that medical students' preferred approach to stressor-related emotional processing (EP) and expression (EE) moderated effects of emotionally disclosive writing (EMO) about stressors and writing about goals as the best possible self (BPS; King, 2001), a contrast condition expected to be more effective for individuals disinclined to use EP and EE. Depressive symptoms declined in EMO for participants high in EP or EE, whereas they declined in BPS for students low in EP or EE. Students with high baseline hostility in EMO had reduced hostility at 3 months, but hostility increased in high-hostility students in BPS and control (CTL) conditions. Low-EP

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participants had fewer medical appointments in BPS versus EMO and CTL. In the present study, we attempted to replicate those moderated effects.

Method

Participants

Participants were 63 undergraduates (44 women; *M* age = 19) selected from an introductory psychology course on two inclusion criteria: rating of 3 to 7 (1 = not at all; 7 = extremely) on a stressfulness item regarding a current most stressful situation and rating of 5 or lower on perceived control over outcome (1 = no control at all; 7 = complete control).

Procedure

Participants who completed baseline measures were randomized to writing condition and listened to recorded instructions (experimenter was unaware of condition assignment). Conditions were: (1) emotionally expressive writing about their most stressful current experience (EMO); (2) writing about the future as if all life goals had been achieved, with description of overcoming obstacles (BPS); (3) objectively describing the past 24-hours activities (CTL). Participants wrote during three 20-minute sessions, one week apart. Four weeks later, they completed dependent measures.

Measures

At baseline, the emotional approach coping (EAC) scales (Stanton, Kirk, Cameron, & Danoff-Burg, 2000), including 4-item emotional processing (EP), and 4-item emotional expression (EE) subscales, were completed regarding a current most stressful situation. At baseline and 1 month, participants completed the PANAS-X Hostility subscale ('past few weeks' instructions; Watson & Clark, 1999), the Center for Epidemiologic Studies-Depression scale (CES-D; Radloff, 1977), and a physical symptoms measure (Austenfeld *et al.*, 2006; Pennebaker, 1982). Blood pressure was also assessed. With a signed release, number of illness visits to the student health centre 1 month before and 1 month after writing was counted by medical personnel.

Results

Experimental groups did not differ significantly on baseline variables. An independent rater classified 187 of the 189 essays (99%), ordered randomly, into the correct condition.

With baseline value on the dependent variable as a covariate, EP or EE (in separate models) was entered as a centred continuous independent variable and dummy-coded experimental condition as a categorical variable, along with their interaction, to test effects on each dependent variable. No significant main effects of condition emerged. No significant interactions of EP or EE with condition emerged on depressive symptoms, physical symptoms, or blood pressure.

Significant interactions of EP with condition were found for PANAS-X hostility (R^2 change = .085, $F(2, 55) = 3.85$, $p = .027$) and number of health centre visits at 1 month (R^2 change = .121, $F(2, 56) = 4.04$, $p = .023$). As illustrated in Figure 1 (Aiken

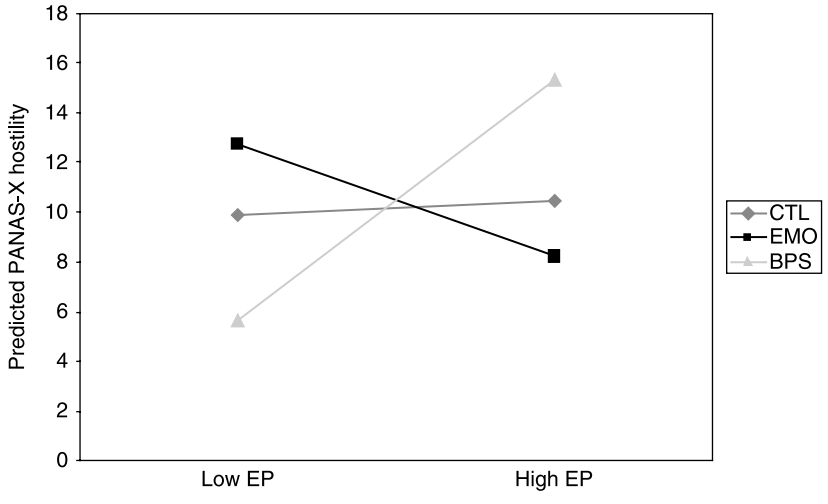

Figure 1. Emotional processing (EP) × condition interaction on prediction of hostility at 1-month follow-up for emotional disclosure (EMO), best possible self (BPS), and control (CTL) conditions.

& West, 1991), EMO resulted in lower hostility relative to BPS for high emotional processors. For low emotional processors, BPS produced lower hostility relative to EMO. The BPS condition resulted in a decline in health care visits for low emotional processors, and more visits for high emotional processors. EMO and CTL visits were between those two extremes for both low-EP and high-EP participants.

Condition interacted with EE on hostility (R^2 change = .071, $F(2, 55) = 3.16$, $p = .050$). The BPS condition produced lower hostility for low emotional expressers and higher hostility for high emotional expressers. Hostility was intermediate and did not vary substantially with EE level in EMO or CTL. EE did not moderate condition effects on medical visits.

Discussion

In light of significant moderated effects on hostility and health care visits, findings suggest that benefit accrues when the imposed coping strategy (i.e. writing instruction) is matched to the individual's preferred coping strategy, a finding mirrored in other experimental studies (Austenfeld *et al.*, 2006; Engebretson, Matthews, & Scheier, 1989; Stanton *et al.*, 2000, Study 4). Self-regulation theory offers an explanation. Dealing with emotion may facilitate a sense of mastery for individuals inclined to cope through emotional approach, with review of negative emotions representing a constructive process. In contrast, individuals low in EAC may gain mastery when they look forward with a positive attitude. Continued study of the potential of writing to reduce hostility is warranted, in light of its rare inclusion in writing studies (Frattaroli, 2006) and the risk hostility may pose to cardiovascular health (Smith, Glazer, Ruiz, & Gallo, 2004).

Findings were not completely consistent across dependent variables, and medical care data in undergraduates should be interpreted cautiously (Pennebaker, 2002). A primary limitation is sample size, in that the sample of 63 had sufficient power only to detect moderate to large effects. However, along with other research, this study suggests that enhancing congruence between participants' preferred emotion regulation strategies and the imposed approach to disclosure might optimize writing benefits.

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