

Table 1: Description of Quantitative Studies of Expressive Writing Interventions

Study No	Study (Year)	Treatment and Setting	Sample Characteristics and DE Concerns	Details of Intervention	Assessment	Major Findings	Significance or Effect Size	Quality Score
1	O'Connor et al (2011)	Adapted Pennebaker EW task (n = 51) vs BI success story (n = 53) vs What you did yesterday (n = 54)	Female UK university students; M _{age} : 19.49 years; M _{BMI} : 21.74; 89% Caucasian, 4% mixed race, 3% Indian, 3% Chinese; 0% male	3 15-minute writing sessions in lab on private computer on 3 consecutive days.	Pre and 4-week FU	Significant improvement in implicit self-esteem at follow up for EW condition only	p < .05	100%

2	East et al. (2010)	Pennebaker EW task (n = 14) vs Perspective shift writing task (n = 18) vs Superficial topics (n = 16)	University students on UK nursing programme with normal eating / weight / shape concerns as measured by the EDE-Q; M _{age} : 32.9 years (SD: 6.4); majority (25%) White British; 20.8% male	3 20-minute hand-written sessions at home over consecutive days, at similar times, in week after baseline measures taken	Pre, 4 - and 8-week FU, with HADS only completed post, and subjective ratings after every session. Script collected at 4-week FU if volunteered	High level of attrition (23%) Non-completers significantly higher on experiential avoidance Experimental conditions significantly more meaningful, emotional and upsetting than control Medium effect size for increased cognitive flexibility for EW condition only	$p = .048$ $p < .001$ to $p = .045$ $r = -0.42$ at 4-week FU $r = -0.36$ at 8-week FU	92%
3	Niles et al (2014)	Pennebaker EW task(n = 59 vs What they did or	Healthy American adults who had experienced a stressful event; M _{age} : 21.2 years	4 20-minute hand-written sessions in a private lab room at least 3 days apart	Pre and 3-month FU (online)	'EW produced an anxiety improvement in participants high in emotional expressiveness, whereas participants low on	$P = .013$	92%

		planned to do (n = 57)	(SD: 2.89); 41.8% Asian, 37.3% White, 10.9% Black, 8.2% Latino/a, 1.8% bi-racial; 50.4% male	within an 8 week period; baseline and writing sessions completed in 24.93 days ave (SD 5.16)		expressiveness showed increases in anxiety following EW'	$P < .001$	
4	Arigo and Smyth (2012)	Adapted Hockemeyer and Smyth EW task, (n = 57) vs Time management task (n = 54)	Female university students on US psychology course; M_{age} : 18.89 years (SD: 1.02); M_{BMI} : 22.65 (SD: 4.36); 70% Caucasian; 7% African American; 6% Hispanic / Latina; 0% male	3 15-minute writing sessions in lab. First 2 sessions on same day with 15 minute break in between. 3 rd session 1 week later	Pre and 8-week FU, with manipulation check after each session	EW reported less body-focused upward comparison at follow-up compared to control Perceived stress found to be a moderator; those with high stress at baseline endorsed less body-focused social comparison (particularly upward comparison) and less eating disturbance in	$P = 0.04$ $P = 0.02$ $p = 0.03$	69%

						the EW group compared to control	$p = 0.037$	
5	Lafont and Oberle (2014)	BI writing task (n = 31) vs Pennebaker EW task (n = 27) vs Rooms in your house (n = 22)	Female university students on US psychology course; M_{age} : 19.15 years (SD: 1.74); M_{BMI} : 23.39 (SD: 4.78); 56.5% Caucasian, 33.7% Hispanic, 6.5% African American; 2.2% Asian American, 1.1% American Indian; 0% male	4 30-minute writing sessions in lab on non-consecutive days over 2 weeks.	Pre, post and 1-month FU	Near-significant improvement in perception of own body image in every writing condition for women with higher levels of eating disorder symptoms	$p = 0.054$	69%
6	Frayne and Wade (2006)	Pennebaker EW task (n = 49; M_{BMI} :	Female university students on Australian	3x 20-minute writing sessions in lab	Pre and 10-week FU, with POMS	Significant 2-way interaction caused by a decrease in DE behavior	$P = 0.03$ ES 0.22	69%

		22.83, SD: 4.38; 45% 1 or more DE behavior on EDE-Q) vs Planning control task (n = 49; M _{BMI} : 21.95, SD: 3.85; 49% one or more DE behavior on EDE-Q)	psychology course ; M _{age} : 22.75 years (SD: 8.31)	in separate cubicles over 3 separate days in one week, after baseline measures taken.	after each session	over time in planning group vs increase in DE behavior in EW group. Significant 2-way interaction caused by a decrease in ineffectiveness on EDI in planning group but not in EW group	<i>p</i> = 0.03 ES 0.22	
7	Johnston et al. (2010)	Adapted Pennebaker EW task, (n = 40)	UK students scoring at or above the medium-range cut off for BN on the BITE and	4 20-minute writing sessions completed on computers at home on 3	Pre, 4- and 8-week FU, with additional HADS post. Subjective	Statistically but not clinically significant reductions in BITE overall scores and in BITE severity of	<i>p</i> = 0.03, F(df) = 3.74 (2, 150) <i>P</i> =0.001, F(df) = 7.35	54%

		Superficial topics (n = 40)	with BMI of ≥ 18.5 ; M_{age} : 28.9 years (SD: 9.8); M_{BMI} : 25.7 (SD: 7.4); 76.3% White; 11.25% male	consecutive days. Scripts submitted over email.	ratings and qualitative feedback after every session	<p>symptom scores for both groups</p> <p>HADS anxiety scores also decreased in both groups</p> <p>EW task rated as more meaningful, emotional, difficult and upsetting</p> <p>EW writing contained more words relating to social and affective processes and cognitive mechanisms</p>	<p>(1.81, 135.61)</p> <p>$P = .001$, $F(df) = 5.45$ (3, 222)</p> <p>$P < 0.001$, CI -4.0 - -.11</p> <p>$P < 0.001$, CI -9.8 - -1.2</p>	
8	Earnhardt et al (2002)	Adapted Pennebaker EW task, (n = 23) vs Writing about their	Female US university students; M_{age} : 20 years (SD: 2.4); mostly Caucasian	4 writing sessions in lab on 4 consecutive days.	Pre, post and 4-week FU, with the MCS administered after each	<p>Significant improvements in both groups on:</p> <ul style="list-style-type: none"> body esteem dieting behaviors and cognitions ED symptoms 	<p>Body esteem: $F(2, 92) = 6.64$, $p < .05$.</p> <p>Dieting: $F(2, 92) =$</p>	54%

		rooms (n=25)			writing session	<ul style="list-style-type: none"> Mood <p>EW was more personal and emotional than control writing</p>	<p>7.26, $p < .05$. Symptoms: F (2, 92) = 6.35, $p < .05$. Mood: F (2, 92) = 6.91, $p < .05$. F (1, 43) = 8.35, $p < .05$ F (1, 43) = 13.14, $p < .05$</p>	
9	Smyth et al. (2008)	Pennebaker EW task (n = 15) vs Time management task (n = 10)	US volunteers with a diagnosis of PTSD; 84% Caucasian, 16% Native American; 44% male	3 20-minute writing sessions in 1 day, with 15 minute break in between, in private room in lab. Narrative	Pre and 3-month FU, with mood ratings taken before and after each writing session.	PTSD patients reported less positive valence and more arousal than control Significant improvements in mood and post-traumatic growth in terms of hopes of new possibilities or increased	<p>$P < .001$ $P < .01$ $P < .05$ $P < .05$</p>	38%

				re-living of traumatic experience at FU.	Saliva samples taken at FU before and after imaginal exposure	feelings of personal strength and appreciation for life in EW group only EW group had reduced cortisol levels after exposure to traumatic imagery and recovered more quickly	$P < .10$ $P < .01$ $P < .05$	
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BI: body image; BITE: Bulimic Investigatory Test – Edinburgh, to measure bulimic symptomatology; BN: Bulimia nervosa; DE: Disordered eating; EDE-Q: Eating Disorders Examination – Questionnaire version, to measure eating disorder symptoms; EDI: Eating Disorders Inventory, which has a sub-scale measuring ineffectiveness (i.e. feelings of inadequacy or worthlessness); EW: Expressive writing; HADS: Hospital Anxiety and Depression Scale, to measure anxiety and depression; FU: Follow-up; M_{age} : Mean age; M_{BMI} : Mean Body Mass Index; MCS: Manipulation Check Scale, to assess participants’ perceptions of the writing tasks; POMS: Profile of Mood States, to measure mood status; Pre: pre-treatment; Post: post-treatment; PTSD: Post-traumatic stress disorder; Quali: Qualitative; SD: Standard deviation; UK: United Kingdom; US: United States