

## **Moderating Effects of Dietary Restraint and Self-Compassion in an Expressive Writing Intervention in Southeast Asian Population**

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The efficacy of expressive writing (EW) has been well-established on Western populations. However, to date, there are limited studies which examined its efficacy in an Asian population and whether dietary restraint and self-compassion have moderating effects on exposure to thin ideal images. Using repeated measures experimental design, this study investigated the efficacy of EW in improving levels of body satisfaction and positive affect among 140 Filipino female university students ageing 18-25 years ( $M = 19.23$ ;  $SD = 1.21$ ). They were tested in groups and wrote either about life goals ( $n = 46$ ), positive experiences ( $n = 49$ ) or a control topic ( $n = 46$ ). It further examined how EW could benefit people on the basis of their levels of dietary restraint and self-compassion. To measure dietary restraint the Revised Restraint Scale (RRS; Herman & Polivy, 1980) was used; self-compassion was assessed using Self-compassion Scale (SCS; Neff, 2003). Two separate three-way independent ANOVAs were carried out to investigate whether the types of writing tasks, dietary restraint and self-compassion have an impact on their scores on body satisfaction and positive affect. Regardless of the writing task, participants did not differ on body satisfaction, or positive affect.

*Keywords.* Body satisfaction, dietary restraint, expressive writing, positive affect, self-compassion

Body dissatisfaction is prevalent among women in both Western and Asian societies and there are a host of studies (Anderson, Reilly, Gorrell, & Anderson, 2016; Bell, Donovan, & Ramme, 2016; Cano, Fernandez, Saenz, Moreno, & Leal, 2016) that implicate how this leads to eating disorders. Ironically, body dissatisfaction is also markedly common among individuals both men and women with normal weight, especially among females (Margolis & Orsillo, 2016), confirming the crucial role of self-perception. Being fairly ubiquitous among women,

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body dissatisfaction has been studied, and these studies point out that similar with popular expectation, there are more women than men who are trying to lose weight and do so at lower Body Mass Index (BMI) levels (Bish et al., 2005). Indeed, women are more susceptible to body dissatisfaction compared to men.

Female adolescents are bombarded with thin-ideal images from the media, with music videos and magazines being the most popular sources of these images. A recent content analysis of ten women's magazines (Wasylikiw, Emms, Meuse, & Poirier, 2009) showed that 95 per cent of the models in fashion magazines were thin; in fitness magazines, 55 per cent were thin and 36 per cent were muscular, only six per cent of the models in both magazine types possess round body type. Furthermore, content analyses of images in women's magazines from 1959 to 1999 (Sypeck, Gray, & Ahrens, 2004) revealed that the models have become increasingly thinner over time. These findings validate the sociocultural perspective that mass media publicise a slender ideal which in turn elicits body dissatisfaction (Ata, Thompson, & Small, 2013).

Over the past decades, an increasing discrepancy between body shapes portrayed as ideal in the media and actual body shapes found in the general population has been observed. Much of the studies in this area have been done on Western population, nevertheless, the problem also exists in the Philippines. For instance, it has been observed in the Philippines that the prevalence of overweight and obesity combined increased nearly six-fold from around 6 per cent in 1983 to 1984, to 35 per cent in 1998 to 1999 (Adair, 2004). More recently, it has been reported by Sy and colleagues (2008, as cited in Litonjua, 2014) that from 1993-2008, obesity among Filipinos continued to increase at about 3.4 per cent and climbing to 5.2 per cent. Additionally, cases of overweight rose from 15.2 per cent to 21.4 per cent in the same period.

### **Expressive Writing as a Tool**

Expressive writing (EW) is a therapy introduced by Pennebaker and Beall in the late 1980's. Their pioneering work (Pennebaker & Beall, 1986) involved requesting participants to write about a "past trauma", as a way to convey their deepest feelings and thoughts. Control groups were instructed to write on neutral topics (e.g. *What are their plans for the day?*), without revealing their emotions or opinions. Both groups were requested to do this for 15 minutes per day for four consecutive days. Participants were further advised that should they run out of things to

write, they should go back from the start and simply repeat themselves and to try to write a little differently.

Since the introduction of EW, it has been used in a variety of ways to improve psychological well-being, ranging from improving the self-concept of adolescents (Facchin, Margola, Molgora, & Revenson, 2013), to helping people with traumatic brain injury (Wheeler, Nickerson, Long, & Silver, 2013). Although it has been observed that EW may help improve body image perception (Lafont, 2011), there is a dearth of studies that examined its efficacy to address the negative effects of exposure to thin-ideal images.

### **Media and Body Dissatisfaction**

Images idealising thin bodies are known to increase the likelihood of body dissatisfaction among Asian adolescents (Chang et al., 2013). It has been known that media pressure and body dissatisfaction contributed to both restrained eating and unhealthy weight control behaviours. It is important then to address the impact of body dissatisfaction since it is recognised as the strongest risk factor for eating disturbances (Dakanalis et al., 2014).

Interestingly, it has been found that self-compassion had a significant positive association with self-reported measures of happiness, optimism, positive affect, wisdom, personal initiative, curiosity and exploration, agreeableness, extroversion and conscientiousness. It also had a significant negative association with negative affect and neuroticism. Self-compassion predicted significant variance in positive psychological health beyond that attributable to personality (Neff, Rude, & Kirkpatrick, 2007). There are also findings which suggest that training oneself to self-regulate from a self-compassionate stance might be especially effective for individuals who are able to visualise a compassionate image and whose personality and motivation would be expected to undermine the impact of traditional treatments (Kelly, Zuroff, Foa, & Gilbert, 2010). It has also been found that EW and the inclusion of a self-compassion instruction may have additional benefits (Imrie & Troop, 2012). On the other hand, Neumark-Sztainer and colleagues (2006) found out that females who are less satisfied with their bodies are likely to engage in higher levels of dieting which could include unhealthy weight control behaviours and binge eating, aside from their lower levels of physical activity and fruit and vegetable intake.

EW is mostly done on more than one occasion and more often than not, it is reported to produce positive outcomes. But still, there is a scarcity

of literatures which investigated whether those with lower levels of dietary restraint and higher levels of positive affect could benefit more with this intervention, and how it will operate if it is to be delivered on just one occasion.

### **Dietary Restraint**

One study (Wardle, Steptoe, Oliver, & Lipsey, 2000) revealed that high-workload periods were associated with higher energy and saturated fat and sugar intake. There was a significant moderating effect of restrained eating, with a hyperphagic response to work stress in restrained eaters, compared with no effect in unrestrained eaters. Conclusion: The results indicate that the associations between restraint and stress-induced eating that have been observed in the laboratory extend to the real-life setting. They raise the possibility that restrained eaters are particularly vulnerable to adverse effects of stress on health, through influences on food intake.

However, an earlier study has revealed that there were few differences in eating behaviour, although the cravers tended to consume slightly more daily energy than the non-cravers. The cravers had higher ratings of boredom and anxiety during the day, and dysphoric mood was prominent prior to the cravings themselves. Food deprivation does not appear to be a necessary condition for food cravings to occur. Rather, food cravings are closely associated with mood, in particular as an antecedent to craving and also as a consequence of craving (Hill, Weaver, & Blundell, 1991).

### **Self-Compassion**

Positive perceptions of self-compassion offer encouragement to clinicians as it appears people can connect with the concept meaningfully as well as seeing it as being useful. Clinicians focusing on self-compassion may gain greater efficacy when they incorporate both aspects within interventions. Findings about the difficulties associated with self-compassion provide valuable information as to why people find it difficult to adopt which can be used in the development of future clinical interventions (Pauley & McPherson, 2010).

People given the self-compassion instruction increased in their self-soothing and self-esteem in contrast to patients in the stress-only condition. Happiness broadly increased in both groups although reported levels of stress generally increased in patients given the self-compassion instruction but decreased in patients in the stress-only condition. Those

given the self-compassion instruction also increased in their use of causal reasoning words across the two writing sessions were compared with those in the stress-only condition. EW appears to be beneficial in patients at a hospice and was viewed as valuable by participants. The inclusion of a self-compassion instruction may have additional benefits and a discussion of the feasibility of implementing expressive writing sessions in a day hospice is offered (Imrie & Troop, 2012).

While exposure to thin-body ideals promotes body dissatisfaction, other factors come into play such as dietary restraint, which is a prospective risk factor for the development of eating disorders (Racine, Burt, Iacono, McGue, & Klump, 2011). It has been reported that restrained eaters exposed to thin-ideal images have decreased weight satisfaction and increase negative affect (Boyce, Kuijer, & Gleaves, 2013). Findings further suggest that restrained eaters are susceptible to a “thin fantasy” brought about by viewing thin-ideal body images. It has also been observed that strengthening thinness attainability beliefs can further enhance the thin fantasy demonstrated by restrained eaters following exposure to idealised body images (McLean, Paxton, & Wertheim, 2016).

Meanwhile, it has been reported that self-compassion induction reduces distress and attenuates eating following the preload among highly restrictive eaters (Adams & Leary, 2007). These findings highlight the importance of specific individual differences in restrained eating and suggest benefits of self-compassionate eating attitudes. Self-compassion entails being kind and understanding toward oneself in instances of pain or failure rather than being harshly self-critical; perceiving one's experiences as part of the larger human experience rather than seeing them as isolating; and holding painful thoughts and feelings in mindful awareness rather than over-identifying with them (Deen, Sipe, & Eisendrath, 2016). Additionally, self-compassion was shown to partially mediate the relationship between body preoccupation and depressive symptoms. The findings highlight the possibility that a consideration of self-compassion for body image may contribute to identifying who is most at risk for body/shape concerns (Wasylikiw, MacKinnon, & MacLellan, 2012).

In line with the existing literatures, the present study aimed to explore whether a simple EW technique could reduce the impact of media influence on body dissatisfaction. It further examined if people who are more self-compassionate are less affected by viewing thin-ideal images regardless of whether they undergo an EW intervention or not. Similarly, it also investigated whether the same effect could be observed to those with higher levels of dietary restraint. For the purpose of this study, two

forms of EW have been employed: 1.) writing about life goals, and 2.) writing about positive experiences, both of which are known to enhance well-being.

### **Objectives**

Various intervention programmes are being developed to address the effects of thin-ideal images among adolescents. However, to date, there have only been a handful of studies which explored EW as an intervention programme in reducing the effects of exposure to thin-ideal images. It is worthy to investigate the effectiveness of EW as an intervention programme since it has been found to improve psychological well-being (e.g. Troop, Chilcot, Hutchings, & Varnaite, 2013). Such an intervention could potentially minimise the negative effects brought about by exposure to slim images on body satisfaction and positive affect. It could be assumed however, that some people are just more susceptible to those kinds of images.

### **Hypothesis**

It is hypothesised that dietary restraint and self-compassion will have moderating effects in an expressive writing intervention for thin-ideal images.

## **Method**

### **Sample**

One hundred and forty one female university students ageing 18-25 years old ( $M = 19.23$ ,  $SD = 1.20$ ) were recruited as users of magazines with thin-ideal images and were randomised into one of the three experimental conditions: writing about life goals, writing about positive experiences and writing a review of a film they have recently seen. Contrary to the intended age range, one participant was aged 17, and two participants did not indicate their age. These two participants were not included in the end as age is not a variable which this work focussed. The study used purposive sampling technique. Participants were recruited inside the university lectures. Their participation was voluntary and no credits or tokens were given. The study received ethical approval (approval code: UHGN214) from the local ethics committee and informed consents were obtained from all participants.

## Material

Five magazines were used – *Candy*, *Metro*, *Yes!*, *Cosmopolitan*, and *Total Girl*. These magazines were selected on the basis of portraying thin-ideal images either on their covers or regular sections, and their relative popularity among Filipino female university students was also considered. These magazines were readily available within the vicinity of the university. How these magazines were used will be discussed in the Procedure section.

## Assessment Measures

**Dietary Restraint.** To assess dietary restraint, Revised Restraint Scale (RRS; Herman & Polivy, 1980) was used. All items on RRS are presented in a multiple choice format; Items are rated on a four- to five-point scale, with a maximum total score of 35, with higher total scores indicating greater dietary restraint. RRS consists of two subscales (a) weight fluctuation (WF) with four items for assessing history of weight fluctuation and (b) concern with dieting (CD) with six items for assessing the attitudes towards dieting but can be computed as a single overall score. In the current study, internal consistency for the total score is good ( $\alpha = .66$ ) “*I have pretty good idea of the number of calories in common food.*”

**Self-Compassion.** Self-compassion was assessed using Self-compassion Scale (SCS; Neff, 2003). The SCS is a 26-item measure tapping self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification. Participants respond to various items about “How I typically act toward myself in difficult times” on a 5-point scale, with higher total scores indicating greater self-compassion. In the current study, internal consistency for the scale is good ( $\alpha = .72$ ) “*When I fail at something important to me I become consumed by feelings of inadequacy.*”

**Body Satisfaction.** The Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) is designed to measure the transitory aspects of evaluative or affective body image, i.e. body dissatisfaction. It is a sensitive measure that can detect momentary changes, and consists of six questions regarding how satisfied a person feels with their physical appearance “right now at this present moment”. Higher total scores indicate greater body satisfaction. In the current study, the internal consistency was high (baseline  $\alpha = .70$ , follow-up  $\alpha = .78$ ) and

test-retest consistency ( $\alpha = .81$ ) “*Right now I feel... with my physical appearance.*”

**Positive Affect.** The Types of Positive Affect Scale (TPAS; Gilbert et al., 2008) is an 18-item scale in which respondents rate their feelings on a series of 5-point scale to indicate how characteristic those feelings are of them (ranging from 1 = not characteristic of me to 5 = very characteristic of me). The TPAS measures three types of positive affect: activating positive affect (e.g., energetic, excited, active); relaxed positive affect (e.g., relaxed, peaceful, calm); and safeness/contentment positive affect (e.g., safe, secure, warm). Higher total scores indicate greater positive affect. In the current study, the internal consistency was high (baseline  $\alpha = .82$ , follow-up  $\alpha = .86$ ) and test-retest reliability ( $\alpha = .80$ ) i.e. Using this scale, emotion words such as secure, calm, active, etc. were rated by the participants on how characteristic these words were of them, at that moment.

### **Research Variables**

This study had two between-subjects factors: traits (self-compassion and dietary restraint) and type of writing (positive experiences writing, life goals writing and film review writing). This study also had two within-subjects factor: time, whereby each participant completed positive affect questionnaire and a body image questionnaire on two separate occasions (baseline and follow-up scores).

### **Procedure**

The experiment was conducted in the classrooms of an urban-based university. Permission to conduct the experiment at the University was obtained. The participants attended specific sessions for this and were not part of lectures. They were tested in groups.

Upon hearing a brief description of the study and signing consent forms, participants completed the SCS and RRS which were used to identify their susceptibility to exposure to thin-ideal images. Afterwards, they were given 15 minutes to fill out BISS and TPAS (This was the baseline). Participants proceeded with the writing tasks. Envelopes with questionnaires and one of the three writing tasks were randomly distributed. They were tested in groups and wrote either about life goals ( $n = 46$ ), positive experiences ( $n = 49$ ), or a control topic i.e. write a review of a film they have recently seen ( $n = 46$ ).



Participants in both of the expressive writing groups (i.e. life goals and positive experiences) were given the following written instructions:

*“For the next 15 minutes, I would like you to write your very deepest thoughts and feelings about life goals (or positive experiences that has affected you and your life). In your writing, I’d like you to really let go and explore your deepest emotions and thoughts. You might tie your topic to your relationships with others, including parents, lovers, friends or relatives; to your past, your present or your future; or to who you have been, who you would like to be or who you are now. You may write about the same general issues or experiences on all days of writing or about different topics each day. All of your writing will be completely confidential”.*

*“Don’t worry about spelling, grammar or sentence structure. The only rule is that once you begin writing, you continue until the time is up.”*

Participants in the control group were given the following written instructions (based on Troop, et al., 2013):

*“For the next 15 minutes, I would like you to write a review of a film you had recently seen. It could be a good review or a bad review. You may write about general issues about a particular film and have you liked or disliked that film. All of your writing will be completely confidential.”*

All participants were requested to proceed with the writing tasks in English. Participants were instructed to explore all five magazines for 30 minutes, and to disguise the nature of the study were requested to rate it based on creativity of its content (instrumental task). When the timer went off the experimenter asked the participants to put aside the magazines and rate them using a self-made Magazine Rating Scale. Finally, participants again completed the BISS and TPAS.

### **Data Analysis**

Hence, a total of 140 participants were considered for the analyses. In analysing the main variables, the obtained BISS and TPAS scores were grouped into two, whereby BISS scores were categorised as low body satisfaction (15-31) and high body satisfaction (32-48); and TPAS were categorised as low positive affect (28-48) and high positive affect (49-69). Similarly, in analysing the covariates, the obtained RRS and SCS scores were grouped into two whereby RRS were categorised as low dietary restraint (13-23) and high dietary restraint (24-34); and SCS were categorised as low self-compassion (27-40) and high self-compassion (41-53). In addition, the three subscales of TPAS: active positive affect,

relaxed positive affect and safe/warmth positive affect were also analysed relative to their baseline and follow-up scores.

Two separate three-way independent ANOVA were carried out to investigate whether the types of writing tasks (writing about life goals, positive experiences or film review), dietary restraint (high and low) and self-compassion (high and low) have an impact on scores on body satisfaction and positive affect.

## Results

It was explored whether there were any baseline differences between each of the experimental conditions of the mains study variables, before conducting the main analyses (see Tables 1 and 3). This analysis revealed that participants in the control condition ( $M = 34.42$ ) had higher levels of body dissatisfaction compared to the other two conditions (life goals = 33.70, positive experiences = 34.06) and that the participants in the life goal condition ( $M = 52.11$ ) had greater TPAS scores compared to those in the positive experiences group ( $M = 50.16$ ) and control condition ( $M = 51.18$ ). Therefore in order to control for these baseline differences, scores on dietary restraint and self-compassion have been included in the succeeding analyses. Baseline scores indicate that participants have high levels of body satisfaction and positive affect.

TPAS was further explored relative to its three subscales: active positive affect, relaxed positive affect and safe/warmth positive affect (see Table 2). The analysis revealed that active positive affect showed an increase from the baseline scores, following the writing tasks.

Table 1

*Descriptive Statistics for Main Study Variables at Baseline and Follow-Up*

	LG				PE				Control			
	B		FU		B		FU		B		F	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
BISS	33.69	0.86	32.82	0.88	34.06	1.01	32.08	1.16	34.42	1.24	31.93	1.18
TPAS	52.10	0.98	53.02	1.03	50.16	1.10	52.20	1.14	51.17	1.75	53.35	1.36

*Note.* BISS, Body Image States Scale; TPAS, Types of Positive Affect Scale; BISS scores of 15-31: low body satisfaction, 32-48: high body satisfaction; TPAS scores of 28-48: low body satisfaction; 49-69 high body satisfaction. LG: life goals; PE: positive experiences; B: baseline, FU: follow-up

Table 2  
*Descriptive Statistics for Subscales of TPAS*

	Baseline		Follow-up	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Active	2.98	0.04	3.04	0.05
Relaxed	2.63	0.06	2.75	0.07
Safe	2.88	0.05	2.94	0.02

*Note.* Active, active positive affect; Relaxed, relaxed positive affect; Safe/warmth positive affect. 0= not characteristic of me; 4=very characteristic of me.

Scores for the covariates have been examined. Participants from all three conditions approached to have low levels of dietary restraint. Participants in the life goals writing tasks and control condition have lower levels of self-compassion, whereas those in positive experiences group have higher levels of self-compassion.

Table 3  
*Descriptive Statistics for the Covariates*

	LG		PE		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
RRS	23.82	0.67	23.04	0.69	23.53	0.56
SCS	40.91	0.78	41.40	0.76	39.82	0.91

*Note.* LG: life goals; PE: positive experiences; RRS: Revised Restraint Scale; SCS: Self Compassion Scale

Table 4  
*Analysis of Variance Controlling for Body Satisfaction*

	<i>df</i>	<i>F</i>	$\eta^2$	$\rho$
Writing tasks	2	0.43	.64	.05
Dietary restraint	1	6.42	.01	.04
Self-compassion	1	1.04	.30	.05
Writing tasks X dietary restraint	2	2.02	.13	.03
Writing tasks X self-compassion	2	0.15	.85	.05
Dietary restraint X self-compassion	1	0.10	.74	.001
Writing tasks X dietary restraint X self-compassion	2	0.78	.46	.01
Error	128			

Three-way independent ANOVA was carried out to determine if writing tasks, dietary restraint and self-compassion have main effect on body satisfaction, with BISS follow-up scores as the dependent variable. Data analysis reveals that there was no significant main effect between the three independent variables on body satisfaction. Furthermore, there was no significant main effect between writing tasks and body satisfaction,

$F(2, 128) = 0.43, p = .05$ ; dietary restraint and body satisfaction,  $F(1, 128) = 6.42, p = .04$ ; and self-compassion and body satisfaction,  $F(1, 128) = 1.04, p = .05$ .

Table 5  
*Analysis of Variance Controlling for Positive Affect*

	<i>df</i>	<i>F</i>	$\eta$	$\rho$
Writing tasks	2	.76	.46	.01
Dietary restraint	1	.00	.99	.001
Self-compassion	1	.41	.52	.05
Writing tasks X dietary restraint	2	.18	.82	.05
Writing tasks X self-compassion	2	.34	.71	.05
Dietary restraint X self-compassion	1	1.58	.21	.01
Writing tasks X dietary restraint X self-compassion	2	67.37	.36	.01
Error	128			

A three-way independent ANOVA was carried out to determine if writing tasks, dietary restraint and self-compassion have main effect on positive affect, with TPAS follow-up scores as the dependent variable. Data analysis reveals that there was no significant main effect between the three independent variables on positive affect. Furthermore, there was no significant main effect between writing tasks and positive affect,  $F(2, 128) = 0.76, p = .01$ ; dietary restraint and positive affect  $F(1, 128) = .00, p = .001$ ; and self-compassion and positive affect  $F(1, 128) = .41, p = .05$ .

### Discussion

The present study examined the effect of writing about life goals and positive experiences on body satisfaction and positive affect. In addition, it also investigated whether the effects of EW is moderated by levels of dietary restraint and self-compassion. Previous findings (e.g. Troop et al., 2013) reveal that EW shows promise as a means by which people may decrease in their self-criticism. The notion is that EW could protect positive affect and body dissatisfaction, as result of which, there will be less effect to psychological well-being following exposure to thin-ideal images. Previous works also indicate that EW has a wide range of social, emotional, and physical health benefits for individuals coping with stressful events (Lepore, Greenberg, Bruno, & Smyth, 2002). Almost all available literatures show that EW is effective, however, the existing studies all have the same population and most have delivered EW on more than one occasion.

**Core Outcomes.** This study reveals no beneficial effects of EW (whether writing about life goals or writing about positive experiences) on positive affect or body satisfaction. This is a novel finding as it indicates that the positive effects of EW may, initially at least, be achieved depending on how it has been delivered and considering the nature of the sample (e.g. are they predisposed to be influenced by writing tasks?). This is not the first study however to have observed that EW may not produce beneficial effects. For instance, O'Connor and colleagues (2011) reported absence of beneficial effects of EW, specifically writing about success stories on the self-reported measures of body image, self-esteem and psychological well-being.

Results are contrary to previous studies whereby EW resulted in significant positive outcomes (e.g. Smyth, Hockemeyer, & Tulloch, 2008; Kirk, Schutte, & Hine, 2011; Lafont, 2011; Arigo & Smyth, 2012), and a number of factors may account for this inconsistency. First, participants spent 15 minutes of writing about their designated topic and no other writing tasks followed. This is contrary to previous studies (e.g. O'Connor et al., 2011) where participants are usually invited again to continue the writing tasks. Therefore, this could be a mechanism whereby EW conditions may not have been powerful or lengthy enough to affect positive changes in any of the outcome variables. However, it is interesting to note that on some occasions EW was administered as a one-off task. (e.g. Kuiken, Dunn, & LoVerso, 2008). Expressive writing about dreams that follow trauma and loss. *Dreaming*, 18(2), 77. and they have shown effects. But it should be underscored that the present work examined immediate short-term impact on body satisfaction and positive affect.

Furthermore, given that participants were not selected on the basis of their levels of dietary restraint and their levels of self-compassion, the absence of significant effect may then be attributable to the sample being relatively “healthy”. Lastly, given that this is the first study to explore EW on a Filipino population, it remains unknown whether asking participants to write on their preferred language has the capacity to influence the results. This is an interesting area that needs to be addressed in the future.

Drawing from the baseline scores on RSS and SCS, it should be considered though that the participants’ levels of dietary restraints and self-compassions were not dramatically low to begin with i.e. it could be postulated that there were no factors about which EW have to protect against. Furthermore, it could also be assumed that the effect of exposure to thin-ideal images might have been weaker.

**Strengths.** The key strength of the study is its large sample size and the naturalistic nature of the experiment-reading magazines is a natural activity which everyone does. Its methodology fits well with the hypotheses. The study also recruited participants who are likely to be reading magazines with thin-ideal images (females who are between the ages of 18-25).

Moreover, the present study provides insight into several boundary conditions of expressive writing by examining whether it would be as effective if it will just be given on a single occasion. It also explored available findings from a non-Western population. This may also serve as a framework for longitudinally-designed studies following the effects on mood and body satisfaction of individuals who are regularly using these magazines.

**Limitations and Future Directions.** It is recognised that the current study has a number of shortcomings and limitations that require further comment. First, using a sample of convenience will undoubtedly influence the generalisability of this study, aside from the fact that the experiment was also carried out in groups, which may limit the effectiveness of EW. However, EW has been done in groups in the past (e.g. Klein & Boals, 2001) albeit it has shown positive outcomes.

Furthermore, magazines were selected based on comprehensive content analysis. Therefore, it may not be representative of a typical magazine that Filipino female university students would read. Requesting participants to engage in a magazine that they may not be interested in for a period of time may influence results.

The study also relied on self-report measure to assess the results of the experiments, but then previous studies also relied on self-reported measures. Finally, the investigator is mindful that this is the first study to employ Filipino sample; therefore, future studies ought to attempt to replicate the current findings.

**Implications.** Notwithstanding the limitations described above, the implications on this study are threefold. First, although the findings from the present study reveals that EW writing tasks do not have significant beneficial effects, its results could still contribute to current literatures on EW as an intervention tool, as well as on the available literatures on the roles of self-compassion and dietary restraint on positive affect and body satisfaction.

Second, the effectiveness of EW has been established on Western population. There were a few studies that explored it on non-English speakers (e.g. Lu, Zheng, Young, Kagawa-Singer, & Loh, 2012), but with a small sample. To date, this was the first study to investigate EW as an intervention tool on a Filipino population. Although the present study did not reveal the anticipated beneficial results of EW, its findings will lead to comparison on future studies that will examine the effects of EW on Southeast Asian population.

Lastly, the result of this study will best serve as a pilot for future studies that will evaluate the efficacy of EW as an intervention tool relative to forms of expressive writing (i.e. writing about life goals and writing about positive experience), and relative to how it is administered (i.e. whether to administer it individually or in groups, and whether to administer it on a single instance or for a consecutive number of periods) to better ascertain its effects. Future work that intend to explore the effects of EW relative to positive affect should further consider different kinds of positive emotions such as active positive affect, relaxed positive affect, safe/warmth positive affect as it may yield interesting insights in this area.

**Conclusion.** Images portraying idealised slender bodies are here to stay. They are already a staple of magazines and music videos; and existing literatures are rich in evidence which confirm that exposure to these images can impact one's psychological well-being. The field of psychology has already proven its adverse effects; the next goal then is to discover new and effective interventions to address those negative impacts.

In light of the results of this study, two strong conclusions can be drawn with regard to the benefit of EW. First, drawing from most of the literature, EW may result to a host of health benefits. However, there is no assurance that it will work all the time. Results of this study offers insights as to what factors contribute to ensure the efficacy of EW as an intervention tool. This may be attributable to the fact that EW affects people on a number of aspects; biological, cognitive, emotional and social; making a single explanatory theory unlikely. Second, a variety of mechanisms can be posited as to ensure its efficacy. Needless to say, future research should further explore its boundary conditions. In addition to addressing theory-relevant questions, researchers and therapists must now address how, when and with whom this form of therapy is most beneficial and, at the same time, further evaluate how and why this intervention produces positive outcomes. This pilot study should pave the

way to further research examining the efficacy of expressive writing to ascertain the difference against Western population. Future studies employing randomised, controlled trial designs are warranted.

### References

- Adams, C. E., & Leary, M. R. (2007). Promoting self-compassionate attitudes toward eating among restrictive and guilty eaters. *Journal of Social and Clinical Psychology, 26*(10), 1120-1144. doi:10.1521/jscp.2007.26.10.1120.
- Adair, L. S. (2004). Dramatic rise in overweight and obesity in adult filipino women and risk of hypertension. *Obesity Research, 12*(8), 1335-1341. doi:10.1038/oby.2004.168.
- Anderson, L. M., Reilly, E. E., Gorrell, S., & Anderson, D. A. (2016). Running to win or to be thin? An evaluation of body dissatisfaction and eating disorder symptoms among adult runners. *Body Image, 17*, 43-47.
- Arigo, D., & Smyth, J. M. (2012). The benefits of expressive writing on sleep difficulty and appearance concerns for college women. *Psychology & Health, 27*(2), 210-226.
- Ata, R. N., Thompson, J. K., & Small, B. J. (2013). Effects of exposure to thin-ideal media images on body dissatisfaction: Testing the inclusion of a disclaimer versus warning label. *Body Image, 10*(4), 472-480. doi:10.1016/j.bodyim.2013.04.004.
- Bell, H. S., Donovan, C. L., & Ramme, R. (2016). Is athletic really ideal? An examination of the mediating role of body dissatisfaction in predicting disordered eating and compulsive exercise. *Eating Behaviors, 21*, 24-29.
- Bish, C. L., Blanck, H. M., Serdula, M. K., Marcus, M., Kohl, H. W., & Khan, L. K. (2005). Diet and physical activity behaviors among Americans trying to lose weight: 2000 behavioral risk factor surveillance system. *Obesity Research, 13*(3), 596-607.
- Boyce, J. A., Kuijer, R. G., & Gleaves, D. H. (2013). Positive fantasies or negative contrasts: The effect of media body ideals on restrained eaters' mood, weight satisfaction, and food intake. *Body Image, 10*(4), 535-543. doi:10.1016/j.bodyim.2013.07.002.
- Cano, T. R., Fernandez, L. B., Saenz, B. M., Moreno, L. R., & Leal, F. V. (2016). The relationship of perfectionism with changes in body dissatisfaction in eating disorders treatment outcome. *European Psychiatry, 33*, S166.



- Cash, T., Fleming, E., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond body image as a trait: The development and validation of the Body Image States Scale. *Eating Disorders, 10*(2), 103-113. doi:10.1080/10640260290081678.
- Chang, F. C., Lee, C. M., Chen, P. H., Chiu, C. H., Pan, Y. C., & Huang, T. F. (2013). Association of thin-ideal media exposure, body dissatisfaction and disordered eating behaviors among adolescents in Taiwan. *Eating Behaviors, 14*(3), 382-385.
- Dakanalis, A., Favagrossa, L., Clerici, M., Prunas, A., Colmegna, F., Zanetti, M. A., & Riva, G. (2014). Body dissatisfaction and eating disorder symptomatology: A latent structural equation modeling analysis of moderating variables in 18-to-28-year-old males. *The Journal of Psychology, 149*(1), 85-112.
- Deen, S., Sipe, W., & Eisendrath, S. J. (2016). Mindfulness-based cognitive therapy for treatment-resistant depression. In *Mindfulness-Based Cognitive Therapy* (pp. 133-144). Springer International Publishing.
- Facchin, F., Margola, D., Molgora, S., & Revenson, T.A. (2013). Effects of benefit-focused versus standard expressive writing on adolescents' self-concept during the high school transition. *Journal of Research on Adolescence, 24*(1), 131-144.
- Gilbert, P., McEwan, K., Mitra, R., Franks, L., Richter, A., & Rockliff, H. (2008). Feeling safe and content: A specific affect regulation system? Relationship to depression, anxiety, stress, and self-criticism. *The Journal of Positive Psychology, 3*(3), 182-191.
- Herman, C. P., & Polivy, J. (1980). Restrained eating (pp. 208-225). In: Stunkard A, editor. *Obesity*. Philadelphia: Saunders.
- Hill, A. J., Weaver, C. F., & Blundell, J. E. (1991). Food craving, dietary restraint and mood. *Appetite, 17*(3), 187-197.
- Imrie, S., & Troop, N. A. (2012). A pilot study on the effects and feasibility of compassion-focused expressive writing in Day Hospice patients. *Palliative and Supportive Care, 10*(02), 115-122. doi:10.1017/s1478951512000181.
- Kelly, A. C., Zuroff, D. C., Foa, C. L., & Gilbert, P. (2010). Who benefits from training in self-compassionate self-regulation? A study of smoking reduction. *Journal of Social and Clinical Psychology, 29*(7), 727-755. doi:10.1521/jscp.2010.29.7.727.
- Kirk, B. A., Schutte, N. S., & Hine, D. W. (2011). The effect of an expressive-writing intervention for employees on emotional self-efficacy, emotional intelligence, affect, and workplace incivility.

- Journal of Applied Social Psychology*, 41(1), 179-195. doi:10.1111/j.1559-1816.2010.00708.x.
- Klein, K., & Boals, A. (2001). The relationship of life event stress and working memory capacity. *Applied Cognitive Psychology*, 15(5), 565-579. doi:10.1002/acp.727.
- Kuiken, D., Dunn, S., & LoVerso, T. (2008). Expressive writing about dreams that follow trauma and loss. *Dreaming*, 18(2), 77.
- Lafont, J. (2011). *A comparison of expressive writing effects on body image: Symptomatic vs. asymptomatic women* (Doctoral dissertation, Texas State University-San Marcos).
- Lepore, S. J., Greenberg, M. A., Bruno, M., & Smyth, J. M. (2002). Expressive writing and health: Self-regulation of emotion-related experience, physiology, and behavior. In S.J. Lepore & J. M. Smyth (Eds.), *The Writing cure* (pp. 99-117). Washington, DC: American Psychological Association. doi:10.1037/10451-005.
- Litonjua, A. D. (2014). Population trends & obesity patterns in the Philippines: A window to the obesity epidemic in the Asia-Oceania Region. *Journal of the ASEAN Federation of Endocrine Societies*, 26(2), 141. doi:10.15605/jafes.026.02.11.
- Lu, Q., Zheng, D., Young, L., Kagawa-Singer, M., & Loh, A. (2012). A pilot study of expressive writing intervention among Chinese-speaking breast cancer survivors. *Health Psychology*, 31(5), 548. doi:10.1037/a0026834.
- Margolis, S. E., & Orsillo, S. M. (2016). Acceptance and body dissatisfaction: Examining the efficacy of a brief acceptance based intervention for body dissatisfaction in college women. *Behavioural and Cognitive Psychotherapy*, 1-11.
- McLean, S. A., Paxton, S. J., & Wertheim, E. H. (2016). Does media literacy mitigate risk for reduced body satisfaction following exposure to thin-ideal media? *Journal of Youth and Adolescence*, 1-18.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, 2(3), 223-250.
- Neff, K. D., Rude, S. S., & Kirkpatrick, K. L. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, 41(4), 908-916. doi:10.1016/j.jrp.2006.08.002.
- Neumark-Sztainer, D., Paxton, S. J., Hannan, P. J., Haines, J., & Story, M. (2006). Does body satisfaction matter? Five-year longitudinal associations between body satisfaction and health behaviors in

- adolescent females and males. *Journal of Adolescent Health*, 39(2), 244-251. doi:10.1016/j.jadohealth.2005.12.001.
- O'Connor, D. B., Hurling, R., Hendrickx, H., Osborne, G., Hall, J., Walklet, E., ... & Wood, H. (2011). Effects of written emotional disclosure on implicit self-esteem and body image. *British Journal of Health Psychology*, 16(3), 488-501.
- Pauley, G., & McPherson, S. (2010). Experience and meaning of this compassion and self-compassion for individuals with depression and anxiety. *British Psychology and Psychotherapy Journal*, 83, 129-143.
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95(3), 274.
- Racine, S. E., Burt, S. A., Iacono, W. G., McGue, M., & Klump, K. L. (2011). Dietary restraint moderates genetic risk for binge eating. *Journal of Abnormal Psychology*, 120(1), 119.
- Smyth, J. M., Hockemeyer, J. R., & Tulloch, H. (2008). Expressive writing and post-traumatic stress disorder: Effects on trauma symptoms, mood states, and cortisol reactivity. *British Journal of Health Psychology*, 13(1), 85-93. doi:10.1348/135910707x25086.
- Sy, R, et al., (2008). *For the National Nutrition and Health Survey 2008 Working Group*. Manuscript in preparation. For publication.
- Sypeck, M. F., Gray, J. J., & Ahrens, A. H. (2004). No longer just a pretty face: Fashion magazines' descriptions of ideal female beauty from 1959 to 1999. *International Journal of Eating Disorders*, 36, 342-247. doi:10.1002/eat.20039.
- Troop, N. A., Chilcot, J., Hutchings, L., & Varnaite, G. (2013). Expressive writing, self-criticism, and self-reassurance. *Psychology and Psychotherapy: Theory, Research and Practice*, 86(4), 374-386. doi:10.1111/j.2044-8341.2012.02065.x.
- Wardle, J., Steptoe, A., Oliver, G., & Lipsey, Z. (2000). Stress, dietary restraint and food intake. *Journal of psychosomatic research*, 48(2), 195-202.
- Wasylikiw, L., Emms, A. A., Meuse, R., & Poirier, K. F. (2009). Are all models created equal? A content analysis of women in advertisements of fitness versus fashion magazines. *Body Image*, 6(2), 137-140. doi:10.1016/j.bodyim.2009.01.005.
- Wasylikiw, L., MacKinnon, A. L., & MacLellan, A. M. (2012). Exploring the link between self-compassion and body image in university women. *Body Image*, 9(2), 236-245.

Wheeler, L., Nickerson, S., Long, K., & Silver, R., (2013). Expressive writing in people with traumatic brain injury and learning disability. *NeuroRehabilitation*, 34, 1, 29-37.

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