COGNITIVE REAPPRAISAL: A STRATEGY IN OVERCOMING DEPRESSION

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Abstract— There has been a significant increase in the incidences of depression among young adults. More so, emotional regulation has also been identified as a significant correlate of the concept. The present study therefore investigated the effect of two emotional regulation strategies, (cognitive reappraisal and expressive suppression) on depressive symptoms. Cross-sectional design was used for the study. The participants completed two questionnaires (Emotion Regulation Questionnaire and Centre for Epidemiologic Studies Depression Scale). Following the ethical approval of the study by Sunway University, a total of 400 participants aged 18 to 28 years (Mage = 24.37) from the Klang Valley in Malaysia completed the questionnaire. The results revealed significant gender difference, with higher mean scores for males on expressive suppression [$t_{(398)} = 3.91$, $p = .001$]. Furthermore, the study indicated that depressive symptoms was negatively correlated with cognitive reappraisal and positively related with expressive suppression. The study also revealed that though expressive suppression induces the vulnerability to depression, however, cognitive reappraisal generating benign on a stressful situation reduced distress. The discovery additionally suggests that the frequent utilization of cognitive reappraisals regardless of the circumstances encountered could help young adults diminish depressive symptoms.

Keywords— Cognitive Reappraisal, Expressive Suppression, Depression.

I. INTRODUCTION

Increasing evidence indicate alarming levels of depression among young adults [1] across the globe. According to the World Health Organization[2], the phenomenon would become the second prominent precursor of illness affliction worldwide by the year 2020. Although depression is related with undesirable emotions [3], however, emotional regulation plays an important role in the determination of coping strategies [4]. Hence, the exploration of effective emotional regulation strategies remains necessary. Evidence based on available research suggests that depression is considerably related to altered cognition and the modulation of reactions [5]. This is based on two strategies for emotional regulation which includes cognitive reappraisal (substantial experiential interest) and expression suppression [1].

Gross [6] advocated a process model of emotion regulation, comprising two emotion regulation styles, these includes precursor- and reaction-focused styles. The precursor-focused style refers to actions taken prior to the complete stimulation of emotional reactions. By contrast, reaction-focused style refers to actions taken for modulating emotions following the stimulation of emotional reactions. According to the model of emotion regulation, the precursor-focused style (cognitive reappraisal) positively changes the emotional pathways and helps in decreasing undesirable emotions. On the other hand, expressive suppression refers to reaction-focused emotion regulation that involves the repression of behavioural signs with regard to internal emotional experiences [7, 8].

Earlier studies revealed that expressive suppression was associated with mental health impairment [9] and depression [10]. According to Gross's process model [6], expressive suppression as a reaction-focused style controls responses following the complete triggering of emotions without decreasing undesirable emotional episodes, thereby resulting in impairing psychological function. Recent studies also found that the greater practice of cognitive reappraisal results into better mental health [9] and decreases depressive symptoms [10]. Similarly, Flynn, Hollenstein and Mackey [11] discovered a negative link between cognitive reappraisal and depression.

The above studies indicate that cognitive reappraisal aids the management and modification of undesirable emotional experiences through constructive cognitions aimed at keeping negative emotions down. It involves altering cognitions that helps individuals cope with adverse emotional experiences by reassessing the event. People who experience depression rely more on expressive suppression than cognitive reappraisal to evade adverse emotional states. Therefore they may experience increased depression in the long-term [12]. A number of studies revealed no significant gender differences in the use of cognitive reappraisal [11, 13, 10], however, women exhibit a greater general tendency toward depressive symptoms [8, 9, 2]. More so, Su, Lee and Qishi [14] found no significant associations between expressive suppression and depression among Asian Chinese. This raises the need for more research among a variety of populations to reconfirm results.

II. METHODS

2.1. Participants

A total of 400 participants (200 males and 200 females) aged 18 to 28 years (M age = 24.37, SD =

1.71) from the Klang Valley in Malaysia completed the questionnaires. The participants comprised of respondents with high school (male 39.3%, female 36.7%), diploma (male 4.7%, female 6.7%), bachelor's degree (male 32.7%, female 28.0%) and other qualifications (male 23.3%, female 28.7%).

2.2. Measurements

The Center for Epidemiological Studies Depression Scale-Revised (CESD-R) [15] was used to measure depressive symptoms. The CESD-R is a 20-item self-report assessment with five options ("not at all or less than 1 day" to "nearly every day for 2 weeks"). The participants were required to specify the frequency of their experience during the last week. Higher scores indicate greater depressive intensity. Van Dam and Earleywine [16] showed good validity and internal reliability (Cronbach's alpha of 0.93) of the scale.

Emotion regulation questionnaire (ERQ) [8] was used to measure the participant's emotional regulation strategy. It encompasses 10 items with two subscales of cognitive reappraisal and expressive suppression. Each item is rated on a 7-point Likert scale by participants to specify the extent they agree or disagree with the statements. Higher mean scores for the subscales signify greater engagement with the corresponding emotion regulation strategy. The scale revealed good internal consistencies and validity for the items within each subscale (Cronbach's alpha 0.79) [17, 18].

2.3. Procedures and Design

The current study was approved by the Research Ethics Committee of the Department of Psychology, Sunway University, Malaysia. The study is a correlational study with survey method used to collect the relevant information from the participants. All the participants filled the instruments individually.

III. RESULTS

Pearson product-moment analysis (Table 1) revealed that cognitive reappraisal is negatively linked to depressive symptoms (r = -.19, p = .001). The coefficient square (r^2 = .0361), implied that 61% of the variability in depression can be explained by cognitive reappraisal. On the other hand, expressive suppression was significantly associated with depressive symptoms via a positive link (r = .15, p = .009, r^2 = .0225). The results indicated that expressive suppression contributed 2.25% to depressive symptoms, suggesting that the greater the level of expressive suppression, the higher the level of depressive symptoms.

Table1: Means, Standard Deviations, and Inter-correlations for Depressive Symptoms, Cognitive Reappraisal, and Expressive Suppression

	Measure	*M*	*SD*	*1*	*2*	*3*
1.	Depressive symptoms	16.59	12.45	-		
2.	Cognitive reappraisal	4.84	0.96	-.19**	-	
3.	Expressive suppression	3.98	1.09	.15**	.08	-

***Note. M* = mean; *SD* = standard deviation, **p < .01.**

Furthermore, the results (see Table 2) indicated no gender differences on the mean scores of depressive symptoms [$t_{(398)}$ = -1.21, p = .227] for males (M = 15.72, SD = 12.23) and females (M = 17.46, SD = 12.65). The mean difference (-1.74) and the small effect size (eta squared= .01) indicated with 95% certainty that the anticipated mean difference for the sample was between -4.57 and 1.09. This means that the vulnerability to depression for both genders was similar. The result also revealed that males (M = 4.75, SD = 1.05) was not significantly different compared to females (M = 4.94, SD = 0.85) in term of cognitive reappraisal scores [$t_{(398)}$ = -1.70, p = .091]. The mean difference (-0.19) tended to be negligible as a small effect size was found (eta squared = .01), with 95% confidence. However, regarding expressive suppression there was a significant difference between both genders [$t_{(398)}$ = 2.91, p = .004]. Males were found to have higher scores for expressive suppression (M = 4.16, SD = 1.15), compared to females (M = 3.80, SD = 0.99). The mean difference was 0.36, and the effect size (eta squared = .03) suggested that the degree of the difference was moderately significant. We can therefore be 95% assured that the expected population means difference was between 0.12 and 0.60.

IV. DISCUSSION

The study examined the relationship between cognitive reappraisal, expressive suppression and

Table2: Mean Differences for Cognitive Reappraisal, Expressive Suppression, and Depressive symptoms Between Males and Females

	Males		Females				95% CI		Eta squared
Variable	*M*	*SD*	*M*	*SD*	*t*(398)	*p*	*LL*	*UL*	
Cognitive reappraisal	4.75	1.05	4.94	0.85	-1.70	.091	-0.40	0.03	.01
Expressive suppression	4.16	1.15	3.80	0.99	2.91	.004	0.12	0.60	.03
Depressive symptoms	15.72	12.23	17.46	12.65	-1.21	.227	-4.57	1.09	.01

Note. For each gender, n = 200.

depression, as well as gender differences. The results showed that depressive symptoms was negatively associated with cognitive reappraisal and positively related with expressive suppression. These findings are in line with previous research [11, 8, 10], implying that regardless of the circumstances encountered, the frequent utilization of cognitive reappraisal can help individuals diminish depressive signs and even prevent them from experiencing depression, which supports the process model of emotional regulation [6]. Therefore altering the cognitive contents of emotion facilitates emotional adjustment, which predisposes individual to positive emotions, while holding negative emotions down [6, 5], this help young adults overcome undesirable emotional experiences [8]. The findings are also in line with some studies [8, 18, 10] thereby indicating that expressive suppression was positively linked to depression. Emotional experiences can therefore predispose individuals to rumination and pessimism [8], by decreasing positive emotions [9] which inadvertently increase depression. The findings suggest that expressive suppression is not an efficient strategy for reducing undesirable emotions [12, 6].

Furthermore, the results are in line with others studies that indicated insignificant gender differences regarding depression in the application of cognitive reappraisal [11, 13, 19, 4, 10]. One possible explanation is that males may have learnt to develop self-awareness, so they are more responsive to their emotions, while expressing their experiences. Therefore, males have the tendency to regulate their emotions. The higher ability of males in self-awareness enables them practice cognitive reappraisal [9]. These results suggest that the greater the use of emotional regulation strategies by women is not a result of women's general tendency toward depressive symptoms, but a reflection of their greater awareness.

Regarding expressive suppression, the results suggested that males were more predisposed to expressive suppression for the regulation of their emotions compared to females. The results are consistent with past studies [8, 9, 17, 10], suggesting that males generally tend to be socialized into the inhibition of their emotional manifestations to others as they learn their gender role compared to females. Moreover, the finding can be attributed to the fact that males tend to evade encountering directly their emotional experiences [19] and thus favor repressing their emotions.

The present study like other researches involves several limitations. Notably, collecting self-report measures may prompt memory biases that might affect the accuracy and generalizability of outcomes. Nevertheless, this study does bring practical ideas in the regulation of emotions regarding depression. Cognitive reappraisal is an appropriate point of focus because this type of emotion regulation has been systematically studied in experimental contexts that allows for the separation of emotional reactivity and regulation.

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