

# ROLE OF EMOTIONAL REGULATION STRATEGIES IN DETERMINING PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATE UNIVERSITY STUDENTS

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## ABSTRACT

### OBJECTIVE

To explore the role of emotional regulation strategies in determining psychological distress among undergraduate university students. Further, to investigate the gender differences with respect to emotional regulation strategies usage and psychological distress among undergraduate university students.

### STUDY DESIGN

Cross-sectional study

### PLACE AND DURATION OF STUDY

Participants from various Universities of Karachi, i.e. University of Karachi, Bahria University, were selected from June '22 to Aug '22.

### SUBJECTS AND METHOD

300 students (age range 19 to 27) were selected from different universities of Karachi, Pakistan through convenient sampling. After permission from higher authorities of universities and consent from students for participating in study they were presented with the Demographic Information form, Emotional Regulation Scale and Kessler psychological distress scale K10 to gather data. It was analysed using statistical methods of linear regression and t-test.

### RESULTS

Statistical analysis suggests that cognitive reappraisal usage is found to be a significant predictor of psychological distress among undergraduate university students. Further, significant gender differences were found between cognitive reappraisal usage and psychological distress level of undergraduate university students, where females scored higher on both constructs as compared to male students.

### CONCLUSION

It can be concluded that cognitive reappraisal usage served as a significant negative predictor of psychological distress of undergraduate university students, contrary to emotional suppression usage, which was not a significant predictor of psychological distress. Significant gender differences were found between cognitive reappraisal usage and psychological distress level of undergraduate university students

### KEYWORDS

Emotional Regulation, Cognitive Appraisal, Expressive Suppression, Psychological Distress, University Students

## INTRODUCTION

According to WHO, 1948 health is defined as the individual well-being state in terms of physical, psychological and social wellbeing and not only illness absence.<sup>1</sup> Better general health of individuals also incorporates improved mental health. Psychological distress is one of the major rising issues in the world particularly affecting the younger population particularly university students. Psychological distress is seen as one of the essential indicators of mental health. Psychological distress is a momentary response of an individual toward stress which if not given attention might cause depressive symptoms.<sup>2</sup> It is an emotional state characterised by depression and anxiety symptoms.<sup>3</sup> Further it may also exhibit somatic symptoms along with chronic conditions and medically unexplained symptoms.<sup>4</sup>

During the academic year students have to experience several tense situations which deteriorate their psychological health.<sup>5</sup> Further, university students report significantly elevated psychological distress in comparison to general population.<sup>6</sup> Subsequently it negatively affects the student's physical, academic and mental well-being.<sup>7</sup> Due to stigma attached with mental health problems many students refrain from seeking help.<sup>8,9</sup> In pre-adolescence, emotional regulation difficulties are linked with depression and anxiety.<sup>10</sup> Dysregulation of sadness leads to depressive symptoms<sup>11</sup> and dysregulation of fear is linked with the symptoms of anxiety.<sup>12</sup>

Emotion regulation involves extrinsic and intrinsic mechanisms which are accountable for the monitoring, evaluation and modification of emotional responses to achieve goals.<sup>13</sup>

Cognitive reappraisal is a cognitive strategy which involves choosing the more positive interpretation of situations from various situation explanations.<sup>14</sup> Reappraisal of daily life experiences is negatively linked with anxiety and depressive symptoms.<sup>15</sup> Suppression is the process of inhibiting emotional responses. It is related to the decreased social support, poor coping and higher risk of depression in individuals.<sup>16</sup> Expressive suppression in young males was associated with decreased emotional expression however, it had no impact on emotional strength. Expressive suppression is used frequently by young males in comparison to females, on the other hand no gender difference was found on reappraisal usage.<sup>17</sup> Moreover, it seems to affect individual memory, because concealing emotions may overwhelm cognitive resources.<sup>18</sup>



University students pursuing higher educational professional degrees are faced with competitive environments and are more likely to be vulnerable when faced with difficult life events.<sup>19</sup> Dysregulation of emotions significantly positively predicted psychological distress in students.<sup>20</sup> Regulation of emotions and effective emotional regulation strategy usage facilitate students to handle environmental and life stressors, causing reduction in psychological distress. This study aims to investigate the role of emotional regulation strategies, i.e. cognitive reappraisal and emotional suppression in determining psychological distress of undergraduate university students; further, gender differences were also explored. It was hypothesized that a). Cognitive reappraisal and emotional suppression will be significant predictors of psychological distress among undergraduate university students, and b) there will be significant gender difference between emotional regulation strategies i.e. cognitive reappraisal and emotional suppression, usage and psychological distress of undergraduate university students.

#### SUBJECTS AND METHOD

**Participants:** Total 300 students from different universalities, i.e. Karachi University and Bahria University, were included in the sample. 168 females and 132 males of age 19 to 27 years were selected from different universities of Karachi by using convenient sampling.

**Instruments:** Following instruments were used for gathering data. The demographic information sheet covered information related to age, family system, birth order, etc.

#### Emotional Regulation Questionnaire (ERQ)<sup>17</sup>

It was used to quantify cognitive reappraisal and emotional suppression strategy. Respondents were required to answer 10 items on a 7 point Likert scale. Items number 1, 3, 5, 7, 8, 10 measure cognitive reappraisal, whereas items no. 2, 4, 6, 9 corresponds to emotional suppression. Higher scores on respective items suggest frequent usage of that emotional regulation strategy. Cronbach's alpha value of cognitive reappraisal is .81 and of emotional suppression is .73.

#### Kessler psychological distress scale (K10)<sup>21</sup>

It was used to measure psychological distress symptoms over the last 30 days. It contained 10 items which were scored on a 5 point Likert scale. Individuals who scored above 22 were at higher mental disorder risk

After permission from higher authorities of academic institutes, students were approached. They were briefed about the purpose of study, confidentiality and voluntary participation, along with the right to withdraw at any time. They were presented with a consent form followed by a

demographic sheet and Emotional Regulation Questionnaire (ERQ) and Kessler psychological distress scale (K10). Data gathered were analysed using linear regression and t-test. Ethical guidelines were followed in conducting the study. Participants were briefed about the purpose of study, confidentiality, right to withdraw at any time. After consent, appropriate time and guidance were given to complete forms.

#### RESULTS

Statistical analysis was carried out to determine demographics of sample, details are given in table 1. Total 300 students' data was included in the study, 3 incomplete forms were not included. Most of the sample participants were females and single, further, most of them were middle born, not employed, belonged to nuclear family setup and were residing along with family (Table 1).

**Table 1**  
Demographic variable of sample

Groups	N=300	Percentage %
<b>Gender</b>		
Female	168	55.8%
Male	132	43.9%
<b>Birth order</b>		
First	99	32.9%
Middle	110	36.5%
Last	81	26.9%
Only born	10	3.3%
<b>Marital status</b>		
Single	287	95.3%
Married	13	4.3%
<b>Family system</b>		
Nuclear	300	
Joint	212	70.4%
	87	28.9%
<b>Education</b>		
First year students	78	25.9%
Second year students	60	19.9%
Third year students	104	34.6%
Fourth year students	58	19.3%
<b>Employment status</b>		
Working full time	54	17.9%
Working part time	53	17.6%
Not working	193	64.1%
<b>Residing at hostel</b>		
Yes	50	16.66%
No	250	83.33%

Table 2 shows the study variables Cronbach's Alpha, Mean, Standard Deviation, Skewness and Kurtosis. Skewness value lies between +1 and -1 which represents that data is normally distributed. Further, Linear regression reveals cognitive reappraisal usage as a significant predictor of psychological distress among undergraduate university students  $\beta = -.275$ ,  $p < .000$  (Table 3). Further, it suggests that cognitive reappraisal usage explained 76 % variance in psychological distress of undergraduate university students  $R^2 = 0.76$ ,  $F(1,298) = 24.41$ ,  $p < .05$ . Moreover, emotional suppression usage was not a significant predictor of psychological distress among undergraduate university students  $\beta = .033$ ,  $p = .568$  (Table 3). Significant gender differences were found on cognitive reappraisal usage  $t(292.13) = 1.99$ ,  $p = .04$  and psychological



distress  $t(262.74)=2.98, p=.003$ . Females scored higher on cognitive reappraisal usage (Mean= 28.60, SD=7.71) and psychological distress (Mean= 29.12, SD=8.55) as compared to male students score on cognitive reappraisal usage (M= 26.90, SD=6.97) and psychological distress (Mean= 26.07, SD=8.96). Moreover, no significant gender difference was found on emotional suppression usage (Table 4).

**Table 2**  
**Descriptive Statistics and Univariate Normality of Variables (N=300)**

Variables	Items	Mean	Standard error of mean	Standard deviation	Kurtosis	Skewness
Cognitive reappraisal	6	27.86	.42	7.43	-.001	-.377
Emotional suppression	4	18.10	.30	5.30	-.514	-.224
Psychological distress	10	27.78	.51	8.85	-.610	.150

**Table 3**  
**Summary of linear regression analysis for cognitive reappraisal and emotional suppression predicting psychological distress**

Psychological Distress					
Predictors variable	R <sup>2</sup>	β	df	f	p
Cognitive reappraisal	.076	-.275	298	24.413	.000**
Emotional suppression	.001	.033	298	.327	.568

Note: \* level of significance=  $p<0.05$

**Table 4**  
**Difference between the mean scores of cognitive reappraisal, emotional suppression and psychological distress among male and female students**

Study variable	Gender	N	Mean	Std deviation	t	df	p
Cognitive reappraisal	Female	168	28.60	7.71	1.99	292.13	.04*
	Male	132	26.90	6.97			
Emotional suppression	Female	168	18.42	5.36	1.19	284.87	.23
	Male	132	17.69	5.21			
Psychological distress	Female	168	29.12	8.55	2.98	262.74	.003*
	Male	132	26.07	8.96			

Note: \*  $p<0.05$  = level of significance

**DISCUSSION**

Results suggest that hypothesis 01 is verified which implies that cognitive reappraisal usage was found to be a significant negative predictor of psychological distress among undergraduate university students. Further, emotional suppression usage was not a significant predictor of psychological distress among undergraduate university students (Table 1). Second half finding is in contradiction with past research, which mostly suggested a negative relationship between emotional suppression and psychological distress. Past researches endorse cognitive reappraisal as predictor of psychological distress, study conducted on medical students in Pakistan suggested significant negative relationship between relationship of mindfulness and emotional regulation with psychological distress i.e. stress, depression and anxiety, further these were found to be significant predictors of

psychological distress.<sup>22</sup> In drug users, significant positive relationship was found between psychological distress and expressive suppression.<sup>23</sup> Literature suggests significant negative relationship between cognitive reappraisal and mental health problems, significant positive relationship among emotional exhaustion and cognitive reappraisal.<sup>24</sup>

Cognitive reappraisal was found to be positively linked to positive effect, flourishing, emotional coping, and instrumental coping. In addition to this, it was negatively associated with negative effect. Further, emotional suppression was found to have a positive association with negative affect and a negative link with emotional and instrument coping. Academic achievement was found to be not significantly related to both cognitive reappraisal and emotional suppression.<sup>25</sup>

Table 2 shows significant gender differences on cognitive reappraisal and psychological distress, female students scored higher as compared to male students. On emotional suppression no significant gender difference was revealed. Past research supports the notion that female gender was found to be positively linked with perceived stress.<sup>26</sup> Female college level students reported higher levels of stress along with higher usage of emotion focused coping as compared to men.<sup>27</sup> Women experience more perceived stress as compared to males.<sup>28</sup> In depressive and anxiety symptoms, gender moderated the link with cognitive reappraisal. Generally females utilised cognitive reappraisal more than compared to men. Cognitive reappraisal was negatively linked with the depressive and anxiety symptoms in females but not in male. On the other hand, males utilised emotional suppression more than females, contrary to our findings. In females and older males use of emotional suppression was found to be unrelated with depression and anxiety.<sup>29</sup>

**Limitation and Recommendations**

Data were collected from 300 respondents residing in one city only, hence results generalisation will be one of the limitations; hence, future researchers can incorporate diverse populations to eradicate this limitation. Secondly, on self-reported questionnaires, respondents usually respond in favorable ways which might lead to partiality in data. Hence for future studies a mixed approach for data collection is suggested including qualitative methods as well.

**CONCLUSION**

It can be concluded that cognitive reappraisal usage served as a significant negative predictor of psychological distress among undergraduate university students moreover, emotional suppression usage was not a significant predictor of psychological distress. Significant gender differences were found between cognitive reappraisal usage and psychological distress level of university students, where females scored higher than compared to males.



Research findings can be utilised by teachers and counselors for developing the training workshop /awareness seminars for university fresher's to enhance their coping skills, leading to a reduction in psychological distress level. Psychologists can design training modules for enhancing adaptive emotional regulation skills of university students and conduct seminars to enhance such skills of students.

#### Conflict of interest

None

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**UNDERTAKING FORM**

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