Emotion Regulation and Defense Mechanisms Among Young Adults

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Abstract

There is a rich pool of research on emotion regulation but not much that suggests adaptiveness and mal-adaptiveness of defense mechanisms that young adults use as a behavioral outcome. Most empirical studies have not examined the link between daily regulatory strategies and every day defenses. The current study was carried out with the purpose of analyzing emotion regulation strategies and defense styles used among young adults. Total, 350 young adults, belonging to the age group of 18-25, were included in the study through random sampling method. All the participants were expected to complete Emotion Regulation Questionnaire (ERQ) and Defense Style Questionnaire (DSQ-40). Results indicated that the use of defense mechanisms showed a significant increase as both cognitive appraisal and emotion expression strategy scores increased. Further, specific defenses also showed significant results.

Keywords: emotion regulation, defense mechanisms, young adults

Introduction

Humans are in a constant process of adjusting and at times, when there are hurdles in the process of goal attainment, such situations give rise to a conflict. Every human is designed to either avoid, escape or shield self from anxiety and distress caused from such threats. Young adults in particular are in a very volatile age group with a progressively developing effort of overcoming various pressures, for optimal transition in adulthood. Individuals belonging to this age experience a lot stress, because various reasons such as the psychological demands of competition, fear of keeping up with the standards, fear of falling out of social and peer circles, parental involvement, internal conflicts, social evaluation, feeling inadequate, and very importantly the impact of online and social media footprint. Emotionally driven individuals get susceptible to facing life challenges, therefore, it is to be understood the key concept of emotion regulation as it forms the basis for most theories of emotions.

Emotion regulation refers to an individuals' ability to understand, grasp and develop acceptance towards his or her ongoing emotional experience in prospect of engaging in healthy strategies that help manage uncomfortable and unwanted emotions when required and to engage in appropriate behaviour when emotionally impoverished. (Shehata A.M, 2017). There are two emotion regulation strategies that individuals use in order to adapt in distressed situations: cognitive reappraisal and emotion suppression. Cognitive reappraisal is a type of emotion regulation strategy wherein one's thoughts about a situation is attempted to change in order to decrease the emotional impact of the situation. Emotion suppression is the other emotion regulation strategy where ongoing emotionally expressive behaviour as a result of emotion eliciting situation, is inhibited. On the other hand, defense mechanisms can be understood as psychological strategies which are unconsciously used in order to safeguard a person from an anxious outcome of unacceptable thoughts and feelings. Diagnostic Statistic Manual IV proposed defense mechanisms as a tool to protect an automatic mental process that works as a result of anxiety and also internal and external factors that may end up causing stress. Defense mechanisms exist as a continuum and can be bifurcated in three groups: mature, immature and neurotic defense mechanism, based on the adaptiveness factor of each defense. Mature defenses are the

most adaptive defense mechanism and include suppression, sublimation, humor and anticipation. Neurotic defenses are the least adaptive in nature which are generally used by pathological population, this includes undoing, pseudo-altruism, idealization and reaction formation. Lastly, immature defenses are more naïve and childish in nature which includes projection, passive aggression, acting out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, splitting, rationalization and somatization. When used within limits, defense mechanisms have help in optimal stress management, managing strong adverse emotions and combating disappointment. (mukherjee, 2017)

Capacity of an individual's usage of emotion regulation strategies enhances psychological adaptations as a result of his or her ego functioning. These psychological adaptations can be both constructive and defensive in nature. For instance, In cases where the individual combats threats using cognitive reappraisal strategy wherein a situation is changed in order to make it less threatening to self-wellbeing and self-esteem. Therefore, defense mechanisms intents at shielding an individual from concluding that their beliefs were misguided. (Shiferaw H, 2015). This study will look forward to understanding if there is any relationship between these both variable and if yes, then which exact defense mechanisms do relation with emotion regulation strategies.

Methods and Material
A descriptive correlation analysis was conducted to investigate the relationship between emotion regulation and defense mechanisms among young adults. Three hundred and fifty young adults were randomly selected across various colleges in Ahmedabad city of Gujarat. Details of the study were explained to the population and thereby consent was also taken. A socio demographic detail section, Defense style questionnaire and Emotion regulation questionnaire were used to collect data from the samples. The correlation between emotion regulation and defense mechanisms in young adults was studied on basis of these scores.

Tool 1: Emotion Regulation Questionnaire (ERQ)

This tool was developed by Gross and John in 2003. This tool comprises of ten items and is designed to evaluate the subject's tendency to regulate their emotions in persistent use of two emotion regulation strategies: expressive suppression and cognitive reappraisal. Each item is answered on a 7-point Likert scale while ranges from 1 to 7, that is, strongly disagree to strongly agree. Thereafter, the scoring is done by taking the mean scores of designated items.

Tool 2: Defense Style Questionnaire (DSQ-40)
This tool was developed by Andrews et al in 1993. The scale consists of forty items which aims to measure total of 20 defense styles and differentiate between three groups of defense styles which are mature, immature and neurotic defense mechanisms. It is 9-point Likert scale where 1 is strongly disagree and 9 is strongly agree based on agreement with the statements.

The data was analyzed using SPSS-16 at a $p \leq 0.05$ significance level. Arithmetic mean, percentage and standard deviation were used for descriptive statistics and ANOVA and Karl Pearson's coefficient was used to conduct in depth analysis.

Results
The study was conducted to analyze if there is any significant relationship between defense mechanism and emotion regulation. Analysis for this study was done in four parts:
1. First part of the analysis understood the association between defense mechanisms (mature, neurotic and immature defense mechanism) and cognitive appraisal emotional regulation strategy.
2. Second part of the analysis understood the association between defense mechanisms (mature, neurotic and immature defense mechanism) and emotion expression emotional regulation strategy.
3. Third part of the analysis talked about specific defense and its relation with cognitive appraisal emotional regulation strategy.
4. Fourth part of the analysis also talked about the specific defenses but with its relation to emotion expression emotion regulation strategy.

1. H0: There is no significant difference in mature defense mechanism score among respondents with low, medium and high cognitive reappraisal

H1: There is significant difference in mature defense mechanism score among respondents with low, medium and high reappraisal

Descriptive		N	Mean	Std. Deviation
Mature Defence Mechanism	Low Reappraisal	10	36.6000	8.90942
	Medium Reappraisal	193	45.7668	8.94151
	High Reappraisal	147	50.0680	10.11892
	Total	350	47.3114	9.83227
Neurotic Defence Mechanism	Low Reappraisal	10	54.0000	22.08569
	Medium Reappraisal	193	58.0829	10.54027
	High Reappraisal	147	60.9116	12.36318
	Total	350	59.1543	11.84640
Immature Defence Mechanism	Low Reappraisal	10	112.2000	22.38948
	Medium Reappraisal	193	126.6736	20.23307
	High Reappraisal	147	129.7211	21.76109
	Total	350	127.5400	21.10466

Table 1: defense mechanism and cognitive reappraisal

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Mature Defence Mechanism	Between Groups	2724.827	2	1362.413	15.243	.000
	Within Groups	31014.227	347	89.378		
	Total	33739.054	349			
Neurotic Defence Mechanism	Between Groups	941.145	2	470.572	3.399	.035
	Within Groups	48036.524	347	138.434		
	Total	48977.669	349			
Immature Defence Mechanism	Between Groups	3197.340	2	1598.670	3.644	.027
	Within Groups	152249.600	347	438.760		
	Total	155446.940	349			

Table 2: ANOVA results for table 1

Mean mature defense mechanism score with low cognitive appraisal was found to be 36.6, while that with high cognitive appraisal was found to be 50.06. Mean neurotic defense mechanism score with low cognitive appraisal is 54, while that with high cognitive appraisal is 60.9. Mean immature defense mechanism score with low cognitive appraisal is 112.2 and 127.5 with high cognitive appraisal. To check the significance of the result, ANOVA was conducted and the results came out significant as shown in table 2. This suggests that as the cognitive reappraisal score increased, the scores of mature, neurotic and immature defense mechanisms also increased. That suggests, an individual who uses more of cognitive reappraisal also tend to use more defense mechanism.

The results of ANOVA test presented in table above shows that there is significant difference in mature defense score of respondents across three categories of respondents with low, medium and high reappraisal (p < 0.05). Thus, we reject the null hypothesis and conclude that

mature defense mechanism score changes with reappraisal.

2. H0: There is no significant difference in mature defense mechanism score among respondents with low, medium and high emotion suppression

H1: There is significant difference in mature defense mechanism score among respondents with low, medium and high emotion suppression

Descriptive		N	Mean	Std. Deviation
Mature Defence Mechanism	Low Suppression	84	36.4286	7.51590
	Medium Suppression	173	47.4220	6.39595
	High Suppression	93	56.9355	6.12338
	Total	350	47.3114	9.83227
Neurotic Defence Mechanism	Low Suppression	84	56.0833	13.92511
	Medium Suppression	173	58.9942	10.37018
	High Suppression	93	62.2258	11.75486
	Total	350	59.1543	11.84640
Immature Defence Mechanism	Low Suppression	84	121.8810	22.53052
	Medium Suppression	173	128.5029	19.72002
	High Suppression	93	130.8602	21.50611
	Total	350	127.5400	21.10466

Table 3: defense mechanism and emotion suppression

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Mature Defence Mechanism	Between Groups	18564.673	2	9282.337	212.264	.000
	Within Groups	15174.381	347	43.730		
	Total	33739.054	349			
Neurotic Defence Mechanism	Between Groups	1674.000	2	837.000	6.140	.002
	Within Groups	47303.669	347	136.322		
	Total	48977.669	349			
Immature Defence Mechanism	Between Groups	3875.699	2	1937.850	4.436	.013
	Within Groups	151571.241	347	436.805		
	Total	155446.940	349			

Table 4: ANOVA for table 3

Mean mature defense mechanism score with low emotion suppression strategy was found to be 36.4 and that with high emotion expression strategy was found to be 56.9. mean neurotic defense mechanism score with low emotion suppression was 56.1 while that with high emotion suppression strategy was 62.2. mean immature defense mechanism score with low emotion suppression strategy and high emotion suppression strategy was found to be 121 and 130 respectively. Results showed significance

at <0.05 as shown in table 2. This suggests that as emotion suppression scores increased so did the defense mechanism score. Individuals who use more of emotion suppression as a strategy to regulate their emotions, more of defense mechanisms was also used.

The results of ANOVA test presented in table above shows that there is significant difference in mature defense score of respondents across three categories of respondents with low,

medium and high emotion expression (p < 0.05). Thus, we reject the null hypothesis and

conclude that mature defense mechanism score changes with emotion expression.

3. Cognitive Reappraisal and Specific defense mechanisms

Descriptive				
		N	Mean	Std. Deviation
DM_supression	Low Reappraisal	10	7.2000	3.29309
	Medium Reappraisal	193	10.8135	3.61945
	High Reappraisal	147	12.1905	4.03297
	Total	350	11.2886	3.90351
DM_sublimation	Low Reappraisal	10	9.5000	2.83823
	Medium Reappraisal	193	10.2746	3.79723
	High Reappraisal	147	11.6667	3.89825
	Total	350	10.8371	3.87473
DM_humor	Low Reappraisal	10	9.8000	4.10420
	Medium Reappraisal	193	12.1347	3.39922
	High Reappraisal	147	13.1429	3.46805
	Total	350	12.4914	3.50418
DM_anticipation	Low Reappraisal	10	10.1000	3.81372
	Medium Reappraisal	193	12.5440	3.03270
	High Reappraisal	147	13.0680	3.12669
	Total	350	12.6943	3.12870
DM_undoing	Low Reappraisal	10	10.8000	5.69210
	Medium Reappraisal	193	12.1244	3.46486
	High Reappraisal	147	12.5986	3.55901
	Total	350	12.2857	3.58580
DM_pseudo_altruism	Low Reappraisal	10	10.4000	4.94862
	Medium Reappraisal	193	11.0933	3.64743
	High Reappraisal	147	12.3401	3.53359
	Total	350	11.5971	3.68618
DM_idealisation	Low Reappraisal	10	10.6000	4.22164
	Medium Reappraisal	193	12.0207	3.91838
	High Reappraisal	147	12.4626	3.77677
	Total	350	12.1657	3.87202
DM_reaction_formation	Low Reappraisal	10	11.4000	3.33999
	Medium Reappraisal	193	10.7202	3.47977
	High Reappraisal	147	10.9116	3.87992
	Total	350	10.8200	3.64218
DM_projection	Low Reappraisal	10	9.6000	3.20416
	Medium Reappraisal	193	10.1969	3.62322
	High Reappraisal	147	10.6871	3.84779
	Total	350	10.3857	3.70894
DM_passive_aggression	Low Reappraisal	10	9.8000	3.73571
	Medium Reappraisal	193	10.1399	3.78953
	High Reappraisal	147	10.4830	3.78236
	Total	350	10.2743	3.77887
DM_acting_out	Low Reappraisal	10	13.5000	4.27525
	Medium Reappraisal	193	12.2746	3.79586
	High Reappraisal	147	12.6395	3.95340
	Total	350	12.4629	3.87299
DM_isolation	Low Reappraisal	10	8.7000	4.59589
	Medium Reappraisal	193	11.5130	3.61869

	High Reappraisal	147	10.9660	3.90541
	Total	350	11.2029	3.79284
DM_devaluation	Low Reappraisal	10	6.7000	2.66875
	Medium Reappraisal	193	8.3212	3.61427
	High Reappraisal	147	8.6395	3.86226
	Total	350	8.4086	3.70417
DM_autistic_fantasy	Low Reappraisal	10	11.0000	5.31246
	Medium Reappraisal	193	11.6477	4.36012
	High Reappraisal	147	11.7075	4.07164
	Total	350	11.6543	4.25854
DM_denial	Low Reappraisal	10	5.6000	3.56526
	Medium Reappraisal	193	7.9016	3.37510
	High Reappraisal	147	8.9456	3.90781
	Total	350	8.2743	3.66806
DM_displacement	Low Reappraisal	10	9.4000	4.71876
	Medium Reappraisal	193	9.3990	4.06092
	High Reappraisal	147	9.8163	4.00688
	Total	350	9.5743	4.05039
DM_dissociation	Low Reappraisal	10	7.2000	3.45768
	Medium Reappraisal	193	9.4663	4.09651
	High Reappraisal	147	9.5986	4.01139
	Total	350	9.4571	4.05296
DM_splitting	Low Reappraisal	10	10.4000	4.24788
	Medium Reappraisal	193	11.2021	3.86835
	High Reappraisal	147	11.3946	4.19484
	Total	350	11.2600	4.01121
DM_rationalisation	Low Reappraisal	10	10.1000	3.34830
	Medium Reappraisal	193	13.6062	3.42028
	High Reappraisal	147	13.9116	3.44611
	Total	350	13.6343	3.47615
DM_somatisation	Low Reappraisal	10	10.2000	5.11642
	Medium Reappraisal	193	11.0052	4.35352
	High Reappraisal	147	10.9320	4.40370
	Total	350	10.9514	4.38550

Table 5: specific defense mechanism and cognitive reappraisal

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
DM_supression	Between Groups	330.303	2	165.151	11.490	.000
	Within Groups	4987.552	347	14.373		
	Total	5317.854	349			
DM_sublimation	Between Groups	180.105	2	90.052	6.176	.002
	Within Groups	5059.612	347	14.581		
	Total	5239.717	349			
DM_humor	Between Groups	159.377	2	79.688	6.702	.001
	Within Groups	4126.097	347	11.891		
	Total	4285.474	349			
DM_anticipation	Between Groups	92.193	2	46.097	4.812	.009
	Within Groups	3324.095	347	9.580		
	Total	3416.289	349			
DM_undoing	Between Groups	41.493	2	20.747	1.619	.200
	Within Groups	4445.935	347	12.812		

	Total	4487.429	349			
DM_pseudo_altruism	Between Groups	144.483	2	72.241	5.452	.005
	Within Groups	4597.714	347	13.250		
	Total	4742.197	349			
DM_idealisation	Between Groups	41.527	2	20.764	1.388	.251
	Within Groups	5190.861	347	14.959		
	Total	5232.389	349			
DM_reaction_formation	Between Groups	6.518	2	3.259	.245	.783
	Within Groups	4623.142	347	13.323		
	Total	4629.660	349			
DM_projection	Between Groups	26.405	2	13.202	.960	.384
	Within Groups	4774.524	347	13.759		
	Total	4800.929	349			
DM_passive_aggression	Between Groups	12.138	2	6.069	.424	.655
	Within Groups	4971.530	347	14.327		
	Total	4983.669	349			
DM_acting_out	Between Groups	22.180	2	11.090	.738	.479
	Within Groups	5212.837	347	15.023		
	Total	5235.017	349			
DM_isolation	Between Groups	89.450	2	44.725	3.147	.044
	Within Groups	4931.148	347	14.211		
	Total	5020.597	349			
DM_devaluation	Between Groups	38.500	2	19.250	1.406	.246
	Within Groups	4750.074	347	13.689		
	Total	4788.574	349			
DM_autistic_fantasy	Between Groups	4.705	2	2.353	.129	.879
	Within Groups	6324.463	347	18.226		
	Total	6329.169	349			
DM_denial	Between Groups	164.574	2	82.287	6.302	.002
	Within Groups	4531.094	347	13.058		
	Total	4695.669	349			
DM_displacement	Between Groups	14.848	2	7.424	.451	.637
	Within Groups	5710.721	347	16.457		
	Total	5725.569	349			
DM_dissociation	Between Groups	53.906	2	26.953	1.647	.194
	Within Groups	5678.951	347	16.366		
	Total	5732.857	349			
DM_splitting	Between Groups	10.705	2	5.353	.331	.718
	Within Groups	5604.635	347	16.152		
	Total	5615.340	349			
DM_rationalisation	Between Groups	136.366	2	68.183	5.798	.003
	Within Groups	4080.823	347	11.760		
	Total	4217.189	349			
DM_somatisation	Between Groups	6.260	2	3.130	.162	.851
	Within Groups	6705.915	347	19.325		
	Total	6712.174	349			

Table 6: ANOVA for table 5

Across all the defenses, 4 defense of mature defense mechanism (suppression, sublimation, humor and anticipation), 1 of neurotic (Pseudo altruism) and 3 of immature (isolation, denial and rationalization) were found to have significant relationship across levels of use of cognitive appraisal strategy. This states that individuals who frequently engage in cognitive appraisal in order to regulate their emotions

have a probability of using this defense
mechanism in their behavioral outcome.

4. Emotion Suppression and Specific defense mechanisms

Descriptive		N	Mean	Std. Deviation
DM_supression	Low Suppression	84	5.9881	1.95426
	Medium Suppression	173	11.2890	1.55808
	High Suppression	93	16.0753	1.00257
	Total	350	11.2886	3.90351
DM_sublimation	Low Suppression	84	7.1905	3.07527
	Medium Suppression	173	10.9538	3.32505
	High Suppression	93	13.9140	2.45240
	Total	350	10.8371	3.87473
DM_humor	Low Suppression	84	11.3571	4.12060
	Medium Suppression	173	12.5838	3.28672
	High Suppression	93	13.3441	3.02344
	Total	350	12.4914	3.50418
DM_anticipation	Low Suppression	84	11.8929	3.31487
	Medium Suppression	173	12.5954	3.18579
	High Suppression	93	13.6022	2.60910
	Total	350	12.6943	3.12870
DM_undoing	Low Suppression	84	11.7024	4.08871
	Medium Suppression	173	12.2948	3.35667
	High Suppression	93	12.7957	3.47212
	Total	350	12.2857	3.58580
DM_pseudo_altruism	Low Suppression	84	10.7381	4.45626
	Medium Suppression	173	11.5607	3.28723
	High Suppression	93	12.4409	3.46869
	Total	350	11.5971	3.68618
DM_idealisation	Low Suppression	84	11.8452	4.23836
	Medium Suppression	173	12.1156	3.68978
	High Suppression	93	12.5484	3.86882
	Total	350	12.1657	3.87202
DM_reaction_formation	Low Suppression	84	10.0952	3.59926
	Medium Suppression	173	10.7283	3.67758
	High Suppression	93	11.6452	3.48801
	Total	350	10.8200	3.64218
DM_projection	Low Suppression	84	9.8571	3.67716
	Medium Suppression	173	10.4624	3.73778
	High Suppression	93	10.7204	3.67236
	Total	350	10.3857	3.70894
DM_passive_aggression	Low Suppression	84	10.6667	3.82236
	Medium Suppression	173	9.8960	3.60565
	High Suppression	93	10.6237	4.01874
	Total	350	10.2743	3.77887
DM_acting_out	Low Suppression	84	11.9167	4.34979
	Medium Suppression	173	12.6532	3.55619
	High Suppression	93	12.6022	3.97858
	Total	350	12.4629	3.87299
DM_isolation	Low Suppression	84	9.5714	4.00988
	Medium Suppression	173	11.7688	3.59162

	High Suppression	93	11.6237	3.56893
	Total	350	11.2029	3.79284
DM_devaluation	Low Suppression	84	8.6786	3.45072
	Medium Suppression	173	8.1040	3.62335
	High Suppression	93	8.7312	4.05168
	Total	350	8.4086	3.70417
DM_autistic_fantasy	Low Suppression	84	11.0476	4.42312
	Medium Suppression	173	12.1734	4.21845
	High Suppression	93	11.2366	4.10566
	Total	350	11.6543	4.25854
DM_denial	Low Suppression	84	7.6667	3.41624
	Medium Suppression	173	8.3468	3.71295
	High Suppression	93	8.6882	3.77053
	Total	350	8.2743	3.66806
DM_displacement	Low Suppression	84	9.2500	4.60454
	Medium Suppression	173	9.7225	4.01211
	High Suppression	93	9.5914	3.58813
	Total	350	9.5743	4.05039
DM_dissociation	Low Suppression	84	8.4643	4.09068
	Medium Suppression	173	9.7688	3.83887
	High Suppression	93	9.7742	4.29896
	Total	350	9.4571	4.05296
DM_splitting	Low Suppression	84	10.8929	4.19126
	Medium Suppression	173	11.1214	3.79140
	High Suppression	93	11.8495	4.21938
	Total	350	11.2600	4.01121
DM_rationalisation	Low Suppression	84	12.6071	3.86214
	Medium Suppression	173	13.4740	3.44992
	High Suppression	93	14.8602	2.75678
	Total	350	13.6343	3.47615
DM_somatisation	Low Suppression	84	11.2619	4.42370
	Medium Suppression	173	11.0116	4.35087
	High Suppression	93	10.5591	4.43421
	Total	350	10.9514	4.38550

Table 7: defense mechanism and emotion suppression

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
DM_supression	Between Groups	4490.844	2	2245.422	942.142	.000
	Within Groups	827.010	347	2.383		
	Total	5317.854	349			
DM_sublimation	Between Groups	1999.823	2	999.911	107.093	.000
	Within Groups	3239.894	347	9.337		
	Total	5239.717	349			
DM_humor	Between Groups	177.165	2	88.582	7.482	.001
	Within Groups	4108.310	347	11.840		

	Total	4285.474	349			
DM_anticipation	Between Groups	132.297	2	66.148	6.990	.001
	Within Groups	3283.992	347	9.464		
	Total	3416.289	349			
DM_undoing	Between Groups	52.785	2	26.393	2.065	.128
	Within Groups	4434.643	347	12.780		
	Total	4487.429	349			
DM_pseudo_altruism	Between Groups	128.422	2	64.211	4.829	.009
	Within Groups	4613.776	347	13.296		
	Total	4742.197	349			
DM_idealisation	Between Groups	22.680	2	11.340	.755	.471
	Within Groups	5209.708	347	15.014		
	Total	5232.389	349			
DM_reaction_formation	Between Groups	108.900	2	54.450	4.179	.016
	Within Groups	4520.760	347	13.028		
	Total	4629.660	349			
DM_projection	Between Groups	34.906	2	17.453	1.271	.282
	Within Groups	4766.023	347	13.735		
	Total	4800.929	349			
DM_passive_aggression	Between Groups	49.047	2	24.523	1.724	.180
	Within Groups	4934.622	347	14.221		
	Total	4983.669	349			
DM_acting_out	Between Groups	33.130	2	16.565	1.105	.332
	Within Groups	5201.887	347	14.991		
	Total	5235.017	349			
DM_isolation	Between Groups	295.446	2	147.723	10.848	.000
	Within Groups	4725.151	347	13.617		
	Total	5020.597	349			
DM_devaluation	Between Groups	31.846	2	15.923	1.162	.314
	Within Groups	4756.728	347	13.708		
	Total	4788.574	349			
DM_autistic_fantasy	Between Groups	93.766	2	46.883	2.609	.075

	Within Groups	6235.403	347	17.969		
	Total	6329.169	349			
DM_denial	Between Groups	47.854	2	23.927	1.786	.169
	Within Groups	4647.814	347	13.394		
	Total	4695.669	349			
DM_displacement	Between Groups	12.663	2	6.332	.385	.681
	Within Groups	5712.905	347	16.464		
	Total	5725.569	349			
DM_dissociation	Between Groups	108.955	2	54.477	3.361	.036
	Within Groups	5623.902	347	16.207		
	Total	5732.857	349			
DM_splitting	Between Groups	46.961	2	23.480	1.463	.233
	Within Groups	5568.379	347	16.047		
	Total	5615.340	349			
DM_rationalisation	Between Groups	232.837	2	116.419	10.139	.000
	Within Groups	3984.351	347	11.482		
	Total	4217.189	349			
DM_somatisation	Between Groups	23.035	2	11.517	.597	.551
	Within Groups	6689.140	347	19.277		
	Total	6712.174	349			

Table 8: ANOVA for table 7

Across all the defense studied, 4 mature defenses, 2 of neurotic defenses (Pseudo altruism, Reaction formation) and 3 of immature defenses(isolation, dissociation and rationalization) were found to be significantly related with emotion suppression emotion regulation strategy.

This states that individuals who frequently engage in emotion suppression in order to regulate their emotions may also be using this above defense mechanism in their behavioral outcome.

Therefore, Findings of the study suggests there is a significant difference in mature, neurotic and immature defense mechanism among respondents with low and high cognitive reappraisal and emotion expression emotion regulation strategy.

Discussions
The concept of defensiveness is an interpersonal and intrapsychic activity, but theoretically, emotional control processes are needed for facilitation of these defense mechanisms. (Znoj, 1999). For instance, in a study which understood the neuroscience working basis of emotion regulation and defense mechanism, concluded stating that affect-oriented conceptualizations of defense mechanisms are similar to that of emotion regulation. Theoretically and conceptually, these two concepts show valid correlations that forms the basis of this study. (Timothy R Rice, 2014). The concept of rational emotive behaviour therapy was studied to have had an effect on the defense mechanisms used by students. In about 8 sessions of the emotive therapy, students were seen to be using less

immature defense mechanisms and more of mature defense mechanisms. (Hamidi and Paider, 2016). Association between emotion regulation and defense mechanism has long been studied and shown representativeness of link between emotion regulation and the dimensions of adaptiveness and mal-adaptiveness of defense mechanisms (Sala, 2015). This study focused on gathering insight of the same link on the young adult population of Ahmedabad city.

According to results of this study, defenses that are constructive and helpful, ones that inflict a peaceful relationship with self and other, in other words the mature defense mechanism showed directly proportional effect on cognitive appraisal and emotion suppression. Interestingly all mature defense mechanisms were seen to have a significant relationship with both emotion regulation strategy. In other words, mature defense mechanisms play a key role in emotion regulation strategy regardless of whichever an individual uses.

Defenses that are primitive in nature and are more maturely developed than immature defense mechanism are the neurotic defense mechanism, which helps in time being coping with situations but can pose problems in long term. Interestingly, only one out of four neurotic was seen to have significant relations with cognitive appraisal and emotion suppression, the Pseudo altruism: a type of defense where the individual indulges in prosocial activity in order to combat with emotionally eliciting situations. However, another interesting observation was seen in the significant relationship between only emotion suppression and Reaction formation, one of the neurotic defense mechanisms, which suggests converting dangerous thoughts, feelings and impulses into their opposite forms. Therefore, as emotion suppression strategy use increases so does reaction formation and pseudo altruism.

Lastly, defenses that are the least primitive and childish, ones that give a very temporary but quick relief are the immature defense mechanism. Surprisingly, only 3 out of 12 immature defenses showed a significant relationship with cognitive appraisal and emotion suppression: namely isolation, denial, rationalization; and isolation, dissociation and rationalization for emotion suppression,

respectively. That means, an individual who isolates self from an emotionally driven situation (isolation) and/or who puts things in a different light that end up offering an explanation for their own perception or behaviour for rationalizing their situational response (rationalization) use more of both emotion suppression and cognitive appraisal. Conversely, refusing to accept factual reality and acting as if painful thoughts and feelings and situations never existed (denial) has shown a significant relationship with cognitive appraisal, while losing track of time and finding a different representation of their self in process of continuing in the moment (dissociation) was typical to only emotion suppression emotion regulation strategy.

Conclusion
According to the results of the study, an individual who uses more of, antecedent - focused strategy, involves a cognitive change wherein an emotionally eliciting situation is constringed in a way that changes its emotional impact even before the impact has fully occurred, also called the cognitive appraisal strategy, significantly uses more of suppression, sublimation, humor, anticipation, pseudo altruism, isolation, denial and rationalization defense mechanisms particularly. An individual who uses more of, a response-focused strategy which involves active inhibition of ongoing emotion-expressive behaviour, also called the emotion suppression strategy, uses more of suppression, sublimation, humor, anticipation, pseudo altruism, reaction formation, isolation, dissociation and rationalization defense mechanisms particularly. (Gross, 1993). Interpretations of the analysis has been done in line with a contextual view of emotion regulation where no strategy is "good" or "bad" (Robert Brockman, 2016), but defense mechanisms were understood on basis of how mature are they in their nature. The study provides a subjective base for improving the use of which category of defense mechanism and emotional regulation in order to have a healthy ego functioning and identifying which emotion regulation suits one best. Insight into psychological mechanisms may help one achieve satisfying integrity and the instinctive drives for managing their social environment.

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