

## Early Maladaptive Schemas, Emotional Regulation, and Symptom Dimensions of Patients with Obsessive Compulsive Disorder (OCD) in Lahore

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### ABSTRACT

The focus of the present study was to examine the relationship between early maladaptive schemas, emotional regulation strategies, and obsessive and compulsive symptom dimensions among patients of OCD in Lahore. With the administration of a cross-sectional research design, 80 patients with obsessive-compulsive disorder (Women=36; Men=44) were selected through non-probability purposive sampling and within the age range of 18-55 years. The tools for assessment included the Demographic Questionnaire, Young Schema Questionnaire-Short Form (Young et al., 2003), Emotional Regulation Questionnaire (Gross & John, 2003), and the Obsessive-Compulsive Disorder Symptom Checklist (Jabeen, 2008). Findings of the present study indicated that among early maladaptive schemas, some of the maladaptive schemas, e.g., Emotional Deprivation, Defectiveness/shame, Dependence/incompetence, Vulnerability to harm/illness, Undeveloped self, Subjugation, Entitlement/Grandiosity, and Approval-seeking had a significant relationship with obsessive symptom dimensions. Gender differences were reported in the six schema—dimensions, i.e., Approval-seeking, Entitlement/Grandiosity, Mistrust/Abuse, Failure to achieve, Social Isolation, and Self-sacrifice, whereas Female OCD patients scored higher in the expressive suppression strategy of emotional regulation. Some of the similar schemas showed a significant positive prediction of obsessive symptoms among OCD patients.

**Keywords:** Early maladaptive schemas, emotional regulation, obsessive and compulsive symptom dimensions.

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## INTRODUCTION

Obsessive compulsive disorder (OCD) is one of the incapacitating disorders which includes two diverse phenomena: Obsessions, which are regarded as certain intrusive and persistent thoughts, urges or images (featuring order, symmetry, contamination etc.) which overtly generate anxiety or distress and secondly includes Compulsions, that are composed of certain repetitive overt or covert behaviors that helps the individual to neutralize or suppress the distressing images, thoughts or urges (such as washing, checking, mental counting etc.).

Obsessive-compulsive disorder is a condition with varied forms where patients usually experience different types of symptoms, which include both obsessional distress and compulsive rituals. Efforts to capture this heterogeneity have led to subtype characterizations of OCD, which recognize that patients differ both in the types of symptoms they experience and in the degree to which these symptoms cause distress and functional interference (McKay et al., 2004).

Obsessive-compulsive disorder tends to be one of the more common mental illnesses than was initially presumed. According to WHO (2015), in Pakistan, the prevalence rate of total cases of anxiety disorder are accounted to be (6, 262,026) 3.6% of the population. According to the Global Health Estimates (WHO, 2015), anxiety disorders account for 577,640 years lived with disability (YLDs) in Pakistan, representing 3.1 percent of the total YLD burden. Individuals suffering from OCD endure substantial disability as the occurrences of obsessive-compulsive symptoms (OCS) can cause impairment in occupational functioning and disruption in social relationships. Moreover, the onset of OCD at a younger age was ascertained to have a negative impact on the life spheres related to work and family, thereby impacting the social functioning of the individual (Rosa et al., 2012).

Within the cognitive viewpoint, the occurrences of faulty appraisals and maladaptive cognitive schemas are significant processes in the manifestation, etiology, and perseverance

of obsessions and compulsions (Clark & Beck, 2010). Shariatzadeh et al., 2015 describe that the predisposing factors for anxiety disorder including OCD, includes—the schemas and personal beliefs regarding threat and vulnerabilities

Schemas are described as a persistent cognitive structure, which works under every circumstance and tends to evolve with every growth process of an individual. According to Young (2003) schemas refer to broader, stable and consisting of pervasive themes concerning an individual's self and the relationship with others, emerging from childhood and enhanced throughout the life span, where it might be dysfunctional to an extent (Young et al., 2003). They are not always or likely to be maladaptive, as there are healthy schemas as well, which assist in the various life events of an individual. Schemas become maladaptive when they are shaped by adverse or challenging experiences, leading individuals to process information in a biased manner that distorts its meaning and undermines its validity. Similarly, a study examining how parenting styles affect the upbringing of a child involved the execution of Young Schema Questionnaire, to analyze the Early Maladaptive schemas being built up and the effect of the styles of parenting on it. Hence, it was reported that there were four domains among the EMS, such as Entitlement, approval/admiration seeking and insufficient self-control schemas, which were manifesting the overcompensating or undisciplined/impulsive child (Rafaeli, Bernstein & Young, 2011). It was demonstrated through cognitive assessment of certain cases of OCD, which were regarded as resistant cases, it was found that there are certain enduring patterns composed of dysfunctional core beliefs regarding others and self, which are relatable to entitlement and approval seeking (Leung & Poon, 2001). There was reported activation of certain Early Maladaptive schemas among the patients of OCD but the association of a clinical trial and theory with these findings has yet to be discovered (Jovev & Jackson, 2004). However, according to some cross-sectional studies, it was documented that

there are certain OCD related dysfunctional beliefs which are accounted to be associated positively with OCD severity (Abramowitz, Khandker, Nelson, Deacon & Rygwall, 2006).

There is a great deal of research that has been conducted on the array of psychological disorders in conjunction with several psychological constructs. One area of consideration is the assessment and evaluation of emotion regulation strategies, as emotions and mood influence the manifestations of clinical disorder symptoms. Similarly, it has been reported that the ability of an individual to regulate emotions could augment the severity levels of symptoms in obsessive compulsive disorder (Kiyafar, et al., 2017; Keong et al., 2017).

Emotional regulation is defined by Gross (2001) as one of the unconscious and conscious strategies that work to increase, sustain, or diminish one or more mechanisms of an emotional response. There are two most prevalent emotion regulatory strategies, which involve cognitive reappraisal, regarded as antecedent-focused and expressive suppression as response-focused, which helps in determining the type of emotion and also assist in deciding when and how that emotion shall be displayed (Gross & John, 2003).

It was ascertained that OCD associated appraisals such as intolerance of uncertainty and need for control allude to difficulties in emotional regulation (Keong et al, 2017). This involvement of difficulties in emotion regulation to OCD symptom severity has also been documented to be consistent with the cognitive model of obsessive-compulsive disorder (Salkovskis & Millar, 2016) which ascertains that disturbances in mood and additionally the difficulties in emotion regulation, an inverse impact on the OCD severity is accountable. The previous studies conducted on emotion regulation difficulties among OCD give validation for clinical trials to observe and study the effects of emotion regulation interventions for obsessive compulsive disorder, each on its own or with the other validated treatment interventions. Through the findings of the present study and those done previously, several components of emotion regulation that might be significant in OCD treatment might be

unfolded. With development in emotion regulation research, it would present better cognitive resources which would increase cognitive flexibility, enhance mood, and a decline in the potency of obsessional beliefs (Keong et al, 2017).

Cross- cultural studies in this domain are required for the applicability and to enhance the knowledge regarding the role of emotion regulation in adolescents' mental health across various cultures (Rani & Hasan, 2017). According to studies emotion regulation deficits have been implicated to be associated with obsessional intrusions (Cougler et al., 2011). Knowledge of specific predictors of functional impairment in OCD can inform treatment planning by helping clinicians identify which interventions are most appropriate for particular symptom dimensions. Such understanding also enables clinicians to recognize how different contributing factors influence the development and maintenance of OCD symptoms and how these factors can be addressed at an early stage or effectively managed.

## **LITERATURE REVIEW**

The theoretical association between the early maladaptive schemas and the occurrences of psychological issues has been supported by the empirical findings among both clinical and non-clinical samples. According to research, almost half of the patients suffering from obsessive compulsive disorder experience more than one ritual (Ramussen & Tsuang, 1986). However, in Pakistan, the types of obsessions and compulsions tend to be comparable to the ones occurring in the foreign studies, except that the content and the forms of obsessions and their belief system are influenced by religious and social factors (Saleem & Mahmood, 2009).

Rani and Hasan (2017) explored the cultural manifestation, symptomatology, and psychosocial perspective of the prevalence of obsessive-compulsive disorder among Pakistani females. These females ranged in age from 21 -35 years, residing in Lahore and seeking therapy from the hospital. The qualitative study analysis was derived to ascertain

certain themes that indicate culturally specific experiences of obsessions and compulsions. The main analysis documented that psychological distress, social rejection, and avoidance, as well as poor quality of life, were the central themes derived from 10 females who were interviewed. The psychological distress accounted for several sub-themes such as depression, anxiety, fear, aggression, and mood swings. These females also reported that they faced certain remarks of being possessed by an evil spirit, which portrays the stereotypical cultural manifested phenomena for psychological disorders. Keeping in mind the cultural perspective analysis, it was found through Focus group discussion (FGDs) that seeking treatment for these females was hard and problematic as their families weren't supportive of the treatment process. It was also documented by the study that the commonly reported OCD symptoms by the females in clinics were related to contamination, dirt, orderliness, and religiosity. This has been related to the cultural responsibility for females to maintain cleanliness and to remain concerned with their personal hygiene, as it is stigmatized among some people as being 'na-paak'. This pressure has led some women to stay conscious and to develop certain compulsions regarding obsessive cleanliness.

Shariatzadeh (2017) conducted a research study to predict the obsessive-compulsive symptoms from the early maladaptive schemas across fifty-two patients of OCD in Iran. Results revealed that early maladaptive schemas have a significant association across the symptoms of OCD. Among them, vulnerability to harm, emotional deprivation and inhibition, failure, and insistent standards were predicting 50% of the symptomatology across obsessive-compulsive disorder. The highest correlation was reported to be between the defectiveness and shame maladaptive schema across the symptom dimensions of OCD ( $r = .65, p = .001$ ).

Wilhelm et al. (2015) presented a research study which aimed at analyzing the role of maladaptive beliefs and schemas in changes of the mechanisms among moderate-severe OCD

patients receiving cognitive therapy treatment. After around 24 weeks of treatment, 36 adults with severe OCD responded to improvement in perfectionism and obsessive beliefs related to certainty and maladaptive schemas associated with dependency and incompetence. This concluded that these cognitive changes introduce behavior symptom reduction among the OCD patients. Hence, focusing on certain mechanisms in the treatment of OCD would help in facilitating maximum improvement.

Fewer studies document the potential association between these constructs among psychological disorders. Some of the studies included non-clinical samples to analyze the association of these constructs among OCD population. Another significant limitation from the available literature is the exploration of the relationship among these constructs together and more specifically in association to Obsessive compulsive patients in Lahore. This indicates the need for such research in Pakistan. However, some qualitative research studies provide thematic analysis regarding the symptom occurrences of OCD among the Pakistani population. An important limitation in literature is the small clinical sample across studies, which needs to be improved by raising knowledge and understanding about the significance of research among obsessive compulsive patients.

### **Objectives**

- Identifying the early maladaptive schemas and emotional regulation strategies among the symptoms of patients with OCD.
- Exploring the role of early maladaptive schemas and emotional regulation as predictors of symptom dimensions among patients with obsessive-compulsive disorder.
- Examining any gender differences or relationship between the maladaptive schemas, emotional regulation, and symptoms-dimensions among OCD patients.

## **Hypotheses**

- There is a relationship between early maladaptive schemas, emotional regulation strategies, and symptom dimensions among patients with OCD.
- Early maladaptive schemas and emotional regulation strategies will predict the symptom dimension of obsessive-compulsive disorder.
- There is a significant gender difference among the early maladaptive schemas, emotional regulation strategies, and symptom dimensions among patients with obsessive-compulsive disorder.

## **METHOD**

### **Sampling Strategy**

The sample of the present study included 80 patients, from both government and semi-government hospitals in Lahore, with a primary diagnosis of Disorder according to DSM-5. Non-probability purposive sampling strategy was chosen to select the sample of OCD patients.

### **Inclusion criteria**

The psychiatric wards of different hospitals in Lahore were requested to refer those patients who had the primary diagnosis of OCD (DSM-5) for 6 months or more, only the confirmed diagnosed patients with OCD were taken as the sample. Those patients who were within the age range of 18 – 55 years. The patients were included in both the in-patient and out-patient psychiatric departments of the hospitals.

### **Exclusion criteria**

Patients were excluded if they had a primary psychiatric diagnosis other than obsessive-compulsive disorder. Individuals with a current or past diagnosis of a psychotic disorder were also excluded. In addition, patients with diagnosed neurological disorders (such

as epilepsy, traumatic brain injury, or neurodegenerative conditions) or clinically significant cognitive impairment were not included in the study.

A demographic information sheet was used to collect basic participant characteristics, including gender, age, level of education, employment status, marital status, duration of illness, and age of onset of obsessive–compulsive disorder.

## **Instruments**

### **Young Schema Questionnaire - Short Form (YSQ-S3; 2003)**

The Young Schema Questionnaire - Short Form (YSQ-SF3) (Young et al., 2003) was created to examine and evaluate the maladaptive cognitive schemas. The short form of YSQ - S3 comprises 90 items and a self-report questionnaire, among which 18 early maladaptive schemas are included under specific five major schema domains. The five schema domains include Impaired Autonomy and performance, Disconnection/Rejection, Other directedness, impaired limits and Over- vigilance and inhibition. The instrument comprises 18 maladaptive schemas organized into five broader schema domains. Each schema is assessed through five statement items rated on a six-point Likert scale, ranging from 1 (“completely untrue of me”) to 6 (“describes me perfectly”). Higher scores indicate greater endorsement and strength of the corresponding schema.

The scale has been translated into Urdu by Parveen et al. (2017), which was utilized for the present study. Young’s (2003) conceptualizations of schemas were claimed to be validated across cultures, that is why it was administered for this current study so that it would also enhance the scale’s Urdu translated cultural validity if utilized within our clinical population. The YSQ scale has a Cronbach alpha value (.91), which is deemed to be a strong coefficient for the scale overall.

### **Emotional Regulation Questionnaire (ERQ) 2003**

Emotion Regulation Questionnaire was constructed by Gross and John (2003). It is comprised of 10 statement items which are measured on a 7-point scale on which responses range from strongly agree to strongly disagree. There are two subscales: cognitive reappraisal and expressive suppression. The lower scores in cognitive reappraisal and higher scores among the expressive suppression subscale accounted for dysfunctional emotion regulation strategies. However, the high scores among the cognitive reappraisal and lower scores in the subscale of expressive suppression are accounted to be functional strategies for emotional regulation. The psychometric properties of the scale had been assessed by Gross and John (2003) which displays good internal reliability, where Cronbach alpha was reported to be .79 to .73 with a test-retest reliability coefficient of .69 and a Cronbach's alpha of .71 was obtained for the Cognitive Reappraisal subscale in the present study and (.64) for the Expressive Suppression subscale

### **Obsessive Compulsive Disorder Symptom Checklist**

The obsessive-compulsive disorder symptom checklist developed by Jabeen (2008) assesses the severity of the symptom dimensions related to obsessions and compulsions. The scale comprises total of 102 items and responses are rated on a 5-point Likert scale, 0 standing for "not at all" and 4 indicating "very much." In the current study, only two subscales were administered, which were related to measuring the symptom severity of obsessions and compulsions. These sub-scale cover dimensions to further measure the Obsessive Symptoms, whereas the Compulsion symptom comprises of five dimensions. On a particular symptom dimension if the score is higher, it would be indicative of greater severity. For the present study, Obsessive symptom dimensions ( $\alpha=.89$ ) and Compulsions symptom dimensions ( $\alpha=.76$ ) showed internal reliability, which was within a moderate range for the present clinical sample.

## **Procedure**

The data of 80 OCD patients were collected from the public hospitals and clinics of Lahore, Services Hospital ( $n = 30$ ), Mayo Hospital ( $n = 35$ ), Sharif Medical Complex ( $n = 10$ ) and Abdus Sami Psychiatric Clinic ( $n = 5$ ). Only patients with a confirmed primary diagnosis of obsessive–compulsive disorder, as defined by DSM-5 criteria, were referred for research evaluation. Many were those who were seeking treatment previously, and most of them were follow-up entries. With respect to the fact, the recommended OCD patients arriving in the out-patient (follow-ups) and in the inpatient psychiatric departments (admitted to the ward) were approached and assessed, according to the inclusion and exclusion criteria. , The patients were briefly informed regarding the objective of the study and how their participation would assist in better strategies for treatment. They were given full right to withdrawal from the study at any time they felt

## **RESULTS**

Data was analyzed using Statistical Package for Social Sciences (Version 26.0). Table 1 displays the demographic characteristics of the sample that participated in the present study. Data was then analyzed using Pearson’s Product-Moment Correlation Coefficient in order to analyze the relationship among the study variables and those with the 18 dimensions of the early maladaptive schemas with the dependent variable, shown in tables 2 and 3. Tables 4 and 5 present—the results of Multiple Hierarchical Regression analyses to examine the predictors of OCD symptoms.

**Table 1***Demographic Characteristics of Sample (N = 80)*

Variables	Males		Females		Total
	<i>M(SD)</i>	<i>f(%)</i>	<i>M(SD)</i>	<i>f(%)</i>	
Gender		44(55.0)		36(45.0)	
Age	36.45(11.51)		29.56(10.08)		
Education (years)	10.43(6.04)		7.33(6.02)		
Matriculation		4(9.1)		1(2.8)	5(11.9)
Intermediate		5(11.4)		11(30.6)	16(41.10)
Bachelors		12(27.3)		9(25.0)	21(52.3)
Masters		13(29.5)		1(2.8)	14(32.3)
Nil		10(22.7)		14(38.9)	24(61.6)
Occupation					
Unemployed		19(43.2)		13(36.1)	32(79.3)
Employed		16(36.4)		4(11.1)	20(47.5)
Housewife		-		13(36.1)	-
Student		9(20.5)		6(16.7)	15(37.2)
Religion					
Islam		42(95.5)		33(91.7)	75(187.2)
Christianity		2(4.5)		3(8.3)	5(12.8)
Marital Status					
Married		18(40.9)		15(41.7)	33(82.6)
Single		26(59.1)		19(52.8)	45(111.9)
Divorced		-		2(5.6)	
Duration of Marriage*	4.16(7.15)		4.56(8.04)		
Family/Relatives with OCD					
Yes		17(38.6)		11(30.6)	28(35.0)
No		27(61.4)		25(69.4)	52(65.0)
Duration of OCD*	4.82(3.47)		4.17(3.60)		
Age at onset of OCD*	25.39(9.27)		24.92(8.97)		

*Note:* *N* = Total number of participants, *M*= Mean, *SD*= Standard deviation, *f*= Frequency, \* = in years.

The participants of the study comprised of an almost equal sample of both genders. The duration of illness in years was calculated to be an average of 4 years mostly. There was a total of 28 patients whose family history included either close relatives or family members diagnosed with OCD.

**Table 2**

*Pearson Product Moment Correlation Coefficient among Early Maladaptive schemas, Emotional Regulation and Obsessions and Compulsions Symptom Dimensions (N = 80)*

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. EMS	-	-.22*	.37**	.15
2. ER		-	.00	.06
3. ObSD			-	.52**
4. CoSD				-
<i>M</i>	3.60	3.90	2.51	2.57
<i>SD</i>	.49	.55	.38	.36

*Note:* EMS = Early Maladaptive Schema, ERQ = Emotional Regulation, ObSD = Obsession Symptom Dimension, CoSD = Compulsion Symptom Dimension, M = Mean, SD = Standard Deviation

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

The above Table 2 indicates the bivariate correlation among the independent and dependent variables of study. Analysis of Pearson Product Moment Correlation Coefficient revealed a negative small significant relationship of early maladaptive schemas with the emotional regulation scores among the obsessive-compulsive patients,  $r(78) = -.22$ ,  $p = .04$ . The results of correlation analysis also reveal that the early maladaptive schemas tend to have a positive moderate significant relationship with the obsessive symptom dimension among the patients of OCD,  $r(78) = .37$ ,  $p < .01$ . The higher score on Early Maladaptive schemas depicted a significant relationship with the two dimensions of emotional regulation: reappraisal and suppression as well as across the symptoms of obsessions among the patients.

Pearson Product-Moment Correlation Coefficient was also carried out to study the relationship of each of the 18 Early Maladaptive Schemas with the scores of the emotional

regulation and across the severity of the obsessions and compulsive symptoms present among the participants of the study as shown in Table 3 below. Results from the 18 Early Maladaptive Schemas indicated that emotional deprivation is a positive moderate significant relationship with obsessive symptom dimension,  $r(78) = .32, p = .004$ . Defectiveness/Shame and Dependence/Incompetence also depicted a similar small positive relationship with the obsessive symptoms among the patients,  $r(78) = .22, p = .02, r(78) = .27, p = .01$ , respectively. The high scores from these three maladaptive schemas; Vulnerability to harm or illness, Undeveloped-self and Subjugation also have a moderate yet positive significant relation with the severity of the obsessive symptoms among the patients,  $r(78) = .37, p < .01; r(78) = .32, p < .01; r(78) = .35, p < .01$  accordingly, whereas vulnerability to harm was also found to have a small positive significant relation with the compulsive symptoms,  $r(78) = .24, p < .01$ . Entitlement/Grandiosity schema depicted a positive moderate relationship with the obsessive symptom dimension,  $r(78) = .41, p < .01$ . Insufficient self-control portrayed a small significant relation with the compulsive symptoms of OCD patients,  $r(78) = .25, p = .04$ . Approval-seeking showed a significant moderate relationship with the obsessive symptom dimension,  $r(78) = .38, p < .001$ . Only two of the 18 maladaptive schemas such as Failure to achieve and Self-sacrifice were found to have a weak negative relationship with emotional regulation of OCD patients,  $r(78) = -.29, p < .01, r(78) = -.23, p = .03$ , respectively.

**Table 3**

*Intercorrelations between Early Maladaptive Schemas, Emotional Regulation and Obsession and Compulsion Symptom Dimension among OCD patients (N= 80)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
1 ED	-	.42***	.13	.36**	.27*	.25*	.48**	.14	.28*	.24*	.00	.28*	-.02	.06	-.11	-.03	.19	.10	-.08	.32**	.06		
2 AB		-	.37*	.39**	.38***	.29**	.37**	.25*	.25*	.35**	.14	.48***	.22*	.13	.28**	.04	.50***	.18	-.08	.21	.16		
3 MA			-	.35**	.40**	-.03	.26*	.29**	.07	.37**	.54***	.35**	.12	-.27*	.12	-.24*	.37**	.34**	-.02	.10	.13		
4 SI				-	.42***	.31**	.51**	.27*	.32**	.29**	.16	.32**	.19	.01	.07	-.07	.34**	.10	-.00	-.02	-.12		
5 DS					-	.36**	.44**	.33***	.25*	.29**	.12	.39***	.32**	.19	.27*	.03	.36**	.20	.01	.22*	.18		
6 FA						-	.31***	.31**	.20	.38***	-.27*	.34**	.24*	.56***	.19	.44***	.36**	.19	-.29**	.19	.05		
7 DI							-	.36**	.36**	.52***	.11	.29**	.17	.16	.25*	.19	.46***	.28*	-.17	.27*	-.03		
8 VU								-	.31**	.47***	.16	.32**	.45***	.27*	.34**	.34**	.39***	.06	-.23*	.37**	.24*		
9 EM										.30**	.29**	.16	.19	.26*	.27*	.44***	.26*	-.00	-.06	.32**	.00		
10 SB											-	.21	-.01	-.48	.05	-.34**	.27*	.07	-.06	-.09	.35**	.09	
11 SS													-	.21	-.01	.03		.42***	.13	-.33**	-.01	-.04	
12 EI																.48***	.09	.59***	.31*	-.19	-.06	-.06	
13 US																				.04	.19	.29**	
14 ET																				.12	.41**	.29	
15 IS																				.06	-.02	-.02	.25*
16 AS																					.11	.38***	.11
17 NP																						.09	-.01
18 PU																							.03
19 ER																							.05
20 OSD																							.52***
21 CSD																							-
M	3.14	3.34	3.05	3.62	3.28	3.47	3.34	3.20	3.42	3.59	3.58	3.93	3.61	3.47	3.62	3.11	3.72	3.54	3.91	2.51	2.57		
SD	.94	.77	.93	.96	.85	.95	.99	1.03	1.33	.83	.84	.81	.82	.89	.86	1.03	.88	.91	.59	.38	.36		

Note: ED = Emotional Deprivation, AB = Abandonment/Instability, MA = Mistrust/Abuse, SI = Social Isolation/ Alienation, DS = Defectiveness/Shame, FA = Failure to achieve, DI = Dependence/Incompetence, VU = Vulnerability to harm or illness, EM = Enmehment/Undeveloped-self, SB = Subjugation, SS = Self-sacrifice, EI = Emotional Inhibition, US= Unrelenting Standards/Hypercriticalness, ET = Entitlement/Grandiosity, IS = Insufficient self-control, AS = Approval seeking, NP = Negativity/Pessimism, Pu = Punitiveness, ER = Emotional Regulation, OSD = Obsessive Symptom Dimension, CSD = Compulsive Symptom Dimension; M = Mean, SD = Standard Deviation.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

**Table 4***Hierarchical Linear Regression Predicting Obsession Symptom Dimension (N=80)*

Predictors	Obsessive Symptom Dimension	
	$\Delta R^2$	$B$
Model 1	.53***	
ED		.24*
AB		.17
MA		.05
SI		-.34**
DS		.06
FA		.01
DI		.51
VU		.29*
EM		.03
SB		.15
SS		-.00
EI		-.40**
US		.27*
ET		.16
IS		-.26*
AS		.11
NP		-.03
Pu		.17
Model 2	.03	
Re		.10
Su		.25*
Total $R^2$	.56***	

Note: ED = Emotional Deprivation, AB = Abandonment/Instability, MA = Mistrust/Abuse, SI = Social Isolation/ Alienation, DS = Defectiveness/Shame, FA = Failure to achieve, DI = Dependence/Incompetence, VU = Vulnerability to harm or illness, EM = Enmeshment/Undeveloped-self, SB = Subjugation, SS = Self-sacrifice, EI = Emotional Inhibition, US= Unrelenting Standards/Hypercriticalness, ET = Entitlement/Grandiosity, IS = Insufficient self-control, AS = Approval seeking, NP = Negativity/Pessimism, Pu = Punitiveness, Re = Reappraisal, Su = Suppression,  $\beta$  = Beta value

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Multiple hierarchical linear regression analysis was performed by adding all the dimensions of the early maladaptive schemas and the two dimensions of the emotional regulation using the enter method to identify the predictors of Obsessive Symptom dimension which was added as the outcome variable. The assumptions of no perfect multicollinearity and independent errors for the normal distribution of the data was analyzed. In Model 1 Eighteen Maladaptive schemas were entered as the first predictor variable for the Obsessive symptom dimension and the regression analysis equation was found to be significant,  $R^2 = .53$ ,  $F(18,61) = 3.82$ ,  $p < .001$ . In Model 2, the two dimensions of emotional regulation were added along with 18 maladaptive schemas thereby increasing the variance significantly up to 56% predicting the symptoms of obsessions,  $R^2 = .56$ ,  $F(20) = 3.76$ ,  $p < .001$ . In the Model 2, by excluding the effects of the 18 maladaptive schemas, the remaining two dimension, reappraisal and suppression measuring the emotional regulation with obsessive symptoms predicted the model to be non-significant,  $\Delta R^2 = .03$ ,  $F(2, 59) = 2.05$ ,  $p = .13$ . Among the predictor dimensions of the 18 early maladaptive schemas, emotional deprivation, social isolation, vulnerability to harm or illness, emotional inhibition, unrelenting standards and insufficient self-control were found to be the significant predictors of the obsessive symptoms among OCD patients. However, among the dimensions of emotional regulation as the predictor, suppression was found to be the positive predictor of the obsessive symptoms.

**Table 5***Hierarchical Linear Regression Predicting Compulsive Symptom Dimension (N=80)*

Predictors	Obsessive Symptom Dimension	
	$\Delta R^2$	B
Model 1	.34	
ED		.22
AB		.17
MA		.13
SI		-.28*
DS		.09
FA		.08
DI		-.19
VU		.22
EM		-.05
SB		-.03
SS		.14
EI		-.39*
US		.25
ET		.18
IS		.18
AS		-.05
NP		-.11
Pu		.09
Model 2	.01	
Re		.06
Su		.17
Total $R^2$	.35	

Note: ED = Emotional Deprivation, AB = Abandonment/Instability, MA = Mistrust/Abuse, SI = Social Isolation/ Alienation, DS = Defectiveness/Shame, FA = Failure to achieve, DI = Dependence/Incompetence, VU = Vulnerability to harm or illness, EM = Enmeshment/Undeveloped-self, SB = Subjugation, SS = Self-sacrifice, EI = Emotional Inhibition, US= Unrelenting Standards/Hypercriticalness, ET = Entitlement/Grandiosity, IS = Insufficient self-control, AS = Approval seeking, NP = Negativity/Pessimism, Pu = Punitiveness, Re = Reappraisal, Su = Suppression,  $\beta$  = Beta value

\* $p < .05$ .

Table 5 depicts the hierarchical linear regression analysis of all the dimensions of the early maladaptive schemas and the two dimensions of the emotional regulation using the enter method to identify the predictors of Compulsive Symptom dimension which was added as the outcome variable. The assumptions of no perfect multicollinearity and independent errors for the normal distribution of the data was analyzed. In Model 1 Eighteen Maladaptive schemas were entered as the first predictor variable for the compulsive symptom dimension and the regression analysis equation was not found to be significant,  $R^2 = .34$ ,  $F(18,61) = 1.74$ ,  $p = .05$ . In Model 2, the two dimensions of emotional regulation were added along with 18 maladaptive schemas thereby slightly increasing the variance up to 35% among the symptoms of compulsions but predicted non-significantly,  $R^2 = .35$ ,  $F(20) = 1.61$ ,  $p = .07$ . In the Model 2, by excluding the effects of the 18 maladaptive schemas, the remaining two dimensions, reappraisal and suppression measuring the emotional regulation with compulsive symptoms remained non-significant,  $\Delta R^2 = .01$ ,  $F(2, 59) = .65$ ,  $p = .52$ . However, among the predictor dimensions of the 18 early maladaptive schemas, social isolation and emotional inhibition both occurred as significant predictors of compulsive symptoms among OCD patients.

**Table 6**

*Independent Sample t-test showing Gender Differences across the 18 Early Maladaptive Schemas and Emotional Regulation among OCD patients (N = 80)*

Variable	<u>Males</u>		<u>Females</u>		<i>t</i> ( <i>df</i> )	<i>P</i>	<u>95% CI</u>		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
1. ED	3.11	.95	3.17	.95	.27(78)	.58	-.36	.48	.06
2. AB	3.29	.79	3.40	.76	.65(78)	.44	-.23	.46	.14
3. MA	3.09	1.02	4.17	.75	5.30(78)***	.02	.67	1.49	1.20
4. SI	3.43	1.11	3.84	.69	1.90(78)*	.00*	-.01	.83	.44
5. DS	3.25	.84	3.32	.86	.37(78)	.91	-.31	.45	.08
6. FA	4.67	.82	3.55	.81	-6.03(78)***	.75	-1.48	-.74	1.37
7. DI	3.33	1.08	3.35	.87	.08(78)	.93	-.42	.46	.02
8. VU	3.29	1.16	3.09	.84	-.86(78)	.08	-.66	.26	.19
9. EM	3.43	1.46	3.40	1.18	-.12(78)	.90	-.63	.56	.02
10. SB	3.59	.89	3.60	.78	.07(78)	.25	-.36	.39	.01
11. SS	3.39	.88	4.84	.58	8.48(78)***	.03	1.11	1.79	1.94
12. EI	3.96	.81	3.88	.80	-.40(78)	.75	-.43	.28	.09
13. US	3.69	.86	3.51	.76	-.99(78)	.15	-.55	.18	.02
14. ET	4.65	.56	3.22	.97	-8.23(78)***	.00	-1.78	-1.08	1.80
15. IS	3.64	.84	3.59	.90	-.26(78)	.58	-.43	.33	.05
16. AS	4.15	.98	2.80	.83	-6.56(78)***	.71	-1.76	-.94	1.48
17. NP	3.69	.85	3.75	.93	.27(78)	.36	-.34	.45	.06
18. Pu	3.50	1.01	3.59	.79	.41(78)	.10	-.32	.49	.09
19. Re.	3.58	.95	3.30	.93	-1.34(78)	.72	-.70	.13	.29
20. Su	4.09	.89	5.14	1.02	4.88(78)***	.37	.62	1.47	1.09

*Note:* Males = 44; Females = 36; ED = Emotional Deprivation, AB = Abandonment/Instability, MA = Mistrust/Abuse, SI = Social Isolation/ Alienation, DS = Defectiveness/Shame, FA = Failure to achieve, DI = Dependence/Incompetence, VU = Vulnerability to harm or illness, EM = Enmehment/Undeveloped-self, SB = Subjugation, SS = Self-sacrifice, EI = Emotional Inhibition, US= Unrelenting Standards/Hypercriticalness, ET = Entitlement/Grandiosity, IS = Insufficient self-control, AS = Approval seeking, NP = Negativity/Pessimism, Pu = Punitiveness, Re = Reappraisal, Su = Supression, *M* = mean; *SD* = standard deviation; CI = confidence interval; *LL* = lower limit; *UL* = upper limit \**p* < .05 (2-tailed). \*\*\**p* < .001 (2-tailed)

Table 6 presents the independent sample ts-test which was also regulated in order to find out gender differences across the 18 Early Maladaptive Schemas and among the two dimensions of Emotional Regulation: Reappraisal and Suppression in the OCD patients. Analysis of the test reported significant gender differences among six dimensions of maladaptive schemas, with higher gender difference, males ( $M = 4.15$ ,  $SD = .98$ ) females ( $M = 2.80$ ,  $SD = .83$ ) in Approval-seeking schema,  $t(78) = -6.56$ ,  $p < .001$  with a large effect size among sample. Entitlement/grandiosity schema also depicted a higher score among male patients ( $M = 4.65$ ,  $SD = .56$ ),  $t(78) = -8.23$ ,  $p < .001$ . Similarly, Mistrust/abuse, social isolation, failure to achieve, social isolation and enmeshment /undeveloped maladaptive schema also showed a significant difference with the magnitude of a large effect size among the men and women sample of study. However, among the two dimensions of emotional regulation: suppression was found to have a significant difference among men ( $M= 4.09$ ,  $SD = .89$ ) and women ( $M= 5.14$ ,  $SD= 1.02$ ) patients of OCD,  $t(78) = 4.88$  ,  $p < .001$ .

## DISCUSSION

The present study analyzed the etiological causes of OCD symptoms from early maladaptive schemas and emotional regulation. It was examined through the results that the early maladaptive schemas tend to have a weak negative significant relation with the emotional regulation strategies of the OCD patients. As reported by Young (2003) the presence of early maladaptive schemas raises the possibility of manifestation of emotional distress among psychological disorders such as depression, anxiety disorders such as panic disorder, obsessive compulsive disorder and social phobia. Talee-Baktash et al. (2013) investigated among the sample of OCD patients and healthy participants, where the results indicated–no significant difference between early maladaptive schemas and the cognitive emotional regulation strategies among both the groups. However, higher scores were reported in the early maladaptive schemas of OCD patients, whereby it was indicated that those

patients who experienced negative life events tended to utilize the negative emotional regulation strategies compared to healthy participants who scored higher in the positive emotional regulation strategies.

A moderate significant relationship between the early maladaptive schemas and the obsessive symptom dimension of OCD patients was reported for this study rather than the compulsive symptom dimension which indicated no such adequate correlation. Hence it was inferred that the obsessive symptoms of the patients were related to the distorted schemas processes. Patients in the present study were asked regarding their first symptom experienced as obsessions, where majority reported having intrusive thoughts as a complaint initially. There are some cross-sectional studies where it was recognized that certain dysfunctional beliefs related to OCD were positively related with the severity of the OCD (Abramowitz et al., 2006). Asad and Dawood (2015) conducted a study to predict and record the relationship between the attachment orientation styles, obsessive beliefs and symptom severity among 90 OCD patients in Lahore within the age range of 18-50 years. It has been hypothesized that attachment insecurities and beliefs of obsession could considerably be related across the different symptoms' dimensions of OCD. According to the analysis it was ascertained that attachment insecurities such as avoidance and anxiety recorded to be non-significant across OCD symptoms. It was found that obsessive beliefs such as need to control thoughts and overestimation of threat were positively associated with blasphemous, sexual, and control obsessions. Avoidance style of attachment and need to control/over importance thought belief were posed as significant predictors of sexual obsessions, and after controlling the demographic variables including the onset age of the disorder and duration of illness, it was found that blasphemous obsessions were predicted just by the over-importance belief.

The hypothesis was partially supported, revealing that eight of the maladaptive schemas, including Emotional deprivation, Defectiveness/shame, Dependence/incompetence,

Vulnerability to harm/illness, Undeveloped self, Subjugation, Entitlement/Grandiosity, and Approval-seeking had a moderate significant relationship with the obsessive symptom dimensions among OCD patients of Lahore. From among the 18 maladaptive schemas, two of the schemas were found to have a small positive relationship with the compulsive symptom dimensions of OCD patients in the present study. These schemas include Vulnerability to harm/illness and Insufficient self-control. The findings of this study are consistent with the research conducted by Yoosefi et al. (2016) where OCD patients in Iran scored highest in emotional deprivation, mistrust/abuse, and defectiveness/shame schemas compared to the patients with anxiety disorder. It can be deduced from previous studies that the prevalence of certain core beliefs and dysfunctional cognitive appraisals among OCD patients indicates the manifestation of certain maladaptive schemas that might prevail symptoms of OCD. There are several studies that explained the diverse Early Maladaptive schemas which are explicitly congruent with the numerous symptoms of anxiety disorders.

Only two of the 18 maladaptive schemas, Failure to achieve and Self-sacrifice, were found to have a weak negative relationship with emotional regulation of OCD patients in this study. These findings indicate that individuals with OCD who have the schemas related to the inability to achieve life goals and the tendency to self-sacrifice experience problems in the emotional regulation processes. It has been ascertained from various findings that the failure to efficiently regulate emotions tends to be a symptom cause among adolescents having mood and anxiety disorders (APA, 2000).

The aim of this study was also to assess the gender differences among the total scores of early maladaptive schemas, emotional regulation strategies and the obsessive and compulsive symptom dimensions. The analysis revealed that gender difference could only be observed in the mean scores of the emotional regulation strategies where females scored higher than the male OCD patients. Similarly, the gender differences were also analyzed

among the subscales of the emotional regulation strategies. Where the higher scores with significant difference was observed among the females in the expressive suppression strategy of the emotional regulation in the present study. The cognitive reappraisal depicted a slightly higher score in males than female but with no adequate significant difference. It is reported in the earlier studies that women use the humor or positive emotion strategically in order to regulate the negative emotional expressions (Tugade & Fredrickson, 2004). Women are reported to express their emotional experiences with further complexity compared to men, where they at the same time appraise both negative and positive situations (Feldman et al., 2000). It could be ascertained that male members were inclined to utilize a more direct communication pattern rather than females which indicates that males had a more straightforward response in their emotional reactions to negative feelings, whereby due to which their expression of negative feelings is clearly depicted in stressful situations compared to females.

Gender differences were assessed across the 18 early maladaptive schemas and the obsessive and compulsive symptom dimensions of the OCD patients. Six dimensions were reported to have significant gender differences which included Approval-seeking, Entitlement/grandiosity, mistrust/abuse, social isolation, failure to achieve and self-sacrifice maladaptive schema, with the magnitude of large effect size among males and female patients. The schema approval seeking showed significant higher difference among both genders, where males scores were larger than those of females. This depicted that male OCD patients had more approval seeking tendency compared to the females. In a research study conducted by Farooqi and Rasul (2011) among OCD patients in Lahore measuring the quality of life indicated that both the gender reported issues in their social and environmental domains of life compared to physical domains. Female respondents claimed better quality of life rather than male respondents. It was discussed by the study findings that male members

are considered the bread winners, where if certain disorder prevails, it tends to impair their social and occupational performances more. This indicates that male patients were more susceptible in developing certain schemas related to status appearance, approval and recognition seeking.

Similarly, male OCD patients scored higher in entitlement/grandiosity and the failure to achieve maladaptive schema in the present study. In accordance with prior studies, the analysis among the Turkish males also depicted them to have a tendency to maintain their recognition and superiority to which the lack of power and control in their hands makes them feel fundamentally inadequate in the eyes of the society (Yoosefi et al., 2016). Hence to maintain a substantial image and in the struggle to achieve their goals, they are more inclined to develop an exaggerated focus on their superiority, excessive competitiveness creating a higher demand of entitlement, which when it cannot be fulfilled causes distortions in their image of self and acceptance.

Among female OCD patients the higher significant discrepancy was observed in the scores of self-sacrifice schema domain compared to male patients. It can be stemmed that female member of the society has an excessive pressure to maintain the needs of others in their daily life which causes the lack of gratification of their own. This causes the feeling of resentment towards those to whom they sacrifice as their own needs are not met adequately, hence causing a disbalance in the schematic process (Young et al., 2003).

This study also examined the predictive factors of the early maladaptive schemas and emotional regulation across the obsessive and compulsive symptom dimensions. It was documented that the early 18 maladaptive schema domains predicted significantly across the obsessive symptom dimensions and the variance was also increased significantly when the two strategies of emotional regulation were also entered. Altogether both independent variables tend to predict the symptoms severity of obsessions among its patients. However,

excluding the 18 schemas from the emotional regulation model, indicated no significant prediction, although among it the expressive suppression strategy showed a positive prediction to obsessive symptoms and these six schema domains: emotional deprivation, social isolation, vulnerability to harm or illness, emotional inhibition, unrelenting standards and insufficient self-control were found to be the significant predictors of the obsessive symptoms among OCD patients. This research finding is parallel with results from the study of Eldoğan (2018) on Turkish sample, where it was found that emotional deprivation, social isolation, emotional inhibition, defectiveness and vulnerability to harm were higher schemas predictors among OCD patients along with measuring the emotion regulatory process and the parenting styles.

The results from this study and those done priorly establish evidence that are required to understand the obsessive-compulsive disorder from the viewpoint of schema theory. As cognitive theory describes maladaptive schemas hold such perceptions of reality and conform to the negative beliefs which lead to depression and anxiety (Anmuth, 2011). This present research study may also provide related implications for psychologists and clinicians who classify maladaptive schemas as an essential element of schema-cognitive therapy.

## **CONCLUSION**

The focus of the present study was to introduce the recognition of early maladaptive schemas and how it relates with emotional regulation and the manifestation of obsessive-compulsive symptoms. Till to date, there is lack of research in Pakistan conducted with the notion of looking into how maladaptive schemas contribute and influence the psychiatric disorders and specifically focused among the obsessive-compulsive disorder patients. The present study evaluated the existence of some of the early maladaptive schemas as an association with the obsessive symptom dimensions among the patients of Lahore. Early maladaptive schemas in relation with emotional regulation strategies also proved to be the

predictors of obsessive symptoms, which raises the involvement and conduction of future research with the specified schemas among OCD samples. The significant relationship among the maladaptive schemas drawn from this study could also be analyzed in a much larger and diverse population of OCD patients. The future research using the Young Schema Questionnaire for similar disorder could also assist in reviewing the reliability and validity within our culture. The focus of maladaptive schemas in certain psychopathology would also help in treatment processes and in the application of certain therapies which could address the core schemas of patients. However, for the present study the limitation to be considered involves the utilization of only two of the subscales from the Obsessive-compulsive symptom checklist (Jabeen, 2008) which also gives room for future research to use all the extents of the scale for a better and extensive understanding of the association between maladaptive schemas and symptom dimensions of OCD. Furthermore, patients with any other co-morbid psychological disorder alongside OCD could also be taken into investigated in the future research study.

However, the distinctive nature of this study is that it helped in the identification of early maladaptive schemas and the difficulties in the emotional regulation strategies among individuals with OCD and its affiliation with its symptomatology and symptoms severity. Therefore, the knowledge derived from this study would assist in management strategies and therapeutic intervention involving understanding of how schemas in relation to emotional regulation impact OCD patients and could be dealt with more efficiently and systematically.

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## **Ethics Approval**

Following ethical considerations were considered for this study. Initially the approval was taken from the Department of Applied Psychology of Kinnaird College for Women to start the research (Permission Letter from the Head of Department of Psychology). The hospital from where the data was collected was presented with the permission letter seeking their consent to conduct the research study in their respective medical institute. Under this perspective, the medical institute was requested to refer OCD patients/clients and provide the information regarding the OCD patients that would be recruited for the study. All the ethical principles and code of conduct were followed by the researcher in order to protect the rights and dignity of the client/patient.

After gaining duly signed consent, the data collection procedure was followed (as mentioned above). The process of data collection only began when the hospital authority and the respective psychologists/psychiatrists gave referrals to collect the data from their patient/clients. Within this ethical consideration, the consent and authorization from the clients/patients' caregivers, parents or whosoever would be accompanying them was also approached for the permission of research data collection (it was mostly applicable for patients who were admitted to ward with their attendant and were of 18 to 20 years of age).

The informed consent was written in Urdu language for the clients to be able to understand and provide their consent for data collection. Details of information about research study specifying the aim, purpose of the study, procedure of filling out the questionnaire and the estimated time to be spent in completion of the research, and their right to withdraw was described to the patient prior to participation in the study. It was ascertained prior to carrying out the research study whether the patient/client preferred to participate in the research without the assistance of caregivers and for that matter privacy was maintained accordingly. They were explained regarding the confidentiality of information they would provide in the questionnaires.

The patients and the caregivers were assured that the research data collection was not a process of treatment; however, it was mentioned within the purpose of the study as to how their participation would provide insight into the specific area of research.

The collected data was kept secure at each stage of the research.