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Prevalence of OCD among Academics in a Public University: A Moderating Role of Power of Influence

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ABSTRACT

Obsessive compulsive disorder (OCD) is a serious problem among children and adolescents. It will affect the sufferers' social, emotional and academic functioning. In the long term, the problem will affect the individual, the family, the mental health system, and the society as the sufferers cannot play a significant role to contribute to the society. The present study was undertaken to investigate the main predictors of OCD among academics as they are also prone to suffering from this problem. At the same time, the present study was looking into the moderating effect of power of influence on the relationship between the four predictors and OCD among academics. Using 463 responses from academics in a public university, the study discovered that insecure attachment, external environment and role of genetics

significantly contribute to OCD. Furthermore, power of influence is found to moderate the relationship between insecure attachment and OCD and between external environment and OCD among academics. The management of the university should encourage academics to involve in social activities in order to reduce the prevalence of OCD among the staff. Other implications are discussed in the paper.

Keywords: Obsessive compulsive disorder, parenting behavior, insecure attachment, role of genetic, power of influence, academicians.

INTRODUCTION

Obsessive compulsive disorder (OCD) is characterized by unwanted intrusive thoughts that provoke anxiety or distress (i.e., obsessions) and ritualistic behaviors (i.e., compulsions) and extreme avoidance behavior performed to reduce distress [1]. Obsessions and compulsions are often theme-based (e.g., contamination, harm) and functionally related. Although rituals and avoidance strategies reduce obsessional anxiety in the short term, they maintain the problem in the long run by preventing the disconfirmation of feared consequences. Left untreated, OCD can be a chronic condition that imposes substantial morbidity. OCD is considered one of the 10 leading causes of disability worldwide [2], with a lifetime prevalence of 2.30% (National Comorbidity Survey Replication) [3]. It is estimated that 40% to 80% of adults with OCD had their first symptomatic manifestations as children [4]; [5]. In fact, studies suggest that adult males experience its onset before the age of 10 and adult females during adolescence [3].

Although OCD is associated with high impairment in quality of life [5] and considerable interference in OCD sufferers' lives, including social, emotional, and/or academic functioning, there is usually a long delay in seeking treatment in adults [6], as well as in children and adolescents [7]. In adults, studies have pointed out that between 38% and 89.8% of OCD sufferers neither ask for nor receive treatment for their symptoms. This delay in seeking treatment is a serious public health problem that has considerable effects and costs for the individual, family, mental health system, and society [8]. Existing studies that have looked into this matter are quite limited although the problem is serious. Therefore, the present study is undertaken to address the scarcity of research effort in this area by looking into the factors that lead to OCD and the moderating role of power of influence on the link between the factors and OCD.

LITERATURE REVIEW

OCD is a common, chronic, and long-lasting disorder in which a person experiences uncontrollable, recurring thoughts (obsessions) and behaviors (compulsions) that he or she feels compelled to repeat (National Institute of Mental Health). OCD is a neuropsychiatric disorder characterized by recurring, intrusive thoughts and repetitive, often ritualized behaviors performed in response to obsessions or set rules and usually intended to alleviate distress [9].

The role of the family in the development and maintenance of OCD in children and adolescents is related to not only genetic factors but also behavioral factors, including parental modeling and family accommodation. Parental modeling concerns the daily enactment of dysfunctional behavioral patterns by a parent with OCD, which might influence children. For example, an OCD

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parent's purification rituals with food could be perceived as normal by their children, who might implicitly learn that food should be cleaned several times before eating due to contamination thoughts [10]. Family accommodation describes the direct participation of parents in their children's compulsive rituals. For instance, parents might perform rituals on behalf of their children (e.g., checking, cleaning), modify family routines, provide reassurance, or facilitate avoidance of OCD triggers in order to decrease their children's distress and time spent executing compulsions [11].

However, parental efforts to relieve their children's anxiety may inadvertently accommodate and reinforce OC behaviors, thereby preventing the children from habituating to anxiety and learning that the consequences that are feared typically do not occur. In other words, family members who participate in their OCD child's rituals might reinforce the children's belief that it is important to respond to OCD implicit thoughts. In this way, the children may continue to act out OCD-related compulsions but, due to family accommodation, they may not recognize a significant decrease in functioning, as they experience less distress and impairment [12].

Simultaneously, general family functioning may deteriorate, with the increased member distress and high levels of family conflict [13]. According to [14] and [10], 80–90% of the relatives of OCD patients directly participate in patients' rituals linked to symptomatology. High levels of family accommodation are associated with more severe OCD symptoms, increased internalizing and externalizing symptoms, a reduced response to treatment, and a greater risk of therapy dropout [15]. Therefore, one of the objectives of the present study is meant to identify the factors that lead to OCD based on the existing work in this area.

Parenting behavior is one of the potential areas of interest regarding the development of OCD, in which specific types of interaction between parents and children may increase the development of OCD. In this context, parental care reflects the warmth, affection, and support exhibited toward children [16]. Family members play an important role in the disease's development and maintenance. In this relationship, both genetic and behavioral factors, such as parental modeling and family accommodation, are significant. Parental modeling concerns the daily enactment of dysfunctional behavioral patterns by a parent with OCD, which may influence their children. Family accommodation, in contrast, describes the direct participation of parents in their children's compulsive rituals, either by modifying daily routines or by facilitating avoidance of OCD triggers, to decrease the children's distress and time spent executing compulsions [17].

Insecure attachment is a risk factor for several types of psycho-pathology, like depression and anxiety disorder, which are marked by negative feelings about the self, like low self-esteem and a sense of not being worth much, as well as negative feelings about others, like being afraid of yourself, being afraid of getting sick from being around with other people, being afraid of the cleanliness of your surroundings, and being afraid of sharp objects.

External environment is also known as outside factors, like learning from models, stress, and trauma, play a big role in the development of OCD and can change how genes are transcribed and expressed [18]. For example, if a memory from the past comes to mind, it will change how you feel.

OCD is a serious psychiatric disorder that affects approximately 2% of the populations of children and adults. Family aggregation studies have demonstrated that OCD is familial, and results from twin studies demonstrate that the familiarity is due in part to genetic factors [19]. Previous studies have provided reliable evidence for a significant genetic contribution to risk of OCD [20 – 22]. Role of genetic or genetic factors are conditions that may lead clinicians to place too much weight on such factors to the detriment (the state of being harmed or damaged) of their parents and are likely to be involved in a complex interplay with other genes, epigenetic effects, and the environment [23].

The four factors are expected to directly affect the prevalence of OCD among children and adults. However, looking into the direct relationship between the predictors and the outcome variables is not sufficient. This study proposes that the power of influence is significant to reduce the direct effect of the predictors on OCD. Power of influence is described as the ability to socialize with other people. Research suggests that people generally find it attractive to be in a position of power. Indeed, power tends to be seen as an important source of social status (i.e., respect and esteem) [24). If children or adults with OCD can be trained to be part of the social group, it is expected that the levels of OCD suffered by these sufferers can be reduced.

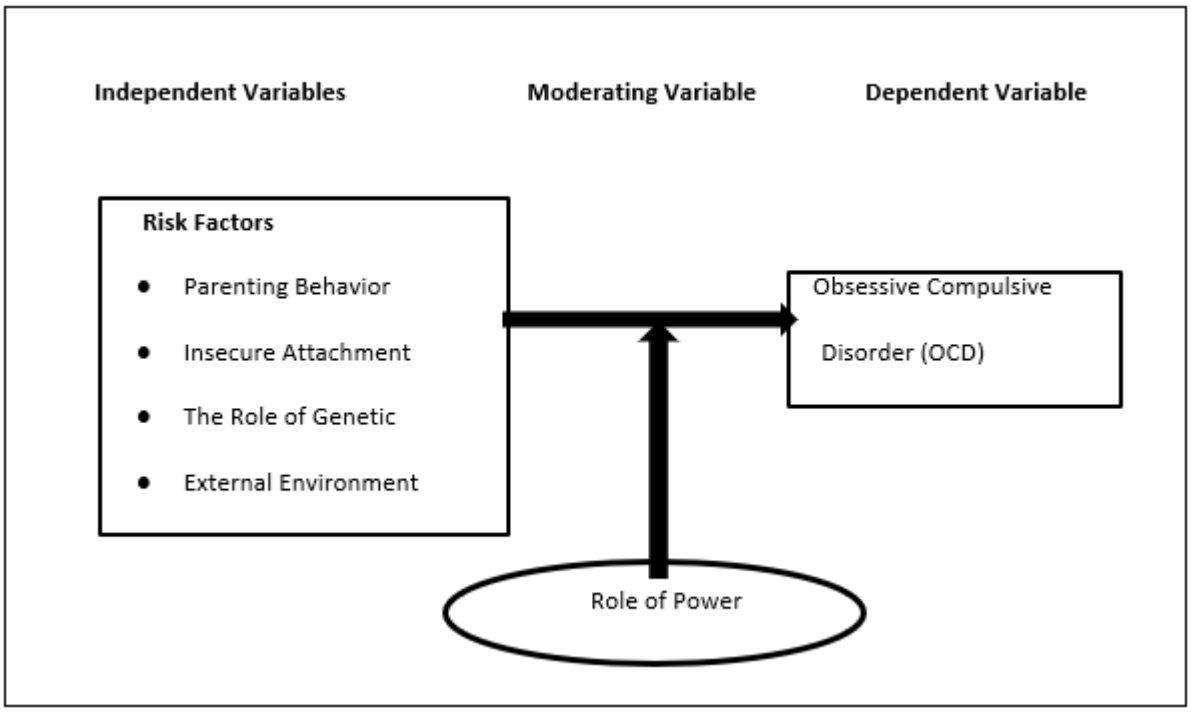

Figure 1: Proposed of Conceptual Framework

METHODOLOGY

A cross-sectional research design was used to examine the association between parenting behavior, insecure attachment, the external environment, and the role of genetics on OCD among academicians. Data were collected through printed questionnaires that were personally administered to the respective academicians at UiTM Puncak Alam, Selangor, Malaysia. A list of academicians from various faculties on the UiTM Puncak Alam Campus served as the sampling frame. A total of 500 sets of questionnaires were distributed within three months, starting from December 2018 to February 2019. A total of 463 sets of the questionnaire were returned,

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recording a return rate of 92.6%.

The questionnaire was adapted from the established questionnaire and the items were modified in order to align with the research questions of the present study. The items in the questionnaire were adapted from the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and included questions about parenting behavior [25], insecure attachment [16], the role of genetics [26], and the role of the external environment [27] in determining the symptoms of OCD. The Y-BOCS is a widely used instrument to assess obsessive–compulsive symptomatology has been increasingly utilized in both drug trials and cognitive–behavioral studies.

The questionnaire utilized closed-ended questions with a fixed range of possible answers using a 5-point Likert scale with the following values: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree to measure all variables. The items were modified in order to get the required responses that would answer the research questions. The collected data were analyzed using statistical software, i.e., SPSS Version 26. The study used both descriptive statistics (mean and standard deviation) and inferential statistics (a hierarchical multiple regression analysis).

RESULTS AND DISCUSSION

Profile of Respondents

A total of 154 respondents involved in the study or 33.3% were male and 309 respondents, or 66.7%, were female. Regarding the participants' age, 128 respondents, or 27.6% of them, were between 25 and 30 years old; 143 (30.9%) of them were between 31 and 40 years old; 105 (22.7%) were between 41 and 50 years old; and 87 (18.8%) were between 51 and 60 years old. Regarding the respondent's backgrounds, 383 (83%) respondents were lecturers from social sciences such as the Faculty of Business and Management, the Faculty of Accountancy, and the Faculty of Hotel and Tourism Management. The only 80 (17%) respondents were science and technology lecturers, such as those at the Faculty of Pharmacy and the Faculty of Health Sciences.

Factor Analysis

As shown in Table 1, a principal component factor analysis with varimax rotation was used to examine the dimensionality of the independent variables such as parenting behavior, insecure attachment, genetic role, and external environment. The results of factor analysis indicate the existence of five factors as originally conceptualized. However, some items have to be removed due to high cross-loadings or items loaded under different components. The KMO value of .917 indicates the correlation matrix is suitable for factor analysis to be conducted. The MSA values are in the range of.707 and .962, indicating adequate sampling for each item. Examining each component, the first component explains 45.92% of the total variance. This component has three items reflecting parenting behavior; thus, the name is retained. The second component consists of four items representing insecure attachment, which explains 10.61% of the total variance. The third and fourth components contain six items concerning the external environment and the role of genetics, which explain 8.6% and 5,79% of the total variance, respectively.

Table 1: Results of Factor Analysis for the Independent Variables

		Component			
		1	2	3	4
PB-Rigid and extreme codes of conduct and duty.		.852			
PB-Broad responsibility since childhood.		.800			
PB-Overprotective and critical parent.		.780			
IA_I worry about getting contaminated or contaminating others by coming in contact with radon, radioactive material, toxin, dirt, insect, animal or other substances.			.817		
IA-I worry about getting disease from my own saliva, urine, faeces, or other things.			.682		
IA-I avoid shaking hands, public restrooms, doorknobs, raw meat, cleanser, dirt, sticky substances, emptying the garbage, changing kitty litter or other problem situations.			.636		
IA-I often take very long showers or baths and wash to decontaminate rather than to clean.			.505		
EE-Sudden unexpected death of someone close to you.				.839	
EE-Serious injury, harm, or death to someone else caused by you.				.823	
EE-Having unwanted upsetting thoughts or images about the traumatic event that come into your head when you did not want them to.				.806	
EE-Serious accident at work, home or during recreational activity.				.781	
EE-Trying to avoid activities or people that remind you of the traumatic event.				.679	
EE-Having less interest or participating in important activities.				.566	
RG-I did things that made it possible for my relative to complete compulsions.					.849
RG-I did things that allow my relative to avoid situations that might trigger obsessions or compulsions.					.821
RG-I provide my relative with OCD with items he/she needs to perform rituals or compulsions.					.816
RG-I directly participated in my relative's compulsions.					.795
RG-I reassured my relative that the rituals he/she already performed took care of the OCD-related concern.					.775
RG-I reassured my relative that there were no grounds for his/her OCD-related worries.					.715
% variance explained (70.918%)		45.917	10.609	8.602	5.789
MSA					.707 - .962
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.917
Bartlett's Test of Sphericity	Approx. Chi-Square				6022.267
	df				171
	Sig.				.000

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

For the dependent variable, a principal component factor analysis with varimax rotation was also performed as shown in Table 2. The results specify the existence of one factor explaining

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67.96% of the total variance. The KMO value of .867 shows the suitability of the correlation matrix for the factor analysis to be conducted. The MSA values that range from .837 to .888 denote the sampling adequacy for each item. The component contains five items that represent OCD.

Table 2: Results of Factor Analysis of Dependent Variable

		Component
		1
OCD-I repeatedly check for mistakes while doing bookwork and worry about it later.		.858
OCD-I repeatedly ask or call others for reassurance that everything is OK, that I have not made them mad, that I haven't forgotten an appointment, or for other concerns.		.854
OCD-I fear I will harm others or hurt people or get violent images in my mind.		.824
OCD-I repeatedly search for news about any accidents caused by others or myself.		.820
OCD-I repeatedly check locks, windows, stoves, or other things to prevent misfortunes.		.764
% Variance explained		67.956%
MSA		.837-.888
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.867
Bartlett's Test of Sphericity	Approx. Chi-Square	1170.962
	df	10
	Sig.	.000

Extraction Method: Principal Component Analysis

Table 3 presents the results of principal component factor analysis with varimax rotation that show the existence of one component to represent power of influence. The KMO value of .672 indicates that the correlation matrix is suitable for further analysis. The MSA values that range from .635 to .696 denote sampling adequacy for the analysis. This uni-dimensional factor explains 63% of the total variance. Three items are included in the component to represent power of influence.

Table 3: Results of Factor Analysis of Power of Influence

		Component
		1
Power of Influence-Enjoy the spotlight.		.813
Power of Influence-Life of the party.		.794
Power of Influence-Like to be liked.		.774
% variance explained		63.001%
MSA		.653-.696
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.672
Bartlett's Test of Sphericity	Approx. Chi-Square	251.166
	df	3
	Sig.	.000

Extraction Method: Principal Component Analysis

Reliability and Correlation

Table 4 demonstrates the results of reliability analysis that indicate that all items are reliable to measure the intended variables; parenting behavior (α=.77), insecure attachment (α=.8), external environment (α=.9), role of genetic (α=.94), OCD (α=.88) and power of influence (α=.71). The results of the correlation analysis show that all independent variables are significantly correlated with each other, indicating a convergent validity. The highest correlation (r=.662; p<.01) is found between insecure attachment and genetic role, while the lowest correlation (r=.188; p<.01) is found between external environment and parenting behavior. The power of influence is significantly correlated with the independent variables except for parenting behavior and also with the dependent variable, showing a potential moderating effect. The lowest correlation is between power of influence and OCD (r=.097; p<.05) and the highest correlation is between power of influence and the role of genetics (r=.185; p<.01). All independent variables are significantly correlated with the dependent variable, signifying a concurrent validity. The lowest correlation is between parenting behavior and OCD (r=.214; p<.01) and the highest correlation is between the role of genetics and OCD (r=.698; p<.01).

Table 4: Results of Correlation & Reliability Analysis

No	Variables	Mean	SD	1	2	3	4	5	6
1	Parenting Behavior	3.27	.81	(.768)					
2	Insecure Attachment	2.94	.93	.321**	(.803)				
3	External Environment	2.91	1.03	.188**	.551**	(.904)			
4	Role of Genetics	2.71	1.04	.265**	.662**	.637**	(.936)		
5	OCD	3.00	.97	.214**	.610**	.564**	.698**	(.881)	
6	Power of Influence	3.27	.81	.027	.109*	.155**	.185**	.097*	(.706)

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Hierarchical Regression Analysis

A hierarchical regression analysis was performed to assess the moderating effect of power of influence on the relationship between parenting behavior, insecure attachment, external environment, and the role of genetics and OCD. The regression model's first step was to run the analysis without power of influence, and the second step was to run the regression analysis with power of influence included in the model. The result in Table 5 revealed that, in the first model, the R^2 of .54 denotes that 54% of the variance was explained by the four independent variables. The model is significant (F(4, 463)=134.282, p=.000) with a Durbin Watson value of 1.812, indicating the absence of an autocorrelation problem. Looking at the individual independent variable, three variables are significant to OCD with the role of genetics (β=.451, p<.01) as the strongest predictor, while external environment as the weakest significant predictor (β=.152, p<.01). Parenting behavior does not significantly contribute to OCD (=-.008, p>.05).

The second regression analysis model, which includes power of influence, increases R^2 to.541, indicating that 54.1% of the variance is explained by the model. The model is also significant (F(5, 463)=41.278, p<0.05). Pertaining to the relationship between the moderator and the dependent variable, the power of influence shows that it is non-significant to predict OCD directly (β=-.037, p>0.05). In the third model, the inclusion of the interaction terms increases

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the variance explained to 55.3%, with the *F* change being significant. The regression model is significant ($F(9, 463)=3.049$, $p<0.05$). The results specify that power of influence is established to fully and significantly moderate the relationship between insecure attachment and OCD (β = -.662, $p<0.01$) and external environment and OCD (β = .516, $p<0.05$).

Table 5: Result of Moderated Multiple Regression Analysis

	OCD		
Independent Variables	Standardized Beta Coefficients		
	Model 1	Model 2	Model 3
Parenting Behavior	-.008	-.009	.020
Insecure Attachment	.231**	.230**	.717**
External Environment	.152**	.154**	.233**
Role of Genetic	.451**	.457**	.569**
Moderator			
Power of Influence		-.037	.183
Interaction terms			
Parenting Behavior*Power of Influence			-.046
Insecure Attachment*Power of Influence			-.662**
External Environment*Power of Influence			.516*
Role of Genetic*Power of Influence			-.149
R	.735	.736	.744
R^2	.54	.541	.553
R^2 change	.54	.001	.012
F change	134.282	41.278	3.049
Sig. F change	.000	.025	.017
Durbin Watson			1.812

** Sig. at the 0.01 level; * Sig. at the 0.05 level.

Discussion

The results of the study indicate that three factors are significant in influencing OCD among the academics, comprising insecure attachment, external environment and role of genetics. As academics, the demand of the job is getting higher from day to day (Kraimer et al., 2019). Academics are required to get involved in a lot of activities besides teaching, including supervision, advisor to students' association, research and publication, administration and other additional tasks. Those who cannot cope with the extremely challenging job demands will opt for early retirement (Bordia et al., 2020). The increasingly demanding job also intensifies the level of OCD among academics. Furthermore, it is undeniable that genetics also plays a significant role in affecting the levels of OCD among academics.

Parenting behavior is not a significant predictor of OCD among the academics because the samples in this study are independent adults. The findings contradict those of other findings (e.g. Nissen et al., 2020; Zhang et al., 2022) as these students were using children and adolescents as samples. The present study involves professional academics who tend to make their own decision without very much consulting with their parents. Although there are some academics who are still depending on their parents, their percentage is very small. Due to this reason, parenting behavior is discovered to play a non-significant role in affecting the academics' OCD.

When power of influence is tested as a moderator in the relationship between the predictors and the outcome variable, it is discovered that power of influence significantly influence insecure attachment and OCD and between external environment and OCD. Power of influence is regarded as the ability of the academics to socialize with other people around them. This factor is proven to reduce the effect of insecure attachment and OCD and external environment and OCD (Spencer et al., 2023; Vogt et al., 2022). Academics are always supporting each other especially among those in the same faculty. Although there is a lot of work to be done, getting peer support will reduce the burden felt by academics. Therefore, creating a harmonious environment, providing support for those who have been appointed as the committee heads, organizing social activities involving all academics will reduce the prevalence of OCD among them.

Power of influence does not significantly influence the relationship between parenting behavior and OCD and between the role of genetics and OCD among academics. The reasons are similar to the direct relationship between these factors and OCD. As independent and professional adults, the influence of their parents is minimal. Similarly, as academics grow older the role of genetics is getting less influential because they learn how to cope with their limitations from time to time through training, exposure, experience and involvement with others.

CONCLUSION

The present study is meant to investigate the influence of four factors, including parenting behavior, insecure attachment, external environment and role of genetics, on OCD among the academics. Furthermore, the study is also meant to examine the moderating effect of power of influence on the relationship between the predictors and the outcome variable that is the OCD among the academics. Based on the results of a multiple regression analysis, three factors are found to be the significant predictors of OCD, which are insecure attachment, external environment and role of genetics. Power of influence is found to moderate the relationship between insecure attachment and OCD and between external environment and OCD. Since the job as academician is getting more and more challenging, the management must encourage academics to organize social activities and provide the support required for them to cope with OCD or at least prevent it from getting more serious. Future research is required to validate the findings by including the academics from other universities so that the findings can be generalized to other contexts.

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