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# The impact of childhood abuse on patients with obsessive–compulsive disorder: an Egyptian study

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## Abstract

**Background** The presence of childhood abuse is expected to have a great impact on several psychological domains on obsessive–compulsive disorder (OCD) patients. This study was designed to assess the psychological impact of history childhood abuse (emotional abuse, physical abuse, sexual abuse, and emotional and physical neglect) on five psychological domains among OCD patients (self-esteem, depression, suicidal risk, cognitive functions, and anxiety).

**Methods** This cross-sectional study included 101 OCD patients who were seen in the psychiatric department's outpatient clinic at Zagazig University Hospital. They were diagnosed according to DSM-IV (SCID-I interview). All the patients were assessed using Childhood Trauma Questionnaire (CTQ-28), the Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HAM-A), Beck's Suicide Scale, Rosenberg Self-Esteem Scale, and the MoCA scale (Montreal Cognitive Assessment Test).

**Results** The prevalence of childhood abuse in the studied group was 74.3%. 24.8% with emotional abuse, 20.8% with physical abuse, 16.8% with sexual abuse, and 11.9% of patients with emotional and physical neglect. The different types of childhood abuse (emotional, physical, and sexual abuse) were significantly associated with decreased self-esteem and increased depressive symptoms, while emotional and physical neglect were associated with decreased self-esteem only among OCD patients. The most powerful and significant predictor of lower self-esteem and depression was sexual abuse, and it was also the only significant predictor of increased suicidal risk among OCD patients.

**Conclusions** History of childhood abuse was significantly associated with decreased self-esteem and increased depressive symptoms among OCD patients. Only history of sexual abuse was significantly associated with increased suicidal risk. So, evaluation of the childhood abuse history is highly important among OCD patients to be incorporated in the management plan to reduce the suffering of OCD patients and for better improvement.

**Keywords** Obsessive–compulsive disorder, Childhood abuse

## Background

Obsessive–compulsive disorder (OCD) is a psychiatric disorder that affects the population from adolescence through adulthood. The characteristics of this disorder are persistent, intrusive, meaningless thoughts and impulses (obsessions), and repetitive, purposeful actions (compulsions) [1]. The importance of studying OCD lies in the fact that it is considered one of the most 10

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debilitating medical conditions worldwide, according to the World Health Organization [2]. OCD affects between 1 and 4% of individuals throughout the world depending on the methods used and the population studied, and it frequently has a severe harmful influence on their lives [3]. Previous studies have identified a variety of potential causative factors for developing OCD, including behavioral, genetic, neurological, and immunological factors, as well as environmental risk factors including perinatal complications, early childhood trauma, and stressful life circumstances [4]. Childhood traumatic events contribute to the most prevalent types of stress that young children may experience in early life, and they have been described as potentially traumatizing events that may have long-term damaging consequences on the individual's health and wellbeing. Childhood traumatic events are becoming more widely acknowledged as a health risk factors that need to be addressed and prevented early with as much effort as other risk factors that are known to have a direct impact on health [5]. Generally, childhood abuse includes being subjected to emotional abuse that someone insulted, disrespected you, or acted in a way that made you develop the fear of getting hurt, physical abuse in the form of bodily assaults that are likely to cause injury, and sexual abuse in the form of exposure to any level of sexual exploitation from caressing to complete sexual contact with the child; also, failure to satisfy the child's basic physical and emotional needs is considered emotional and physical neglect [6].

Exposure to childhood abuse may raise the chance of developing OCD, particularly if combined with other environmental and familial factors. Childhood abuse increases the level of severity and/or frequency of OCD symptoms and even changing its content [7].

The presence of childhood abuse was associated with more treatment-resistant OCD symptoms and were accompanied by comorbid anxiety and depression [8].

Limited information is known about the impact of childhood abuse on OCD patients in Egypt, and this was the rationale behind the selection of this research topic for more exploration of the impact of childhood trauma on OCD patients in an Egyptian study, so the aim of the study was to assess the impact of childhood trauma on an Egyptian sample of OCD patients.

## Methods

A consecutive sample of 101 Egyptian patients diagnosed with OCD were recruited in this cross-sectional study. The patients were divided into two groups: those who have history of abuse and those who do not. The patients were recruited and interviewed at the psychiatric outpatient clinic of Zagazig University Hospital, Egypt. The data was collected from August 2022 until February

2023. A written consent was taken from each patient after explaining all research procedures. The sample size was calculated using open epi.

Inclusion criteria are as follows: age ranges from 18 to 60, from both genders, and all socioeconomic classes, and all educational levels are included, as is patients' diagnosis of OCD.

Exclusion criteria are as follows: refusal of consent, patients who had chronic physical illness, psychotic disorder, mental subnormality, dementia, or substance use comorbidity. The exclusion was done by taking a history and revising the files of the patients.

The patients were subjected to the following:

1. The diagnosis of obsessive–compulsive disorder and exclusion of any psychotic comorbidity were based on *Structured Clinical Interview for DSM-IV Axis I Disorders*. The *Structured Clinical Interview for DSM-IV* (SCID) [9]. It is a semistructured interview created to make reliable psychiatric diagnoses in adults according to the *Diagnostic and Statistical Manual, fourth edition* (DSM-IV). In this study, we used the Arabic version of the SCID-I which was translated and validated previously [10].
2. A simple structured questionnaire was designed to collect sociodemographic data (age, sex, educational level, occupation, and marital state).
3. The application of the following psychometric measures are as follows:
4. The Childhood Trauma Questionnaire (CTQ) — the Arabic version [11] was utilized for assessing early childhood trauma. Originally designed as a 70-item self-administered instrument, this scale was created by Bernstein and colleagues to give a valid and accurate retrospective assessment of child abuse and neglect [12]. It is a 5-item Likert-type self-report measure with five subscales measuring physical, sexual, emotional, and emotional neglect in addition to emotional abuse. In addition to a three-item minimization/denial validity scale designed to identify underreporting of maltreatment, each kind of maltreatment is represented by 5 items (a total of 25 questions).
5. Hamilton Depression Rating Scale (HDRS) — the Arabic version [13] was used for the measurement of the severity of depressive symptoms. This clinician-rated scale evaluates an adult's mood, guilt feelings, suicidal thoughts, sleeplessness, agitation or retardation, anxiety, weight loss, and physical symptoms in order to measure the severity of depression and any changes in symptoms. Seventeen questions about depressive symptoms encountered during the previous week are included in the original version [14].

Based on the item, every item on the scale receives a score of either 3 or 5 points. According to Hamilton's scoring methodology, the individual item response formats range in score from 0–2 to 0–4. An HDRS-17 score of 0–7 is typically considered to be within the normal range or in clinical remission, a score of 8–13 indicates mild depressive symptoms, a score of 14–18 indicates moderate depressive symptoms, and a score of 20 or higher typically indicates severe symptoms and is necessary for enrollment in a clinical trial.

6. Using the Arabic version [15], the Hamilton Anxiety Rating Scale (HAM-A) is used to assess anxiety [13]. It is a clinician-rated measure designed to provide an analysis of anxiety severity. It is graded using the average of 14 separately assessed criteria. Every item receives a separate score on a 5-point ratio scale. A final score determined by adding the ratings of each of the 14 separate elements. The result of this calculation will be a complete score between 0 and 56. The results of the assessment can be understood in the following ways: mild anxiety is indicated by a score of 17 or less, moderate anxiety is indicated by a score of 18 to 24, and severe anxiety is indicated by a score of 25 or above.
7. Beck's Suicide Scale [16] — the Arabic version was used for the assessment of suicidal intention [17]. The scale is a 19-item scale. Each item consists of three alternative statements graded in intensity from 0 to 2. Total scores can thus range from 0 to 38. The first five items of the scale serve as initial screening items used to identify suicide intention. If a patient gives a zero rating indicating no active suicidal intention, then the patient is instructed to skip the remaining 14 items. Otherwise, the remaining 14 items are rated, and then the final score is calculated. Although there are no published recommendations for cutoff scores, higher scores indicate higher risk for suicide. The scale includes two parts: one part for assessing the objective circumstances of the attempt (the presence of a note, final acts, degree of isolation, and timing). The second part is to address the subjective circumstances (attempter's thoughts and feelings at the time of the attempt, expectations about the lethality of the attempt, and the degree to which the attempt was impulsive or premeditated).
8. The patient's self-esteem is evaluated using the Rosenberg Self-Esteem Scale [18]. To ensure that the Arabic translation of the scale corresponds with the English original, the scale was first translated into Arabic and then back into English at the start of the study. It demonstrated strong dependability, and the Arabic version's inter-rater agreement was also deter-

mined to be excellent. It offers a brief, fast, simple, and practical way to measure overall self-esteem. Ten components make up the scale, 5 of which have negative wording. The 4-point response format uses a strongly agree to strongly disagree range, resulting in a scale of 10–40. Stronger scores indicate stronger self-esteem.

9. The MoCA scale (Montreal Cognitive Assessment Test) [19] — the Arabic version (version 7.1 2004) [20] was used to assess the cognitive deficits. It is a relatively new cognitive screening test that takes 10 to 12 min to perform and is composed of 1-page 30-point test including 9 subtests covering executive functions, attention, memory, language, orientation, and visuospatial functions.

The researchers explained the procedures and its goals after obtaining the necessary authorization. The participants carefully read the instructions, which informed that honest answers were encouraged as well and their responses would be used exclusively for research purposes.

#### Approvals

All of the chosen participants were given thorough explanations of the study's goal and anticipated advantages. The entire project was conducted with the highest ethical consideration. Written informed consent was obtained from all participants. Approval was obtained from the Institutional Review Board (IRB).

#### Statistical analysis

SPSS version 23.0 (SPSS Inc., Chicago, IL, USA) was used to analyze the data. While the number and percentage were used to express qualitative data, the mean, SD, and range were used to describe quantitative data. The *t*-test was used to compare two groups of normally distributed variables. Two sets of non-normally distributed variables were compared using the Mann–Whitney test. The Pearson correlation coefficient was calculated in order to examine the relationship between the different variables. Categorical variable percentages were compared using the Fisher exact or chi-square test. One dependent continuing variable can be predicted from one or more independent continuing variables using multiple linear regression. A *P*-value of less than 0.05 was considered statistically significant.

#### Results

The study included 101 patients diagnosed with OCD. There was no significant difference in demographic parameters between patients with and without previous history of childhood abuse ( $p > 0.05$ ) (Table 1). The

**Table 1** Demographic parameters of obsessive–compulsive disorder patients

Variables	Total n.101		With childhood abuse group n.75 (74.3%)		Without childhood abuse group n.26 (25.7%)		t/ $\chi^2$	P
	No	%	No	%	No	%		
<b>Age per years</b>								
Mean $\pm$ SD	36.36 $\pm$ 6.82		35.8 $\pm$ 6.64		37.96 $\pm$ 7.22		1.398	0.165
Range	18–49		18–48		27–49			
<b>Gender</b>								
Female	62	61.4	48	77.4	14	22.6	0.84	0.36
Male	39	38.6	27	69.2	12	30.8		
<b>Marital status</b>								
Divorced	13	12.9	10	76.9	3	23.1		
Married	54	53.5	40	74.1	14	25.9	0.72	0.86
Single	26	25.7	20	76.9	6	23.1		
Widow	8	7.9	5	62.5	3	37.5		
<b>Education</b>								
Illiterate	79	78.2	56	70.9	23	29.1		
Preparatory	3	3.0	2	66.7	1	33.3	3.2	0.37
Secondary	4	4.0	4	100.0	0	0.0		
College-institute	15	14.8	13	86.7	2	13.3		
<b>Occupation</b>								
Employed	21	20.8	17	81.0	4	19.0	0.62	0.43
Unemployed	80	79.2	58	72.5	22	27.5		

t Student’s t-test,  $\chi^2$  chi-square test, f Fisher exact test, no significant  $p > 0.05$ , \* $p < 0.05$  significant

**Table 2** Prevalence of childhood abuse in the studied group

Variables	Total n.101	
	No	%
Prevalence of total childhood abuse	<b>75</b>	<b>74.3</b>
Emotional abuse	25	24.8
Physical abuse	21	20.8
Sexual abuse	17	16.8
Emotional & physical neglect	12	11.9

prevalence of previous history childhood abuse in the studied group was 74.3% (75 of the patients), distributed as follows: 24.8% emotional abuse, then physical abuse was 20.8%, sexual abuse was 16.8%, and, finally, 11.9% of patients reported emotional and physical neglect (Table 2 and Fig. 1).

The overall comparison between the two groups showed that there were a significant difference between the two groups in two domains (out of total five domains): depression and self-esteem, as there was a significant lower self-esteem scores and a significant higher Hamilton depression scores in patients with previous history of childhood abuse compared to those without previous history of childhood abuse,  $p < 0.05$ .

However, there was no significant difference in MOCA, Beck’s suicide, and Hamilton anxiety scores between patients with and without previous history of childhood abuse,  $p > 0.05$  (Table 3).

When we assess the impact of different types of abuse separately (emotional abuse, physical abuse, sexual abuse, and emotional and physical neglect on the five domains of the study (self-esteem, depression, suicide, anxiety, and cognitive functions)), we found the following:

- a. There were a significant lower self-esteem scores and higher depression scores in emotional abuse patients compared to patients without abuse,  $p < 0.05$ ; otherwise, there was no difference in both groups regarding the following: MOCA, Beck’s suicide, anxiety scores,  $P > 0.05$  (Table 4).
- b. There were significant lower self-esteem scores and higher depression scores in physical abuse patients compared to patients without abuse,  $p < 0.05$ ; otherwise, there was no difference in both groups regarding the following: MOCA scores, Beck’s suicide, and anxiety scores,  $p > 0.05$  (Table 5).
- c. There were significant lower self-esteem scores and higher depression scores in sexual abuse patients compared to patients without abuse,  $P < 0.05$ ; otherwise, there was no difference in both groups regard-

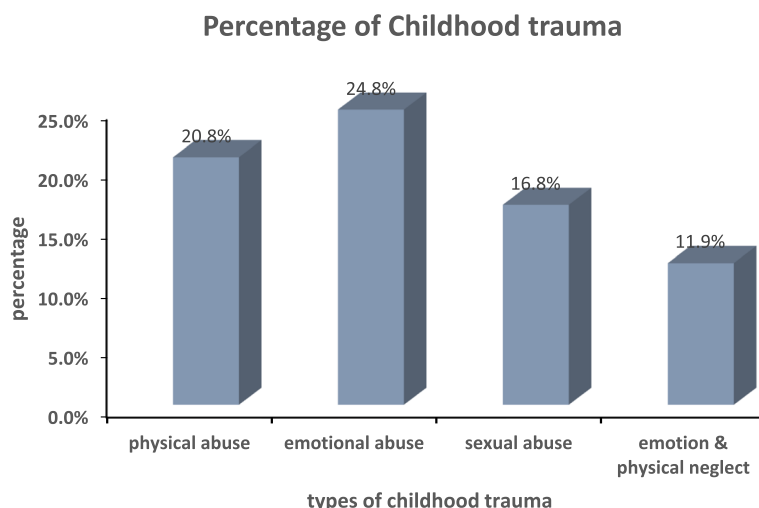


Fig. 1 Showing the percentages of different types of abuse

Table 3 Comparison between OCD group with childhood abuse and OCD group without childhood abuse regarding self-esteem, MOCA, Beck’s suicide, Hamilton depression, and Hamilton anxiety scores

Variables	Total n.101	With childhood abuse group n.75	Without childhood abuse group n.26	t/u test	P
<b>Self-esteem</b>					
Mean ± SD	25.0 ± 4.16	24 ± 4.27	29.65 ± 4.69	5.668	.0001*
Range	16–36	16–34	19–36		
<b>MOCA</b>					
Mean ± SD	26 ± 4.16	25.61 ± 4.09	27.15 ± 4.23	1.924	.057
Range	10–30	13–33	10–31		
<b>Beck’s suicide</b>					
Mean ± SD	11.50 ± 3.94	11.72 ± 3.89	9.66 ± 4.72	0.849	0.404
Range	5–20	5–20	6–15		
<b>Hamilton depression</b>					
Mean ± SD	17.15 ± 6.63	19.16 ± 5.77	11.34 ± 5.48	6.296	.0001*
Range	2–35	7–35	2–24		
<b>Hamilton anxiety</b>					
Mean ± SD	13.78 ± 6.11	13.89 ± 6.30	13.46 ± 5.64	0.309	0.758
Range	3–30	3–31	5–27		

t Student’s t-test, u Mann–Whitney U-test, no significant  $p > 0.05$ , significant  $p < 0.05$

ing the following: MOCA scores, Beck’s suicide, and anxiety scores,  $p > 0.05$  (Table 6).

d. There was no difference between patients with childhood physical and emotional neglect and patients without neglect  $P > 0.05$ , except patients with childhood physical and emotional neglect had significant lower self-esteem scores,  $P = 0.005$  (Table 7).

When we assess the predictors for lower self-esteem, depression, and suicidal risk, we found the following:

- a. The significant predictors of decreased self-esteem score in the studied sample were sexual abuse, physical abuse, and emotional abuse,  $p = 0.0001, 0.002, \text{ and } 0.004$ , respectively (Table 8).
- b. The significant predictors of depression in our studied sample were sexual abuse, emotional abuse, and physical abuse,  $p = 0.0001, 0.001, \text{ and } 0.002$ , respectively (Table 9).
- c. The only significant predictor of increased Beck’s suicide scores in our sample was sexual abuse,  $p = 0.004$  (Table 10).

**Table 4** The relationship between emotional abuse and self-esteem, MOCA, Beck’s suicide, Hamilton depression, and Hamilton anxiety scores

Variables	Emotional abuse		T	p-value
	Yes n.25	No n.26		
<b>Self-esteem</b>				
Mean ±SD	25.36 ±4.79	29.65 ±4.69	3.230	<b>.002*</b>
Range	18–34	19–36		
<b>MOCA</b>				
Mean ±SD	25.4 ±4.36	27.15 ±4.23	1.458	0.151
Range	13–30	10–31		
<b>Beck’s suicide</b>				
Mean ±SD	10.85 ±4.37	9.66 ±4.72	U	0.709
Range	5–16	6–15	0.386	
<b>Hamilton depression</b>				
Mean ±SD	20.12 ±5.367–28	11.34 ±5.48	U	<b>.0001*</b>
Range		2–24	5.773	
<b>Hamilton anxiety</b>				
Mean ±SD	13.72 ±5.26	13.46 ±5.64	U	0.866
Range	3–27	5–27	0.169	

Student’s t-test, u Mann–Whitney U-test, no significant  $p > 0.05$ , \* $p < 0.05$  significant

**Table 6** The relationship between sexual abuse and self-esteem, MOCA, Beck’s suicide, Hamilton depression, and Hamilton anxiety scores

Variables	Sexual abuse		t/u	p-value
	Yes n.17	No n.26		
<b>Self-esteem</b>				
Mean ±SD	23.41 ±4.34	29.65 ±4.69	–4.385	<b>.0001*</b>
Range	18–34	19–36		
<b>MOCA</b>				
Mean ±SD	26.41 ±2.42	27.15 ±4.23	0.655	0.516
Range	30–31	10–31		
<b>Beck’s suicide</b>				
Mean ±SD	16.43 ±2.84	9.66 ±4.72	2.067	<b>0.039*</b>
Range	11–20	6–15		
<b>Hamilton depression</b>				
Mean ±SD	18.88 ±6.62	11.34 ±5.48	4.058	<b>.0001*</b>
Range	8–34	2–24		
<b>Hamilton anxiety</b>				
Mean ±SD	15.17 ±7.89	13.46 ±5.64	0.832	0.410
Range	5–31	5–27		

Student’s t-test, u Mann–Whitney U-test, no significant  $p > 0.05$ , \* $p < 0.05$  significant

**Table 5** The relationship between physical abuse and self-esteem, MOCA, Beck’s suicide, Hamilton depression, and Hamilton anxiety scores

Variables	Physical abuse		T	p-value
	Yes n.21	No n.26		
<b>Self esteem</b>				
Mean ±SD	22.14 ±3.55	29.65 ±4.69	–6.055	<b>.0001*</b>
Range	16–30	19–36		
<b>MOCA</b>				
Mean ±SD	25.34 ±3.6	27.15 ±4.23	0.077	0.939
Range	16–30	10–31		
<b>Beck’s suicide</b>				
Mean ±SD	9.66 ±3.21	9.65 ±4.72	.001	0.99
Range	6–12	6–15		
<b>Hamilton depression</b>				
Mean ±SD	21.14 ±5.23	11.34 ±5.48	6.216	<b>.0001*</b>
Range	13–35	2–24		
<b>Hamilton anxiety</b>				
Mean ±SD	11.80 ±5.76	13.46 ±5.64	0.989	.328
Range	4–25	5–27		

Student’s t-test, u Mann–Whitney U-test, no significant  $p > 0.05$ , \* $p < 0.05$  significant

**Table 7** The relationship between childhood physical and emotional neglect and self-esteem, MOCA, Beck’s suicide, Hamilton depression, and Hamilton anxiety scores

Variables	Physical and emotional neglect		t/u	p-value
	Yes n.12	No n.26		
<b>Self-esteem</b>				
Mean ±SD	25.25 ±3.02	29.65 ±4.69	2.965	<b>.005*</b>
Range	19–30	19–36		
<b>MOCA</b>				
Mean ±SD	28.16 ±2.65	27.15 ±4.23	0.760	0.452
Range	25–33	10–31		
<b>Beck’s</b>				
Mean ±SD	10.12 ±1.73	9.66 ±4.72	0.251	0.808
Range	7–12	6–15		
<b>Hamilton depression</b>				
Mean ±SD	14.08 ±3.15	11.34 ±5.48	1.604	0.117
Range	7–18	2–24		
<b>Hamilton anxiety</b>				
Mean ±SD	16.08 ±6.33	13.46 ±5.64	1.282	0.208
Range	6–27	5–27		

Student’s t-test, u Mann–Whitney U-test, no significant  $p > 0.05$ , \* $p < 0.05$  significant

**Table 8** Multiple linear regression model for prediction of self-esteem among studied patients (n.101)

Predictors	Unstandardized coefficients		T	Sig
	B	SE		
Constant	36.5			
Age	.067	.070	-0.953	0.343
Gender	0.545	1.269	-0.430	0.668
Employment	1.491	1.105	1.147	.096
Emotional abuse	<b>-0.375</b>	<b>0.144</b>	<b>-2.150</b>	<b>.004*</b>
Physical abuse	<b>-0.415</b>	<b>0.139</b>	<b>-2.979</b>	<b>.002*</b>
Sexual abuse	<b>-0.759</b>	<b>0.186</b>	<b>-4.077</b>	<b>.0001*</b>
Emotional & physical neglect	-.016	0.140	0.116	0.908

β regression coefficients, SE standard error, r=0.48, R square 23.0% of predictors, f=4.1, p=0.001

**Table 9** Multiple linear regression model for prediction of depression among the studied patients

Predictors	Unstandardized coefficients		T	Sig
	B	SE		
Constant	-0.128			
Age	.063	.087	0.730	0.467
Gender	0.966	1.566	0.617	0.539
Employment	-1.955	1.432	-1.366	0.175
Emotional abuse	<b>0.630</b>	<b>0.177</b>	<b>3.558</b>	<b>.001*</b>
Physical abuse	<b>0.546</b>	<b>0.172</b>	<b>3.177</b>	<b>.002*</b>
Sexual abuse	<b>1.113</b>	<b>0.230</b>	<b>4.845</b>	<b>.0001*</b>
Emotional & physical neglect	0.135	0.172	-0.783	0.436

β = regression coefficients, SE standard error, r=0.576, R square 33% of predictors, f=5.69, p=0.0001

**Table 10** Multiple linear regression model for prediction of Beck's suicide scores (suicide risk) among the studied patients

Predictors	Unstandardized coefficients		T	Sig
	B	SE		
Constant	14.787			
Age	-0.126	0.125	1.007	0.324
Gender	1.517	1.922	0.790	0.438
Employment	0.457	1.933	0.236	0.816
Emotional abuse	.086	0.260	0.331	0.744
Physical abuse	0.326	0.353	0.924	0.365
Sexual abuse	<b>0.375</b>	<b>0.144</b>	<b>-2.150</b>	<b>.004*</b>
Emotional & physical neglect	.058	0.209	0.276	0.785

β regression coefficients, SE standard error, r=0.617, R square 38% of predictors, f3.53, p=0.022

There was no difference in demographic parameters between patients with and without previous history of childhood abuse,  $p > 0.05$ .

This table shows that the prevalence of the total childhood abuse in the studied group was 74.3% distributed as follows: 24.8% emotional abuse, then physical abuse was 20.8%, sexual abuse was 16.8%, and, finally, 11.9% of patients reported emotional and physical neglect.

There was a significant lower self-esteem scores, higher Hamilton depression scores in patients with previous history of childhood abuse, compared to those without previous history of childhood abuse,  $p < 0.05$ . There was no difference in MOCA, Beck's suicide, and Hamilton anxiety scores between patients with and without previous history of childhood trauma,  $p > 0.05$ .

There was a significant lower self-esteem scores and higher depression scores in emotional abuse patients compared to patients without trauma,  $p < 0.05$ ; otherwise, there was no difference in both groups regarding MOCA, Beck's suicide, and anxiety scores,  $p > 0.05$ .

There was a significant lower self-esteem scores and higher depression scores in physical abuse patients compared to patients without trauma,  $p < 0.05$ ; otherwise, there was no difference in both groups regarding MOCA, Beck's suicide, and anxiety scores,  $p > 0.05$ .

There was a significant lower self-esteem scores, higher depression scores, and higher Beck's suicide scores in sexual abuse patients compared to patients without trauma,  $p < 0.05$ ; otherwise, there was no difference in both groups regarding MOCA and anxiety scores,  $p > 0.05$ .

There was no difference between patients with childhood physical and emotional neglect and patients without childhood trauma  $p > 0.05$ , except patients with childhood physical and emotional neglect had significant lower self-esteem scores,  $p = 0.005$ .

It was noticed that the most significant predictors for decreased self-esteem in the studied sample are sexual abuse, physical abuse, and emotional abuse,  $p = 0.0001$ , 0.002, and 0.004, respectively.

It was noticed that the most significant predictors for depression in our studied sample were sexual abuse, emotional abuse, and physical abuse,  $p = 0.0001$ , 0.001, and 0.002, respectively.

The only significant predictor of increased Beck's suicide scores in our sample was sexual abuse,  $p = 0.004$ .

### Discussion

Our study showed that the prevalence of childhood abuse in the studied group was 74.3% distributed as follows: 24.8% emotional abuse, 20.8% physical abuse, 16.8% sexual abuse, and 11.9% reported emotional and physical neglect. This high percentage of abuse, because we assess

many subtypes of childhood abuse (emotional abuse, physical abuse, sexual abuse, emotional and physical neglect), that was in contrary to many studies that assess only few subtypes of abuse.

The impact of the childhood abuse on patients with OCD was obvious in three domains out of five domains studied: first: self-esteem; second: depression; and third: the suicidal risk.

First, as regards the relationship between childhood abuse and self-esteem in OCD patients, our study showed a significant lower self-esteem in the group of OCD patients who experienced childhood abuse when compared to those who did not have such abuse experiences. The most significant predictor for lower self-esteem was sexual abuse followed by physical abuse followed by emotional abuse.

In line with our findings, a study by Ozbas et al. [21], which was carried on students from several universities in Turkey, to assess the relationship of traumatic childhood experiences with psychological symptoms and self-esteem, it turned out that childhood maltreatment experiences were related to low self-esteem. Consequently, self-esteem and childhood abuse experience scores were highly correlated with student psychological symptoms, such as obsessive–compulsive disorder, hostility, phobic anxiety, paranoid thought, psychoticism, and others.

In addition to the previous finding, it was found that the experiences of childhood maltreatment continued to have a negative impact on self-esteem, even in the presence of circumstances that may positively affect self-esteem, such as having a good physical self-concept.

Second, our study showed significant increased depressive symptoms in the group of OCD patients who experienced childhood abuse when compared to those who did not have such abuse experiences. The most significant predictor for increased depressive symptoms was sexual abuse followed by emotional abuse followed by physical abuse, while their anxiety scores on Hamilton Anxiety Rating scale (HAM-A) showed no significant difference between the two groups.

In previous research performed by Hemmings et al. [22], the authors found a high degree of comorbid depression in the OCD group who reported previous exposure to childhood trauma, and according to Visser et al. [23] study, the authors reported that childhood trauma was found to be associated with comorbidity in OCD patients, particularly with concomitant affective disorders, substance use disorders, and eating disorders, but not with comorbid anxiety disorders.

Third, our study showed a significant direct association between sexual abuse in particular and high Beck's suicide scores that indicate higher suicidal risk among OCD

patients with previous history of sexual abuse, and sexual abuse was the only predictor for increased suicidal risk. In agreement with this literature, previous research confirmed the significant relationship between sexual abuse, from all dimensions of childhood trauma, and suicidal ideation in OCD patients [24]. Rukiye and Erbay [25] explained the relationship between childhood abuse and distinct types of obsessions (aggressive, religious, and sexual obsessions). Suicidal probability was found to be associated with childhood trauma in OCD patients, independently of depression and anxiety.

Early sexual abuse may dramatically raise the risk of suicidality in OCD patients through the development of emotions like fear, despair, anger, guilt, or shame, and maladaptive intrusive thoughts may result in learning incorrect assumptions and developing distorted coping skills such as withdrawal or distraction to deal with these traumatic childhood experiences [24]. According to a number of studies, sexual abuse may be a greater risk factor for suicide rather than physical or emotional abuse [26, 27]. OCD sufferers may think about suicide as a way of escaping the difficulties brought on by sexual abuse and ego-dystonic unacceptable thoughts [28]. This is one of the most important findings in our study that the strongest predictor for the suicidal ideation among Egyptian patients with OCD was sexual abuse; as being an Egyptian citizen living in an Arabic country with traditional Arabic cultural conceptions, it is considered more painful and distressing to experience sexual abuse than other subtypes of childhood trauma in this society.

Lastly, our study showed no difference in cognitive performance between the two groups of OCD patients who experienced childhood abuse and those who did not have such abuse experiences.

There is scant research examining the relationship between cognitive impairments and childhood abuse in OCD patients. The results of our study were in contrary to a previous study by Hosseini and Soleimani [29], who examined the association between child abuse and cognitive distortions with symptoms of OCD and then confirmed the relationship between child abuse and cognitive distortions in OCD patients which turned out to be indirect relationship through the mediating role of emotion dysregulation. However, our study opens the floor for further research for assessing this important aspect of cognitive profile in OCD patients who are experiencing childhood abuse to confirm or disconfirm our results in this aspect.

## Conclusion

Our study was one of the very scanty studies in Egypt that assess the impact of experiencing childhood abuse on OCD patients. A total of 74.3% of the OCD patients in our



sample reported experiencing childhood abuse. Experiencing different types of childhood abuse (emotional, physical, and sexual abuse) significantly lower the self-esteem and increase the depressive symptoms in patients with OCD. In particular, sexual abuse was a most powerful predictor of decreased self-esteem, increased depressive symptoms, and increased suicidal risk in patients with OCD. This study shed a light on the importance of paying attention to assess childhood abuse in OCD patients to be incorporated in the management plan to reduce the suffering of OCD patient and for better improvement.

### Limitations of the study

A first limitation is the cross-sectional nature of the study that prevents causality. Second, the Childhood Trauma Questionnaire, although a reliable and validated tool for childhood trauma assessment, it may be susceptible to a number of biases, including recall bias due to its retrospective nature. However, there are multiple strengths in our study, that is one of the very scanty studies in Egypt that assess the impact of experiencing childhood abuse on OCD patients and also open the floor for further future studies to investigate more these important findings.

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### Authors' contributions

YR, MS, RM, HK, and AI, share the design, data collection and interpretation of the data, and writing of the draft. All the authors read and approved the final manuscript.

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### Availability of data and materials

All the data are included in the study.

### Declarations

#### Ethics approval and consent to participate

The study was approved by Zagazig University Institutional Review Board (ZU-IRB#9620). All study procedures were conducted within the ethical guidelines as outlined in the Declaration of Helsinki and its later amendments. All the participants signed a written consent.

#### Consent for publication

Not applicable.

#### Competing interests

The authors declare that they have no competing interests.

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