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# Alexithymia, resilience and suicidal ideation among patients with obsessive–compulsive disorder

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## Abstract

**Background** Obsessive–compulsive disorder (OCD) is a psychiatric illness with a considerable risk of alexithymia, and suicide may make this risk worse. This study aimed to assess alexithymia, resilience, and suicidal ideation among patients with obsessive–compulsive disorder. A cross-sectional study was established at the psychiatric outpatient clinic at Zagazig University Hospitals in addition to Abbasyia Hospital for Mental Health in Cairo City. A purposive sample of 140 obsessive–compulsive patients. Five tools were used for data collection, including the socio-demographic questionnaire, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), the Toronto Alexithymia Scale (TAS-20), the Resilience Scale, and the Scale for Suicidal Ideation (SSI).

**Results** The study findings demonstrated that in excess of two-thirds of the studied subjects had mild obsessive–compulsive disorder, slightly more than two-thirds of them suffered from alexithymia, more than half of patients had a moderate level of resilience, and the majority of them had suicidal ideation. Patients' obsessive–compulsive score was a statistically significant positive predictor for suicidal ideation.

**Conclusions** A positive and significant correlation was found between patients' obsessive–compulsive scores and both alexithymia and suicidal ideation scores. Negatively significant correlations were found between resilience and each patient's obsessive–compulsive score, alexithymia, and suicidal ideation. Therefore, it is recommended implementing longitudinal studies to establish the causality between OCD Sufferers' resilience, alexithymia, and ideations of suicide.

**Keywords** Obsessive–compulsive disorder, Alexithymia, Resilience, Suicidal ideation, Patients

## Background

Obsessive–compulsive disorder (OCD) is one of the most prevalent, debilitating, and resilient diseases. This disorder is separated from other anxiety diseases based on the fifth statement of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and is a characteristic of

a broad range of symptoms, such as unwanted routines, obsessions, and compulsions [1].

OCD is a prevalent and persistent mental health problem that has a considerable negative impact on overall functioning, quality of life, the welfare of individuals, and their support networks. Obsessions or compulsions, or both, may be present, and these symptoms are indicative of OCD. Obsessions are defined as invasive, uncontrollable, and recurrent thoughts and ideas that cause misery; compulsions are desires and behaviors that a person has to satisfy urges or get rid of obsessions [2]. OCD is a serious neuropsychiatric illness that has a lifetime prevalence

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of 2 to 3%. It frequently has a chronic course and imposes a heavy load on sufferers [3].

People who struggle with labeling and processing emotions may have an impact on how emotional states are represented, which might alter how clinically focused they are on certain topics and how obsessive behaviors are displayed in OCD. The concept of alexithymia has sparked interest in determining variables that may affect individual variations in emotional awareness levels and how emotions are processed cognitively over the past three decades. The capacity to recognize, express, and process emotions is necessary for being long-lived, and identifying and expressing one's emotions is key to coping with bad feelings [1].

Various psychological concerns, including interpersonal difficulties, aggression, somatization, obsessionalism, depression, and anxiety, are predicted by alexithymia, and individuals with various psychopathologies are said to have a much greater prevalence of alexithymia. In the clinical residents of clients with OCD and schizophrenia, as well as in the general population, alexithymia has also been linked to suicidal ideation. Additionally, a meta-analytical study revealed a significant association between alexithymia and mental illnesses such as obsessive-compulsive syndrome [4].

Resilience is described as a personality feature that overcomes severely stressful life circumstances, uses the healing process swiftly and effectively, and is unconcerned about running into these conditions again in the future. The capacity of a person to maintain their equilibrium despite a traumatic or stressful incident is known as resilience. Individuals with strong levels of psychological resilience are more adaptable and capable of handling life's challenges and psychopathologies, which improves psychological wellness [5].

In addition, resilience is the capability of being easily modified in the aspect of difficulty, which may affect a person's capacity to deal with elevated levels of anxiety. Increased emotion dysregulation and a lack of resilience are substantially related to increased OC symptom severity and have been demonstrated to worsen internalizing symptoms in longitudinal designs across time. In light of this, scientists hypothesized that higher baseline resilience ratings would be connected to fewer deteriorating OC manifestations, whereas higher baseline risk factor ratings would be linked to worsening OC manifestations [6].

Recent systematic reviews and meta-analyses suggest that people with OCD are significantly more probably to have suicidal ideation and attempt suicide compared to the general population. Suicidal ideation is defined as the presence of active or passive thoughts about killing oneself without preparatory behavior. The suicidal ideation

rate is positively correlated with obsessive severity. Lower levels of education, higher rates of unemployment, long-term alcoholism, personality disorders, and suicide in the family history [7].

The prevention and management of OCD require a multidisciplinary approach, and nurses play a crucial role in this strategy by promoting awareness, as a result, people with mental and emotional disorders like OCD, maladjustment, negative perfectionism, or related personality disorders burden their families and communities, nurses should have access to preventive measures for prevention and its effects not only in outpatient psychiatric clinics but also in schools, universities, health facilities, and services wherever they can access them, psychiatric nurse professionals can be in a unique position to assess patients' pre-illness conditions, which may be useful in the diagnosis of OCD, the management process, or the recovery or rehabilitation process, future research including nursing university students and members of the medical team can be used to inform prevention methods, and they can also help spread knowledge of the behavioral and maladaptive effects of OCD and its problems [8]. The authors believed that the current study brought attention to this crucial issue.

### Significance of this study

One of the 10 most incapacitating medical illnesses in the world is obsessive-compulsive disorder [9]. OCD has been referred to as a key suicidal determinant; suicidal ideation rates in OCD patients ranged from 10 to 53%, while the number of suicide attempts ranged from 1 to 46% [10]. Additionally, alexithymia has been associated with higher condition severity, and its presence may raise the risk of suicide in 20 to 40% of OCD patients [11]. Additionally, alexithymia and diminished resiliency may be connected in functional neurological disorders [12]. Moreover, suicide risk has been linked to a reduced level of resilience [13]. Therefore, the present study will be directed to assess alexithymia, resilience, and suicidal ideation among patients with obsessive-compulsive disorder.

### Study aim

To determine alexithymia, resilience, and suicidal ideation among patients with obsessive-compulsive disorder.

## Subjects and methods

### Type of study

Descriptive cross-sectional design was adopted for the study.

## Subjects

A purposeful sample of 140 psychiatric patients with obsessive–compulsive disorder was randomly selected at a psychiatric outpatient clinic at Zagazig University Hospitals and Abbasyia Hospital for Mental Health in Cairo City.

## Sample size

The sample size was estimated using the OpenEpi statistical tool using the following parameters: The total number of OCD patients who attend the outpatient clinics of Zagazig University Hospital and Abbasyia Mental Hospital is estimated to be 288 in 1 year. The percentage of suicidal ideation was 23.3% among OCD patients (Shelo et al., 2021) [9]. The study's power is 80%, while the confidence level is 95%. The required sample size is 140 patients.

## Inclusion criteria

- Psychiatric patients who were diagnosed only with OCD.
- Both male and female patients aged 18 to 60 years old.
- All educational levels.

## Exclusion criteria

- Any medical or psychiatric comorbidity with OCD.

## Tools of data collection

Five tools were used to collect the study data

*Tool I: Socio-demographic Data Sheet:* The section was advanced by the researcher to document the personal traits of patients and is a self-rated scale. It consists of inquiries about age, sex, marital status, education, family history of OCD, employment status, first OCD onset age, and disorder duration.

*Tool II: Yale-Brown Obsessive Compulsive Scale (Y-BOCS):* It was improved by Goodman et al. (1989, a, b) [14, 15] and is a self-rated scale. It consists of 10 semi-structured items, a clinician-administered severity assessment of obsession and compulsion.

**Scoring system:** Items are scored on a five-point Likert scale with a range of 0–4, with higher scores denoting more severe symptoms. The Severity Scales are created by adding items that relate to obsession and compulsion. The Total score of Severity is calculated by totaling all the items. The total range of scores is 10–40.

DeVeauugh-Geiss et al. (1991) [16]: The severity of obsessive-compulsive symptoms was classified as follows:

- Atypical obsessive–compulsive symptoms: Total points 0–7
- Mild symptoms: Entire score 8–15
- Moderate symptoms: Entire score 16–25
- Severe symptoms: total points 26–35
- Profound symptoms: Total points 36–40
- *Tool III: Toronto Alexithymia Scale (TAS-20):* This scale was performed by Bagby et al. (1994) [17] and is a self-rated scale used to assess alexithymia on a self-rated scale. Twenty items make up the questionnaire; all statements involve options using a 5-point Likert scale ranging from 1 to indicate strongly disagreeing to 5 to indicate strongly agreeing. The tool assesses three aspects of alexithymia: difficulty in feeling identification and description, as well as externally-oriented thinking.
- **Scoring system:** A summation score of  $\geq 61$  refers to alexithymia; a score of 52 to 60 indicates borderline alexithymia; and a score of  $\leq 51$  suggests the absence of alexithymia.
- *Tool IV: Resilience Scale:* It was construed by Connor and Davidson (2003) [18] and is a self-rated scale to assess resilience. It includes 25 items; based on the subject's feelings throughout the previous month, each item is graded.
- **Scoring system:** The 25 items are scored on a 5-point range of answers from (0) not at all true to (4) true nearly all the time. The total points range from 0 to 100. The resilience was considered high if the percent was 75% or more, average if less than 75% and more than or equal to 50%, and low if less than 50%.
- *Tool V: Scale for Suicidal Ideation (SSI):* It was matured by Beck et al. (1979) [19] as a self-rated scale to evaluate the suicidal ideations in OCD patients. It includes 19 items. The SSI is a clinician rating scale with an interview approach that is semi-structured. This scale assesses the degree of a patient's active suicidal desire, specific suicide plans, passive suicidal want, and history of suicide attempts.

**Scoring system:** The items ranged from 0 to 2 on a 3-point scale for each item. More suicidal ideation is indicated by higher scores, while less suicidal ideation is indicated by lower values.

## Content validity and reliability

A three-person consulting group revised the tools. The content validity of each of these tools' items was conducted by three assistant professors of psychiatry and mental health nursing. All requested changes were made.

The researcher employed the translate-back-translate method to translate all scales into Arabic in order to validate their original validity. The Cronbach's alpha test in SPSS V.20 (SPSS Inc., Chicago, IL, USA) was used to evaluate the tools' reliability. They exhibit a high level of reliability.

### Pilot study

A pilot study was carried out on 14 psychiatric patients with OCD, approximately 10% of the estimated overall sample size. The goal was to evaluate the tools' viability and clarity while also determining how long it would take to complete the data gathering forms.

### Fieldwork

Before conducting the current study, the researcher obtained formal approval from the Research Ethics Committee of the Faculty of Nursing and another approval from the Manager of the Psychiatric Outpatient Clinic at Zagazig University Hospitals and Abbasyia Hospital for Mental Health in Cairo City. Once permission was granted to carry out the study, the researcher explained the study aims and trials, as well as the statistical assortment forms, to the psychiatric patients with OCD. The researcher then introduced herself to the patients, explained the purpose and nature of the study, and explained that voluntary participation and confidentiality were ensured. The psychiatric patients were instructed to complete the form under the researcher's supervision once their written approval was given. Patients took approximately 35 to 40 min to answer the queries. The researcher went to the psychiatric outpatient clinic at Zagazig University Hospital 2 days per week and the Abbasyia Hospital for Mental Health in Cairo City 1 day per week to collect data. This study lasted for 3 months, from the beginning of November 2022 to the end of January 2023.

### Statistical analysis

Using IBM Corp.'s Release 2015, all information was gathered, tabulated, and statistically analyzed. Version 23.0 of the IBM SPSS programme for Windows IBM Corp., Armonk, New York Categorical variables were calculated as numbers and percentages, whereas numerical variables were presented as mean, SD, and median (range). In order to compare two pairs of non-normally distributed variables, the Wilcoxon sign rank test was applied. When appropriate, the Fisher exact test or chi-square test was used to compare the percentage of qualitative data. To evaluate the relationships between the numerous research variables, the Spearman correlation coefficient was determined. The direct and inverse correlations were denoted by (+) and (−) signs, respectively. Values near 1

denote a strong correlation, whereas values near 0 denote a weak correlation. Predictive analysis is carried out by multiple linear regressions. Data are described, and the link between dependent and independent variables is explained using multiple linear regression. Every test has a second side. *P*-values less than 0.05 were regarded as statistically insignificant, while those greater than 0.05 were statistically significant.

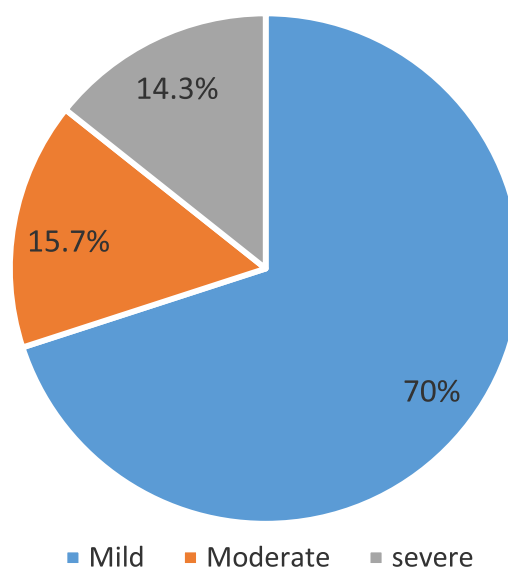
### Results

Considering the socio-demographics of the studied patients: displays that slightly more than half of patients with obsessive–compulsive disorder (50.7%) were over 30 years old, with a mean score of  $33.2 \pm 10.2$ , having an age range between 19 and 55 years, with slightly more than half of them (53.6%) being females and single. Two-thirds of them (66.4%) had a university level of education, and 40.0% of them were unemployed. The majority of studied patients (83.6%) had no family history of disease, with more than half of them (57.9%) having an age onset of disease ranging from 20 to 40 years and slightly more than half of them (52.1%) having a duration of disease ranging from  $1 \geq 5$  years.

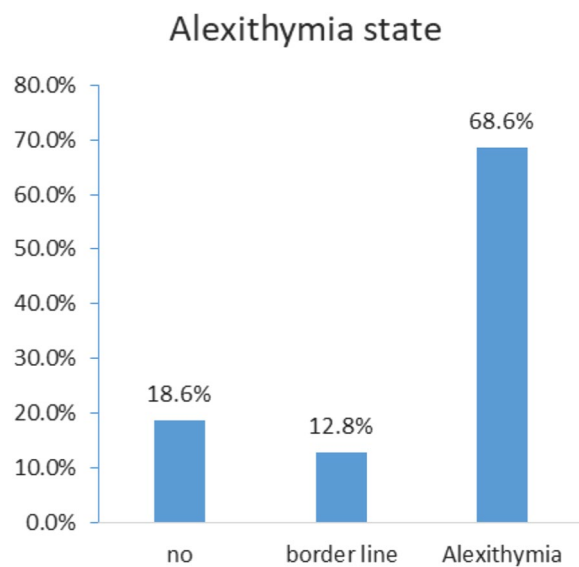
Figure 1 illustrates that above two-thirds (70%) of the studied subjects had mild obsessive–compulsive symptoms.

Figure 2 demonstrates that slightly more than two-thirds of the studied patients (68.6%) had alexithymia, while 18.6% of them had no alexithymia.

## Obsessive-Compulsive level



**Fig. 1** Percent of obsessive–compulsive severity of studied patients ( $n = 140$ )



**Fig. 2** Percent of alexithymia level in studied patients ( $n = 140$ )

Figure 3 clarifies that slightly more than half of the studied participants (53.6%) had a moderate level of resilience, and 15% of them had a high level of resilience.

Figure 4 displays that, 69.3% of studied participants had suicidal ideation.

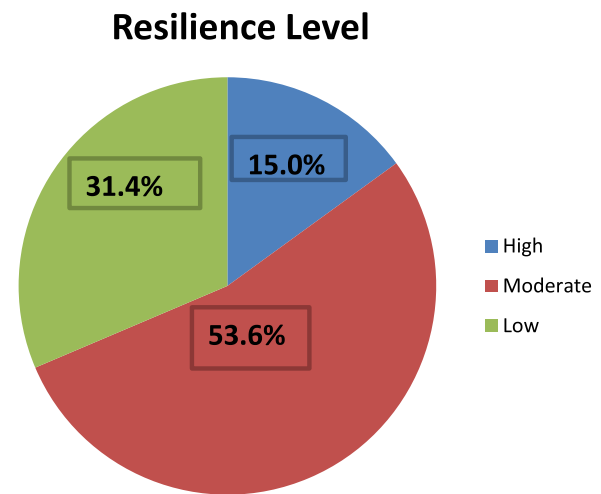
Table 1 shows that the obsessive–compulsive mean score was  $19.4 \pm 8.5$  with a range of 17 (8–40), the total alexithymia mean score was  $65.9 \pm 15$  with a range of 67.5 (20–99), the resilience mean score was  $56.7 \pm 18.1$  with a range of 62 (4–81), and the suicidal ideation mean score was  $7.3 \pm 7.2$  with a range of 5 (0–26).

Table 2 demonstrates a statistically significant positive correlation between patients' obsessive–compulsive and alexithymia ( $r = 0.202$ ) and suicidal ideation scores ( $r = 0.44$ ). It also shows a negative connection with statistical significance between obsessive–compulsive disorder and resilience score ( $r = -0.25$ ) and the onset of disease ( $r = -0.23$ ).

In the same table, indicates that there was a statistically significant negative correlation between patients' alexithymia and resilience score ( $r = -0.67$ ) and patients' age ( $r = -0.26$ ). On the other hand, the patient's alexithymia was statistically significant and positively correlated with suicidal ideation ( $r = 0.39$ ).

Additionally, a statistically significant negative correlation was revealed between their scores of resilience and suicidal ideation ( $r = -0.42$ ) and positive statistically significant correlations between resilience level and patients' age ( $r = 0.31$ ) and the onset of disease ( $r = 0.2$ ).

Moreover, the score of suicidal ideation and duration of disease had a statistically significant positive correlation ( $r = 0.24$ ).



**Fig. 3** Percent of resilience level of studied patients ( $n = 140$ )

Table 3 shows that the patient's obsessive–compulsive score was a statistically significant positive predictor of suicidal ideation.

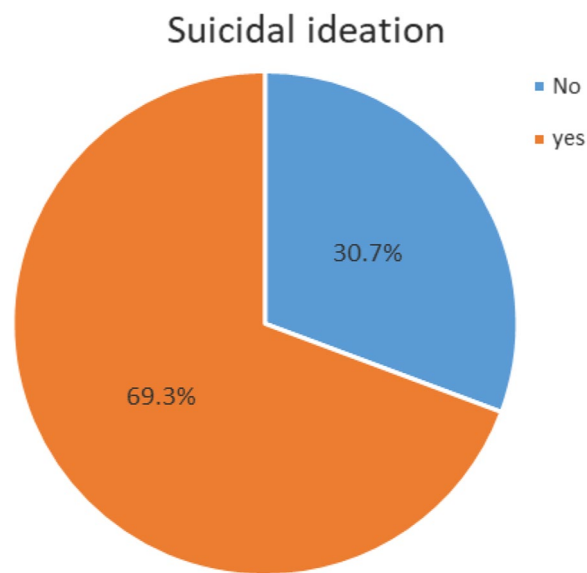
## Discussion

Regarding the socio-demographic traits of the studied sufferers, the existing study results revealed that a little more than half of patients with obsessive–compulsive disorder were aged more than 30 years old, with slightly more than half of them being female and single; two-thirds of the research sample had a university level of education; and two-fifths of them were unemployed. This can be explained by the consequences of disorder on the patient's personal, social, and occupational functions and quality of life.

The majority of studied patients had no family history of disease; in slightly more than half of them, the age of onset of disease ranged from 20 to 40 years. This is because approximately eight in ten patients developing OCD initiate it by 18 years of age, which may be explained by this age of seeking treatment. Furthermore, regarding the duration of disease, slightly more than half of them ranged from more than or equal to 1 year to less than or equal to 5 years.

These study findings were to some extent compatible with the study results of Ranjan et al. (2022) [20] in India about sociodemographic determinants of perceived expressed emotions and self-esteem in OCD persons which revealed that the mean age of obsessive–compulsive persons was 31.24 years, more than half of obsessive–compulsive persons were unmarried, the onset age of the illness (OCD) ranged from 18 to 40 years with mean  $\pm$  SD  $23.94 \pm 3.32$  and the mean of illness duration (OCD) was  $6.59 \pm 2.02$  ranged from 3 to 10 years, but





**Fig. 4** Percent of suicidal ideation score in studied patients ( $n = 140$ )

**Table 1** Mean scores and range of patients with obsessive–compulsive disorder, alexithymia, resilience, and suicidal ideation ( $n = 140$ )

Items	Mean $\pm$ SD	Range
Obsessive–compulsive score	19.4 $\pm$ 8.5	17 (8–40)
Total alexithymia score	65.9 $\pm$ 15	67.5 (20–99)
Resilience score	56.7 $\pm$ 18.1	62 (4–81)
Suicidal ideation score	7.3 $\pm$ 7.2	5 (0–26)

this study result was incongruent with the present study results in regarding sex which showed that above the half of persons with OCD were male and in regarding occupation, the majority of OCD persons were unemployed and in family type.

**Table 2** Correlation matrix between obsessive–compulsive score, alexithymia score, resilience score, suicidal ideation score, age in years, onset of disease, and duration of disease ( $n = 140$ )

Items	Obsessive score		Alexithymia score		Resilience score		suicidal ideation score	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>R</i>	<i>p</i>	<i>r</i>	<i>p</i>
Alexithymia score	0.202*	0.017	1					
Resilience score	−0.25**	0.003	−0.67**	0.0001	1			
Suicidal ideation score	0.44 **	0.0001	0.39**	0.0001	−0.42**	0.0001	1	
Age in years	−0.03	0.73	−0.26 **	0.002	0.31 **	0.0001	−0.127	0.14
Onset of disease	−0.23 **	0.006	0.007	0.933	0.2*	0.021	−0.102	0.23
Disease duration per year	0.134	0.115	0.05	0.56	−0.027	0.75	0.24**	0.004

*r* correlation coefficient

\*\* Correlation is significant at the 0.01 level

\* Correlation is significant at the 0.05 level

This result is consistent with the Taher et al. (2021) [21] study about the prevalence of OCD among Iraqi medical students at the time of the COVID-19 crisis, which clarified in regard to family history of OCD that the majority of studied patients had no family history of the disease.

This finding was contrary to Sinha and Sinha (2019) [22] study of functional disability and quality of life between OCD individuals and controls, which revealed that most OCD patients were male.

Concerning the studied patient obsessive–compulsive severity, this study's findings revealed that more than two-thirds of the studied patients had mild obsessive–compulsive symptoms, with a mean score of  $19.4 \pm 8.5$ . This may be because the studied patients were under treatment (taking medication and exposure to cognitive behavioral therapy) in outpatient clinics, so there is control over the symptoms of the disorder in the studied patients.

This study finding was incongruent with the study of Ezz-Eldin Prince Ali (2020) [23] in Egypt about the correlation between quality of life and self-efficacy among patients with OCD, which showed that over half of patients have moderate-intensity symptoms of OCD. As well, El-Azzab et al. (2023) [8] in Egypt, who studied the efficiency of nursing intervention on psychological adjustment, perfectionism, and symptoms among patients with obsessive–compulsive disorder, reported that more than half of the study group had severe symptoms of OCD. This disagreement with the current study result may be explained by the fact that this study used a different tool for OCD severity measurement (the Obsessive–Compulsive Inventory).

Regarding the total alexithymia score, this study's results showed that around two-thirds of the studied patients had alexithymia, with the alexithymia mean score being ( $65.9 \pm 15$ ). This may be because OCD alters the capacity of the brain to process emotional data.

**Table 3** Multiple linear regression model for predicting suicidal ideation among studied patients ( $n = 140$ )

Items	Regression coefficients $\beta$	t	Sig	r	R <sup>2</sup>
Constant	-3.86				
Alexithymia score	.072	1.56	0.121		
Resilience score	-.044	1.13	0.261	0.514	.264
Age of disease onset	.109	.108	0.915		
Obsessive-compulsive score	.308	4.62	<b>0.0001</b>		
Disease duration	1.187	1.89	0.060		

$\beta$  regression coefficients, R square = 26.4% of predictors ANOVA model = 9.6,  $p = 0.0001$

Patients with OCD had a deficit in emotional awareness and a lack of the right emotions, which led to social dysfunction because feeling, identifying, and comprehending are important for emotion control skills. This result goes in line with the study of Bozorg et al. (2021) [1] in Iran about evaluating the components of alexithymia in patients with OCD, which showed that the overall alexithymia level in the OCD group had a greater mean score ( $58.91 \pm 10.92$ ) than the control group ( $50.41 \pm 10.26$ ). In the same context, the study of Uslu et al. (2020) [24] in Turkiye about the comparison of alexithymia level differences associated with obsessive-compulsive disorder patients and healthy people revealed that the levels of alexithymia in OCD patients were significantly higher than those of healthy individuals.

Concerning the resilience score, the present study results clarified that approximately one-third of the studied subjects had a low level of resilience, more than half of participants had a moderate level of resilience, and only 15% of them showed high levels of resilience, with a mean score of  $56.7 \pm 18.1$ . This might be due to the fact that exposure to severe anxiety from obsessions can reduce resilience levels in OCD patients; conversely, patients with high levels of resilience can reduce their anxiety.

These findings are in line with the study result of Hezel et al. (2022) [25] about the prediction of resilience of the positive outcomes of mental health during the COVID-19 pandemic in New Yorkers without and with OCD in New York, USA, which clarified that baseline resilience was much lower and the severity of symptoms was higher in the OCD group.

Also, a study conducted by Liao et al. (2021) [26] in China about the immediate and long-term impacts of the COVID-19 pandemic on patients with obsessive-compulsive disorder showed that optimism, one factor of resilience, was a protective factor for OCD patients against the exacerbation of OCD symptoms during early COVID-19 and at the 1-year follow-up.

Concerning the suicidal ideation score of the studied patients, the current study findings showed that the mean suicidal ideation score of the studied patients was  $7.3 \pm 7.2$ , and slightly in excess of two-thirds of the studied persons had suicidal ideation. This means The obsessions and compulsions of patients with OCD lead to negative effects on familial, marital, and social connections, occupational impairment, and interference with leisure activities. This causes severe depression and then leads to suicidal ideation in these patients. According to the severity of the illness, patient personality features, and cultural norms, reported rates vary greatly from one country to another.

In comparison with the current study results, Breet et al. (2019) [27] in a US study about suicide ideation and attempts in OCD reported that 51.8% of participants with OCD had suicidal ideation. Besides the study result reported by Sehlo et al. (2021) [9] in Egypt about the prevalence and risk factors of suicidal ideations among patients with obsessive-compulsive disorder, the study revealed that 23.3% of the studied patients with OCD had current suicidal ideations.

The present study revealed a statistically significant positive correlation between patients' obsessive-compulsive and alexithymia scores and suicidal ideation scores. This is attributed to emotional states that may be hampered by difficulties in naming and processing feelings and produce psychological discomfort. This emotional effort can lead to suicide ideation in OCD patients.

This result is in agreement with the study by De Berardis et al. (2015) [11], who discovered OCD patients with alexithymia displayed higher suicide ideation. Alexithymia has been found associated with elevated suicide risk and behaviors in several psychiatric and medical issues, and this has been displayed also in OCD persons.

The present result showed that there was a statistically significant negative correlation between obsessive-compulsive disorder and resilience score. This means that when the severity of OCD grows and resilience decreases, and vice versa. This may be attributed to resilience, which is a constructive and positive adaptation in dealing with problems and difficulties. This result is in harmony with the study of Abadsa & Thabet, (2013) [28] about Resilience and psychological problems among Palestinians. Victims of community violence, which showed that people scored higher on psychological problems including obsessive-compulsive disorder, depression, anxiety, and psychosis, were less resilient.

Furthermore, the current result exposed a significant negative correlation between obsessive-compulsive scores and the onset of disease. Similarly, the study of El-Azzab et al. (2023) [8] About nursing intervention efficiency on perfectionism, psychological adjustment, and

symptoms among individuals with OCD suggested that although OCD typically develops during adolescence (the average age of beginning was 17 to 18 years), its incapacitating effects may affect many people after they enter the profession.

Another result of the current study showed that there was a statistically significant negative correlation between patients' alexithymia and resilience scores. This outcome indicates that patients with high resilience are less likely to develop alexithymia because resilience refers to a person's capacity to deal with anxiety or hardship in life. It also implies the usage of proactive and flexible coping techniques, positivity of attitude, and good feelings, all of which are lacking in people with alexithymia and high difficulty in identifying feelings (DIF), who are more likely to adopt unhealthy coping mechanisms and exhibit abnormal salience for negative effects.

This result is in agreement with resilience, alexithymia, and university stress in association with anxiety and alcohol use among female university students by Lyvers et al. (2020) [29] in Australia, which revealed decreased levels of alexithymia were related to increased levels of resilience, which in turn predicted decreased anxiety.

The existing study exposed that the patients' alexithymia was significantly positively associated with suicidal ideation. This is supported by the opinion of Ghorbani et al. (2017) [30] who observed there is a correlation between alexithymia and suicidality, specifically suicidal ideation and attempts, and greater levels of alexithymia among suicide victims compared to non-committers.

Additionally, a statistically significant negative correlation was revealed between their scores of resilience and suicidal ideation in the current study. This outcome indicates that patients with high resilience are exposed to fewer suicidal ideations since numerous psychosocial elements, such as support from others, mental flexibility, a sense of control, and proactive coping, are linked to resilience. These factors may also be pertinent to OCD sufferers and may aid in lowering the severity of suicidal ideations.

A study conducted by Cheung et al. (2019) [31] about the impact of resilience and coping strategies on the ideation of suicide among Chinese undergraduate freshmen indicated that suicidal ideation and resilience have a very strong negative relationship.

The existing study findings showed that there were positive correlations with statistical significance between patients' resilience scores, their age, and the onset of disease. This means the patient's resilience score will increase when the onset of disease is late and the patient is older. These results are to some extent in harmony with the study of Liao et al. (2021) [26] in China about the prompt and long-term effects of COVID-19 on

individuals with OCD, which showed the mean age of the OCD clients was  $29.88 \pm 9.33$  years and the mean onset age of OCD for the study sample was  $18.81 \pm 7.96$  years.

Moreover, the current study result showed that the score of suicidal ideation and duration of disease had a statistically significant positive correlation. This means that when the duration of OCD increases, suicidal ideations in patients will be exacerbated. The current study result conforms to the result of a study established by Bramante et al. (2023) [32] about assessing suicide risk in the OCD population: a dimensional approach revealed that a longer duration of disorder and a longer duration of untreated illness (DUI) (more than 24 months) are indicative of severe and more intense suicidal ideations (SI), as well as lifelong SI.

Finally, in multivariate analysis, the current study result showed patients' obsessive-compulsive score was a statistically significant positive predictor for suicidal ideation. This means that the higher the patient's obsessive-compulsive score, the more suicidal ideation they experienced. This study was in line with a study conducted by Brown et al. (2019) [33] about the directionality of change in OCD and suicidal ideation over 6 years in the USA. observed that OCD symptoms and suicide ideation have a one-way link, with more severe OCD symptoms predicting more severe suicidal ideation the next year.

#### Limitations of the study

The researchers have taken a long time to get permission to apply for this study at Abbasyia Hospital for Mental Health, about 2 months. In addition, facing difficulties in collecting large numbers of patients in each interview and taking effort to get the data from patients because a few of them misunderstood the data and others withdrew from the study. Also, in the current study, the Y-BOCS questionnaire was used to assess the severity of OCD; therefore, the symptoms of OCD were not assessed independently. This study used a cross-sectional design; however, the causal relationship cannot be established. It is necessary to repeat the current study with a larger, representative probability sample size in different governorates of Egypt to achieve more generalizability of the results.

#### Conclusions

Based on the results of our study, it can be concluded that more than two-thirds of the studied patients had a mild obsessive-compulsive level, slightly more than two-thirds of them suffered from alexithymia, more than half of them had a moderate level of resilience, and the majority of them had suicidal ideation. Also, there were significant positive correlations between patients'



obsessive–compulsive scores and both alexithymia and suicidal ideation scores. However, there was a statistically significant negative correlation between resilience and each of obsessive–compulsive disorder, alexithymia, and suicidal ideation. Patients' obsessive–compulsive score was a statistically significant positive predictor for suicidal ideation.

#### Abbreviations

OCD	Obsessive–compulsive disorder
Y-BOCS	Yale-Brown Obsessive Compulsive Scale
TAS-20	Toronto Alexithymia Scale
SSI	Scale for Suicidal Ideation
DSM-5	The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
DUI	Duration of untreated illness
SI	Suicidal ideations
DIF	Difficulty in identifying feelings
COVID-19	Coronavirus disease of 2019

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#### Authors' contributions

The research methodology was designed and developed by all researchers. Doctor MM suggested the research concept, and was a major contributor in data collection and writing the manuscript. Professor BE analyzed and interpreted the patient data. Professor RF and Professor SF edited the manuscript and revised the data analysis. Each contributor read the final manuscript and approved it.

#### Funding

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#### Availability of data and materials

The data was accessible through the Internet.

#### Declarations

##### Ethics approval and consent to participate

The Zagazig University Faculty of Nursing's Ethical Committee gave its approval to the study request with the code M.DZU.NUR/188/13/6/2022. Participants were made aware of the study's objectives, and while contribution in the study was voluntary, they had the right to discontinue at any moment without providing a reason. Additionally, the coding of all data ensured the participants' anonymity and confidentiality.

##### Consent for publication

Not applicable.

##### Competing interests

There are no overlapping interests.

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