



The Impact of Obsessive- Compulsive Disorder on Academic Performance

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Abstract

Obsessive-compulsive disorder (OCD) is a psychological disorder characterized by obsessive thoughts followed by repeated behaviors in response to these thoughts. OCD can be highly influential on all aspects of one's life, including academic performance. This review highlights the current understanding of specific factors of OCD that impact academic performance. Demographic factors of ethnicity and age should be collected and examined in future research. OCD severity levels and symptom groups should also be analyzed independently. Comorbid disorders with OCD should be considered when developing treatment plans. In addition, changes in OCD symptoms in response to the onset of COVID-19 should be considered. With a better understanding of OCD's impact on academic performance, treatment plans sensitive to academically influential elements of OCD can be developed to optimally support students.

Keywords: obsessive-compulsive disorder, students, academic performance, education

1. Introduction

Obsessive-compulsive disorder (OCD) is a psychological disorder characterized by recurrent, intrusive thoughts, known as obsessions, and repetitive compulsions in an attempt to control or reduce obsessions.¹ For example, a common obsession is fear of contamination, which may be accompanied by an excessive hand washing compulsion.¹ According to Harvard Medical School's 2017 survey, OCD's estimated lifetime prevalence among United States adults is 2.3%.² Approximately 5 million U.S. adults will experience OCD at some point in their lifetime.^{2,3,4} Furthermore, about half of this population experiences serious impairment as a result of their OCD.²

OCD poses a particular threat to the scholastic functioning of students, due to its time-consuming and distracting symptoms, such as lengthy rituals or intrusive violent thoughts.¹ Students with OCD may have difficulties concentrating and

completing tasks, which in turn impairs learning ability and academic performance.

Current treatments of OCD include cognitive behavioral therapy (CBT), which aims to change thinking and behavioral patterns.^{1,5} Strongly supported by research as the best behavioral strategy to treat OCD, exposure and response prevention (ERP) therapy is a form of CBT.¹ In ERP therapy, patients are exposed to obsession-inducing stimuli, then prevented from executing a compulsion.¹ Medications such as clomipramine and selective serotonin reuptake inhibitors have also been shown to improve OCD symptoms.¹ Although these treatment methods are effective, by better understanding how OCD influences academic performance, treatment methods can optimally support students.¹

Prior research reveals that demographic factors, such as age and ethnicity, are often overlooked when treatment plans are developed, though they have a significant impact on the

severity and type of OCD symptoms one experiences. This, in turn, often impacts the academic performance of students.⁶⁻¹⁴ Research relating to the impact of OCD symptom type and severity on academic performance is broad and inconclusive.^{11,14,15,16} This establishes the need to isolate specific symptoms or symptom groups in future studies. The impact of comorbidities on academic performance is often overlooked in OCD research and needs to be taken into account in future academic impairment studies.^{11,12,17} Finally, the recent COVID-19 pandemic has altered the way in which students experience both school and OCD, but more research is needed pertaining to the pandemic due to its recency.^{18,19,20}

This literature review evaluates the current knowledge on the influence of demographic factors, symptom severity, comorbidities, and the COVID-19 pandemic on OCD and provides suggestions for future research that will assess the impact of OCD on academic performance. This review's suggestions have the potential to help healthcare providers and schools provide optimal services to support students experiencing symptoms of OCD.

2. Impacts of Demographic Factors

Despite their significance, demographic factors are often ignored in OCD studies, creating confounding variables that undermine the validity of the findings.

2.1 Culture and Ethnicity

Few studies analyze the ways in which cultural background can affect access to educational systems and impact a student's academic achievement across disciplines.

One of the few studies on OCD that take ethnicity into account examined obsessive and compulsive behavior in different ethnic groups in university students and found significant differences in language fluency among the subjects studied.⁶ Katz et al. concluded that severity and disability levels among all populations for OCD were similar, but minorities, including

Asian/Pacific Islander, Hispanic, Latino, Black, and Multiracial groups, were more likely to display superstitious obsessions, such as a distressing belief in unlucky numbers, compared to non-minorities.⁶ Obsessions and compulsions that align with these symptoms of OCD may be further reinforced by cultural and religious rituals and norms within minority populations compared to non-minority populations.⁶ They also demonstrated that minority populations with OCD tend to receive medication less than non-minority populations with OCD, possibly due to financial barriers, cultural stigma about medication, or proximity to specialty clinics.⁶ As a result, students with minority identities may experience untreated OCD or may be underserved within medical and academic settings, which in turn affects their academic performance. By combating cultural stigmas or barriers to healthcare access that tend to accompany minority identities, students with OCD can receive the support that they need to overcome their symptoms.

Another of the few studies on OCD that account for demographics is by Williams et al. on African Americans' experiences with OCD.⁷ They suggested that African Americans with compulsive symptoms tend to have fewer years of educational attainment than those without compulsive symptoms.⁷ Also, in general, African Americans with OCD had lower educational attainment than those without.⁷ The study found that African Americans tended to experience persistent symptoms due to lack of treatment, which may be an explanation for the academic impairment experienced by African Americans with OCD.⁷ Therefore, programs focused on African American students with OCD may improve the academic (and general) functioning of this population.

Research surveying students with OCD should collect information about an individual's ethnicity and race to identify potential cultural influences on OCD symptoms. Incorporating cultural beliefs into OCD treatments may enhance the effectiveness of treatment, which could provide for better academic achievement. In addition,

focusing treatment on populations that are particularly undertreated may help students to overcome OCD, aiding in academic performance.

2.2 Age

OCD severity varies depending on age, which therefore influences the impact that OCD has on individuals of different ages. Helbing et al. found that OCD symptoms in pediatric patients, which includes college students, present differently than symptoms seen in adults.⁸ Symptoms for pediatric patients are similar to typical adolescent behaviors, such as school avoidance, having trouble focusing on homework, or being easily distracted.⁸ As these traits are common among children and teenagers, OCD behaviors often go unnoticed until adulthood.⁸ While OCD patients share multiple common symptoms across different life stages, some symptoms are unique to certain age groups. For example, according to Leininger et al., it is appropriate for two- to three-year-old children to follow typical developmental routines for eating, bathing, and bedtime whereas strict adherence and insistence in following such routines and rituals at later ages may become a concern.⁹ OCD in college students was found by Moh'd to present itself differently than OCD in younger populations, for which there currently exists more research.¹⁰ University students with OCD had difficulty completing academic tasks and experienced issues in memory and concentration.¹⁰ To better understand how OCD impacts a student's academic performance, researchers should identify how OCD manifests among different age groups and assess how these differences impact academic achievements.

While we do not understand how age directly correlates with the onset of symptoms of OCD, age in OCD patients is associated with increased symptom severity.^{11,12} Shahrouri analyzed OCD in a high school student body and found that the severity of symptoms of OCD was significantly higher for high school students than for eighth-grade students.¹³ It is not clear whether these findings apply to adult students (>=18 years old)

because the participants of the research were mainly minors from elementary to high school.¹³ If the observed increase in OCD symptom severity with age continues through college, students' symptoms may become unmanageable or impede academic performance.

However, research conducted by Pérez-Vigil et al. opposes this proposition.¹⁴ They found that the impairment of academic performance due to OCD appeared greatest up to the end of upper secondary school and was improved during university education.¹⁴ Individuals with OCD in college are more likely to obtain their degree than those with OCD in secondary schools.¹⁴ This improvement in academic performance may be caused by multiple factors, such as continuity of treatment, more freedom in the new environment, or less stress from academics. Future OCD research is needed to determine how symptom severity changes as students reach college age (defined in this paper as 18 to 25 years old). Understanding students' OCD severity may offer insight on the impact of OCD on their academic performance.

3. Impacts of Symptom Type and Severity

Like other psychological disorders, the symptoms and severity of OCD vary between individuals. The broad spectrum of OCD symptoms and their related effects on academic life highlights areas of focus for future research on students with OCD. The current literature suggests a negative correlation between OCD presence and student academic performance.^{11,14-16} Canals et al. found that subclinical OCD did not affect students' academic performance.¹¹ Loscalzo et al. and Findley et al. found that the type of symptoms exhibited by students with OCD impacted their academic performance.^{15,16} Together, these studies indicate the significance of isolating different severity and symptom groups, such as detail checking, repetition, and self-doubt, when studying the impact of OCD on academic performance.

Data obtained by Canals et al. and Pérez-Vigil et al. suggest a possible negative correlation

between OCD and academic performance.^{11,14} Canals et al.'s study investigated the prevalence of OCD in Spanish primary school children, ages 8-13, and found varying levels of severity in the sampled population.¹¹ The data obtained suggests that the academic performance of children with clinical OCD was lower than the control group and lower than average.¹¹ However, the academic performance of children with subclinical OCD, a diagnosis given when the child did not fully meet the functional impairment criteria in the Diagnostic and Statistical Manual of Mental Disorders, did not vary from the control group significantly.¹¹ These results indicate that mild OCD may not affect student academic life, but moderate to severe OCD may impair academic performance.¹¹ Other studies assessing the impact of OCD on academic performance, such as Pérez-Vigil et al.'s study, also found that OCD negatively impacts academic performance but did not account for symptom severity.¹⁴

Loscalzo et al.'s research also indicates that the type of OCD symptoms experienced by a student is significant in determining the effect of OCD on academic performance.¹⁵ The study conducted by Loscalzo et al. explores studyholism, which is defined as an OCD-related disorder characterized by obsessive studying behavior.¹⁵ Symptoms of this disorder reflect those typical of OCD, namely obsessions and compulsions, but are directed specifically toward studying.¹⁵ Loscalzo et al.'s research suggests a negative correlation between studyholism and academic performance in Italian adolescents.¹⁵ Individuals experiencing disengaged studyholism, categorized by high obsession with studying and low study engagement, reported lower GPAs and higher dropout intention than those with engaged studyholism.¹⁵ Because studyholism is an OCD-related disorder, this study suggests that determining study engagement levels of students is significant in understanding the impact of OCD on academic performance. However, research does not exist to support or refute this proposition.

The findings on studyholism are consistent

with the data obtained by Findley et al., which suggests that moderate OCD symptoms can be beneficial to student academic performance due to their increased attention to detail.¹⁶ To clarify, this finding does not imply that OCD is a beneficial condition to have, as it has the potential to cause dysfunction and distress in all aspects of one's life.² Rather, this study suggests that OCD may not consistently result in decreased academic performance.¹⁶ By isolating specific symptoms of students diagnosed with OCD in the statistical analysis of the effect of OCD on academic performance, Findley et al. demonstrated that only certain symptoms, such as ruminative thinking, negatively impact academic performance.¹⁶ This method of symptom isolation suggests the possibility of OCD treatment options and accommodations that exclusively address the impairing symptoms of OCD rather than OCD more generally. By screening for the presence of individual OCD symptoms that negatively impact academic performance, treatments can be geared specifically toward alleviating these symptoms rather than taking a broader treatment approach. Focusing treatment efforts on the OCD symptoms that are known to be impairing for students may be the most efficient route to improving the academic performance of students with OCD.

Although most research about OCD's impacts on students' academic achievement reveal a negative correlation, Findley et al.'s research suggests that not all OCD symptoms have a negative impact on academic performance.¹⁶ Furthermore, data obtained from Canals et al., Loscalzo et al., and Findley et al. suggest that OCD can have a negative impact on academic performance, but also indicates that there are nuances to OCD severity and symptoms which impact academic performance in differing ways.^{11,15,16} The data obtained from these studies suggests the importance of investigating both OCD severity and isolating OCD symptoms in future studies, because not all severity levels and symptoms of OCD negatively impact academic performance.

4. Impacts of Comorbidities

OCD often presents itself alongside other psychological disorders. Additionally, symptoms of OCD tend to overlap with symptoms of anxiety, depression, schizophrenia, and other conditions.¹⁷ Therefore, it is important to examine how psychological comorbidities may influence the academic success of students with OCD and account for these nuances when developing OCD assessments.

Canals et al., Negreiros et al., and Jansen et al. each studied psychological disorders that tend to be comorbid with OCD.^{11,12,17} Jansen et al. found that schizophrenic disorders are major accompaniments to OCD.¹⁷ Canals et al. found that subjects with OCD tended to have anxiety disorders.¹¹ In addition, Negreiros et al. found a high prevalence of anxiety comorbidity in children with OCD, which is highly correspondent to the findings of Canals et al.^{11,12} The consistency between these concluded anxiety rates indicates that OCD tends to be expressed along with other psychiatric disorders, especially anxiety. According to Canals et al., OCD with comorbid anxiety and other disorders was associated with less favorable academic performance than OCD without comorbidity.¹¹ Therefore, symptoms of comorbid disorders or the interaction between OCD and comorbid disorders may also contribute to academic impairment for students with OCD.

According to all three studies, OCD is often paired with other psychological disorders.^{11,12,17} A test designed to determine the academic impairment of students with OCD must account for the ways in which non-OCD symptoms could exacerbate academic difficulties. By including specific questions that relate to anxiety, depression, or schizophrenia within an OCD and academic impairment test, a study can identify and account for the impacts of disorders comorbid with OCD on academic performance. Standardizing this test also allows the influences of comorbidity to be assessed and reduced. By developing an assessment of OCD's academic impairment that includes

comorbidities, personalized methods of treatment can be implemented in response to scores on this test that best address the interactive, complex ways in which OCD impairs academic performance.

In terms of how symptom severity relates to comorbidities, and to what extent, studies by Jansen et al., Negreiros et al., and Canals et al. drew similar conclusions.^{11,12,17} Each study found that the more severe one's OCD is, the greater the severity of an individual's comorbid anxiety, depression, or schizophrenia.^{11,12,17} Since comorbidities have a higher likelihood of occurrence as OCD severity increases, it is possible that comorbidities contribute to academic impairment in students with severe OCD.

Exposure and response prevention (ERP) therapy, a type of CBT in which the patient is exposed to obsession-inducing stimuli and prevented from executing a compulsion, is often used to treat OCD.² However, CBT in general has been found to improve a multitude of psychological disorders.² When treating students' OCD and comorbidities, CBT is an approach that can address the individual's numerous psychological disorders for a holistic treatment.² By understanding the ways in which OCD interacts with other psychological disorders, CBT can be catered specifically to a student's needs and address the symptoms that particularly impede academic performance, such as ruminative thinking.¹⁶ By providing holistic treatment plans that can address multiple psychological disorders of varying severities, potentially through CBT, students with OCD will receive optimal support in addressing academic impairment.

5. COVID-19 Pandemic Impacts

Common OCD obsessions, such as fear of contamination, and compulsions, such as excessive hand washing, were worsened because of the COVID-19 pandemic and fear of the contagious virus.^{18,19} Although research on the consequences of the COVID-19 pandemic are currently limited, studies conducted by Henein et al. and Ji et al.

aimed to assess the pandemic's impact on those with OCD.^{18,19}

The existing literature suggests an increase in OCD prevalence and severity in response to the coronavirus pandemic.^{18,19} Henein et al. found that the proportion of assessments related to OCD increased in Child and Adolescent Mental Health Service (CAMHS) in London.¹⁸ Similarly, Ji et al. found a positive association between university students' fear of COVID-19 and their score on the Yale-Brown Obsessive Compulsive Scale, which rates the severity of OCD symptoms.¹⁹ The data obtained from Henein et al. suggests that the COVID-19 pandemic increased the likelihood of those with a predisposition for OCD to develop OCD, and that it raised the severity levels of those with subclinical OCD to clinical OCD.¹⁸ Data obtained by Heinin et al. suggests that the COVID-19 pandemic led to increased deterioration in the functioning of individuals with OCD, which may translate into the scholastic setting as impaired academic performance.¹⁸ In addition to the lifestyle changes that intensified OCD symptoms, quarantining required a change in OCD treatment because in-person therapy appointments were no longer possible. The cohort study performed by Ji et al. suggests that the fear of negative events, such as a pandemic, can exacerbate OCD symptoms and should be considered in treatment plans for those with OCD.¹⁹

Popular and effective forms of therapy for OCD, such as ERP therapy, transitioned to an exclusively online model known as "telehealth". One study assessed the transition of ERP therapy to Video Chat-ERP (VC-ERP) during the pandemic.²⁰ The authors found that VC-ERP allowed for greater therapy access, more convenience, and greater family involvement in treatment. However, the data also suggests lower engagement, network connectivity issues, confidentiality concern, and a patient preference for in-person treatment are significant drawbacks to VC-ERP.²⁰ Therefore, although VC-ERP has increased the accessibility of OCD treatment, it

may have made treatment less efficient or attractive to those attempting to overcome OCD. As a result, students hoping to treat their OCD may continue to experience impaired academic performance due to VC-ERP's online method of treatment.²⁰

The COVID-19 pandemic impacted the mental health of individuals in ways that are still being investigated. Available research suggests an increased prevalence and severity of OCD symptoms in response to the pandemic.^{18,19} As previously discussed, increases in symptom severity have been correlated to increased academic impairment.^{11,14} Therefore, the observed escalation in OCD severity in response to the COVID-19 pandemic may residually lead to decreased academic performance.^{11,14,18,19} However, more research and future data is needed to quantify the impact of the COVID-19 pandemic on the academic performance of students with OCD.

6. Conclusion

While OCD is a prevalent and widely researched psychological disorder, the impact of OCD on students is not currently well-understood. To explore OCD's influence on academic performance, this literature review identified and organized constituent aspects of OCD that affect students. Demographic factors, symptom severity and type, comorbidities, and the COVID-19 pandemic are highly influential to students with OCD, and therefore require further research.

In the studies reviewed, demographic factors, such as ethnicity and age, played significant roles in shaping the expression of OCD symptoms and their impact on academic performance.⁶⁻¹⁴ Ethnicity may influence OCD severity and treatment access, so research focused on ethnic minorities is necessary to ensure that these groups receive adequate support.^{6,7} While correlations between age and severity of OCD symptoms remain unclear, age can inform the severity of OCD and should be isolated or controlled for in future studies.⁸⁻¹⁴ Additionally, schools can

develop treatment or supportive strategies to best help students depending on their age.

Varying OCD severity influences academic performance in different ways, and studies focusing on OCD symptoms found both positive and negative correlations between different OCD symptoms.^{11,16} The intricate nuances between severity and symptoms of OCD in relation to academic performance suggests a need for future research to establish more conclusive findings.

Comorbidities, such as anxiety, depression, and schizophrenia, were found to be common among individuals with OCD, and their likelihood of occurrence was positively correlated with symptom severity.^{11,12,17} Thus, OCD assessments for students must include a means for identifying comorbidities to obtain a holistic understanding of the mental health of students with OCD.

The COVID-19 pandemic negatively impacted students with OCD and increased OCD prevalence, leading to decreases in student mental health and daily functioning.^{18,19} Since this pandemic is relatively recent, however, the impact of the COVID-19 pandemic on the scholastic functioning of students is not yet entirely clear.

As previously discussed, CBT is a technique frequently used to treat students with OCD. In order to ensure that this treatment fits the needs of a student, cognitive behavioral intervention should include exposure and response prevention (ERP) therapy because this method specifies treatment to each student's personal symptoms.² Additionally, such treatment plans should be designed and delivered in conjunction with school resources to provide students with the support they need in the school setting.¹³ The student's awareness of the impact of OCD on their academic performance and a personalized treatment plan that is tailored to each student may reduce the severity and impact of one's OCD.¹³ It is crucial that school staff are aware of a student's OCD symptoms so that tailored accommodations can be made that are appropriate and effective for each student's age and needs.^{8,9} Staff awareness can be increased by

keeping open and consistent lines of communication between mental health professionals and school staff as well as providing education on OCD symptoms and its potential impact in a school setting.^{8,9} Delivery of treatment in schools also increases healthcare access for minority populations who are often undertreated and underserved.⁶

Although much research has been conducted on the impact of OCD on the academic performance of students, few studies specifically focus on college students. Thus, given the influence of age on symptom severity and type, studies that specifically focus on this group should be conducted to provide effective treatment that will maximize their academic potential. With more informative research results, institutions can better support students with OCD in their academic endeavors.

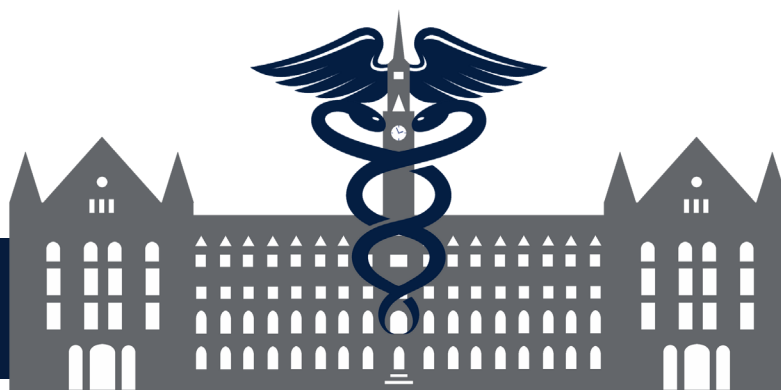
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