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Investigating the Effects of OCD Traits on the Quality of Life among Adults: The moderating role of Social Support

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Abstract

The study investigates the effect of obsessive-compulsive disorder (OCD) traits on the quality of life among adults, specifically examining the moderating role of social support. A correlational research design was employed, and data was collected using a purposive sampling technique from 200 students (aged 18-30), including both male and female participants. The psychological tools used for measurement were the Obsessive Compulsion Inventory-Revised (Foa et al., 2002) for OCD traits, the Multidimensional Scale for Perceived Social Support (Zimet et al., 2016) for social support, and the World Health Organization Quality of Life (WHOQOL-BREF) (Skevington et al., 2004) for assessing quality of life. A correlational research design was used, and data analysis was conducted using Pearson product-moment correlation and Hayes Process 4.2, Model 1, to examine moderating effects. The findings indicated that OCD traits are significantly negatively associated with both quality of life and social support. Additionally, social support was found to have a significant positive association with quality of life. The results also suggested that social support plays a significant moderating role in the relationship between OCD traits and quality of life in adults. Future research should explore different OCD symptoms to better understand their specific effects on quality of life and the moderating role of social support.

Keywords: OCD Traits, Quality of Life, Social Support

Introduction

OCD is characterized by intrusive, distressing thoughts (obsessions) and compulsive behaviors (rituals) aimed at alleviating anxiety, though these actions only provide temporary relief and ultimately sustain the disorder (Hassan, 2023). While OCD traits, such as perfectionism,

excessive checking, rumination, and compulsions like washing or counting, bear resemblance to the disorder, they do not fully meet the diagnostic criteria for OCD (Cervin, 2023; Gillan et al., 2020; Sharma et al., 2021). These traits often overlap with obsessive-compulsive personality disorder (OCPD), which includes maladaptive behaviors like perfectionism, rigidity, and an excessive preoccupation with orderliness, which hinder social and professional functioning, despite providing a sense of personal satisfaction (Fang et al., 2022; SoleimanvandiAzar et al., 2023). Such traits and behaviors, particularly in young adults and students, can have a significant impact on daily life and overall well-being (Bilge et al., 2022).

Several theories explain OCD, including neurochemical, neuropsychological, and cognitive-behavioral perspectives (Maatoug, 2023). Cognitive approaches suggest that distressing interpretations of intrusive thoughts, images, impulses, and doubts are key in both causing distress and prompting neutralizing behaviors. These negative interpretations lead individuals to feel responsible for potential harm, either to themselves or others, tied to their obsessions. This attribution creates negative emotional states, such as anxiety and depression, and drives the need to perform compulsions like checking or washing. The cognitive theory of OCD posits that this cycle of negative interpretations, mood disturbances, and neutralizing actions perpetuates the disorder (Kalanthroff & Wheaton, 2022; Clark, 2006). OCD patients may engage in compulsive behaviors to alleviate anxiety and prevent potential catastrophes (Fava et al., 2014). Neurochemical theories focus on serotonin and dopamine imbalances, while neuropsychological models suggest impairments in executive functioning (Goodman et al., 2021). Cognitive-behavioral models highlight the role of maladaptive thought patterns, particularly overestimated responsibility, in maintaining OCD symptoms (Spencer et al., 2022).

Quality of life (QOL) is a multifaceted concept encompassing physical, emotional, social, and economic aspects (Sinha, 2019). It represents subjective satisfaction and well-being, with significant influences from social interactions and personal health (Schalock & Felce, 2004). There is inverse association between QOL and OCD in general population and college and university students evident by some studies which encouraged further similar studies (Bajestani et al., 2022; Tomczak et al., 2023; Homayuni, 2023; Rahme et al., 2021).

Social support plays a crucial role in well-being, offering both tangible assistance and emotional comfort (Wang et al., 2021; Morgan et al., 2023). It can alleviate stress and enhance psychological resilience (Afita & Nuranasmita, 2023). Different models, including the Stress Buffering Model and the Direct Effect Model, emphasize how social support influences stress and overall health maintenance (Cohen & Wills, 1985). Emotional support, in particular, has been strongly associated with improved QOL (Doran et al., 2019). Studies suggest that social support can moderate the relationship between OCD symptoms and QOL (Ciułkiewicz et al., 2022). High-quality social support, particularly from family and close networks, can alleviate the emotional burden of OCD, improve treatment outcomes, and enhance overall well-being (Tan et al., 2021; El-slamon et al., 2022; Murthy et al., 2022). Research has shown that individuals with strong social support systems experience better symptom management outcomes (Palardy et al., 2018). Stengler-Wenzke et al. (2007) argued that compulsions, rather than obsessions, were more strongly linked to lower QOL, particularly in physical and psychological domains.

Subramaniam et al. (2012) highlighted that while OCD's prevalence is low, it significantly impairs QOL, revealing a treatment gap for those affected. Interventions like

medication and CBT have been shown to improve QOL (Macy et al., 2013). Kugler et al. (2013) identified a negative relationship between OCD severity and QOL, particularly in social and emotional domains. Coluccia et al. (2016) found that OCD patients had markedly lower QOL compared to controls, particularly in work and social life. Eisen et al. (2006) observed that the severity of obsessions was linked to lower QOL, particularly in social and occupational areas.

Research distinguishes the effects of obsessions and compulsions on QOL. While obsessions primarily impact emotional well-being, compulsions have a broader influence on physical, social, and emotional aspects of QOL (Moritz et al., 2005). Specific OCD symptoms, like hoarding and compulsive cleaning, are especially detrimental to QOL (Rahme et al., 2021). Studies also suggest that factors such as trauma, mental discomfort, and living conditions are significant predictors of low QOL, with social support and coping strategies influencing QOL both directly and indirectly (Araya et al., 2007). The COVID-19 pandemic has also affected global mental health, with concerns about hygiene potentially exacerbating OCD symptoms, particularly among young people (Cunning & Hodes, 2022).

Social support serves as a valuable resource, encompassing tangible assistance, encouragement, and education from one's social network. According to Cohen and Wills (1985), the buffering theory of social support posits that it can mitigate the adverse effects of stressors, including OCD. Coping with OCD requires support within the social context, helping to alleviate discomfort, combat isolation, and improve adherence to treatment plans. Evidence supports the moderating role of social support in the relationship between OCD symptoms and QOL. Jelinek et al. (2013) found that increases in QOL for OCD patients were associated with greater social support, especially from family and friends, who played a significant role in easing the emotional burden. Pinto et al. (2011) also found that social support positively influenced the treatment progress of OCD patients. Their study showed that patients with strong social support, particularly after undergoing CBT, demonstrated significant improvements in both QOL and symptom severity. This underscores the importance of considering social support in the treatment of OCD.

There is a scarcity of literature exploring the moderating role of social support in the relationship between obsessive-compulsive disorder (OCD) traits and quality of life, particularly among college and university students in Pakistan during the COVID-19 pandemic. The pandemic, which emphasized hygiene practices such as frequent handwashing, use of sanitizers, wearing masks, and maintaining physical distance, may have influenced students' behaviors, potentially intensifying OCD traits, even if it did not necessarily lead to full-blown disorder. Therefore, the aim of this study is to investigate the moderating effect of social support on the relationship between OCD traits and quality of life among young adults (18 to 30 years old) in Pakistan, particularly college and university students, during the COVID-19 pandemic. The objective is to identify intervention strategies and coping mechanisms, with a focus on social support, to mitigate adverse effects on well-being and improve the quality of life for students.

Hypotheses

H1: OCD traits is likely to associate significantly and negatively with quality of life and social support among adults.

H2: Social support will moderate the relationship between OCD trait and quality of life among adults.

Method

Research Design

The cross-sectional correlational research design was employed for this study.

Sampling

Purposive sampling technique was adopted for this study participant selection.

Inclusion Criteria

Participants must be college or university students from Pakistan, aged between 18 and 30 years, and of both genders (men and women).

Measures

Obsessive Compulsive Inventory-Revised

Obsessive Compulsive traits was measured through Obsessive Compulsive Inventory-Revised developed by Foa et al. (2002). The scale is five-point Likert scale, and the responses range from 0 (not at all) to 4 (very). Internal consistency reliability of scale ranging between .87 and .91 reflecting a good internal consistency.

World Health Organization Quality of Life Scale -BREF (WHOQOL-BREF)

The scale was originally developed by WHO, where as it was adapted and translated in Urdu language by Khan et al. (2003). WHO (1996) established the WHOQOL-BREF scale. The 26 items on the scale. Cronbach alpha reliability for this scale was .74.

Multidimensional Scale of Perceived Social Support

A brief test to gauge a person's sense of support is the Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet et al. (1988). This 12-question test has been extensively utilized and is highly validated. There are seven points. On a Likert scale, 1 represents very strong disagreement and 7 represents severe disagreement. The scale's internal consistency dependability was determined to be 0.91, which is regarded as a satisfactory reliability value.

Procedure

First, permission for data collection from 200 participants aged 18 to 30 and consisting of college and university students, was obtained from the higher authorities in the psychology department. Subsequently, the authors were contacted via email to seek permission for data collection. Once approval was granted, the data collection process began. Given the constraints of the COVID-19 pandemic and the closure of educational institutions, data collection was conducted using Google Forms, as physical data collection was not feasible. An online consent form was provided to participants, clearly outlining the APA ethical guidelines for data collection. The form included information about the voluntary nature of participation, the right to withdraw at any time without facing any adverse consequences, and the overall confidentiality of responses. The data collection process took approximately 15 to 20 minutes per participant. For data analysis, SPSS version 22 was used, with Pearson product-moment correlation and moderation analysis conducted using Hayes' PROCESS macro (Model 1, version 4.2).

Table 1

Participants' Characteristics (N = 200)

Demographic variables	<i>F</i>	%	<i>M</i>	<i>SD</i>
Gender				
Male	45	25		
Female	155	75		
Age				
Education			21.31	2.45
Intermediate	31	16		
Graduate	155	77		
Post Graduate	14	7		
Employment Status				
Employed	9	5		
Unemployed	191	95		

Note. *f*=Frequency, %= Percentage, *M*= Mean, *SD*= Standard Deviation

The table above shows that female participants (155, 75%) outnumber male participants (45, 25%), with a mean age of 21.31 years and a standard deviation of 2.45. The majority of participants have a graduation level of education (155, 77%), followed by those with an intermediate level (31, 16%) and post-graduate education (14, 7%). Additionally, most participants are unemployed (191, 95%), while only a small portion are employed (9, 5%).

Results

Table 2

Pearson Correlations among Study Variables (N=200)

Variables	1	2	3
1.Obsessive Compulsive Disorder Traits	-	-.30**	-.29**
2.Social Support		-	.82**
3.Quality of Life			-

Note. OCD = obsessive compulsive disorder traits, QOL = quality of life, SS = social support.

***p* < .01, **p* < .05.

Table 3 shows the Pearson correlation among study variables. The findings indicate that obsessive compulsive disorder traits have significant negatively correlation with quality of life and social support. Furthermore, the results also depict that quality of life has significant and positive association with social support.

Table 3

Regression Analysis for Quality of Life (N = 200)

Predictors	Outcome (Quality of Life)			
	95% CI			
	B	SE	LL	UL

Constant	2.98	16.59	-29.73	35.71
OCDT	.58	.29	.002	1.16
SS	2.11	.37	1.37	3.84
OCDT x SS	-.01	.006	-.02	-.002
R ²	.68			
F	142.24			

Note: OCD= obsessive compulsive disorder traits, QOL = quality of life, SS = social support.

The above table depicts that obsessive compulsive disorder traits and social support have significant direct effects on quality of life. Moreover, interaction effect of obsessive compulsive disorder traits and quality of life is also significant which shows that social support moderates the relationship between obsessive compulsive disorder traits and quality of life.

Discussion

This research aimed at investigating the relationship between obsessive compulsive disorder traits and quality of life, keeping in view the moderating role of social support among young adults specifically students of college and university.

The first hypothesis suggested that obsessive-compulsive disorder (OCD) traits would negatively and significantly related with both quality of life and social support. The study's results confirmed this, showing that individuals with OCD traits tend to experience a lower quality of life and less social support, moreover, the association between social support and quality of life was positively significant which indicates higher life quality with better support system. The finding of our study is aligned with previous study, Coluccia et al. (2016) found that OCD patients had significantly lower quality of life scores compared to controls. Other studies have shown that OCD traits and quality of life are inversely associated, while social supports is associated positively with quality of life thus enhancing wellbeing of patients (Albert et al., 2010; Homayuni, 2023; Pozza et al., 2018; Koran, 2000; Żerdziński et al., 2022). In term of Pakistani society cultural aspects of collectivism individuals with ocd traits social support to decrease its threshold and enhance wellbeing since family values and respect of elders and care for younger are expected however, when proper support is declined the wellbeing declines as well and that may exaggerate ocd traits specifically when it comes to situation of pandemic covid 19 where there is constant instruction for washing hands again and again use of senitizers and other protective factor that might had exaggerated in college and university students.

The second hypothesis is "Social support will moderate the relation between obsessive compulsive traits and quality of life. The finding of the study through hayes process 4.2 model 1 confirmed the assumption of the study as significantly social support moderates the association of predictor OCD traits and outcome quality of life. The finding of the study is aligned with the finding of studies that indicated that ocd traits effects on quality of life is adverse, moderate by social support of family, cognitive behvaioral therapy as well peer support in both diagnosed OCD patients as well as college and university cohorts (Diefenbach et al., 2007; Tan et al., 2021; Żerdziński et al., 2022; El-slamon et al., 2022; Weidle et al., 2014; Metwally et al., 2021). The reason behind moderating effect of social support could be reducing the anxiety associated with obsessive traits of students thus improving the quality of life. The second reason could be collective society of Pakistan where family values are respected and family bond is more intact as compared to west and

America. This could be also the reason of individuals with OCD may expect social support from family and peers to overcome anxiety and live a quality life.

Limitation and Recommendation

The first limitation of the study is that it included only 200 college and university students, and a larger sample size is recommended for future research. The second limitation is the use of a cross-sectional correlational design, whereas a longitudinal design could be more effective in tracking changes in OCD traits in relation to social support and quality of life. Therefore, a longitudinal research design is recommended for future studies. Additionally, the inclusion criteria focused solely on students, which may limit the generalizability of the results to the broader population. For future research, it is suggested to include a more diverse range of demographics, such as participants from urban and rural areas and individuals over 30 years of age. Future studies should also consider experimental pre- and post-tests with intervention strategies for OCD cohorts, comparing control and experimental groups. Another limitation is the purposive sampling technique used in the study; stratified sampling is recommended for more cohesive and comprehensive findings. There was also an imbalance in education, employment status, and gender categories, which restricted the use of independent sample t-tests and ANOVA analyses. It is recommended to balance demographic categories in future studies to ensure more comprehensive results. The most significant limitation of the study is the absence of a cutoff score for identifying OCD students, as the study relied on random purposive sampling. Future studies should include a proper cut-off score to enhance accuracy.

Implications

The study fulfills its primary objective by demonstrating that social support moderates the relationship between OCD traits and the adverse effects on quality of life, specifically for those with severe OCD traits, which adversely affect their quality of life by impairing functioning. By emphasizing social support, the study's practical implications highlight actionable measures to reduce the negative impacts of OCD on young adults specifically students' quality of life. Counseling and therapy should incorporate strategies to address the psychological distress exacerbated by OCD, particularly among females, who may be more vulnerable to societal pressures on self-worth. Research on OCD, quality of life, and social support can enhance cognitive-behavioral therapy and other interventions by addressing emotional and social aspects. The findings of this research underscore the importance of social support, which can help practitioners engage patients and families in treatment. Increased research and awareness of OCD, quality of life, and social support can reduce stigma and promote greater understanding. The research findings can also inform resource allocation and policy development to better support individuals with OCD. Continued research is essential to assess the effectiveness of these interventions and to further explore the complex dynamics of OCD, quality of life, and social support. By implementing these strategies, stakeholders can foster a supportive environment that encourages social support among young adults.

References

Albert, U., Maina, G., Bogetto, F., Chiarle, A., & Mataix-Cols, D. (2010). Clinical predictors of health-related quality of life in obsessive-compulsive disorder. *Comprehensive psychiatry*, 51(2), 193-200.

- Araya, M., Chotai, J., Komproe, I. H., & de Jong, J. T. (2007). Effect of trauma on quality of life as mediated by mental distress and moderated by coping and social support among postconflict displaced Ethiopians. *Quality of life research, 16*, 915-927.
- Bajestani, A. A., Shirazi, M., & Moharer, G. S. (2022). Effectiveness of positivity on academic well-being and its components in students with obsessive-compulsive disorder: a quasi-experimental study of pre-test and post-test with control group. *Jundishapur Journal of Chronic Disease Care, 11*(3).
- Bilge, Y., Yılmaz, M., Hüröğlü, G., & Akan Tikici, Z. (2022). The effects of adverse childhood experiences and early maladaptive schemas on relationship obsessive-compulsive disorder. *Trends in Psychology, 1-19*.
- Cervin, M. (2023). Obsessive-compulsive disorder: diagnosis, clinical features, nosology, and epidemiology. *Psychiatric Clinics, 46*(1), 1-16.
- Ciułkiewicz, M., Misiak, B., Szcześniak, D., Grzebieluch, J., Maciaszek, J., & Rymaszewska, J. (2022). Social Support mediates the Association between Health anxiety and quality of life: findings from a cross-sectional study. *International journal of environmental research and public health, 19*(19), 12962.
- Clark, D. A. (2006). *Cognitive-behavioral therapy for OCD*. Guilford Press.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357. <https://doi.org/10.1037/0033-2909.98.2.310>
- Coluccia, A., Fagiolini, A., Ferretti, F., Pozza, A., Costoloni, G., Bolognesi, S., & Goracci, A. (2016). Adult obsessive-compulsive disorder and quality of life outcomes: a systematic review and meta-analysis. *Asian Journal of Psychiatry, 22*, 41-52.
- Cunning, C., & Hodes, M. (2022). The COVID-19 pandemic and obsessive-compulsive disorder in young people: Systematic review. *Clinical child psychology and psychiatry, 27*(1), 18-34.
- Diefenbach, G. J., Abramowitz, J. S., Norberg, M. M., & Tolin, D. F. (2007). Changes in quality of life following cognitive-behavioral therapy for obsessive-compulsive disorder. *Behaviour Research and Therapy, 45*(12), 3060-3068.
- Doran, P., Burden, S., & Shryane, N. (2019). Older people living well beyond cancer: the relationship between emotional support and quality of life. *Journal of aging and health, 31*(10), 1850-1871.
- Eisen, J. L., Mancebo, M. A., Pinto, A., Coles, M. E., Pagano, M. E., Stout, R., & Rasmussen, S. A. (2006). Impact of obsessive-compulsive disorder on quality of life. *Comprehensive Psychiatry, 47*(4), 270-275. <https://doi.org/10.1016/j.comppsy.2005.11.006>
- El-slamon, M. A. E. F. A., Al-Moteri, M., Plummer, V., Alkarani, A. S., & Ahmed, M. G. (2022, February). Coping strategies and burden dimensions of family caregivers for people diagnosed with obsessive-compulsive disorder. In *Healthcare* (Vol. 10, No. 3, p. 451). MDPI.
- Fang, A., Berman, N. C., Hoepfner, S. S., Wolfe, E. C., & Wilhelm, S. (2022). State and Trait Risk and Resilience Factors Associated with COVID-19 Impact and Obsessive-Compulsive Symptom Trajectories. *International Journal of Cognitive Therapy, 15*(2), 168-190.

- Fava, L., Bellantuono, S., Bizzi, A., Cesario, M. L., Costa, B., De Simoni, E., ... & Mancini, F. (2014). Review of obsessive compulsive disorders theories. *Global Journal of Epidemiology and Public Health, 1*, 1-13.
- Foa, E. B., Huppert, J. D., Leiberg, S., Langner, R., Kichic, R., Hajcak, G., & Salkovskis, P. M. (2002). The Obsessive-Compulsive Inventory: development and validation of a short version. *Psychological assessment, 14*(4), 485.
- Gillan, C. M., Kalanthroff, E., Evans, M., Weingarden, H. M., Jacoby, R. J., Gershkovich, M., ... & Simpson, H. B. (2020). Comparison of the association between goal-directed planning and self-reported compulsivity vs obsessive-compulsive disorder diagnosis. *JAMA psychiatry, 77*(1), 77-85.
- Goodman, W. K., Storch, E. A., & Sheth, S. A. (2021). Harmonizing the neurobiology and treatment of obsessive-compulsive disorder. *American Journal of Psychiatry, 178*(1), 17-29.
- Hassan, H. (2023). *A systematic review of obsessive-compulsive disorder symptomatology in religious people of Abrahamic faiths: implications for clinical practice* (Doctoral dissertation, University of Oxford).
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: does method really matter?. *Psychological science, 24*(10), 1918-1927.
- Homayuni, A. (2023). Investigating the correlation between perceived stress and health anxiety with obsessive-compulsive disorder and quality of life during COVID-19 pandemic. *BMC psychology, 11*(1), 54.
- Homayuni, A. (2023). Investigating the correlation between perceived stress and health anxiety with obsessive-compulsive disorder and quality of life during COVID-19 pandemic. *BMC psychology, 11*(1), 54.
- Jelinek, L., Moritz, S., & Heidenreich, T. (2013). Social support and coping strategies in obsessive-compulsive disorder. *Journal of Anxiety Disorders, 27*(5), 474-478. <https://doi.org/10.1016/j.janxdis.2013.04.007>
- Kalanthroff, E., & Wheaton, M. G. (2022). An integrative model for understanding obsessive-compulsive disorder: merging cognitive behavioral theory with insights from clinical neuroscience. *Journal of Clinical Medicine, 11*(24), 7379.
- Koran, L. M. (2000). Quality of life in obsessive-compulsive disorder. *Psychiatric Clinics of North America, 23*(3), 509-517.
- Kugler, B. B., Lewin, A. B., Phares, V., Geffken, G. R., Murphy, T. K., & Storch, E. A. (2013). Quality of life in obsessive-compulsive disorder: the role of mediating variables. *Psychiatry Research, 206*(1), 43-49.
- Maatoug, R. (2023). *Brain mechanisms underlying obsessive-compulsive disorder: evidences from a multimodal approach* (Doctoral dissertation, Sorbonne Université).
- Macy, A. S., Theo, J. N., Kaufmann, S. C., Ghazzaoui, R. B., Pawlowski, P. A., Fakhry, H. I., ... & IsHak, W. W. (2013). Quality of life in obsessive compulsive disorder. *CNS spectrums, 18*(1), 21-33.

- Mahmoud, A. S., Berma, A. E., & Gabal, S. A. A. S. (2017). Relationship between social support and the quality of life among psychiatric patients. *Journal of psychiatry and psychiatric disorders*, 1(2), 57-75.
- Metwally Elsayed, M., & Ahmed Ghazi, G. (2021). Fear of COVID-19 Pandemic, Obsessive-Compulsive Traits and Sleep Quality among First Academic Year Nursing Students, Alexandria University, Egypt. *Egyptian Journal of Health Care*, 12(2), 224-241.
- Morgan, A. K. (2023). Well-being in the age of COVID-19: The role of social support. *Cogent Public Health*, 10(1), 2245525.
- Moritz, S., Rufer, M., Fricke, S., Karow, A., Morfeld, M., Jelinek, L., & Jacobsen, D. (2005). Quality of life in obsessive-compulsive disorder before and after treatment. *Comprehensive psychiatry*, 46(6), 453-459.
- Murthy, N. S., Balachander, S., Nirmala, B. P., Pandian, R. D., Cherian, A. V., Arumugham, S. S., & Reddy, Y. J. (2022). Determinants of family functioning in caregivers of persons with obsessive-compulsive disorder. *Journal of Affective Disorders*, 305, 179-187.
- Palardy, V., El-Baalbaki, G., Fredette, C., Rizkallah, E., & Guay, S. (2018). Social support and symptom severity among patients with obsessive-compulsive disorder or panic disorder with agoraphobia: a systematic review. *Europe's journal of psychology*, 14(1), 254.
- Pinto, A., Pinto, A. M., Neziroglu, F., & Yaryura-Tobias, J. A. (2011). Motivation to change as a predictor of treatment response in obsessive-compulsive disorder. *Annals of Clinical Psychiatry*, 23(1), 17-24.
- Pozza, A., Lochner, C., Ferretti, F., Cuomo, A., & Coluccia, A. (2018). Does higher severity really correlate with a worse quality of life in obsessive-compulsive disorder? A meta-regression. *Neuropsychiatric disease and treatment*, 1013-1023.
- Rahme, C., Akel, M., Obeid, S., & Hallit, S. (2021). Cyberchondria severity and quality of life among Lebanese adults: the mediating role of fear of COVID-19, depression, anxiety, stress and obsessive-compulsive behavior—a structural equation model approach. *BMC psychology*, 9, 1-12.
- Rahme, C., Akel, M., Obeid, S., & Hallit, S. (2021). Cyberchondria severity and quality of life among Lebanese adults: the mediating role of fear of COVID-19, depression, anxiety, stress and obsessive-compulsive behavior—a structural equation model approach. *BMC psychology*, 9, 1-12.
- Schalock, R. L., & Felce, D. (2004). Quality of life and subjective well-being: Conceptual and measurement issues. *International handbook of applied research in intellectual disabilities*, 261-279.
- Sharma, E., Sharma, L. P., Balachander, S., Lin, B., Manohar, H., Khanna, P., ... & Stewart, S. E. (2021). Comorbidities in obsessive-compulsive disorder across the lifespan: a systematic review and meta-analysis. *Frontiers in psychiatry*, 12, 703701.
- Sinha, B. R. K. (Ed.). (2019). *Multidimensional approach to quality of life issues: A spatial analysis*. Springer Nature.

- SoleimanvandiAzar, N., Amirkafi, A., Shalbafan, M., Ahmadi, S. A. Y., Asadzandi, S., Shakeri, S., ... & Nojomi, M. (2023). Prevalence of obsessive-compulsive disorders (OCD) symptoms among health care workers in COVID-19 pandemic: a systematic review and meta-analysis. *BMC psychiatry*, *23*(1), 862.
- Spencer, S. D., Stiede, J. T., Wiese, A. D., Goodman, W. K., Guzick, A. G., & Storch, E. A. (2022). Cognitive-behavioral therapy for obsessive-compulsive disorder. *The Psychiatric clinics of North America*, *46*(1), 167.
- Stengler-Wenzke, K., Kroll, M., Riedel-Heller, S., Matschinger, H., & Angermeyer, M. C. (2007). Quality of life in obsessive-compulsive disorder: the different impact of obsessions and compulsions. *Psychopathology*, *40*(5), 282-289.
- Subramaniam, M., Abidin, E., Vaingankar, J. A., & Chong, S. A. (2012). Obsessive-compulsive disorder: prevalence, correlates, help-seeking and quality of life in a multiracial Asian population. *Social psychiatry and psychiatric epidemiology*, *47*, 2035-2043.
- Tan, Y. T., Rehm, I. C., Stevenson, J. L., & De Foe, A. (2021). Social media peer support groups for obsessive-compulsive and related disorders: understanding the predictors of negative experiences. *Journal of Affective Disorders*, *281*, 661-672.
- Tomczak, K. K., Worhach, J., Nguyen, S. T. T., Liu, S., Hoepfner, S., Zhang, B., & Greenberg, E. (2023). Subjective impact of COVID-19 pandemic on youth with tic and OCD spectrum disorders. *Personalized Medicine in Psychiatry*, *39*, 100103.
- Wang, W., Shukla, P., & Shi, G. (2021). Digitalized social support in the healthcare environment: Effects of the types and sources of social support on psychological well-being. *Technological Forecasting and Social Change*, *164*, 120503.
- Weidle, B., Jozefiak, T., Ivarsson, T., & Thomsen, P. H. (2014). Quality of life in children with OCD with and without comorbidity. *Health and quality of life outcomes*, *12*, 1-12.
- Żerdziński, M., Burdzik, M., Żmuda, R., Witkowska-Berek, A., Dębski, P., Flajsok-Macierzyńska, N., ... & Gorczyca, P. (2022). Sense of happiness and other aspects of quality of life in patients with obsessive-compulsive disorder. *Frontiers in Psychiatry*, *13*, 1077337.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, *52*(1), 30-41.