



Public stigma of obsessive compulsive disorder and schizophrenic disorder: Is there really any difference?



Gülşah Durna*, Orçun Yorulmaz, Ayça Aktaç

Department of Psychology, Faculty of Arts, Dokuz Eylül University, Buca, İzmir, Turkey

ARTICLE INFO

Keywords:

Mental health
OCD
Symptom subtypes
Public stigma
Schizophrenia
Social distance

ABSTRACT

A substantial delay for help-seeking is a serious problem for people with obsessive-compulsive disorder (OCD), a heterogeneous and debilitating mental health condition. Stigma is a major barrier to treatment seeking and further cause social and occupational impairment. Lack of comprehensive research led us to examine the public's stigmatizing attitudes towards checking, contamination, sexuality, aggression, and religion-related OCD symptoms, compared to schizophrenia. After reading one of six random case vignettes, 621 adults completed social distance scale. Analysis of Covariance or ANCOVA indicated that social distance towards violence and sexuality-related OCD symptoms and schizophrenia did not differ; but social distance for those was higher than religion, contamination, and checking subtypes. Although the contamination vignette did not differ from religion and checking vignettes, the theme of religion had a higher social distance than checking symptoms. Consequently, the current findings imply that there is a difference in public stigma among various symptoms of OCD and symptoms related to sexuality and violence, as well as schizophrenia, are associated with more social rejection. Thus, the general public needs access to educational methods of intervention and contact to eliminate stigma and improve the quality of life for people with mental health disorders.

1. Introduction

Obsessive-Compulsive Disorder (OCD) is a seriously disabling condition which is often described by the presence of repetitive, unwanted and intrusive thoughts, images or urges (obsessions) and ritualized behaviors (compulsions) that are performed to reduce distress (American Psychiatric Association, 2013). The most common obsessions include contamination, need for symmetry and certainty, doubting, fear of harm, religious and sexual themes, while cleaning, checking, ordering, hoarding, and assurance seeking were reported as the most seen behavioral compulsions (Steketee and Barlow, 2004). Given to the fact that the symptoms of OCD have a substantial negative effect on the lives of individuals who are diagnosed as well as their family members, it also leads a pronounced functional impairment as well as a decrease in the quality of life (Markarian et al., 2010). Despite the availability of efficacious treatments for OCD, the disorder is frequently unrecognized and untreated. Studies reveal that help-seeking for treatment is often delayed and this condition may contribute to its chronic course (Fullana et al., 2009; Subramaniam et al., 2012). This delay can last up to 17 years and treatment is received at approximately 11 years after the criteria for OCD diagnosis is met (Pinto et al., 2006). Delay in help-seeking may result from some socio-demographic

variables and distinctive features of OCD such as severity, symptoms, and age of onset (Cullen et al., 2008). Nevertheless, stigma is also one of the major impediments to help-seeking behavior (García-Soriano et al., 2014).

Stigma was originally defined by Erving Goffman as “an attribute that is deeply discrediting and the stigmatized individual is reduced from a whole and usual person to a tainted or discounted one.” (Goffman, 1963, p. 3). The Socio-Cognitive Model (Corrigan, 2000; Corrigan and Watson, 2002) suggests that negative stereotypes, prejudices, and discriminatory behaviors constitute stigmatization and these variables are seen as discrete, but related components. Thus, public stigma consists of the general population's negative beliefs and attitudes about and behaving against people with stigmatized conditions, and in the present case, people with mental disorders (Corrigan and Kleinlein, 2005). The general public's attitudes and behaviors towards mental health problems are actually being extensively investigated in literature. The common belief is that individuals with schizophrenia and substance/alcohol dependence are more likely to be unpredictable, dangerous, aggressive, and inadequate (Crisp et al., 2000; Magliano et al., 2004). Accordingly, many people may have a strong desire to socially distance themselves from someone with those disorders (e.g., Kasow and Weisskirch, 2010; Link et al., 1999; Marie

* Corresponding author.

E-mail addresses: gulsah.durna@deu.edu.tr, gulsahdrn@gmail.com (G. Durna).

<https://doi.org/10.1016/j.psychres.2018.12.065>

Received 26 April 2018; Received in revised form 1 December 2018; Accepted 10 December 2018

Available online 10 December 2018

0165-1781/ © 2018 Elsevier B.V. All rights reserved.

and Miles, 2008). Owing to the perception that people who suffer from this condition are dangerous and unpredictable, the fear that is shown towards individuals with schizophrenia is quite prevalent, and this disorder appears as one of the most stigmatized mental disorders (e.g., Jorm et al., 2012). Besides, there could be more stigmatizing attitudes towards suicidal behavior which is perceived as being less likely to recover, as compared to depression (Sheehan et al., 2017). Although there have been more studies done in general on social stigmatization of mental disorders (including severe ones) the amount of research on stigma-specific to anxiety disorders, bipolar disorders, eating disorders, and alcohol-substance addiction, have shown a gradual increase in recent years (Angermeyer et al., 2013; Ellison et al., 2015).

Research also points out that this growing problem has serious negative consequences on individuals with mental disorders, apart from the psychiatric condition itself. For instance, it leads to damage in social facilities (e.g. employment, accommodation), self-esteem, help-seeking behavior, friendships, and family relations—as well as complications in the justice and health care systems (e.g., Sickel et al., 2014). Although most individuals with mental problems experience several deteriorative symptoms, the stigma surrounding mental illness can also result in the delay of getting treatment (Schomerus et al., 2012); as a result, treatment seeking is critically delayed. Those with mood disorders could take as long as eight years to seek treatment after the onset of symptoms, whereas those who suffer from anxiety disorders, take about nine years later for anxiety disorders (Wang et al., 2005).

Stigma has been indicated as one of the major barriers in seeking treatment for individuals suffering from OCD (Belloch et al., 2009; Del Valle et al., 2017). Since symptoms of OCD are remarkably heterogeneous, the content of the symptoms is a factor that significantly influences the decisions on whether to share symptoms with the public, feelings of fear and embarrassment, and the public's beliefs, attitudes, and behaviors can change according to the content of obsessions and compulsions (Simonds, 2001). On the other hand, when the content of symptoms is incongruent with norms of society, as in the case of taboo experiences such as sexuality, violence, and religion, the possibility of being subject to exclusion, discrimination, and stigmatization may increase with hostile attitudes (Brakoulias et al., 2013). To illustrate, it was found that considering them ordinary, most participants reading vignettes related to contamination and checking subtypes of OCD recommended receiving professional help; still, only one-third of the participants identified the vignette as OCD (Coles et al., 2013). However, in addition to being more stigmatized, aggression-related OCD symptoms can be misidentified as schizophrenic or major depressive disorder (Coles and Coleman, 2010; García-Soriano and Roncero, 2017). Similarly, the harming subtype of OCD can be seen as more frightening, shameful, and socially unacceptable than washing and checking symptoms (Simonds and Thorpe, 2003). In addition, public stigma toward aggressive, sexual, and blasphemous contents of OCD symptoms was confirmed by a few number of studies (e.g., Beşiroğlu et al., 2010; Cathey and Wetterneck, 2013; Corcoran and Woody, 2008; McCarty et al., 2017).

Generally speaking, it seems that symptoms including taboo contents are more likely to be associated with stigma than other manifestations, but to our knowledge, there is no research covering all of the most commonly seen OCD subtypes in one study, which would provide more comprehensive knowledge on the stigmatization process. Accordingly, the present study first aimed to investigate whether the social distance towards various symptom dimensions of OCD, namely sexual, religious, aggressive, checking and contamination-related symptoms, differ in a Turkish community sample with the help of a case vignette approach. Second, our attempt was made to compare the public's desired social distance towards subtypes of OCD with schizophrenia, which is regarded as one of the most frequently stigmatized mental health conditions.

2. Methods

2.1. Participants

For the current study, six hundred and twenty-one adults were recruited from different regions of the İzmir province, located in Turkey. In order to be included in the study, participants had criteria which needed to be met. The participants had to be literate, be free of any neurological or psychiatric disorders that could impede on their abilities to accurately understand and answer questions, and not work in the field of mental health at the time of the study.

2.2. Instruments

2.2.1. Socio-demographic questionnaire

The Socio-demographic questionnaire (SDQ), which was developed by researchers, included 16 questions about basic socio-demographical information.

2.2.2. Vignettes

In the current study, six different case vignettes (see Appendix A) were prepared on the basis of research trends in this area, in order to examine the public stigma towards schizophrenia and subtypes of OCD (e.g., Arkar, 1991; Beşiroğlu et al., 2010; Cathey and Wetterneck, 2013; Purdon and Clark, 2015; Simonds and Thorpe, 2003). Five of these vignettes depicted people with different symptom dimensions of obsessions and compulsions, namely contamination, checking, aggressive, religious and sexual themes, and associated compulsions; whereas the sixth one described an individual with paranoid schizophrenia symptoms. Diagnostic criteria shown in DSM 5 (American Psychiatric Association, 2013) was followed for the contents of the vignettes. In addition, the grammatical structure of the vignettes, symptom severity, duration, and distress were held constant so as to rule out the impact of extraneous variables. However, diagnostic terms (i.e., OCD and schizophrenia), were not mentioned in the vignettes in order to prevent any direct implication. Finally, the vignettes were reviewed by five clinical psychologists with regard to their compatibility with a common clinical presentation of disorders and diagnoses, and then, some modifications made by these experts were performed; thus, it could be stated that face validity was provided. During administration, participants were randomly assigned to read only one of the six possible vignettes and later, asked to answer questions concerning desired social distance in various social occasions, while considering the hypothetical individual depicted in the vignette.

2.2.3. Social distance scale

The Social Distance Scale (SDS) is a self-report inventory which was originally developed by Arkar (1991) to assess the public's desired social distance towards people with mental disorders. SDS is a 14-item questionnaire and each item is rated on a 7-point Likert scale (ranging from 1 = “definitely willing”, and 4 = “undecided”, to 7 = “definitely unwilling”). It assesses willingness to engage with the subject of the vignette in a variety of social situations (e.g., marriage, sharing the same room, renting a house, sitting side by side, living in the same neighborhood etc.). Scores given to these items were added and averaged to provide a single social distance score (ranging from 7 to 98), where higher scores demonstrate more desired distance. SDS was shown to have a good reliability ($\alpha = 0.88$). Although the original study only examined the content and face validity of the SDS, several other studies further supported its validity and reliability (e.g., Arkar and Eker, 1994, 1997). Recently, one study pointed out that individuals who have dangerousness stereotype and felt ashamed of mental disorders reported more social distance regarding people with mental disorders (Oban and Küçük, 2011). In the present study, the internal consistency of the SDS was found to be excellent ($\alpha = 0.93$).

2.3. Procedure

First, approval was taken from the Ethical Commission of Dokuz Eylül University's Faculty of Arts for the study (December 24, 2015, Verdict no: 11/4). Later, six different case vignettes were developed and five clinical psychologists evaluated the content of the vignettes and permission was granted from those who developed the SDS to be used in the study. Participants were recruited from İzmir, Turkey on the basis of the convenience sampling method. After making a brief verbal statement about the research study and highlighting the principles of volunteerism and privacy, individuals who accepted to participate gave their permission by signing the informed consent form. During administration, participants were initially asked to complete the SDQ and then to read only one of the six vignettes, which were randomly assigned, depicting an individual who experienced one of the five subtypes of OCD: contamination, checking, aggression, religion and sexuality, or paranoid schizophrenia. Following the vignette, participants filled out the SDS form assessing desired social distance towards the hypothetical individual described in the vignette.

2.4. Statistical analysis

All analyses were performed using SPSS (Statistical Package for the Social Sciences) software version 23. First, descriptive statistics (e.g., frequencies, percentages, mean scores, standard deviations) were used. Second, a series of univariate ANOVA were performed to examine the presence of any significant difference in social distance scores among basic demographical variables (e.g., gender, income level, education level). Third, the univariate ANCOVA, in which education and having a relative suffering a mental disorder were included as covariates. Fourth, LSD post hoc analyses were performed to identify the possible difference in social distance among different case vignettes. Finally, during these analyses, Bonferroni correction was used to prevent Type I error and alpha value was set to 0.008. While conducting ANOVA and ANCOVA to examine the group differences in social distance scores among six different vignettes, p value was set to 0.008 (0.05/6). Since, bonferroni correction was used to prevent Type I error and 6 refers to the number of groups.

3. Results

Table 1 demonstrates socio-demographic variables. The age of the participants ranged from 18 to 74 years old ($M = 35.67$; $SD = 12.61$) and 51% of them were women. Moreover, 53% had less than or the equivalence of a high school education, while 51% of the participants were single, and 61% reported to having average income. 14% ($n = 86$) have ever had a diagnosis of psychiatric disorder. Anxiety disorders ($n = 31$) and mood disorders ($n = 30$) were the leading ones. Moreover, 27% of the sample reported having a relative diagnosed with a mental disorder. In this case, mood disorders ($n = 71$) and anxiety disorders ($n = 40$) were the most common disorders, followed by other conditions ($n = 16$), schizophrenia/ psychotic disorders ($n = 11$), obsessive-compulsive disorder ($n = 8$). 12% ($n = 74$) stated that a relative who suffers from a mental disorder was one of their friends, while 8% ($n = 51$) had a nuclear family history of mental disorder.

A series of one-way ANOVA revealed that like income levels (i.e., high-middle-low, $F(2, 619) = 0.32$, NS), there wasn't any significant difference between males and females in distance ($F(1, 620) = 0.77$, NS). Whereas, the participants who had an education level of high school and below ($M = 3.90$, $SD = 1.54$) had significantly higher social distance scores than those with college and higher education levels ($M = 3.65$, $SD = 1.61$; $F(1, 620) = 4.74$, $p < 0.05$). The results of the ANCOVA revealed a statistically significant difference in the degree of social distance among 6 vignettes ($F(5, 620) = 26.212$, $p < 0.008$, partial $\eta^2 = 0.18$), while education ($F(1, 620) = 6.92$, $p < 0.01$, partial $\eta^2 = 0.01$) and having a relative suffering a mental disorder ($F(1,$

Table 1
Sample characteristics.

| | <i>M</i> | <i>SD</i> |
|------------------------------------------------------------------------------------------------|----------|-----------|
| Age | 35.67 | 12.61 |
| | <i>N</i> | % |
| Gender | | |
| Female | 314 | 50.6 |
| Male | 307 | 49.4 |
| Marital status | | |
| Single | 316 | 50.9 |
| Married | 305 | 49.1 |
| Level of education | | |
| High school graduate & below | 326 | 52.5 |
| Bachelor & above | 295 | 47.5 |
| Presence of psychiatric diagnosis | | |
| Yes | 86 | 13.8 |
| No | 535 | 86.2 |
| Name of diagnosis | | |
| Anxiety disorders | 31 | 5.0 |
| Mood disorders | 30 | 4.8 |
| Obsessive-compulsive disorder | 3 | 0.5 |
| Schizophrenia & psychotic disorders | 4 | 0.6 |
| Others (AD/HD, impulse control disorders, more than one, unknown) | 8 | 1.3 |
| Use of psychiatric medication | | |
| Yes | 30 | 4.8 |
| No | 591 | 95.2 |
| Getting psychotherapy | | |
| Yes | 8 | 1.3 |
| No | 613 | 98.7 |
| Having a relative diagnosed with a mental disorder | | |
| Yes | 169 | 27.2 |
| No | 452 | 72.8 |
| Name of diagnosis | | |
| Anxiety disorders | 40 | 6.4 |
| Mood disorders | 71 | 11.4 |
| Obsessive-compulsive disorder | 8 | 1.3 |
| Schizophrenia & psychotic disorders | 11 | 1.8 |
| Others (AD/HD, impulse control disorders, substance-related disorders, more than one, unknown) | 16 | 2.6 |
| Affinity | | |
| Nuclear family | 51 | 8.2 |
| Extended family | 27 | 4.3 |
| Friends | 74 | 11.9 |
| Others (more than one category) | 5 | 0.8 |

620) = 4.60, $p < 0.05$, partial $\eta^2 = 0.01$) were significant covariates. Later, when post hoc analyses were examined, it was observed that there were no significant differences in social distance towards schizophrenia ($M = 4.70$), violence ($M = 4.35$) and sexuality ($M = 4.22$) related OCD symptoms, and all of these dimensions had the highest scores among vignettes. In addition, scores of religion thematic OCD symptoms ($M = 3.52$) did not differ from contamination ($M = 3.10$) but higher than checking dimension and lower than sexuality, violence, and schizophrenia. Finally, distance for contamination and checking dimensions ($M = 2.94$) were similar. In other words, it seems that schizophrenia, sexuality, and violence related OCD cases are exposed to the same degree of public stigma; whereas, contamination and checking dimension had the lowest and same degree rejection, while religious theme induced middle-level rejection. **Fig. 1** shows social distance scores of the 6 vignettes. **Table 2** shows F values with and without controlling education and having or not a relative with a mental disorder, means, standard deviations to each vignette and post-hoc differences.

4. Discussion

The current study was first done in order to examine how the community's stigmatizing attitudes towards all the most prevalent OCD subtypes, namely contamination, checking, religion, sexuality, religion, and aggression differentiate in comparison. In addition to that, we

Social distance scores among case vignettes

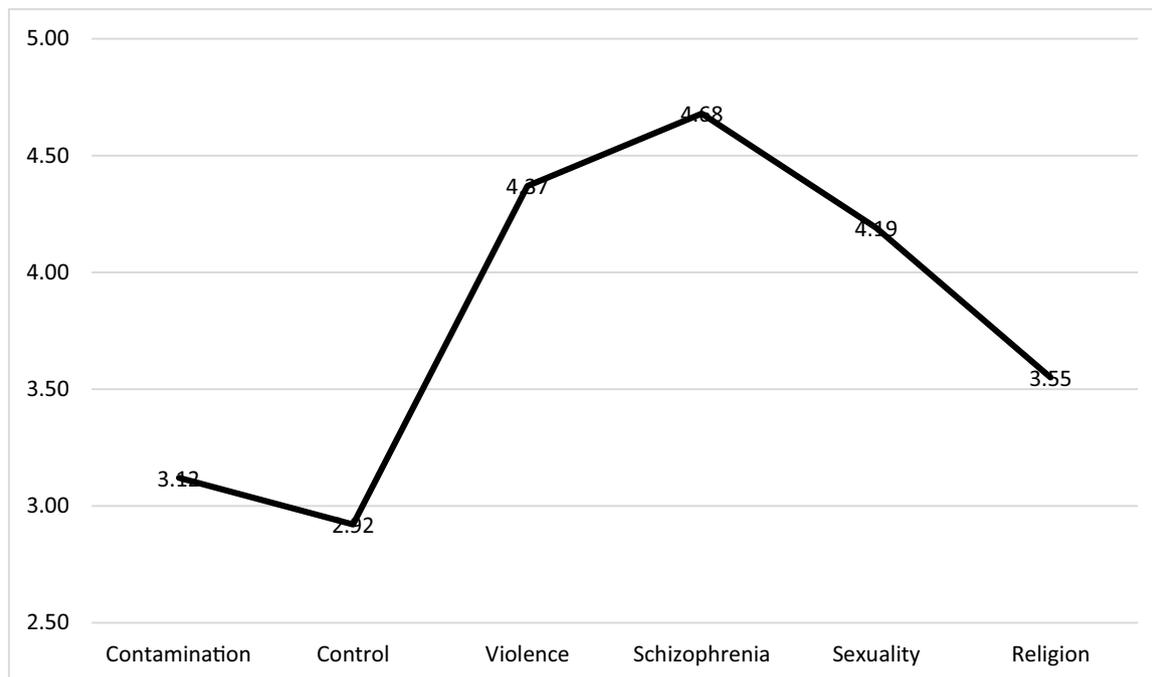


Fig. 1. Social distance scores among case vignettes.

aimed to contrast the community's desired social distance of OCD subtypes with another psychological condition (i.e., paranoid schizophrenia) which is exposed to the negative impact of the public stigma the most, and which has been studied more.

First of all, among some basic socio-demographical variables, education level seems to make a difference, because it was found that people with the equivalence of high school education and less, reported higher social distance preference. This condition seems consistent with research findings of the association of education with a higher degree of stigmatization (e.g., Alonso et al., 2008) and the positive impact of education of the public to change negative attitudes (e.g., Corrigan et al., 2012). Accordingly, it appears in this comprehensive comparison study that the results of analysis of covariance where the effect of education and having a relative suffering from a mental disorder was controlled. Furthermore, it showed that as hypothesized, the public's negative social reactions to the disclosure of sexuality and aggression/violence related OCD symptoms did not differ from each other, but these contents were more stigmatized than contamination, checking, and religious themes. These results are consistent with the limited number of research studies which have examined subtypes

separately (e.g. García-Soriano and Roncero, 2017). For instance, it was shown in a vignette study that harming/violence obsessions and related compulsions were less socially acceptable compared to washing and checking symptoms (Simonds and Thorpe, 2003). Moreover, another study investigating mental health literacy towards contamination, religious, aggressive and ordering-arranging-counting obsessions and related compulsions revealed that the public perceived aggression related OCD symptoms as more unusual and undesirable (Beşiroğlu et al., 2010). Similarly, the findings of the public's higher desired social distance toward sexuality obsessions and related compulsions is somewhat compatible with previous research studies (e.g. McCarty et al., 2017). To illustrate, Cathey and Wetterneck (2013) found that participants desired to put more social distance towards the disclosure of involuntary thoughts with sexual content compared to contamination content. In conclusion, it seems that sexuality, violence, and religious themes were somewhat considered as offensive and induced similar social rejection in Turkish communities comprised of adults.

Interestingly, the degree of desired social rejection to the disclosure of sexuality and aggression-related OCD symptoms and schizophrenia did not differ. Given these findings, it appears that aggression and

Table 2

Means, standard deviations, ANOVA and ANCOVA results by SDS.

| | Checking | Contam. | Religion | Sexuality | Violence | Sch. | | | |
|-----------------------------------|-----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------|-----|-------------|
| | n = 105 | n = 105 | n = 105 | n = 103 | n = 102 | n = 101 | | | |
| | M (SD) | M (SD) | M (SD) | M (SD) | M (SD) | M (SD) | | | |
| ANOVA | | | | | | | | | |
| Vignettes | 2.92 ^a (1.23) | 3.12 ^{ac} (1.24) | 3.55 ^c (1.58) | 4.19 ^b (1.54) | 4.37 ^b (1.54) | 4.68 ^b (1.50) | F | p | Partial eta |
| ANCOVA | | | | | | | | | |
| ■Vignettes | 2.94 ^a | 3.10 ^{ac} | 3.52 ^c | 4.22 ^b | 4.35 ^b | 4.70 ^b | 26.21 | .00 | .18 |
| ■Education (covariate) | | | | | | | 6.92 | .01 | .01 |
| ■Relative's diagnosis (covariate) | | | | | | | 4.60 | .03 | .01 |

SDS, social distance scale; Contam, contamination; Sch, schizophrenia.

Post-hoc tests are demonstrated by superscripts. Within each line, means with different superscripts (^a, ^b, ^c) differ significantly with alpha value lower than 0.008. “ac” implies that mean score of contamination did not significantly differ from both checking and religion.

sexuality themes are perceived as less acceptable and as stigmatized as a more serious psychological disorder would be. On one hand, this situation can be explained by the fact that those themes are seen as contrary to social norms and accepted as taboo (Brakoulias et al., 2013). In addition, the public has less knowledge about aggressive obsessions and related compulsions so much that, individuals who struggle with this subtype, could be perceived as having schizophrenia and expressed a high degree of desired social distance by the community (García-Soriano and Roncero, 2017; Warman et al., 2015). Furthermore, OCD symptoms with religious themes had mid-range degrees of stigmatization as compared to other mental health problems (i.e., not as high as vignettes of violence, sexuality, and schizophrenia, but lower than checking and the same with contamination). On the other hand, it may not be wrong to say that OCD is generally known for its contamination/washing and doubt/checking subtypes and it's known that these symptoms can even be encouraged by the community. It was also asserted in a study that the recognition rate of symmetry and contamination subtypes in OCD could be higher than harming and taboo related symptoms (McCarty et al., 2017). Actually, these results form a basis for the fact that individuals struggling with OCD are in shame of their symptoms, have fear of sharing their problems, and due to stigmatization, are less likely to engage in help-seeking behaviors (Vuong et al., 2016).

Although the present study provides helpful information about stigmatizing attitudes, it is also necessary to acknowledge that there are some limitations to the study. To begin with, the convenience sampling method was used, even if special attention was paid to variables such as age, education, and gender during the data collection process. Accordingly, it is unlikely to say that the research sample will represent the entire city of Izmir city or the entire country of Turkey. In addition, it has similar limitations with studies in which vignettes were used to describe clinical cases (e.g. García-Soriano and Roncero, 2017; McCarty et al., 2017), in which it is considered that cases may not exemplify mental disorder categories in real life and be equivalent to the contact, despite the frequent use of it in a major part of studies, attitudes, and behaviors towards mental disorders. Besides, use of a self-report measure may also limit content and assessment. Due to the cross-sectional nature and between-subject research design of this study, we can not provide cause-and-effect relationships as experimental studies. Also, we cannot show changes in attitudes and behaviors over time, as longitudinal studies and research have within-subject design.

This study has also some important clinical implications. To our knowledge, it is the first study which examined public stigmatization of various OCD subtypes, namely violence, contamination, sexuality, religion, and, checking in the framework of the Socio-Cognitive Stigma Model (Corrigan, 2000; Corrigan and Watson, 2002). In this sense, it is unique for covering taboo thoughts. Also, vignettes included both obsessions and compulsions, contrary to studies based solely on obsessions, which increases the vignettes' representations of OCD. Comparing the social reactions to the subtypes of OCD with a schizophrenia can also be considered as one of the important contributions of this study to literature. In summary, it is widely known that public stigma brings many negative consequences to individuals with OCD and their families, such as concealing symptoms, postponing treatment or discontinuing treatment, reduced self-esteem, social functioning, and quality of life (García-Soriano et al., 2014; Stengler-Wenzke et al., 2004). Given the social distance tendency towards schizophrenia, violence, and sexual themes of OCD subtypes were relatively high and similar, it should be kept in mind that clinicians are likely to notice that individuals particularly suffering from types of OCD (mainly violence and sexual contents) may be exposed to a substantial degree of public stigma, and accordingly, this condition may result in additional burden and negative consequences with onset of illness, prognosis of symptoms and delay in treatment. Moreover, it seems that OCD is typically known with contamination/cleaning or checking symptoms by the public. The public might identify harming subtype of OCD as schizophrenia, which

may lead to an increase in stigmatization (Warman et al., 2015). Thus, misunderstandings and confusions among different psychiatric problems might also bring about additional costs for both patients, her family, and relatives. In this regard, these results can be used in intervention programs, training seminars, and conferences for informing and changing attitudes regarding stigmatizing behaviors in society as a whole, or in certain groups. In this context, the creation of similar environments for OCD may increase awareness within the community and may be effective in reducing stigmatizing attitudes and behaviors.

Conflicts of interest

None.

Acknowledgment

We present our special thanks to TÜBİTAK (The Scientific and Technical Research Council of Turkey) for financially supporting our research project (Project no: 116R011). This study was a part of this research project.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2018.12.065](https://doi.org/10.1016/j.psychres.2018.12.065).

Appendix A. Vignettes

Harm: Esra is 29 years old and she is a mother to her 2-year-old boy. She is a loving parent who strives to do the best for her son. However, recently Esra told you about experiencing involuntary, recurring, and distressful thoughts. When she spends time with her child in the kitchen, she has thoughts about stabbing her child with a sharp kitchen knife and killing him. Thus, she wants to stay away from her child as much as possible and she cannot handle sharp and pointed objects when the child is near. Even though she knows these thoughts are ridiculous and she is not going to carry them out deliberately, she still says that she cannot get rid of these thoughts. She feels annoyed when she sees sharp needles and screwdrivers. She checks these objects and recurrently imposes herself not to behave in a violent way in the environments that she enters. Esra has never exhibited acts of violence up to now, but she is still very worried about it.

Sexuality: Merve is 24 years old and she is unmarried. She frequently stays in sister's home in order to look after her 4-year-old niece. However, recently Merve told you about experiencing involuntary, recurring, and distressful thoughts. Without realizing it, thoughts like she could touch her 4-year-old niece in a sexually inappropriate way, or abusing her, go through her mind. Even though she knows these thoughts are ridiculous and she will not exhibit these behaviors intentionally, she stays away from being alone with her niece. When she stays with her niece or other children alone, she constantly reminds herself to control her body over and over again whether she experiences sexual arousal or not. Besides, she tries to convince herself while saying to herself, "I am not sexually aroused." Merve has never previously behaved in a sexually inappropriate with any child and she has previously never felt any real sexual arousal to children. Although she knows that these ideas are not rationale, her concerns still intensely remain.

Note: If necessary, other vignettes related to contamination, checking and religion subtypes and paranoid schizophrenia can be added to the appendix.

References

- Alonso, J., Buron, A., Bruffaerts, R., He, Y., Posada-Villa, J., Lepine, J.P., et al., 2008. Association of perceived stigma and mood and anxiety disorders: results from the

- World Mental Health Surveys. *Acta Psychiatr. Scand.* 118 (4), 305–314.
- American Psychiatric Association, 2013. *Diagnostic and Statistical Manual of Mental Disorders. DSM-5*, Washington, DC.
- Angermeyer, M.C., Mnich, E., Daubmann, A., Herich, L., Wegscheider, K., Kofahl, C., Von Dem Knesebeck, O., 2013. Biogenetic explanations and public acceptance of people with eating disorders. *Soc. Psychiatry Psychiatr. Epidemiol.* 48 (10), 1667–1673.
- Arkar, H., 1991. Akıl hastasının sosyal reddedilimi. *Düşünen Adam* 4 (3), 6–9.
- Arkar, H., Eker, D., 1994. Effect of psychiatric labels on attitudes toward mental illness in a Turkish sample. *Int. J. Soc. Psychiatry* 40 (3), 205–213.
- Arkar, H., Eker, D., 1997. Influence of a 3-week psychiatric training programme on attitudes toward mental illness in medical students. *Soc. Psychiatry Psychiatr. Epidemiol.* 32 (3), 171–176.
- Belloch, A., del Valle, G., Morillo, C., Carrió, C., Cabedo, E., 2009. To seek advice or not to seek advice about the problem: the help-seeking dilemma for obsessive-compulsive disorder. *Soc. Psychiatry Psychiatr. Epidemiol.* 44 (4), 257.
- Beşiroğlu, L., Akman, N., Selvi, Y., Aydın, A., Boysan, M., Özbebit, Ö., 2010. Obsesif-kompulsif belirtiler kategorileri hakkında ruh sağlığı bilgisi. *Nöropsikiyatri Arşivi Dergisi* 47 (2), 133–138.
- Brakoulias, V., Starcevic, V., Berle, D., Milicevic, D., Moses, K., Hannan, A., et al., 2013. The characteristics of unacceptable/taboo thoughts in obsessive-compulsive disorder. *Compr. Psychiatry* 54 (7), 750–757.
- Cathey, A.J., Wetterneck, C.T., 2013. Stigma and disclosure of intrusive thoughts about sexual themes. *J. Obsessive Compuls. Relat. Disord.* 2 (4), 439–443.
- Coles, M.E., Coleman, S.L., 2010. Barriers to treatment seeking for anxiety disorders: initial data on the role of mental health literacy. *Depress. Anxiety* 27 (1), 63–71.
- Coles, M.E., Heimberg, R.G., Weiss, B.D., 2013. The public's knowledge and beliefs about obsessive-compulsive disorder. *Depress. Anxiety* 30, 778–785.
- Corcoran, K.M., Woody, S.R., 2008. Appraisals of obsessional thoughts in normal samples. *Behav. Res. Ther.* 46 (1), 71–83.
- Corrigan, P.W., 2000. Mental health stigma as social attribution: implications for research methods and attitude change. *Clin. Psychol.* 7 (1), 48–67.
- Corrigan, P.W., Kleinlein, P., 2005. The Impact of Mental Illness Stigma. In: Corrigan, P.W. (Ed.), *On the Stigma of Mental Illness: Practical Strategies for Research and Social Change*. American Psychological Association, Washington, pp. 11–44.
- Corrigan, P.W., Morris, S.B., Michaels, P.J., Rafacz, J.D., Rüsch, N., 2012. Challenging the public stigma of mental illness: a meta-analysis of outcome studies. *Psychiatr. Serv.* 63 (10), 963–973.
- Corrigan, P.W., Watson, A.C., 2002. Understanding the impact of stigma on people with mental illness. *World Psychiatry* 1 (1), 16–20.
- Crisp, A.H., Gelder, M.G., Rix, S., Meltzer, H.I., Rowlands, O.J., 2000. Stigmatization of people with mental illnesses. *Br J Psychiatry* 177 (1), 4–7.
- Cullen, B., Samuels, J.F., Pinto, A., Fyer, A.J., McCracken, J.T., Rauch, S.L., et al., 2008. Demographic and clinical characteristics associated with treatment status in family members with obsessive-compulsive disorder. *Depress. Anxiety* 25 (3), 218–224.
- Del Valle, G., Belloch, A., Carrió, C., 2017. The long and complex road in the search for treatment for mental disorders: an analysis of the process in five groups of patients. *Psychiatry Res.* 253, 1–8.
- Ellison, N., Mason, O., Scior, K., 2015. Public beliefs about and attitudes towards bipolar disorder: testing theory based models of stigma. *J. Affect Disord.* 175, 116–123.
- Fullana, M.A., Mataix-Cols, D., Caspi, A., Harrington, H., Grisham, J.R., Moffitt, T.E., et al., 2009. Obsessions and compulsions in the community: prevalence, interference, help-seeking, developmental stability, and co-occurring psychiatric conditions. *Am. J. Psychiatry* 166, 329–336.
- García-Soriano, G., Roncero, M., 2017. What do Spanish adolescents think about obsessive-compulsive disorder? Mental health literacy and stigma associated with symmetry/order and aggression-related symptoms. *Psychiatry Res.* 250, 193–199.
- García-Soriano, G., Rufer, M., Delsignore, A., Weidt, S., 2014. Factors associated with non-treatment or delayed treatment seeking in ocd sufferers: a review of the literature. *Psychiatry Res.* 220 (1), 1–10.
- Goffman, E., 1963. *Stigma: Notes on the Management of Spoiled Identity*. Prentice-Hall, Englewood Cliffs, NJ.
- Jorm, A.F., Reavley, N.J., Ross, A.M., 2012. Belief in the dangerousness of people with mental disorders: a review. *Aust. N. Z. J. Psychiatry* 46 (11), 1029–1045.
- Kasow, Z.M., Weisskirch, R.S., 2010. Differences in attributions of mental illness and social distance for portrayals of four mental disorders. *Psychol. Rep.* 107 (2), 547–552.
- Link, B.G., Phelan, J.C., Bresnahan, M., Stueve, A., Pescosolido, B.A., 1999. Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *Am. J. Public Health* 89 (9), 1328–1333.
- Magliano, L., Fiorillo, A., De Rosa, C., Malangone, C., Maj, M., 2004. Beliefs about schizophrenia in Italy: a comparative nationwide survey of the general public, mental health professionals, and patients' relatives. *Can. J. Psychiatry* 49 (5), 323–331.
- Marie, D., Miles, B., 2008. Social distance and perceived dangerousness across four diagnostic categories of mental disorder. *Aust. N. Z. J. Psychiatry* 42 (2), 126–133.
- Markarian, Y., Larson, M.J., Aldea, M.A., Baldwin, S.A., Good, D., Berkeljon, A., et al., 2010. Multiple pathways to functional impairment in obsessive-compulsive disorder. *Clin. Psychol. Rev.* 30 (1), 78–88.
- McCarty, R.J., Guzik, A.G., Swan, L.K., McNamara, J.P., 2017. Stigma and recognition of different types of symptoms in OCD. *J. Obsessive Compuls. Relat. Disord.* 12, 64–70.
- Oban, G., Küçük, L., 2011. Ergenlerde ruhsal hastalıklara yönelik damgalamayı etkileyen etmenler. *Psikiyatri Hemşireliği Dergisi* 2 (1), 31–39.
- Pinto, A., Mancebo, M.C., Eisen, J.L., Pagano, M.E., Rasmussen, S.A., 2006. The brown longitudinal obsessive compulsive study: clinical features and symptoms of the sample at intake. *J. Clin. Psychiatry* 67 (5), 703–711.
- (Trans.)Purdon, C., Clark, D.A., 2015. Takıntılarla Başa Çıkma: Obsesif Kompulsif Bozukluğunuzu Kontrol Altına Almanın Yolları. In: Gündoğdu, A., İşçen, P. (Eds.), *Psikonet Press, İstanbul* (Trans.).
- Schomerus, G., Auer, C., Rhode, D., Lupp, M., Freyberger, H.J., Schmidt, S., 2012. Personal stigma, problem appraisal and perceived need for professional help in currently untreated depressed persons. *J. Affect. Disord.* 139 (1), 94–97.
- Sheehan, L., Dubke, R., Corrigan, P.W., 2017. The specificity of public stigma: a comparison of suicide and depression-related stigma. *Psychiatry Res.* 256, 40–45.
- Sickel, A.E., Seacat, J.D., Nabors, N.A., 2014. Mental health stigma update: a review of consequences. *Adv. Mental Health* 12 (3), 202–215.
- Simonds, L.M., 2001. *Help-seeking for Obsessions and Compulsions*. University of Greenwich.
- Simonds, L.S., Thorpe, S.J., 2003. Attitudes toward obsessive compulsive disorders: an experimental investigation. *Soc. Psychiatry Psychiatr. Epidemiol.* 38 (6), 331–336.
- Steketee, G., Barlow, D.H., 2004. *Obsessive-Compulsive Disorder. Anxiety and Its Disorders: The Nature and Treatment of Anxiety and Panic*. Guilford Press, New York, pp. 522–523.
- Stengler-Wenzke, K., Trosbach, J., Dietrich, S., Angermeyer, M.C., 2004. Experience of stigmatization by relatives of patients with obsessive compulsive disorder. *Arch. Psychiatr. Nurs.* 18 (3), 88–96.
- 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. *Soc. Psychiatry Psychiatr. Epidemiol.* 47 (12), 2035–2043.
- Vuong, T.M., Gellatly, J., Lovell, K., Bee, P., 2016. The experiences of help-seeking in people with obsessive compulsive disorder: an internet survey. *Cognit. Behav. Ther.* 9.
- Wang, P.S., Berglund, P., Olfson, M., Pincus, H.A., Wells, K.B., Kessler, R.C., 2005. Failure and delay in initial treatment contact after first onset of mental disorders in the national comorbidity survey replication. *Arch. Gen. Psychiatry* 62 (6), 603–613.
- Warman, D.M., Phalen, P.L., Martin, J.M., 2015. Impact of a brief education about mental illness on stigma of OCD and violent thoughts. *J. Obsessive Compuls. Relat. Disord.* 5, 16–23.