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Psychotherapies for the treatment of scrupulosity: a systematic review

Taha Burak Toprak[1,2] · **Hanne Nur Özçelik**[1,2]

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Abstract

"Scrupulosity" is a common but understudied subtype of obsessive-compulsive disorder (OCD) characterized by religious obsessions and compulsions. Although scrupulosity is a common manifestation of OCD, it has not been adequately addressed in treatment studies. The aim of this study was to understand the conceptual nuances of scrupulosity, its diagnosis, the unique differences in conceptualization and interventions during its treatment, the specific tools needed to monitor the prognosis of the pathology, and the limitations of existing studies through a systematic review. Following PRISMA guidelines, a literature search was conducted, and 13 relevant studies were found in Google Scholar, Scopus, PubMed, EbscoHost + Ulakbim, Wiley Online Library, ScienceDirect, Taylor & Francis Online, and Web of Science databases. Two researchers independently rated the included articles using the MMAT and then met to compare the ratings. Disagreements were resolved through discussion and consensus was reached. There was a general lack of clarity in the conceptualization, diagnosis, and measurement of the severity of scrupulosity, and the content of religious or cultural interventions in the studies was not always clear. For future studies, further clarification, and systematization of the phenomenological features of scrupulosity and related epidemiological and empirical/experimental treatment research are needed.

Keywords Scrupulosity · Obsessive compulsive disorder · Religious OCD · Treatment · Psychotherapy · Systematic review

Introduction

"Scrupulosity" is a common but understudied subtype of obsessive-compulsive disorder (OCD) characterized by religious obsessions, and compulsions (Buchholz et al., 2019; Deacon & Nelson, 2008). The conceptualization of this construct is complex. While previous conceptualizations of scrupulosity suggest that it constitutes a dimension of unacceptable thoughts related to sexual, violent, and religious obsessive themes, research also shows that scrupulosity symptoms may be different from other symptoms of unacceptable thoughts (Wetterneck et al., 2021). Therefore, it can be said that a more specific, and targeted assessment of scrupulosity is needed.

When we look at the definitions in existing studies, it is generally expressed as a subtype of OCD in which basic obsessional fears are characterized by religious or moral fears (Siev et al., 2017, 2021). It is also defined as characterized by excessive anxiety about sinning (Md Rosli et al., 2019). Specifically, obsessions are the suspicion that the individual is involved in sin, unwittingly engaging in immoral behavior, worrying that their impulses will get out of control, and lead to sin, doubts about faith, and devotion to God, fear that worship will not be accepted or that they will go to hell, images, and thoughts that contain disrespect for sacred values; compulsions, on the other hand, are generally characterized by behaviors such as excessive repetition of worship, prayer, dhikr, repentance, and repeating these behaviors until the individual is convinced that he/she is doing them "perfectly", making sure that he/she has fully fulfilled his/her religious responsibilities, asking for approval to clarify whether he/she is a sinner or going to hell, engaging in self-punishing behaviors, and specifically avoiding subjects, people, and places that he/she thinks may harm religion such as atheism (Abramowitz & Jacoby, 2014; Abramowitz & Hellberg, 2020; Toprak,

✉ Taha Burak Toprak
tahaburaktoprak@gmail.com

1 Department of Psychology, Ibn Haldun University, Istanbul, Turkey

2 Association for Psychology and Psychotherapy Research, Istanbul, Turkey

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2018). Reviewing the current definitions, it can be said that scrupulosity can take various forms. Although scrupulosity typically involves an excessive concern, and doubt about sinning, it can also be seen as secular moral scrupulosity, such as fear of being immoral or bad, without any religious component (Siev et al., 2017). This construct has not yet been clearly defined and can be quite specific, including only obsessions, and compulsions with religious content, or it can have a wider range of symptoms (Huppert & Siev, 2010). It is also emphasized that religious obsessions and compulsions can be conceptualized similarly to scrupulosity (Abramowitz et al., 2003). However, a distinction is also made that symptoms of religious obsessive-compulsive disorder (OCD), often referred to as scrupulosity, typically involve "seeing sin where there is no sin", often focusing to the exclusion of other domains on the minutiae of one's religious beliefs, such as irreverent obsessional thoughts about sacred things, excessive doubt about whether one has sinned, and excessive religious behavior (Nelson et al., 2006). In summary, scrupulosity can be conceptualized as a presentation of OCD that focuses on religious, and moral themes that are exaggerated, and different from normal religious practices (Abramowitz & Buchholz, 2020). Accordingly, when the literature is considered, it can be stated that scrupulosity also includes secular moral symptoms, unlike religious OCD. However, the current literature, which does not seem to make this distinction clearly, uses the concept of scrupulosity in studies specific to religious OCD. Therefore, although we limited our study to studies of OCD patients with religious symptoms by excluding studies involving secular moral OCD (Abramowitz et al., 2003; Williams, 2014), we preferred this name in our study since the general usage is scrupulosity. At the same time, since the terms religious OCD, religious content OCD, religious obsessions, and compulsions are frequently used together with scrupulosity in the literature, we have sometimes used these terms interchangeably in our study.

Given the complexity of these conceptualizations in the literature, managing the patient with scrupulosity can be challenging given the cultural, and religious components evident in the phenomenology of the disease (Md Rosli et al., 2018). Therefore, in addition to theoretical studies that try to conceptualize this construct, there are treatment-oriented studies that emphasize that scrupulosity symptoms may occur differently among individuals with different religious beliefs, that it is one of the most difficult OCD subtypes to treat, and the need for individualized therapies that take cultural, and religious factors into account (Buchholz et al., 2019; Rosa-Alcázar & Iniesta-Sepúlveda, 2018; Toprak, 2018, 2024). Furthermore, in the psychotherapy of OCD with religious content, the main challenges are how to distinguish between normal religious thoughts, and behaviors, religious obsessions, and compulsions, how to adapt exposure treatments to these people whose greatest fear is to sin, how far it is possible to go in this treatment process, how and when to involve a religious authority in the process (Huppert & Siev, 2010). In this sense, scrupulosity involves religious concerns such as mental health professionals not having enough information about the patient's religious background, and similarly, religious authorities not having enough training in recognizing and treating mental illnesses, even if they are educated in religious beliefs, which leads to practical, and ethical difficulties in its treatment (Miller & Hedges, 2008).

However, despite the difficulties mentioned above, there are a limited number of studies on the treatment of scrupulosity in the current literature. For example, Cognitive Behavioral Therapy (CBT) (Garcia, 2008; Soltanmohammadlou et al., 2022), Acceptance and Commitment Therapy (ACT) (Dehaghi et al., 2022; Dehlin et al., 2013), Exposure and Response Prevention (ERP) integrated into CBT (Abramowitz, 2001), Religiously-Integrated Cognitive Behavioral Therapy (RCBT) (Almasi et al., 2013; Omranifard et al., 2011; Akouchekian et al., 2011), Cognitive Psycho-education 4T Model (Toprak, 2024).

When the literature is examined, although there are very few studies on the treatment of scrupulosity, no review of these studies has been found. In this sense, there is a notable gap in the examination of psychotherapies in the treatment of scrupulosity. Given that, although scrupulosity is a common manifestation of OCD, it is less frequently addressed in treatment studies, it is important to offer some perspective on this issue. With this in view, this review aims to respond to this gap in the literature and help mental health professionals/clinicians to carefully assess the unique nature of scrupulosity, and the specific needs of this field, and to explore possible assessment, measurement, and treatment methods/approaches. Therefore, this study aimed to understand, through systematic review, the conceptual nuances of scrupulosity, its diagnosis, the specific differences in conceptualization, and interventions during its treatment, and the specific tools necessary to prognose the pathology, as well as the limitations of current studies.

Method

When conducting this systematic review, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (Shamseer et al., 2015; Moher et al., 2015) was followed.

To identify relevant studies published until January 2023, a comprehensive literature search was conducted on 17.01.2023 across multiple databases, including Google

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Scholar, Scopus, PubMed, EbscoHost + Ulakbim, Wiley Online Library, ScienceDirect, Taylor & Francis Online, and Web of Science. Among the databases searched, eligible studies were identified in Google Scholar, Scopus, PubMed, EbscoHost + Ulakbim, Wiley Online Library, ScienceDirect, Taylor & Francis Online, and Web of Science. However, it is important to note that despite our efforts, no eligible studies were found in certain databases. Specifically, PsycINFO, SAGE, ERIC, and ProQuest Central yielded no relevant literature during the search conducted in January 2023. Consequently, these databases were excluded from our review due to the absence of eligible studies. In the literature review conducted until January 2023, we focused on including studies conducted between 2001 and 2022 in the scope of the systematic review. We chose this timeframe because it encapsulates the relevant studies for our research topic, and there were more resources available during this period. However, as a result of an additional screening on February 16, 2024, during the revision process, the study was updated to include an article published in the last year. The inclusion, and exclusion criteria were established within the Population, Intervention, Comparison and Outcomes (PICO) framework (Higgins & Green, 2011). Studies that met the following criteria were included in this study: (a) participants were adults aged 18 years or older, (b) studies included psychotherapy-focused interventions in the treatment of scrupulosity, (c) studies included inactive control groups, (d) studies included at least one of symptom level or diagnostic status changes in OCD symptoms with religious content, and reported effect size if available, (e) studies using quantitative, and qualitative methods as well as efficacy, and randomized controlled trials, as well as articles including case studies. The following were used as exclusion criteria: (a) interventions not involving psychotherapy (e.g. pharmacotherapy), (b) articles that did not include randomized controlled trials, and efficacy studies (review, meta-analysis, book chapter, letter to the editor, etc.).

To determine the related studies, keywords were searched in the title, abstract, and keywords sections of the studies using the Boolean operator ("scrupulosity" OR "religious" OR "moral") AND ("OCD OR "obsessive-compulsive disorder" OR "obsessions" OR "compulsions").

The Mendeley Desktop software bibliography management program was used to consolidate the sources and exclude duplicate studies across databases.

Quality assessment

Quality assessment was performed using the Mixed Methods Appraisal Tool (MMAT) Version 2018 (Hong et al., 2018), a preferred critical appraisal tool due to the heterogeneity of the included studies. The MMAT has been tested for reliability, and efficiency, and has been evaluated as a reliable tool (Pace et al., 2012). Ratings for each item were "yes", "no", and " can't tell". Two researchers (TBT, HNÖ) independently rated the included articles using the MMAT and then met to compare ratings. Disagreements were resolved through discussion, and consensus was reached. As a result, an overall methodological quality score of 20% (very low quality/no quality), 40% (low quality), 60% (moderate quality), 80% ("remarkable quality"), and 100% (high quality) was obtained for each article. No articles were excluded based on quality assessment, and all 13 articles were included.

Results

As a result of the database search, 1936 articles were identified. A total of 13 articles that met the inclusion, and exclusion criteria were included in this systematic review (Tables 1, 2 and 3). Figure 1 shows a detailed summary flowchart of the study selection process.

Characteristics of studies

In 13 studies published between 2001, and 2024, all participants were adults. Participants were patients with symptoms or diagnoses of religious OCD, with an average age ranging from 18 to 65 years of age. When the countries of origin of the 13 studies included in this review were analyzed, it was found that six of the studies were conducted in Iran, two in United States, two in Israel, one in Spain, one in India, and one in Turkey. In addition, the participant groups of the studies consisted of individuals with six Muslim, five Christian, two Jewish, and one Hindu belief. Interventions include psychotherapies such as CBT, ACT, ERP integrated with religious information, RCBT, cognitive psycho-education 4T model, and mostly CBT.

Measurement tools

In 12 (92.3%) of the studies included in this review, both pre- and post-treatment data were reported, while one (7.6%) did not report any measurement tool or pre-treatment outcome. In most of the studies, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), and Padua Inventory (PI) was used to assess the type, and severity of OCD symptoms, while the Penn Scrupulosity Inventory (PIOS) were used specifically for religious obsessions. However, it is also seen that different measurement tools are used for other symptoms according to the topics that the studies focus on. Commonly used assessment tools include the Beck Depression Scale (BDI)

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Table 1 Case studies on the treatment of scrupulosity

Author(s) (Year)	Sample	Type of study	Intervention approach	Intervention	Measurement tools	Results	MMAT scores
Abramowitz, 2001	A 36-year-old Catholic man with a semi-structured diagnostic interview, and religious obsessions taken by applying Y-BOCS.	Case Report	CBT-Based ERP	The treatment consists of fifteen 90-minute sessions over 8 weeks. Educational materials on the cognitive-behavioral conceptualization of OCD, and the logic of ERP are also discussed in the context of the religious background of the case. An in-vivo exposure hierarchy of situations that raise uncertainty, and anxiety about religious obsessions was created, and imaginary exposure was utilized. Subjective distress (SUDS) during in vivo and imaginary exposure was recorded on a scale of 0 to 100.	Y-BOCS BDI	During treatment, significant improvement in OCD symptoms was observed; however, full remissions could not be achieved. The case's Y-BOCS total score, which was 25 at the outset, dropped to 18 at mid-treatment, to 11 after treatment, and to 9 at 3 and 6 months of follow-up. The depressive symptoms of the case also improved. The BDI score, which was 28 at the beginning, was 10 (light symptoms) at the end of treatment, 15 at the 3-month follow-up, and 11 at the 6-month follow-up.	100%
Sharma et al., 2006	A 25-year-old postgraduate-married Hindu male patient with repeated religious obsessions, and compulsions for 4 years without a specified diagnostic evaluation	Case Report	Pharmacotherapy Behavior Therapy Supportive Psychotherapy	Initially, fluoxetine liquid 20 mg/day and risperidone liquid 2 mg/day were given together with occult liquids. Fluoxetine was increased to 60 mg/day over a one-week period. Psychoeducation, and coercion sessions were given. After a week of hospitalization, supportive psychotherapy, and behavioral therapy (response prevention) were started. The patient received about 3 weeks of regular pharmacotherapy, behavioral therapy, and supportive psychotherapy combined.	-	At the admission, the patient weighed 34 kg (50% less than his previous weight) and had a blood pressure of 90/70. According to the mental status examination, the patient had an irritable affect, repetitive, and irrational thoughts that he could anger God by not performing ritualized religious acts with coercion to do the same thing. After repeated psychoeducation, and exposure sessions, he started taking oral medication 2 days later, and eating 5 days later. After approximately 3 weeks of regular combined pharmacotherapy, behavioral therapy, and supportive psychotherapy, the patient gained 5 kg, and was discharged with significant improvement in his obsessive and compulsive symptoms. At the last follow-up visit, the patient with a body weight of 56 kg was still showing improvement 6 months after discharge.	40% There is no clear information on qualitative data collection methods, and data analysis process.

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Table 1 (continued)

Author(s) (Year)	Sample	Type of study	Intervention approach	Intervention	Measurement tools	Results	MMAT scores
Garcia, 2008	A 21-year-old undergraduate student, a female patient with religious OCD was admitted to the clinic with complaints of depression, and OCD (religious obsessions and compulsions, rituals of the Catholic religious tradition such as crossing the street and praying).	Case Report	CBT	15-25 sessions of CBT The first 4 sessions focused on establishing therapeutic relationships, relaxation, prayer, and over-compliance. The next phase (5-10 Sessions) consists of cognitive restructuring. Sessions 11-27 consist of exposure and ERP. In sessions 22-27, symptoms related to sexual behavior were discussed. Psychodynamic concepts and strategies were integrated in sessions 28-79.	Y-BOCS BDI	During the CBT treatment in the first 27 sessions of therapy, nearly all of the subject's OCD target behaviors showed a rapid reduction in fear, anxiety, and depression. Specifically, looking at the Y-BOCS, and BDI results, scores for obsessions, compulsions, and depression were 8, 10, and 14, respectively, at the beginning, they decreased to non-clinical levels, as 4, 2, and 3, respectively, after 27 weeks of treatment.	Not eligible for assessment according to MMAT criteria.
Bonchek and Greenberg, 2009	Diagnostic assessment is not specified. Three OCD patients at the ages of 18, 24, and 20 who are Ultra-Orthodox Jews have compulsive prayers with religious content.	Case Series	Guided Prayer Repetition Method (A Type of ERP Technique for Dealing with Compulsions)	In the guided method of prayer repetition, the patient is asked to prepare an audio recording of the prayer challenges, and the number of repetitions, and delays are recorded. The patient ideally does this in a synagogue or alone during their regular prayers. If it occurs in certain sections of their prayers it is recorded. The two compulsive behaviors in prayer are either repetition or procrastination. A sample prayer of about 50 words in length is recommended during the prayer, where repetitions always occur. This becomes the focus of the patient and therapist's in vivo interventions. Sessions are usually held in a synagogue, but always at prayer time, usually when the room is empty, so that the session does not attract attention, and does not cause embarrassment. The prayer that the patient reads in the session is his official prayer.	-	During the prayer, the therapist sat next to the patients and observed them as they read the full text without repetition, and at a normal pace. It was seen that the cases received the same positive results in the 3-year, and 7-month follow-ups, respectively, under the same conditions, and it was reported that they completed their prayers in a normal time without shortening, and repetition.	60% The interpretation of the results is not sufficiently supported by the data collected.

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Table 1 (continued)

Author(s) (Year)	Sample	Type of study	Intervention approach	Intervention	Measurement tools	Results	MMAT scores
Huppert and Siev, 2010	A married, ultra-Orthodox Jewish mother of eight with religious OCD with Y-BOCS score of 30, 36 years old	Case Report	CBT and ERP	Psychoeducation was given about the CBT model and treatment of OCD. Worked with a clergyman (rabbi of the case). A fear hierarchy list was formed.	Y-BOCS	The patient had a Y-BOCS score of 30 at baseline, indicating severe OCD. After 17 sessions of treatment, the patient scored 14 on the Y-BOCS and reported that although her obsessive thoughts had not completely disappeared, she felt like a weight had been lifted.	80% There is no clear link between data sources, collection, analysis, and interpretation.
Rosa-Alcázar and Iniesta-Sepúlveda, 2018	An 18-year-old male OCD patient with religious obsessions was assessed as a result of semi-structured interviews with the patient and his parents (two sessions)	Case Study	Family Therapy Integrated into Exposure-Based CBT	The patient attended a total of 30 individual treatment sessions of 1 hour for 8 months. Twenty-six sessions per week were attended and four sessions were held every 2 weeks. A cognitive-behavioral approach was used, including psychoeducation, ERP, and cognitive training. In addition, family therapy strategies are integrated throughout the intervention.	ADIS-IV-L Y-BOCS OCI-R OBI BAI BDI	After treatment, Y-BOCS Obsessions and Compulsions subscale scores decreased to 8 and 7, respectively. OCI-R subscale scores decreased to 7 in Obsessions, 2 in Controlling, and 0 in Neutralization. Regarding depression and anxiety symptoms, the scores dropped to 10, and 12, respectively, into the non-clinical range. However, it was stated in the findings that family therapy strategies integrated into CBT-based ERP had a facilitating role in changing the beliefs, behaviors, and pathological family relationships that contributed to the perpetuation of the patient's religious obsessions.	40% There is no clear information on qualitative data collection methods and data analysis processes. There is no clear link between data sources, collection, analysis, and interpretation.

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Table 1 (continued)

Author(s) (Year)	Sample	Type of study	Intervention approach	Intervention	Measurement tools	Results	MMAT scores
Soltanmohammadlou et al., 2022	A 37-year-old female patient was diagnosed with religious OCD by a psychiatrist.	Case Report	CBT	The patient's symptoms were first measured for 6 weeks, and then 12 sessions of CBT were administered via video interview. Sessions lasted 60, and 90 minutes. Treatment includes interventions such as psychoeducation, Socratic questioning, and ERP.	Y-BOCS BDI BAI Quality of Life Score	The Y-BOCS score, which was 29 at the beginning, decreased to 14 after the treatment. The results remained the same from post-treatment to follow-up. BAI, and BDI scores decreased from severe (26-63 pre-treatment) to moderate (16-25 moderate anxiety levels) after treatment. Quality of life scores, which were 47 at baseline, increased to 78 at the posttest, and to 75 at follow-up.	100%
Toprak, 2024	Three patients diagnosed with religious OCD who were admitted to the psychiatric clinic of Cerrahpaşa Medical Faculty	Case Series	Cognitive Psycho-education 4T Model Integrated into CBT	The participants received 30 individual face-to-face therapy sessions, one per week, with an average duration of 50 minutes per session, and follow-up sessions were also conducted after the completion of treatment. Treatment includes interventions classic CBT techniques, and 4T Model psycho-education.	Y-BOCS BDI BAI PI	Quantitative results of this study showed that OCD, depression, and anxiety symptoms decreased in all patients immediately after the 4T model intervention. Although there were partial fluctuations during the process, this decrease was observed in the follow-up, except for patient B. Furthermore, when the feedback received from the patients is evaluated, it is seen that they internalized the main idea that the 4T model wanted to convey, thus they distinguished between their obsessions, values, and beliefs, and in this context, they learned to make a distinction (defusion) in the fusion between cognitive processes, and responsibility for action which constitutes the basis of thought-action fusion (TAF).	100%

CBT Cognitive Behavioral Therapy, *ERP* Exposure and Response Prevention, *Y-BOCS* Yale-Brown Obsession Compulsion Scale, *OCD* Obsessive Compulsive Disorder, *BDI* Beck Depression Inventory, *BAI* Beck Anxiety Inventory, *ADIS-IV-L* Anxiety Disorders Interview Schedule for DSM-IV Lifetime Version, *OCI-R* Obsessive-Compulsive Inventory-Revised, *OBI* Obsessive Beliefs Inventory, *PI* Padua Inventory

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for depression, Beck Anxiety Inventory (BAI), Quality of Life Scale (QLS) for quality of life, Enrichment Scale for.

Marital Satisfaction (EMSS), Kugler and Jones Guilt Inventory (GI) for marital satisfaction, and Structured Clinical Interview for DSM-5 (SCID-5) for diagnostic assessment.

Designs of studies

Six of the 13 articles included in this study were case reports (50%) (Sharma et al., 2006; Garcia, 2008; Rosa-Alcázar & Iniesta-Sepúlveda, 2018; Abramowitz, 2001; Huppert & Siev, 2010; Soltanmohammadlou et al., 2022), two case series (14.2%) (Bonchek & Greenberg, 2009; Toprak, 2024), two randomized controlled trials (14.2%) (Almasi et al., 2013; Akuchekian et al., 2011), and three of them are experimental studies (21.4%) (Dehaghi et al., 2022; Dehlin et al., 2013; Aouchekian et al., 2017).

Treatment of scrupulosity

In the current review, since the studies were divided into three different categories based on case studies, quantitative, and mixed methodology, it was thought that it would be appropriate to present the findings related to treatment according to the methodological approach.

Case studies

Five different studies evaluated the effects of CBT, and CBT-integrated ERP treatments, focusing on symptoms of religious OCD, and assessed outcomes using the Y-BOCS. Two of these five studies (Abramowitz, 2001; Garcia, 2008) emphasized the religiosity of individuals with religious OCD symptoms, while three studies (Huppert & Siev, 2010; Rosa-Alcázar & Iniesta-Sepúlveda, 2018; Soltanmohammadlou et al., 2022) focused only on religious symptoms. At the same time, three studies reported religious patients with religious OCD symptoms and described in detail how these patients improved with treatments such as ERP, and behavioral therapy. However, while one of these three studies was assessed with the Y-BOCS (Abramowitz, 2001), the results of the other two studies were not presented with any measurement tool (Sharma et al., 2006; Bonchek & Greenberg, 2009). One study presented a psychoeducational model called the 4T model, which was applied to three religious patients, and was created in a religious-culturally sensitive way. The results were assessed with the Y-BOCS and the PI (Toprak, 2024). Finally, it is noteworthy that although seven of the eight studies emphasized religious patients with religious OCD symptoms, these studies did not use religious culturally sensitive approaches. Only in one study, a unique religious intervention was created and used.

Quantitative research

Four studies have examined groups of participants with religious OCD symptoms based on experimental designs. Three of these studies administered a religiously sensitive RCBT to religious OCD patients (Almasi et al., 2013; Akuchekian et al., 2011; Aouchekian et al., 2017), and one administered ACT (Dehlin et al., 2013).

Three studies assessed outcomes using the Y-BOCS measurement tool and one study used the Enrich Questionnaire.

In conclusion, all three studies used religious, and culturally sensitive approaches for individuals with religious OCD symptoms, but one study did not adopt this approach.

Mixed methods research

One study had a mixed methods design and implemented the ACT protocol with religious intervention for religious OCD patients (Dehaghi et al., 2022). This study evaluated the outcomes with Y-BOCS, PIOS, and GI instruments.

Discussion

This study aims to provide an overview of scrupulosity, focusing on its conceptual nuances, its diagnosis, the specific differences in conceptualization, and interventions during its treatment, and the specific tools needed to monitor the prognosis of the pathology, as well as the limitations of current studies.

In our review, we found that there is a general ambiguity in the conceptualization, diagnosis, and measurement of the severity of scrupulosity. Some studies use the term "religious OCD" (Toprak, 2024; Akuchekian et al., 2011; Aouchekian et al., 2017; Bonchek & Greenberg, 2009), while some studies prefer the term "scrupulosity" (Abramowitz, 2001; Dehaghi et al., 2022; Dehlin et al., 2013; Huppert & Siev, 2010; Rosa-Alcázar & Iniesta-Sepúlveda, 2018; Sharma et al., 2006; Soltanmohammadlou et al., 2022). Although there are studies in which these two expressions are used in the same sense, it is also emphasized that there is a distinction between the two (Huppert & Siev, 2010). This distinction is usually made as "religious OCD" with a religious component, and secular moral "scrupulosity" without a religious component. Therefore, it is possible to state that there is no consensus on the term scrupulosity. Here, the question arises as to what exactly distinguishes religious OCD from both other OCD subtypes, and secular moral OCD. In this case, there is a need to determine whether religious, and secular

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Table 2 Quantitative research on the treatment of scrupulosity

Author (s) (Year)	Sample	Type of study	Inter-vention approach	Intervention	Measure-ment tools	Results	MMAT Scores
Akuchekian et al., 2011	90 adult patients with religious OCD diagnosed with OCD according to DSM-IV criteria	Randomized con-trolled trial	RCBT	The groups were divided into two randomized intervention groups and 45 control groups. The intervention includes 10 weeks of RCBT consisting of 90-minute sessions. Treatment was conducted by a team of clergy, and psychiatrists specializing in Aqaid, and fiqh. Since the content of the advice given to get rid of uncertainty or avoidance is religious, it was thought that it would be more appropriate for such interventions to be made by a religious guide. Half an hour before the start of cognitive therapy, with the help of a specialist in the field of religion, clergy were used to provide religious education about the problems experienced by the patients, and it was carried out by a joint team.	Y-BOCS	There was a significant difference in the Yale Brown scores of the intervention groups after the intervention (p=0.001). It was concluded that the religious component added to CBT could help religious OCD patients.	20% The method of setting up the randomization scheme was not explained, data information was presented incompletely, and it was not specified whether outcome assessors were blinded to the intervention. Furthermore, the intervention was not clearly described.
Dehlin et al., 2013	Five adult OCD patients with religious obsessions and compulsions identified according to SCID-IV	Experimental Design	ACT	Eight sessions of 1-to-1.5-hour sessions per week were administered for OCD. Behavior-based homework was given weekly. All sessions after the first one included: an assessment of functionality, a review of components, and homework. The third author acted as therapist for Participant 1, and the first author for all remaining participants. The first author was trained and supervised by the third author.	SCID-I OCI-R PIOS Y-BOCS BDI Quality of Life Scale Santa Clara Strength of Religious Faith Questionnaire (SCSORF)	Mean daily compulsions decreased as follows: pretreatment = 25.0, posttreatment = 5.6, and follow-up = 4.3. The mean daily valued activities decreased as follows: pretreatment = 6.0, post-treatment = 0.7, and follow-up = 0.5. Religious belief decreased only slightly: 4% after treatment and 7% at follow-up. Treatment acceptability was high. After treatment, participants reported a 74% reduction in self-reported compulsions, and a 79% reduction in valued avoidance behaviors, and at 3-month follow-up, participants reported an 80% reduction in compulsions and an 87% reduction in valuable avoided behaviors.	100%

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Table 2 (continued)

Author (s) (Year)	Sample	Type of study	Intervention approach	Intervention	Measurement tools	Results	MMAT Scores
Almasi et al., 2013	90 adult patients with religious OCD diagnosed with OCD according to DSM-IV criteria	Randomized Controlled Trial	RCBT	The sample was randomly assigned into two groups: an intervention group, and a control group, each consisting of 45 participants. The intervention included 10 weeks of RCBT, consisting of 90-minute sessions with the joint participation of a psychiatrist, and a cleric specializing in theological knowledge. It was conducted by a team of clergy, and psychiatrists specializing in Aqaid and fiqh. Since the content of the advice given to get rid of uncertainty or avoidance is religious, it was thought that it would be more appropriate for such interventions to be made by a religious guide. Half an hour before the start of cognitive therapy, with the help of a specialist in the field of religion, clergy were used to provide religious education about the problems experienced by the patients, and it was carried out by a joint team.	EMSS	In conclusion, there is a significant difference in the post-treatment Enrich scores in the intervention groups (p=0.001). In conclusion, the religious component added to CBT may help patients with religious OCD.	20% The method of setting up the randomization scheme was not explained, data information was presented incompletely, and it was not specified whether outcome assessors were blinded to the intervention. Furthermore, the intervention was not clearly described.
Aouchekian et al., 2017	40 patients with OCD with Y-BOCS score of 17 and above were included from among all OCD patients admitted to the obsessive clinic of Noor Hospital in 2014	Semi-Experimental Design	RCBT	Patients received drug treatment for at least 6 months, there was no change in drug type and dose during the treatment, and had a Y-BOCS score of 17 or higher when entering the study. The practice consisted of eight sessions lasting one, and a half hours per week. The content of the sessions was determined according to the treatment protocol developed by the researchers of the study, which was approved by the professors of the university, and the faculty of theology. Frame of sessions First Section: Introduction, causes, and factors of OCD. Second section: OCD from a religious point of view Third section: Characteristics, and consequences of irrational thought Fourth section: Concepts related to OCD (obedience) Fifth section: Concepts related to OCD (doubt, and certainty) Sixth section: Concepts related to OCD (fiqh) Seventh section: Concepts related to OCD (cleansers) Eight sections: The amount of water required for religious cleansing.	Y-BOCS	Analysis of quasi-experimental repeated measurement without a control group (40 patients) shows that the trend is statistically significant (P = 0.024). This means that the intervention can reduce the Yale-Brown score after the intervention, and this decrease remains constant at 3, and 6 months (unchanged after 3, and 6 months). A decrease in the Y-BOCS score means that OCD symptoms were reduced during the intervention, and this intervention had an effect on OCD symptoms that remained stable for up to 6 months ($P < 0.05$). The post hoc result shows that the baseline scores after 3, and 6 months are significant, but not significant after 3 months, and 6 months.	40% No control/comparison group, measurement instruments not clear

CBT Cognitive Behavioral Therapy, *Y-BOCS* Yale-Brown Obsession Compulsion Scale, *OCD* Obsessive Compulsive Disorder, *BDI* Beck Depression Inventory, *OCI-R* Obsessive-Compulsive Inventory-Revised, *RCBT* Religiously-Integrated Cognitive Behavioral Therapy, *ACT* Acceptance and Commitment Therapy, *PIOS* The Penn Inventory of Scrupulosity, *SCID-I* The Structured Clinical Interview for DSM-IV Axis I Disorders, *SCID-IV* The Structured Clinical Interview for DSM-IV

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Table 3 Mixed methods on the treatment of scrupulosity

Author(s) (Year)	Sample	Typeof study	Intervention approach	Intervention	Measurement tools	Results	MMAT Scores
Dehaghi et al., 2022	A single, unemployed 30-year-old female patient with a master's degree with religious obsessions based on a DSM-5-base d OCD diagnosis as a result of a diagnostic interview with a psychiatrist or a clinical psychologist' s assessment based on SCID-5 test results.	Mixed Methods	ACT	A treatment protocol was prepared in which religious content was integrated into acceptance commitment therapy, and this draft was reviewed by clinical psychologists, psychologists, and clergy. There were 22 sessions in 5 months for a year, and a half and one to two sessions per week were conducted under the supervision of an associate professor of clinical psychology specializing in OCD. Pretest, and posttest done. The treatment consists of components such as explaining the ACT model, explaining its metaphors, mindfulness training, exposure, teaching religious rules, reviewing relevant verses, and homework.	Questionnaire for measuring religious attitudes SCID-5-RV SCID-5-PD Y-BOCS BDI WHODAS 2.0 GI PIOS Questionnaire of religious beliefs about washing ritual	The Y-BOCS score decreased from 25 before treatment to 13 after treatment. BDE dropped from 14 to 2, religious belief questionnaires about washing compulsions dropped from 51 to 25, PIOS 33 to 22, GI 146 to 123, and WHODAS 2.0 from 70 to 52. The results show that ACT with religious aspects has good efficacy.	60% The interpretations derived from the integration of qualitative, and quantitative findings are not clear enough.

ACT Acceptance and Commitment Therapy, *OCD* Obsessive Compulsive Disorder, *SCID-5-RV* The Structured Clinical Interview for DSM-5-Research Version, *SCID-5-PD* The Structured Clinical Interview for DSM-5 Personality Disorders, *Y-BOCS* Yale-Brown Obsession Compulsion Scale, *BDI* Beck Depression Inventory, *WHODAS 2.0* WHO Disability Assessment Schedule, *GI* Kugler and Jones Guilt Inventory, *PIOS* The Penn Inventory of Scrupulosity

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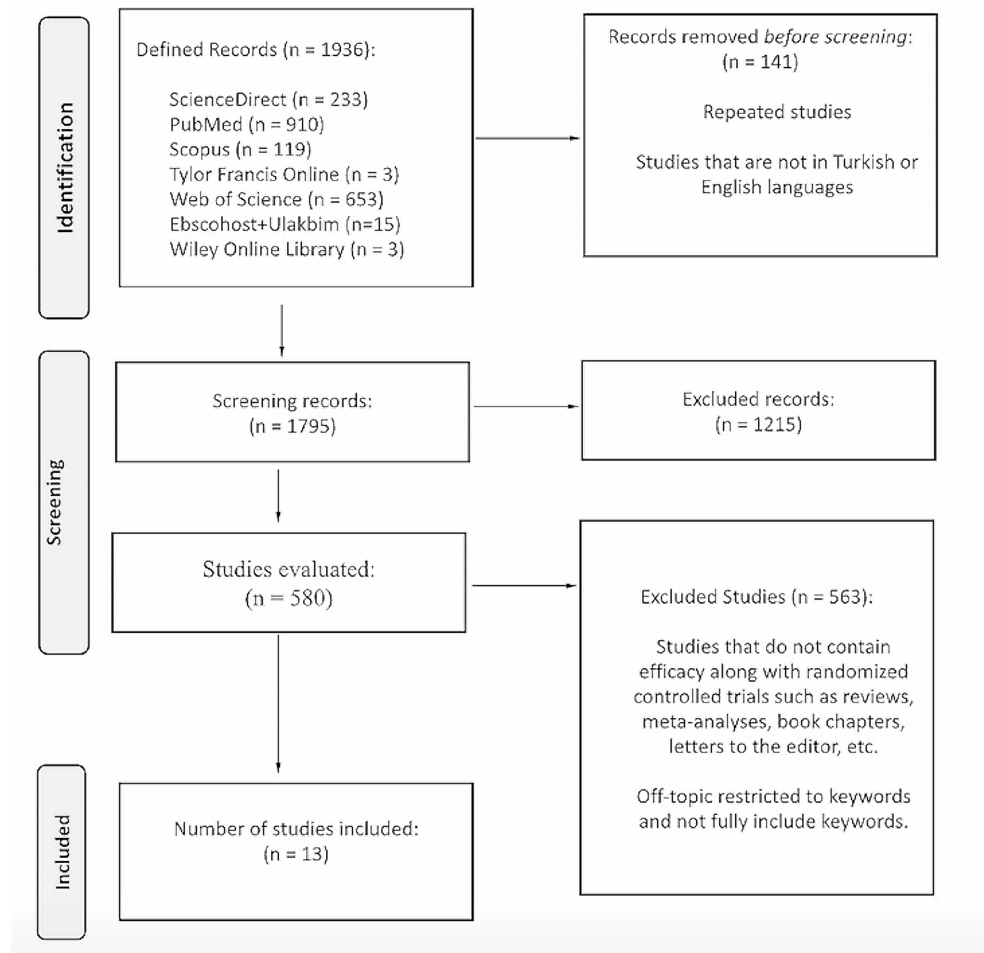

Fig. 1 2020 PRISMA flowchart for studies examining the psychological treatment of religious OCD (Page et al., 2021)

moral OCD should be separated from each other in studies, and to clearly define the rationale for this distinction.

Similarly, when it comes to how scrupulosity is diagnosed, and measured, there is no unity here either. Studies have preferred different methods, and instruments to diagnose, and measure scrupulosity. For example, while some studies diagnosed scrupulosity through semi-structured interviews (Abramowitz, 2001; Rosa-Alcázar & Iniesta-Sepúlveda, 2018), some other studies determined it through assessments made on people who applied to the clinic with OCD symptoms (Aouchekian et al., 2017; Almasi et al., 2013; Akuchekian et al., 2011), some studies referred to the diagnostic assessment made by a psychiatrist (Soltanmohammadlou et al., 2022; Dehaghi. et al., 2022; Toprak, 2024), and a few studies did not mention any diagnostic assessment method (Sharma et al., 2006; Bonchek & Greenberg, 2009). When examining the measurement tools used to observe symptom severity or change in symptoms after interventions, most of the studies used the Y-BOCS tool, and some of them also used the PIOS. However, one study did not use a scale that directly assessed religious symptoms, and some studies did not specify any measurement tool. In this context, there is a need for a clearer identification of robust instruments for diagnosis-assessment, and symptom severity.

The 13 studies included in the review consisted of individuals from different geographical regions, and with a variety of faiths. This diversity suggests that scrupulosity symptoms manifest in different ways among people of different religious beliefs, and cultures.

When the studies are examined in this direction, while some studies do not include religious, culturally sensitive approaches (Abramowitz, 2001; Soltanmohammadlou et al., 2022; Garcia, 2008; Sharma et al., 2006; Dehlin et al., 2013), many studies emphasize religious, culturally sensitive approach (Toprak, 2024; Dehaghi et al., 2022; Huppert & Siev, 2010; Bonchek & Greenberg, 2009; Aouchekian et al., 2017; Almasi et al., 2013; Akuchekian et al., 2011). In addition, it is seen that some studies using religious cultural concepts do not prefer to make a particularly sensitive intervention (Rosa-Alcázar & Iniesta-Sepúlveda, 2018). In this context, we observe that the content of religious/cultural interventions is not always clear enough. In research on this subject, determining clear criteria that distinguish between

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traditional OCD treatment and religious/cultural treatments may improve the quality of efficacy studies.

When the studies are analyzed under the title of religious/culturally sensitive approaches, it is observed that these approaches are evaluated under three headings: Those who create intervention justifications without conflicting with the patient's values on religious/cultural issues (Huppert & Siev, 2010), those who use religious knowledge as an intervention component in therapy (Dehaghi et al., 2022; Aouchekian et al., 2017; Almasi et al., 2013; Akuchekian et al., 2011), and those who use unique models created from religious knowledge (Toprak, 2024). Discussing the criteria to distinguish between these headings and reaching a common conclusion may allow for a more detailed categorization of religious/cultural sensitivity approaches in studies.

Finally, although the handicaps mentioned above make it difficult to use clear statements regarding effective treatment models, the contribution of religiously sensitive approaches to the treatment process is evident. These results are in line with the literature emphasizing the importance, and contribution of religiously/culturally sensitive, and integrative therapies in the field (Siev & Huppert, 2017; Purdon & Clark, 2013; Toprak, 2018). When the effectiveness of the applied psychotherapy interventions is evaluated, it is seen that CBT and ERP stand out significantly compared to other psychotherapy interventions. This can be interpreted as the fact that these treatments are more effective in such pathologies because they maintain reasonable religious/cultural boundaries in terms of their structure. This is consistent with the view that the OCD treatment recommendation in the literature is primarily CBT with ERP (Koran et al., 2007).

Limitations & further directions

This review shows that the current literature lacks conceptual unity in the expression of scrupulosity. In our study, we sometimes use the terms scrupulosity, and sometimes religious OCD, but both usages refer to the same thing. However, to have a concept of unity, our recommendation is to use the concept of "religious OCD or religious content OCD" as it also indicates the unique nature of the disorder.

The need for objective diagnostic tools to understand this issue, and to make clear the symptoms and extrapolate the diagnosis, as well as appropriate measurement tools to assess the effectiveness of interventions, is evident. However, further clarification, and systematization of the phenomenological features of scrupulosity, and related epidemiological, and empirical/experimental treatment research are needed for future studies.

Religious/culturally sensitive therapies are particularly important in the search for effective treatments for scrupulosity. However, these studies also need to be conducted with randomized control comparison groups, and large enough samples to achieve statistical significance. Thus, can scrupulosity be recognized as a distinct diagnostic category that may require its own treatment.

We believe that this review clearly emphasizes the contributions, and shortcomings of the existing literature on scrupulosity, and highlights the need for further studies.

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