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“Consumed by creed”: Obsessive-compulsive symptoms underpin ideological obsession and support for political violence

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Abstract

Radicalization is a process by which individuals are introduced to an ideological belief system that encourages political, religious, or social change through the use of violence. Here we formulate an obsessive-compulsive disorder (OCD) model of radicalization that links obsessive passion (OP; one of the best predictors of radical intentions) to a larger body of clinical research. The model’s central tenet is that individual differences in OCD symptom severity could shape radical intentions via their influence on OP. Across four ideological samples in the United States (Environmental activists, Republicans, Democrats, and Muslims, Ntotal = 1114), we found direct effects between OCD symptom severity and radical intentions, as well as indirect effects of OCD on radical intentions via OP. Even after controlling for potential individual difference and clinical confounds (e.g., adverse childhood experiences, loss of significance, and substance abuse), these relationships remained robust, implying that OCD plays a significant role in the formation of violent ideological intentions and opening new avenues for the treatment and prevention of violent extremism. We discuss the implications of conceptualizing radicalization as an OCD-like disorder with compulsive violent tendencies and ideology-related concerns.

KEYWORDS
ideological obsession, obsessive passion, OCD, radicalization, terrorism

1 INTRODUCTION

Understanding the psychological processes that contribute to radicalization remains critical for maintaining peace and security. The global wave of Islamist terrorism over the last two decades (Kaya & Adam-Troian, 2021), the perceived risk of civil war in the United States (Orth, 2022; Rapoport, 2021) and the emergence of populist movements across Western countries (e.g., Yellow Vests in France, Mahfud & Adam-Troian, 2021; anti-vaccine movements, Pantucci & Ong, 2022) illustrate the social, political and economic harm that result from radicalization (Bardwell & Iqbal, 2021). In addition to small armed groups, recent conflicts in Syria, Libya, and the invasion of Ukraine in February of 2022 suggest that large-scale conflicts fueled by extremist ideologies (such as Russian religious nationalism, Grzymala-Busse, 2019) continue to play a major role in 21st century geopolitics. These challenges clearly pose substantial threats to global
stability and are likely to exacerbate phenomena like foreign fighters (Barrett, 2017).

Considering this, a crucial question regarding radicalization pertains to what motivates people to justify the killing of civilians to advance their ideological goals. So far, the psychology of radicalization has largely assumed that violent political behavior and ideological extremism result from nonpathological motivational and cognitive mechanisms (e.g., cognitive rigidity, Zmigrod et al., 2019; quest for significance, Dugas et al., 2016; emotional reactivity, Zmigrod & Goldenberg, 2021). Although research has shown that clinical factors such as depression may be prevalent in some subgroups of radical individuals (Trimbur et al., 2021), it is still unclear, and a subject of debate, how clinical and nonclinical factors contribute to radical attitudes (Misiak et al., 2019).

Here we present an integrative clinical perspective on the processes involved in radicalization. Drawing from the Ideological Obsession Theory of violent extremism (Bélanger, 2021) and cognitive models of radicalism (Zmigrod, 2020), we propose that radicalization could be regarded as a distinct manifestation of obsessive-compulsive disorder (OCD; Stein, 2002). In this conceptualization, intrusive thoughts center around threats related to a particular political or religious worldview, whereas compulsions are associated with activism, potentially including, but not limited to, violent actions. We suggest that this new perspective provides a fresh understanding of violent extremism and may open up avenues for effective interventions to prevent and counter violent extremism.

2 | IDEOLOGICAL PASSION: A COGNITIVE-MOTIVATIONAL ACCOUNT OF RADICALIZATION

The theory of Ideological Obsession is based on decades of research in motivation science pertaining to the pursuit of “passionate” activities (e.g., Vallerand, 2015; arts, sports, hobbies; Vallerand et al., 2003), which also includes the pursuit of political, or religious, ideologies. An ideological passion is defined as “a strong inclination toward a self-defining cause that is loved and valued, and in which people invest a significant amount of time and energy” (St-Louis et al., 2016, p. 263). As the name of the theory suggests, there are two kinds of passion: harmonious passion (HP) and obsessive passion (OP). Importantly, both HP and OP involve comparable degrees of commitment towards the ideology (Bélanger, Robbins, et al., 2020; Bélanger, Schumpe, Nociti, et al., 2019). These two kinds of passion, however, differ in terms of the means by which people choose to advance their ideology and how they manage the pursuit of their ideology in relation to other goals (for a review see Bélanger, 2021).

HP is characterized by a strong desire to pursue one’s political or religious cause, but it is entirely under the individual’s control (Rip et al., 2012). Harmoniously passionate individuals view their activity as central to their sense of self, but it is unrelated to self-esteem contingencies (Mageau et al., 2011). Thus, HP is associated with greater flexibility in deciding when to engage in the activity (Bélanger et al., 2013; Vallerand et al., 2003) and it does not interfere with other life domains such as friendships, professional obligations, or family life (Bélanger, Schumpe, Nisa, 2019).

OP, on the other hand, involves strong and uncontrollable urges to pursue one’s ideology. OP individuals feel that way because their sense of personal worth is inextricably linked to their ideological involvement (Mageau et al., 2011). This relationship to the ideology causes OP individuals to rigidly engage in the activity while feeling especially insecure when their worldviews are challenged by others (Bélanger et al., 2013, 2021). For these reasons, OP can be viewed as a state of motivational imbalance (Kruglanski et al., 2021): people’s ideological goals suppress other considerations (Bélanger, Schumpe, Nisa, 2019), leaving the ideological pursuit unconstrained, thus allowing any means (even violent ones) to be selected to advance the ideology. Given the foregoing, individuals find it difficult to regulate their own ideological obsession, resulting in ideological activities coming into conflict with other life domains (Séguin-Lévesque et al., 2003).

So far, empirical research has shown that HP and OP predict different political outcomes. Whereas HP is a consistent predictor of nonviolent activism (Bélanger, 2021; Gousse-Lessard et al., 2013), OP has been shown to predict violent political intentions among a variety of groups ranging from Quebec nationalists (Rip et al., 2012), environmental activists (Gousse-Lessard et al., 2013), US Republicans and Democrats (Bélanger, Schumpe, Nociti, et al., 2019), pro-life activists (Bélanger et al., 2021), and Pakistani Muslims (Bélanger, Robbins, et al., 2020). OP also magnifies the relationship between sadism (a dark tetrad trait) and violent political intentions (see Bélanger, Adam-Troian, Quimpo, et al., 2022). OP was recently identified as one of the best predictors of radical intentions in a meta-analysis including 37 putative risk factors (Wolfowicz et al., 2021).

3 | OCD: A RISK FACTOR FOR IDEOLOGICAL OBSESSION?

Unlike HP, the psychological features of OP include cognitive rigidity, ego-insecurity, contingencies of self-worth, and deficient goal-regulation strategies that prioritize ideological goal-pursuit over alternative life goals (for a review, see Bélanger, 2021; Vallerand, 2015). These characteristics are strikingly similar to the symptoms of OCD (see Stein, 2002). Thus, it is possible that OCD is a precursor to OP, and radical intentions.

There are several clinical reasons to consider OCD as a risk factor for OP. The first line of evidence pertains to the symptoms of OCD. According to the DSM-V, obsessions are defined as “Recurrent and persistent thoughts, urges, or images that are experienced [...] and cause marked anxiety or distress,” which “the individual attempts to ignore or suppress [...] by performing a compulsion” (APA, 2013). At face value, these criteria match some of the OP scale items (e.g., “I have the impression that my [ideology] controls me.” “This [ideology] is so exciting that I sometimes lose control over it,” Bélanger, Raafat, et al., 2020) and research has shown that OP predicts distressing...
thoughts that radical individuals obsess over, such as collective or personal feelings of injustice, humiliation, or perceptions of harm done to the ingroup (Bélanger, 2021; Bélanger, Adam-Troian, Nisa, et al., 2022).

Another set of evidence linking OCD and OP stems comes from research on self-regulation. Specifically, goal switching is more difficult for OP people because of their propensity to shield their ideological pursuit from alternative considerations (Bélanger, Schumpe, Nisa, 2019), which results in a preference for violent political actions (Bélanger, Adam-Troian, Nisa, et al., 2022; Bélanger, Schumpe, Nociti, et al., 2019). Likewise, there is a wealth of evidence showing poor goal regulation among individuals with OCD (for a review, see Robbins et al., 2019). Given that OCD combines the dispositional elements that underlie OP, it follows that OCD may be a precursor of OP. For instance, research suggests that a tendency to perform poorly on tasks requiring behavioral flexibility is a specific clinical marker of OCD (Abramovitch et al., 2013; Vaghi et al., 2017). Interestingly, early research on passion suggests that OP individuals often display signs of behavioral rigidity (e.g., Canadian OP cyclists continuing their sports practice through the winter, which is maladaptive; see Vallerand et al., 2003)

These common features are not limited to self-regulatory processes, but also include important similarities in terms of cognitive style. Indeed, mounting empirical evidence suggests that obsessive symptoms are linked with decreased cognitive complexity (Johnson & Holloway, 1988), whereas OCD symptoms, including habitual tendencies (i.e., compulsions) generally predict increased cognitive rigidity (Ramakrishnan et al., 2022). Although no study has directly linked ideological obsession with such low-level outcomes, ample evidence suggests that OP does predict violent political intentions (see Bélanger, 2021), which has been shown to be an attitudinal manifestation of cognitive rigidity (Zmigrod, Eisenberg, et al., 2021).

Finally, examining the clinical correlates of radical attitudes can provide a crucial piece of the puzzle to connect OCD and OP. Depression seems to play a role in radicalization processes. Recent studies highlight correlations between depression and radical attitudes among both general population and radicalized samples (e.g., terrorists; Rousseau et al., 2019; Trimbur et al., 2022), whereas mounting evidence suggests a link between mental health symptoms at the subclinical level and radical attitudes (for a discussion, see Getzsche-Astrup & Lindeklile, 2019; Misiak et al., 2019). Therefore, it is plausible that depression may be linked to radical attitudes (Angelakis et al., 2015; Forrest et al., 2011; Tomkins et al., 2019), simply because it is comorbid with both OCD and OP (Bélanger, Raafat, et al., 2020; Toledano et al., 2020).

What would obsessive thoughts and compulsive behaviors in the domain of ideology look like if OP and radical intentions were indeed underpinned by OCD? We propose that ideological worldviews often include core beliefs that are maladaptive (e.g., racism) causing people with severe OCD symptoms to misinterpret the significance of intrusive thoughts about their ideology (Abramowitz & Reuman, 2020). High-OCD individuals may be more likely to obsessively ruminate upon intrusive thoughts related to their ideology, which could cause them to experience exaggerated fear, distress, and increased threat perceptions.

For example, one can think of far-right individuals obsessing over the consequences of demographic shifts (fear of a “Great Population Replacement,” Obaidi et al., 2021), environmental activists ruminating upon the imminence of ecological collapse (so-called “solastalgia,” Galway et al., 2019), or Islamists believing that the West’s sole aim is to eradicate Muslim culture (Mashuri & Zaduqisti, 2014). In turn, these disproportionate perceptions of threat would serve as the foundation for a form of ideological obsession. This obsession would then compel individuals to engage in ever more extreme cognitive and behavioral strategies as a coping strategy, which could ultimately entail joining radical groups and engaging in ideological violence.

Compulsions are defined as “Repetitive behaviors [...] the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly [...] aimed at preventing [...] distress, or preventing some dreaded event”, but which “are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive” (APA, 2013). In the ideological domain, it is easy to think of rigid practices such as high frequency of religious ritual performance, unconditional defense of dogma, but also of violent forms of collective action (mostly predicted by OP; see Wolfowicz et al., 2021).

In addition, these can objectively be characterized as excessive and unrealistic ways to neutralize or prevent individuals’ ideologically based threats. Hence, OCD could help redefine radicalization as the dysfunctional process which results from the inability to cope with the anxiety induced by threatening intrusive thoughts. A “radical” action would therefore not be identified so much by its behavioral valence (i.e., violent, extreme) but by its maladaptive nature in “fixing” or coping with the issue that concerns the radical individual.

This is in line with research which supports the notion that violent protests decrease the likelihood of political success for a cause (Chenoweth et al., 2011), and that terrorism fails to deliver political success in a large majority of cases (Abrahms, 2006). Recent examples could include the failed Capitol “coup” in the United States on January 6, 2021, which was led by far-right militias (Rapopor, 2021), or the so-called “Pizzagate,” which was driven by conspiracy worldview (Cosentino, 2020).

4 | THE PRESENT RESEARCH

In sum, there is considerable evidence that suggests that OCD may be a risk factor for OP and violent activism. As we have seen, the self-regulatory processes and cognitive style associated with OCD are similar to the mechanisms by which OP results in ideological violence. Along with the face validity of the OP scale items, both OP and OCD correlate with the emotional and cognitive manifestations of depression, which are both linked to radical attitudes (Misiak et al., 2019; Toledano et al., 2020). Evidence about the role of psychopathology (i.e., depression) in shaping radical attitudes may be due to an indirect link between depression and violent activism,
confounded by OCD and/or OP. Moreover, we have seen that ideologies are highly susceptible to translate into obsessive though and compulsive behavior patterns among individuals with OCD symptoms. To the best of our knowledge, however, no studies have examined the potential connections between OCD, OP, and violent activism. The present research aims to investigate these relationships across various ideological groups.

We reasoned that, if OCD is a risk factor for OP, then both OCD (H1) and OP (H2) should be positively associated with radical attitudes, as well as with each other (H3), and that OP should act as a mediator between OCD and radical attitudes (H4). In other words, we hypothesized that general obsessive tendencies (OCD) are a risk factor for specific (ideological) obsession (OP), which in turn might lead to radical attitudes. There are several theoretical considerations that led us to believe that OCD would be a predictor of OP rather than the reverse. First, research shows that OCD is highly heritable and has a substantial genetic component (Mahjani et al., 2021), whereas we do not have similar information for OP. Moreover, studies have shown that the average age of onset for OCD is 14.5 years (Uhlhaas et al., 2023), likely occurring before the development of obsessions with affirmed political or religious connotations (i.e., OP). Furthermore, OCD is known to have a causal impact on processes that are precursors to OP, such as dysfunctions in goal-regulation (Banca et al., 2015; Bélanger, 2021).

We decided to put our hypotheses to the test among various political and religious groups in the United States (Sample 1: Environmental activists; Samples 2–3: Democrats and Republicans; Sample 4: Muslims). The APA code of conduct was followed throughout all the studies (American Psychological Association, 2017). Supplementary materials, survey scale items, analyses, and all data underlying our findings can be openly accessed and downloaded through the Open Science Framework platform at https://osf.io/p7gsz/?view_only=496b9115a2ad4cc999016d34a2f68ee9.

5 | METHOD

We set out to explore the relationships between OP, OCD, and violent activism through three separate cross-sectional surveys conducted sequentially between December 2021 and March 2022. Each of these surveys targeted a specific ideological or religious group. In addition to the core constructs, we included certain supplementary variables in the surveys as covariates, where theoretically relevant. These covariates encompassed well-documented co-morbidities or precursors of OCD, such as anxiety, depression, substance abuse, and adverse childhood experiences, as well as factors associated with violent activism that had previously demonstrated significance (see Adam-Troian et al., 2020; Jasko et al., 2017). Age and gender of the participants were also considered as covariates within our analysis. The aggregated data set, as well as all raw data sets including all measured constructs, can be accessed on the project open science foundation (OSF) page.

5.1 | Participants

Assuming medium effect sizes ($r = .30$) and power set at 0.80, a sample of 159 people per ideological group was suggested by 5,000 Monte Carlo simulations. In each wave, those who self-identified either as environmental activists, democrats, republicans, or Muslims in a pre-screening survey were invited to participate in the study. We used TurkPrime to ensure data quality (Litman et al., 2017). The final sample (i.e., individuals who completed the whole survey) consisted

| TABLE 1 | Descriptive statistics for all measured variables across ideological and religious groups. |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|               | Study 1 (Env.) n = 395 | Study 2a (Dem.) n = 268 | Study 2b (Rep.) n = 263 | Study 3 (Mus.) n = 194 |
|               | $\alpha$ | M (SD) | $\alpha$ | M (SD) | $\alpha$ | M (SD) | $\alpha$ | M (SD) |
| OP             | .88     | 2.00 (1.17) | .88     | 1.69 (0.99) | .88     | 1.82 (1.11) | .87     | 4.30 (1.65) |
| HP             | .93     | 4.55 (1.50) | .92     | 4.06 (1.40) | .91     | 3.90 (1.44) | .91     | 5.11 (5.50) |
| Commitment     | .84     | 4.41 (1.29) | .85     | 3.49 (1.34) | .85     | 3.60 (1.43) | .82     | 5.45 (5.75) |
| OCD            | .92     | 5.57 (5.96) | .92     | 5.46 (6.19) | .93     | 4.74 (6.40) | .96     | 13.50 (11.50) |
| Peaceful       | .93     | 3.96 (1.81) | .93     | 3.45 (1.70) | .95     | 3.05 (1.79) | –       | –       |
| Violent        | .82     | 1.45 (0.83) | .77     | 1.47 (0.76) | .91     | 1.22 (0.69) | .91     | 3.43 (1.50) |
| Anxiety        | –       | 46.10 (49.90) | –       | 53.60 (50.00) | –       | 42.30 (49.50) | –       | 49.50 (50.10) |
| Depression     | –       | 30.50 (46.10) | –       | 44.50 (49.80) | –       | 33.30 (47.20) | –       | 44.70 (49.80) |
| DAST-10        | .68     | 0.59 (0.74) | .83     | 1.04 (1.91) | .75     | 0.62 (1.37) | .90     | 2.44 (3.45) |
| ACE            | –       | 0.68 (1.24) | –       | 0.68 (0.76) | –       | 0.54 (0.72) | –       | 0.83 (0.79) |
| LOS            | .88     | 1.46 (0.76) | .86     | 1.52 (0.77) | .83     | 1.39 (0.70) | .92     | 2.47 (1.37) |

Abbreviations: ACE, adverse childhood experience; DAST-10, Drug Abuse Screening Test; HP, harmonious passion; LOS, loss of significance; OCD, obsessive-compulsive disorder; OP, obsessive passion.
of 1120 US citizens (49.0% men, \( M_{\text{age}} = 41.0 \) years, \( SD_{\text{age}} = 13.0 \); see Table 1 for descriptive statistics and sample sizes for each ideological/religious subgroup).

## 5.2 | Procedure and materials

Participants filled out a survey containing the following measures (descriptive statistics for each measure can be found in Table 1; original survey items can be found on the OSF project page).

### 5.2.1 | Passion

We used the passion scale (Vallerand & Verner-Filion, 2013) to measure people's HP and OP for their ideology. The scale has two 6-item subscales measuring harmonious (\( M = 4.38, SD = 1.52 \)) and OP (\( M = 2.30, SD = 1.54 \); 7-point Likert scales from 1 "not agree at all" to 7 "very strongly agree").

### 5.2.2 | Commitment

Four items measured the extent to which participants are committed to their ideology (7-point Likert scales from 1 "not agree at all" to 7 "very strongly agree"; \( M = 4.20, SD = 1.51 \)).

### 5.2.3 | Activism

We measured people's support for peaceful and violent activism using a scale developed by Gousse-Lessard et al. (2013). Radical activism among environmental activists, Republicans, and Democrats was measured using six items (\( M = 1.67, SD = 1.16 \)); mainstream activism was measured with seven items (\( M = 3.56, SD = 1.82 \); 7-point Likert scales from 1 "not agree at all" to 7 "very strongly agree"). Analyses among these samples consistently yielded null results concerning peaceful activism. Therefore, for the last survey involving Muslims, we decided to employ a scale designed specifically to reliably measure Islamist radicalization. In this survey, we utilized a 14-item measure developed in collaboration with Imams and previously validated with radical Islamists in research (Webber et al., 2018; 7-point Likert scales from 1 "not agree at all" to 7 "very strongly agree" with a "prefer not to say" option due to the sensitive nature of the items).

### 5.2.4 | OCD

Severity of obsessive-compulsive symptoms was assessed using 10 items from the Yale-Brown Obsessive-Compulsive Symptoms scale (\( M = 6.75, SD = 8.02 \); see Goodman, 1989; 5-point scales from 0 "None" to 4 "Extreme").

### 5.2.5 | Anxiety depression

Two validated single-item measures assessed self-diagnosed anxiety (\( M = 0.48, SD = 0.50 \)) and depression (\( M = 0.37, SD = 0.48 \); Turon et al., 2019; "Yes-No" format).

### 5.2.6 | Substance abuse

We used the Drug Abuse Screening Test-10 inventory to measure symptoms of substance abuse, which is also a useful proxy for other types of abuse (\( M = 0.96, SD = 2.01 \); alcohol, tobacco, see Bohn et al., 1991; "Yes-No" symptom checklist).

### 5.2.7 | Adverse childhood experiences (ACEs)

ACEs were measured using two items tapping into parental emotional abuse and household substance abuse (\( M = 0.64, SD = 0.76 \); Wade et al., 2017; "Yes-No" exposure checklist).

### 5.2.8 | Loss of significance (LOS)

LOS was measured using a three-item scale developed by Bélanger et al. (2022a) in which participants were asked to rate the extent to which they experience daily humiliation, shame, and people laughing at them (\( M = 1.64, SD = 0.98 \), 5-point Likert scale from 1 "rarely/never" to 5 "very often").

## 6 | RESULTS

Our initial approach involved analyzing the results of each survey separately, treating them as distinct studies. These initial results can be found in the OSF project page, as reported in the original pre-print on which the current article is based (https://psyarxiv.com/tcrd9/). These included (Pearson) correlation analyses between OCD, OP, and measures of activism/radicalism, partial correlation analyses replicating these while adjusting for all measured covariates, followed by GLM mediation analyses (Preacher, 2015) with OCD as the predictor, OP the mediator, and activism/radicalism as the outcome.

Results from these analyses consistently showed positive links between OCD, OP, and radicalism (not activism). These findings remained robust after adjustments. Likewise, mediation analyses yielded consistent estimates of indirect associations between OCD and radicalism (not activism). Consequently, given the high similarity between studies in terms of materials and data collection procedures, we chose to aggregate the data and present analyses on this combined data set, which includes all sampled subgroups.

Thus, the results section below should be considered as a meta-analysis of our set of studies (see Goh et al., 2016). In this meta-analytical framework, our mediation hypothesis was tested using multigroup
6.1 Individual associations

To test H1, H2, and H3, we ran two multilevel regression models (with subgroups as the random effects variable), just as in the first two steps of a joint significance test for mediation (e.g., Yzerbyt et al., 2018). The first model specified OCD as the predictor and OP as the outcome. The second model specified both OCD and OP as the predictors and radical intentions as the outcome. Full model tables are available on the OSF project page.

OCD was a positive predictor of OP, $\beta = .44$, 95% confidence interval (95% CI): [0.37, 0.52], $p < .001$, regardless of covariate adjustment $\beta = .30$, 95% CI: [0.22, 0.38], $p < .001$. The second model yielded support for H3. Likewise, both OCD and OP predicted radical intentions when included in the same model with, respectively, $\beta = .24$, 95% CI: [0.19, 0.29], $p < .001$ and $\beta = .45$, 95% CI: [0.39, 0.51], $p < .001$, even when including covariates, respectively, $\beta = .11$, 95% CI: [0.04, 0.17], $p = .002$ and $\beta = .46$, 95% CI: [0.38, 0.54], $p < .001$. Therefore, H1 and H2 could not be rejected either.

6.2 Mediation mechanism

Tests for H4 required multilevel mediation tests, which we decided to implement through multigroup structural equation modeling (Mayer et al., 2014; full model estimates available on OSF). Two models were computed with OCD as the predictor, OP the mediator and radical intentions as the outcome (see Figure 1 for an overview).

The first—unadjusted—model yielded borderline fit, comparative fit index (CFI) = 0.89, comparative fit index (IFI) = 0.89, goodness of fit (GFI) = 0.94, root mean square error of approximation (RMSEA) = 0.30, and highlighted a significant indirect effect of OCD on radical intentions of $b = .28$, 95% CI: [0.22, 0.34], $p < .001$. The second model included all covariates and their associations with OCD, OP, and radical intentions. It yielded a much more acceptable fit, CFI = 0.99, IFI = 0.99, GFI = 0.99, RMSEA = 0.08. This second model too detected the presence of a smaller, albeit robust indirect effect of OCD on radical intentions, $b = .10$, 95% CI: [0.05, 0.13], $p < .001$. Overall, this pattern of results provided evidence in favor of H4.

6.3 Alternative model specifications

The presence of an indirect effect in a structural equation model does not constitute strong evidence for a mediation mechanism (see Fiedler et al., 2018). One way to reduce uncertainty regarding the causal chain in SEM is to test plausible alternative models (Danner et al., 2015). Therefore, we computed two models with OP as the predictor and OCD as the mediator, with and without covariates.

The first model yielded a poorer fit on every metric relative to its equivalent including OCD as the predictor, CFI = 0.55, IFI = 0.55 and GFI = 0.82, RMSEA = 0.61, and with a substantial parsimony penalty (Akaike information criterion [AIC] = 400.28 vs. AIC = 104.97). The observed indirect effect was also smaller, $\beta = .21$, 95% CI: [0.15, 0.27], $p < .001$. Likewise, the second model including covariates was also poorer, CFI = 0.95, IFI = 0.95, and GFI = 0.96, RMSEA = 0.46, and less parsimonious (AIC = 375.04 vs. AIC = 161.93) than its counterpart, while yielding a smaller indirect effect size too, $\beta = .06$, 95% CI: [0.03, 0.09], $p < .001$. In addition, none of these models displayed acceptable fit in an absolute sense. This poor performance of models specifying OP as a predictor lent support for H4 and for the role of OP as the mediator.

6.4 Further evidence from moderation analyses

Research suggests that the presence of interaction effects, or moderation, may, in some contexts, serve as evidence for mediation mechanisms, depending on their specific patterns. Pirlott and MacKinnon (2016), recommend for instance testing mediation by manipulating both the mediator and the predictor and interpreting

![Diagram of mediation models](image)

**Figure 1** Mediation models of obsessive-compulsive disorder (OCD) on violent activism through obsessive passion (OP). Model 1 (top) is calculated without covariates; Model 2 (bottom) includes all covariates and their associations with OCD, OP, and radicalism. ***$p < .001$, numbers represent standardized coefficients for each path. Numbers between brackets indicate lower and upper bounds for coefficients’ 95% confidence interval. IE = indirect effect.
the resulting pattern. Ideally, if a mediation process is at work, one should observe, at a minimum, the main effect of the mediator and an interaction effect between the mediator and moderator, where the highest outcome average occurs at the highest values of both variables (and vice versa for the lowest outcome average).

This interaction pattern serves as a reliable signature of mediation in experimental designs due to the high certainty regarding causality from manipulations (see Pirlott & MacKinnon, 2016). Although weaker in terms of evidential value due to the cross-sectional nature of our design, such a pattern in a cross-sectional study can provide additional evidence either supporting or refuting H4. Consequently, we also tested an alternative moderation model using multilevel regression, with OP, OCD, and their interaction as predictors of radical intentions.

In line with the abovementioned pattern, the model showed a main effect of OCD on radical intentions, $\beta = .18$, 95% CI: [0.12, 0.23], $p < .001$, a main effect of OP, $\beta = .41$, 95% CI: [0.35, 0.47], $p < .001$, and a positive interaction effect between OCD and OP, $\beta = .11$, 95% CI: [0.08, 0.15], $p < .001$. More specifically, simple slope analyses (see Figure 2) indicated that OCD symptoms had a very weak relationship with radical intentions among low-OP individuals, $\beta = .07$, 95% CI: [-0.01, 0.14], $p = .099$, which increased in magnitude for average-OP individuals, $\beta = .18$, 95% CI: [0.12, 0.23], $p < .001$ and was magnified among high-OP individuals, $\beta = .29$, 95% CI: [0.23, 0.34], $p < .001$.

Therefore, and in line with H4, OP, and OCD seemed to behave in a way that is compatible with the existence of a positive mediation process between the two (although the cross-sectional design does not allow to demonstrate which one is the mediating variable). This pattern held in a second model including all covariates (interaction effect $\beta = .08$, 95% CI: [0.05, 0.13], $p < .001$, full model tables available on OSF).

7 | DISCUSSION

The purpose of this research was to examine the relationship between OCD, OP, and violent activism. Our findings revealed a consistent pattern of associations between these constructs across four ideological groups in the United States. More specifically, our results suggest that OCD is a consistent predictor (and potential antecedent) of OP and may exert an indirect influence on violent activism through OP. These links were robust to adjustment on a host of theoretically relevant covariates and potential confounds. This consistency and robustness across several ideological/religious groups and using different measures of radicalism (Sample 4, Muslims) also increased our confidence in the generalizability of the findings (see Wells & Windschitl, 1999).

Theoretically, the present research represents the first set of studies to consistently show robust associations between OCD and violent extremism, while also proposing a plausible cognitive-behavioral mechanism through OP. This clinical perspective on radicalization sheds new light on various aspects related to political. For example, it is possible to conceptualize the associations between depression and radicalism as OCD comorbidities. Moreover, it provides a potential explanation for the extremely low prevalence of violent extremists within populations that face similar injustices, threats, or oppression. This might be attributed to the fact that only a small percentage of individuals exhibiting clinical OCD symptoms would engage in violent activism in response to such experiences (see Feygin et al., 2006).

It is also important to note that OCD is characterized by ego-dystonic thoughts: the intrusive thoughts experienced by individuals affected by OCD are contrary to their beliefs and values (see Clark & O’Connor, 2005). This is crucial for interpreting the link between radical actions and OCD symptoms. First, our results suggest that individuals may be compelled to engage in radical actions, even if they deeply resent violence. This interpretation aligns with research showing that Dark Tetrad traits such as psychopathy and sadism only exhibit moderate links with radical attitudes (see Bélanger et al., 2022b). Moreover, if radical acts were the product of ego-syntonic thoughts (non-Dark Tetrad) individuals would not require extensive justifications to engage in violence. Yet, moral neutralization seems to be an important predictor of radical attitudes (see Woloowicz et al., 2021). Finally, our research does not rule out the
potential role of ego-syntonic thoughts may play in radicalization processes: obsessive-compulsive symptoms are also present in Obsessive-Compulsive Personality Disorder (OCPD, Marincowitz et al., 2021), which is characterized by ego-syntonic intrusive thoughts. Thus, further research is needed to gain a better understanding of the role of ego-dystonic thoughts in shaping OP and radical attitudes.

Our findings open new avenues of inquiry into the phenomenon of radicalization including the consideration of whether certain ideologies may possess a higher "violence potential" than others. For example, recent research suggests that the level of violence (e.g., lethality) of terrorists in the United States is greater among Islamists and the far right (relative to the far left; see Jasko et al., 2022). Part of this disparity could be attributed by the religious nature of both ideologies (the US far right has substantial links with Christian fundamentalism, see Whitehead & Perry, 2020), which implies greater ritualistic prescriptions. These characteristics might interact more strongly with OCD tendencies and contribute to greater radical intentional (Yorulmaz et al., 2009).

7.1 Limitations

We would like to draw readers' attention to important caveats, which constrain the interpretation of our findings. First, replication studies with different designs are needed to address the shortcomings of the current set of studies. Although we were able to provide statistical evidence supporting the presence of indirect effects of OCD on violent activism through OP, these cannot be taken as strong support for the proposed mediation model (Fiedler et al., 2011). It should be noted that obtaining experimental proof may be methodologically challenging and ethically problematic, particularly in increasing OCD symptoms.

To address these challenges, we suggest two alternative strategies. First, future studies could compare violent intentions between samples with clinical and subclinical OCD (or OCPD). Second, researchers could compare incarcerated terrorists and violent activists in terms of their OCD symptoms (see, for instance, Baez et al., 2017). Moreover, it would also be ideal to test whether the current findings hold when measuring behavioral outcomes rather than relying solely on self-reported violent intentions (Baumeister et al., 2007). Furthermore, as all our samples were drawn from the US population, these results should not be generalized beyond other English-speaking Western countries (see Henrich et al., 2010).

Finally, it is crucial to emphasize that our results should not be interpreted as suggesting that individuals suffering from OCD pose a greater security threat in terms of radicalization potential. What our results show is that the severity of OCD symptom is a risk factor for radical attitudes. From this, one can infer that individuals with severe OCD symptoms may be more prevalent among the population of individuals displaying radical ideological attitudes and behavior. However, it would be a logical fallacy to conclude from our results that radical individuals are overrepresented among the population of individuals with severe OCD symptoms (i.e., base-rate fallacy, Bar-Hillel, 1980). Moreover, our study used OCD symptoms severity (continuous measure) among samples of individuals from the general population as a predictor, rather than a dichotomous measure of a clinical diagnosis of OCD.

7.2 Conclusion

Within the boundaries of the abovementioned limitations, we are optimistic that a cognitive behavioral understanding of radicalization may be fruitful for applied purposes. If OCD is indeed found to play a role in violent activism, evidence-based interventions to treat CBT (Olatunji et al., 2013) could be adapted and tested to lower violent tendencies and attitudes among extremists or prevent them among at-risk groups (e.g., marginalized youth, Adam-Troian et al., 2021). These deradicalization efforts would offer the advantage of not directly challenging people’s ideologies, which could prevent psychological reactance and noncompliance among radicalized individuals (Bélanger et al., 2021; Bélanger et al., 2023).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in OSF at https://osf.io/p7gs2/, reference number DOI 10.17605/OSF.IO/P7GSZ.

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REFERENCES


**SUPPORTING INFORMATION**

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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