PROFESSIONAL AND STUDENT UNDERSTANDING OF HARM OBSESSIVE-COMPULSIVE DISORDER: A VIGNETTE STUDY

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A Thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of

Master of Science, Experimental Psychology

Memorial University of Newfoundland

August 2022

St. John's, Newfoundland and Labrador

Abstract

Obsessive compulsive-disorder (OCD) is characterized by obsessions and compulsions that differ significantly across patients. Lesser-known, Harm-related obsessions (i.e., fears of harming others or oneself; Harm OCD) can present in varying ways and are often misidentified – even by professionals – compared to more "prototypical" Contamination obsessions. However, research had not yet tested a vignette design specific to differing presentations of Harm OCD across a sample of professionals and students, particularly medical students. This study surveyed a sample of professionals (registered psychologists, general practitioners; $n = 73$), doctoral psychology students ($n = 92$), and medical students ($n = 143$), gathering diagnostic impressions and risk judgements for one of several Harm OCD vignettes (i.e., fears of harming one's infant, of smothering one's partner, of blurting an insult, or of completing suicide) or a social anxiety (control) vignette as compared to a Contamination OCD vignette. Harm OCD was significantly less likely to be identified (76%) than Contamination OCD (97%) through open-ended identification, and social anxiety when using ranked identification methods. Further, professionals and doctoral psychology students were significantly better able to identify Harm OCD than M.D. students, and characters with Harm OCD were perceived as more likely to harm others compared to those with Contamination OCD . The current findings support the need for accurate media representation of the varying OCD presentations, as well as improvement in OCD medical education.

General Summary

Obsessive-compulsive disorder (OCD) is a psychiatric disorder involving intrusive unwanted thoughts (i.e., obsessions) that are often followed by ritualistic behaviors to combat those thoughts (i.e., compulsions). Although presentations of this disorder via popular media are fairly uniform, the symptoms of this disorder differ greatly across individuals. For example, aggressive obsessions about harming others or oneself (Harm OCD) are less understood and recognized compared to more "typical" presentations, such as obsessive hand washing (Contamination OCD). I presented students and healthcare professionals with vignettes depicting Harm OCD, Contamination OCD or social anxiety (as a control). Harm OCD was identified less accurately than the other conditions, and associated with greater perceived risk of harm (mistaking thoughts for true intentions) as compared to Contamination OCD overall and social anxiety when ranking conditions from a list, particularly amongst medical students. These findings demonstrate the need for a more nuanced representation of OCD and for improvements in medical education.

Acknowledgements

I would like to thank my outstanding supervisors, Dr. Emily Fawcett and Dr. Jonathan Fawcett for their unmatched support, guidance, and upmost commitment throughout the entirety of this project. Though OCD research has always been a great passion of mine, my ability to empirically explore the vast area and my growth as a researcher is undoubtedly accredited to you both. Furthermore, I am ever gracious towards my committee member Dr. Sheila Garland for her dedication and insight, as well as for her expert advice throughout the trying process of recruiting my specific populations. A special thanks goes to honours student Kera McGrath for her reliability as a volunteer on this project and help with the data coding process.

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"I felt like I was melting into the floor, I couldn't breathe, my heart was pounding. My worst nightmare was coming true" (Vollers, 2020, section 5). This is the devastation an Alabama woman recalls feeling upon receiving notice to attend a court hearing that would ultimately determine her fitness as a mother. Having experienced a disturbing intrusive image of shooting a bullet through both herself and her newborn baby, she confided in her family physician, seeking understanding and explanation as to why she had this severely ego-dystonic thought. Instead, she was met with immediate apprehension, psychiatric hospital confinement, and forced separation from her children, despite vehemently denying the possibility of her acting on the thought. Unwanted thoughts of infant-related harm have been estimated to afflict up to 100% of postpartum women, a nearly universal phenomenon according to a recent meta-analysis (Brok et al., 2017; Fairbrother & Woody, 2008). The woman was later cleared of all accusations and formally diagnosed with post-partum depression; however, the vivid and distressing image she experienced is representative of the intrusive thoughts associated with obsessive-compulsive disorder (OCD). Obsessional thoughts have been shown to commonly coincide with postpartum depression (57%; Wisner et al., 1999), with OCD and postpartum depression having comorbidity rates as high as 60% (Vulink et al., 2006). This Alabama mother's story, and similar stories, are a sad reminder that the stigma associated with unwanted intrusive thoughts not only exists but can cause irreversible damage to peoples' lives and wellbeing.

Obsessive-Compulsive Disorder

Once categorized as an anxiety disorder, OCD has since earned its own diagnostic division in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5;* American Psychiatric Association, 2013). According to the manual, OCD is characterized by the presence of obsessions (i.e., intrusive, recurring thoughts that cause some level of distress), compulsions (i.e., repetitive, ritualistic behaviors or mental acts that can mediate distress caused by obsessions), or both. These symptoms must be time consuming or cause impairment in important areas of functioning (i.e., social). Clinicians can also specify the level of insight associated with the condition, which can range from good (i.e., understanding that the beliefs that power their obsessions and compulsions do not hold any truth or are caused by psychiatric illness) to absent (i.e., fully believing that the content of their obsessions are true and that their compulsions will mitigate it; e.g., "I will contract AIDS if I shake their hand"), with low insight linked to less favorable treatment outcomes and greater symptom severity (Catapano et al., 2010; Himle et al., 2006).

A recent meta-analytic study indicated that OCD has a lifetime prevalence rate of 1.3% worldwide, with women 1.6 times more likely to experience OCD than men (Fawcett et al., 2020). Although OCD appears to be relatively rare in the community, subthreshold OCD (meeting at least one but not all of the core criteria necessary to diagnose OCD; Adam et al., 2012) and obsessive-compulsive symptoms (OCS; experiencing at least one symptom but not meeting any of the core criteria for OCD; Adam et al., 2012) are much more common. For instance, Adam and colleagues (2012)

reported prevalence rates for subthreshold OCD (4.5%) and OCS (8.3%) that were much higher compared to full-threshold OCD (0.7%), meaning that some of the distressing symptoms that make up OCD appear to be quite common in the community.

Exacerbating the issue of high prevalence, OCD rarely occurs on its own, with one study reporting that 92.3% of those living with the disorder have at least one other concurrent mental disorder (Torres et al., 2013). Similarly, Pinto and colleagues (2006) found that only 9% of participants with self-reported OCD did not have a concurrent mental disorder. Anxiety disorders and depressive disorders seem to have the highest comorbidity rates with OCD across men and women; however, depending on gender, high comorbidity rates also exist between OCD and eating disorders and impulse control disorders in women, and substance use disorders, psychotic disorders, and developmental disorders in men (Mathis et al., 2011; Pinto et al., 2006; Rintala et al., 2017). The incredibly high comorbidity rates between OCD and other mental disorders are important to understand and monitor as it can have a direct impact on the affected person's quality of life. For instance, studies have found that depression, anxiety, and suicidality (i.e., suicidal thoughts and behaviors) in individuals living with OCD tends to be more prevalent when a concurrent mental disorder, such as major depressive disorder, post-traumatic stress disorder, or substance use disorder, is present (Torres et al., 2010; Torres et al., 2013).

Gender differences have been observed in the presentation of such OCD symptoms. For example, women tend to present obsessions involving contamination followed by compulsive cleaning, while men are more likely to exhibit unacceptable

thought obsessions, particularly those of a sexual or aggressive nature (see Mathis et al., 2011). As mentioned, Fawcett et al. (2020) found that women are statistically more susceptible to the development of OCD than are men. To further comment on this point, it has been found that OCD prevalence may be linked to female reproductive events. For instance, Russell et al. (2013) concluded that the perinatal period may make women more vulnerable to the development of OCD as prevalence rates were found to be higher in women who are pregnant (2.1%) and postpartum (2.4%) compared to the general female population (1.1%). With reference to the opening case, the increase in OCD symptomology surrounding the perinatal period may explain the sudden intrusive image experienced by the Alabama mother (Vollers, 2020), with reproductive events such as menstruation, menarche, pregnancy, and menopause linked to the onset and exacerbation of OCD symptoms in women (Forray et al., 2010; Guglielmi et al., 2014; Labad et al., 2005).

Cognitive Model of OCD

The existence and pervasiveness of OCD as a psychological disorder can be explained through the cognitive model of the condition. Given that 94% of the general population experience unwanted thoughts (Radomsky et al., 2014), the existence of intrusive thoughts alone is not sufficient for the development of OCD, but the cognitive appraisal and maladaptive beliefs that are attributed to such thoughts, images, or urges (Salkovskis et al., 2000). In other words, those living with OCD tend to apply disproportionate significance or meaning to the intrusive thoughts they experience (e.g., “This thought could harm people”; Obsessive-Compulsive Cognitions Working Group,

2001). Cognitive appraisals have further been linked to the significant distress caused by intrusive thoughts, with greater negative appraisals of intrusive thoughts directly related to how upsetting such thoughts are perceived (Rowa et al., 2005).

With the advancement of cognitive OCD models, an international group of OCD researchers formed the Obsessive-Compulsive Cognitions Working Group (OCCWG). Through this, they created the Obsessional Belief Questionnaire (OBQ; OCCWG, 1997; 2001), a validated measure of the dysfunctional beliefs that are central to OCD. Factor analysis identified three distinct factors from the OBQ that are important in the manifestation and maintenance of OCD (OCCQG, 2005). The first includes Thought-Action Fusion and Mental Control Failure. With Thought-Action Fusion, also referred to as Importance of Thoughts, someone with OCD believes that their thoughts hold more influence than what is true or humanly possible. For instance, someone with OCD may hold the belief that simply having a thought of harm befalling someone they love will increase the likelihood of that event to occur (e.g., “If I think about an unpleasant event, it must have happened”; Myers & Wells, 2005). Alternatively, they may feel that having a thought somehow defines their character and morals (e.g., the thought of cheating is morally akin to the actual act of cheating on one’s partner; “My thoughts reflect what I really want to happen”; Purdon & Clark, 1999). Mental Control Failure refers to the individual’s fear of somehow “losing control”, and the need to exert control over one’s thoughts at all times for fear that they may act on their unwanted impulses (OCCWG, 2005).

The second factor proposed by the group encompasses Inflated Responsibility and the Overestimation of Threat. The former involves feeling overly responsible for the outcome of events, while the latter involves feeling as though negative events are far more likely to occur than what is true or realistic. An example that may border both factors was outlined by Purdon and Clark (2005) of someone eating a peanut butter cookie at a library and questioning later in distress that they may have left crumbs that would ultimately lead someone with a peanut allergy to fall into anaphylactic shock (i.e., Overestimation of Threat) and die because of their actions (i.e., Inflation of Responsibility). The final factor includes Perfectionism and Intolerance of Uncertainty. These two cognitive interpretations refer to the never-ending strive for perfection or "purity" felt by many of those with OCD, as well as the need for absolute certainty in order to feel "safe" or at ease with a situation (OCCWG, 2005).

Such cognitive factors have been shown to predict obsessive-compulsive symptoms and ultimately serve to distinguish someone with OCD from healthy controls (Abramowitz et al., 2006). Furthermore, specific dysfunctional beliefs such that those derived from the OBQ have been linked to the individual symptom presentations of OCD. For instance, Tolin et al. (2007) found that intrusive thoughts of harm (i.e., violent obsessions) in relation to OCD were linked to the factor that encompasses Inflated Responsibility and Overestimation of Threat. The inverse has also been found in that dysfunctional beliefs identified by the OBQ predict the development of specific OCD symptom presentations. For example, importance of thoughts (i.e., Thought-Action

Fusion) and Mental Control Failure were found to be predictive of the Responsibility for Harm and Unacceptable Thought domains (Wheaton et al., 2010).

OCD Symptom Dimensions

Research has attempted to categorize the varying symptom dimensions of OCD as a means of explaining the heterogeneity inherent in OCD symptomology. One example is the Dimensional Obsessive Compulsive Scale (DOCS; Abramowitz et al., 2010), which outlines four distinct symptom dimensions: Contamination, Symmetry, Responsibility for Harm, and Unacceptable Thoughts. To start, Contamination obsessions are described in the DOCS as involving thoughts or fears that one has been contaminated by some person, object, or place, as well as obsessing over germs and sickness. Common compulsions that follow Contamination obsessions include excessive handwashing, sanitizing, cleaning of objects, following specific routines, and avoiding certain situations or people. An example of this symptom domain is someone avoiding touching stair rails in public places at all costs, followed by immediate sanitization or meticulously washing their hands in the event of contact for fear of catching a disease.

Secondly, Symmetry obsessions involve the need for exactness and balance or the need for things to be "just right". Common compulsions may include repeating an action a certain number of times, counting senseless objects, or arranging things in a meticulous and specific way to achieve that feeling of "rightness" to minimize distress. As an example, someone may have to repeat a line they heard on TV a specific number of times so that it feels "right".

Third, Responsibility for Harm obsessions involve self doubt such as believing one made a mistake that caused a horrific accident to occur, or a false sense of control over events, like obsessing over the idea that they can prevent bad things from happening to themselves or someone else. Compulsions that typically follow serve to prevent harm from occurring and include checking behaviors, repetition, prayer and ritual, and avoiding certain matter deemed as "bad" (i.e., numbers that may bring "bad luck"). As an example, someone might have the thought that they left their hot curling iron plugged in at home that will cause their house to burn down and so they repeatedly check that it is in fact unplugged. Checking behaviors like this are common in conjunction with varying Responsibility for Harm thoughts involving oneself or others. For instance, someone with OCD may repeatedly check in with a family member to ensure they arrived home safely after experiencing the intrusive thought of that family member getting into a car crash.

Finally, Unacceptable or Taboo Thought obsessions involve intrusive, unpleasant thoughts that are ego-dystonic, meaning they go against the person's beliefs, morals, and ideals. Subject matter may involve such things as violence (i.e., aggressive obsessions), sexuality, pedophilia, or blasphemy. The distressing image experienced by the Alabama mother in the opening case example would fit into this symptom domain due to the violent and unwanted nature of the intrusive thought (Vollers, 2020). Compulsions that may typically follow obsessions in this category serve to combat the "bad thought" and include reassurance seeking, following rituals, mentally performing an action, praying, and avoiding certain people, objects, or situations that trigger the unwanted thoughts. A further example of this symptom domain involving an aggressive obsession would be an

individual with intrusive thoughts of stabbing their partner with a knife, followed by compulsively avoiding areas where they may see or be near sharp objects. Having mentioned that these thoughts are ego-dystonic when attributable to OCD, it is important to contrast when such thoughts are ego-syntonic (i.e., aligning with an individual's true beliefs and intentions). As an example, while negative cognitions such as "I am a bad mother" may be experienced as ego-syntonic with postpartum depression, with perinatal OCD this thought may present in response to an unwanted thought of infant-related harm as they question their integrity as a parent (e.g., "What if I am a bad mother?"; Brok et al., 2017). Likewise, someone experiencing true suicidal ideation holds ego-syntonic ideals regarding suicide and the desire to take their own life (Brådvik & Berglund, 2011). By contrast, for those with Suicide OCD, such thoughts would be ego-dystonic, representing what they would most fear to happen, and cause significant distress.

OCD is highly heterogeneous and individualistic as obsessional themes often pertain to what is most prevalent and important in someone's life. As we all lead unique lives, this means that OCD can manifest in innumerable ways with obsessions taking on virtually any theme. Therefore, a single categorization method (i.e., the DOCS) is often unable to encompass every possible symptom presentation. For instance, Relationship OCD (ROCD) involves obsessive doubt surrounding one's closest relationships (e.g., "How do I know if my partner is *the one*?"; Doron et al., 2014). If looking solely through the scope of the DOCS, this presentation of OCD would not neatly fit within any of the four categories (Abramowitz et al., 2010). One might argue that ROCD may loosely tie in with the Responsibility for Harm domain; however, it may better fit within a broader,

doubt-centered symptom category. Such a category has been identified via factor analysis. After running data from 293 adults with OCD, Pinto et al. (2007) reported five dimensions: Symmetry/Ordering, Hoarding, Doubt/Checking, Contamination/Cleaning, and Taboo Thoughts. However, with varying means of categorizing symptom presentations over the years, one should be mindful that hoarding is no longer associated with OCD in the *DSM-5* (American Psychiatric Association, 2013) as it had been in previous editions. Given that there has been more than one method of categorizing OCD symptoms, dimensions of these symptoms are often comparable across methods. For instance, if we were to compare Pinto et al.'s (2007) factors to Abramowitz et al.'s (2010) DOCS, the Contamination and Symmetry domains relate to the Contamination/Cleaning and Symmetry/Ordering factors, respectively. Furthermore, the Doubt/Checking factor is indeed similar to the Responsibility for Harm domain of the DOCS, but, again, encompasses more presentations of perpetual doubt than just that directly pertaining to harmful events.

As indicated, intrusive thoughts are actually quite prevalent amongst members of the general public (approximately 94%; Moulding et al., 2014; Radomsky et al., 2014), and aggressive thoughts in particular are experienced by non-clinical samples at an exceedingly high rate. For instance, a study looking at OCD symptomology in the general population found that harm obsessions (i.e., depicting aggressive or violent imagery) followed by checking compulsions were the most prevalent dimension (8%; Fullana et al., 2010). Despite this, the more commonly recognized symptom domains involve themes of Contamination and Symmetry as those that have been overrepresented in pop culture

(Bell, 2010; Fennell & Boyd, 2013). These are the same symptoms that tend to be most closely associated with OCD in educational materials (e.g., Morrison, 2008). As further evidence of this, a recent Canadian medical school OCD curriculum review found that 70% of undergraduate medical textbooks solely focused on Contamination or Symmetry when giving case examples of OCD (Lahey et al., 2022). Despite not being as synonymous with OCD as Contamination or Symmetry symptoms, Unacceptable Thoughts are actually relatively common among those living with OCD with rates up to 58% (Grant et al., 2006; Hunt, 2020; Tek & Ulug, 2001). Being so largely predominant in those living with the disorder and those presenting obsessive compulsive symptoms in the general population, it is concerning that OCD involving aggressive obsessions is so underrepresented relative to Contamination or Symmetry OCD.

The heterogeneous nature of OCD combined with the high rates of comorbidity with other illnesses tends to impede how this disorder is identified, treated, and ultimately the impact this has on the course of the condition. To speak to this, Albert et al. (2019) discussed the lag that exists between the onset of OCD and initiation of treatment for the disorder, concluding that it could take up to 9 years before a patient receives adequate treatment for their disorder. This lag creates serious issues related to OCD going untreated, such as increasing the likelihood of lifetime concurrent mental conditions and contributing to poorer response to antidepressants (Albert et al., 2019; Pinto et al., 2006). It may be the case that patient self-stigma towards their own symptoms (particularly those with violent or sexual obsessions) may lead to treatment avoidance or reluctance to disclose their disturbing intrusive thoughts to others (see Weingarden & Renshaw, 2015).

However, even when patients can feel comfortable expressing their symptoms, the lag between onset and receiving OCD-appropriate treatment may continue. For instance, Glazier et al. (2013) suggest that the lag between onset and treatment may be caused by the lack of familiarity mental health professionals have for the lesser-known symptom domains of OCD as opposed to more popularized subtypes (i.e., Contamination). Therefore, a patient disclosing symptoms of OCD may not be the last step before treatment if their health care professional is unable to recognize those symptoms as relating to OCD.

OCD Misidentification Literature

When it comes to seeking help for mental health related concerns, those with specialized training in this area (i.e., psychologists, psychiatrists) are not always the initial point of contact as a referral is often required. This leaves family doctors or general practitioners (GPs) as those in the first line of care, making these doctors often responsible for the identification of psychiatric illness and prescription of psychiatric medications. This is what laid the groundwork for a study implemented by Kyrios et al. (2010), who developed the OCD-Knowledge and Attitudes Questionnaire (OCD-KAQ) to assess GP familiarity with the condition, with the goal to create a model of care for OCD that could be implemented in a primary care setting. However, they discovered that physicians demonstrated a lack of knowledge about the illness, reporting that GPs considered themselves less knowledgeable about sourcing information on OCD than consumers and psychologists, and felt less confident in addressing the symptoms faced by patients with OCD. During an interview component, GPs endorsed the idea that they

required a greater knowledge base of the disorder. Additionally, consumers with OCD reported feeling that their physicians required further knowledge of the illness. It is notable that this study concerned OCD in general and did not delve into the specific subtypes. A series of studies led by Dr. Kimberly Glazier offer further insight into how OCD is perceived by those in the first line of care for mental health issues (i.e., mental health professionals, GPs, and students practicing in relevant fields) and their ability to identify the varying symptom presentations of the condition.

Glazier et al. (2013) explored rates of OCD misidentification in a sample of mental health professionals using clinical vignettes depicting some of the less common symptom domains of OCD (i.e., taboo thoughts surrounding aggression, religion, homosexuality, and pedophilia), while also including a Contamination OCD vignette as a control condition. During a validation process, the vignettes were approved by five OCD specialists who agreed that the content of the vignettes accurately depicted the disorder. The authors tested 360 members of the American Psychological Association who after reading an assigned vignette, were asked to provide their diagnostic impression by choosing as many disorders as deemed relevant from a list of 36 psychiatric and non-clinical diagnoses. The results from this study showed that those who viewed one of the Unacceptable Thought vignettes were 99.7% more likely to misidentify the disorder than those who viewed the Contamination vignette with a 61% overall misidentification rate (individual vignette identification rates are outlined in Table 1). However, participants were considered correct if they chose OCD regardless of how many other diagnoses they selected; therefore, the identification rate may actually be lower. This result is particularly

unexpected as the participants were mental health professionals. A further limitation of this study concerns the lack of a true control group by not comparing general OCD identification to a condition that was not OCD.

Having come to the surprising conclusion that mental health professionals may often misidentify less typical presentations of OCD, Glazier and colleagues (2015a) created another vignette study intended to analyse OCD misidentification rates among primary care providers. As discussed, GPs are often the first point of contact for patients struggling with psychiatric illness, and with previous research finding low familiarity and confidence around OCD in these primary care providers (e.g., Kyrios et al., 2010), it was critical to further assess OCD identification in this population. Following a similar procedure as the prior vignette study, 208 physicians completed a survey that involved reading one of eight vignettes, each depicting varying subtypes of OCD (outlined in Table 1) and subsequently provided their diagnostic decisions. The vignettes underwent a validation process in which 28 mental health professionals confirmed that each accurately depicted the intended disorder with accordance to the *DSM-IV* criteria. Vignette identification rates for this study are outlined in Table 1. Across all eight vignettes there was an identification rate of approximately 50%, with the highest correct identification rate for the Symmetry and Contamination vignettes. Of the vignettes, one of the least successfully identified was the one depicting aggressive obsessions, with schizophrenia being the most popular diagnostic alternative. This suggests that when patients living with OCD present aggressive or harm-related thoughts to their GPs, they are highly likely to be misdiagnosed and therefore may not receive the proper treatment for their illness. It is

notable that these results are again based on the lenient identification criteria used by Glazier et al. (2013), meaning that misidentification rates may be higher in reality. As a further limitation, the sample of GPs used for their study was limited to just those from the Greater New York Area, indicating that the results may lack generalizability.

Following up on the previous literature, Glazier and McGinn (2015) believed the high rates of misidentification across mental health professionals and physicians could be caused by the restrictive manner in which OCD is portrayed (i.e., mainly focused on contamination and symmetry presentations) in the media as well as in educational resources. Their vignette study recruited 78 doctoral students, who were studying to become psychologists, to complete three separate assessments. The first assessment followed a similar procedure to the previous two vignette studies; however, participants were presented with 5 out of 28 vignettes, each randomly portraying one of eight common manifestations of OCD (outlined in Table 1) and four others that portrayed disorders that either mirror OCD symptoms, share symptoms with OCD, portray specific phobias, or portray control conditions. The vignettes included in this study had been validated by 32 mental health professionals using *DSM-IV* criteria to ensure accurate depictions of the varying disorders. Participants then gave their diagnostic impressions by choosing from a list of 47 diagnoses but were additionally asked to rank their diagnoses if they chose more than one. This study also included a video intervention, featuring a 27-minute-long video of OCD specialists covering the various manifestations of OCD and their symptomology, as researchers were particularly interested in whether education would improve performance. Following the video, participants gave their diagnostic

impressions for five new vignettes. Assessment three occurred 2.5 months later and had participants once again provide their impressions of five more vignettes. In a control condition, assessments two and three were switched to see if differences in identification rates were due to natural learning instead of the video intervention. This study found that there was a lower identification rate for non-Contamination and non-Symmetry than Contamination and Symmetry OCD vignettes (specific identification rates outlined in Table 1). The percentage of participants who reported being "not at all aware" or "not very aware" for the specific OCD manifestations was highest for aggressive obsessions (36%). The video intervention proved to lower misidentification rates overall, supporting the idea that education on the varying subtypes of OCD can lead to lower misidentification rates, making it more likely that future patients receive the treatment they need. As limitations, the authors note that their results may lack generalizability as their results were based on a relatively small sample of students (n = 82) that were all within the Greater New York Area.

Table 1.

Previous Findings for Identification Across OCD Vignettes for Health Professionals.

		Unacceptable Thought OCD Symptoms					**Other Common Symptoms**		
Study	**Sample**	**Agg.**	**Hom.**	**Ped.**	**Rel.**	**Ver.**	**Con.**	**Som.**	**Sym.**
Glazier et al. (2013)	MHP	68.5% (*n* = 73)	23.0% (*n* = 74)	57.1% (*n* = 71)	71.2% (*n* = 66)	–	84.2% (*n* = 76)	–	–
Glazier et al. (2015a)	GP	20.0% (*n* = 20)	15.6% (*n* = 26)	29.2% (*n* = 24)	62.5% (*n* = 32)	26.1% (*n* = 23)	67.7% (*n* = 31)	60.0% (*n* = 25)	96.3% (*n* = 27)
Glazier & McGinn (2015)	Doctoral psych. students	77.8% (*n* = 18)	66.7% (*n* = 15)	77.8% (*n* = 18)	80.0% (*n* = 15)	74.5% (*n* = 16)	93.7% (*n* = 16)	82.4% (*n* = 17)	96.8% (*n* = 15)

Note. *MHP* refers to mental health professionals. Obsession types expressed by vignettes are represented by abbreviations: *Agg*. = Aggressive, *Hom*. = Homosexuality, *Ped*. = Pedophilic, *Rel*. = Religious, *Ver*. = Verbal (i.e., fear of saying things), *Con*. = Contamination, *Som*. = Somatic, *Sym*. = Symmetry. Glazier & McGinn (2015) sample sizes are based on participants who completed the pre-intervention condition.

Harm OCD

Though it has taken on various names (i.e., aggressive obsessions, taboo thoughts, repugnant thoughts) and remains unclearly defined in literature, Harm OCD refers to the subset of OCD symptoms that involve worrying over the possibility of causing harm to oneself or others, or more specifically unwanted and ego-dystonic thoughts, images, or urges of a violent nature, or fears of being responsible for violent acts. Therefore, one can say that Harm OCD is akin to aggressive obsessions and the compulsions that usually follow. Glazier and McGinn (2015) outline the ways Harm OCD may present itself with aggressive obsessions involving the following fears: harming oneself, harming others intentionally or accidentally, violent images, blurting insults, acting on unwanted impulses, and stealing things. Additionally, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989) outlines that aggressive obsessions can also include the fear that one caused harm to someone else if not careful enough, as well as the fear of being the cause of something terrible happening (e.g., a fire starting). Thus, it appears that Harm OCD can encompass both the Unacceptable Thoughts (i.e., aggressive, violent thoughts) and Responsibility for Harm ("What if I harmed someone by mistake and was at fault?") symptom dimensions represented in the DOCS (J. Abramowitz, personal communication, October 22, 2020).

Current literature has outlined several case examples that further elucidate this Harm subtype of OCD. To start, Wu and Storch (2016) outline the case of Larry

(pseudonym), a 15-year-old boy who experienced intrusive thoughts of inflicting bodily harm upon others with a corresponding mental image of the event. For instance, one of his unwanted impulses was to stab others that was matched by the horrific mental image of doing so. Glazier and McGinn (2015) outline another example of Harm OCD, fear of blurting insults, in their clinical vignette. In the vignette, Jack fears he may blurt out inappropriate utterances of a sexual or ludicrous nature and is only put at ease if he is assured that he has not said anything wrong.

Recently, the media has brought attention to another form of Harm OCD termed Self-Harm OCD or Suicidal OCD (Kissen, n.d.; Made of Millions, n.d.). Veale et al. (2009) described how obsessive thoughts in those with OCD may concern self-harm or suicide (e.g., the mental impulse to stick a finger in a light socket, knowingly electrocuting oneself or to jump off a tall building to fall to one's death) and compulsions may serve to neutralise the thoughts (i.e., avoidant behaviors). However, they further clarified that the obsessions and compulsions alone do not make the person any more likely to follow through with the act. Al-Zaben (2012) presented the case study of a woman who experienced intrusive and unwanted thoughts of jumping off her balcony to fall to her death as well as recurring thoughts of stabbing herself with a knife. The woman would avoid going near balconies and knives to combat the thoughts. The case study reported that the woman had a history of depressive episodes with suicidal thoughts; however, no such episode coincided with these OCD symptoms and she had no true wish to die, meaning her obsessive thoughts were ego-dystonic.

Another important context where intrusive thoughts of harm are pervasive is the perinatal period (i.e., the period during or immediately following pregnancy). The case of the Alabama mother exemplified one way in which harm-related intrusive thoughts target one's own child during the perinatal period, causing significant distress (Vollers, 2020). In a separate case study from Christian and Storch (2009), a mother experienced distressing, intrusive thoughts that she might strangle or drown her infant son. The mental images of her obsessions were extremely detailed to the point of her imagining her arrest and her son's funeral. It is critical to note, however, that a diagnosis of OCD does not put a mother at an increased risk to truly harm her infant. For instance, a recent study from Fairbrother et al. (2022) found that mothers with OCD were as likely as mothers without OCD to act aggressively towards their infants.

On a related note, even in individuals without OCD, the perinatal period appears to be a time of particular vulnerability for intrusive thoughts of harm befalling the infant, whether accidental or intentional. Fairbrother and Woody (2008) found that thoughts of harm befalling an infant were exceedingly common in new mothers, particularly when the nature of the harm content is accidental (100%), but also when the unwanted thoughts depicted intentional harm (50%). However, thoughts of intentional harm were those that caused significantly more distress. Other studies report that most (87%) if not all new parents experience distressing intrusive thoughts of their infant being harmed in some way, with 57% fearing their infant will die from sudden infant death syndrome (SIDS), 52% fearing that their infant will suffocate, and 32% to 46% having thoughts of intentionally harming their infant (e.g., "I could get so angry that I lose control and shake

the baby"; Abramowitz et al., 2006; Abramowitz et al., 2007; Abramowitz et al., 2010; Leckman et al., 1999). It is notable that intrusive thoughts during the perinatal period are not exclusively experienced by mothers, but fathers as well. One study reported that both prepartum and postpartum intrusive thoughts of infant-related harm were as common for fathers as they were for mothers (Fairbrother et al., 2019).

It is likely that obsessive thoughts and taking harm-preventative actions may serve an evolutionary purpose during this time period, escalating maternal stress levels as mothers are overcome with the instinct to protect and care. Brok et al. (2017) discussed two broad categories of harm thoughts surrounding newborns: passive (i.e., "Is my baby still breathing?") and active (i.e., "What if I smother my baby with a pillow?"). Neither of these thoughts are pleasant for mothers to experience; however, active intrusive thoughts may serve as particularly disturbing, seemingly going directly against the instinctive desire to protect when in fact they still serve that instinctual, protective purpose. When these thoughts are attributable to perinatal OCD specifically, there are further deficits in threat perception, wherein there is a hyper focus on anticipated threats (i.e., potential for harm) over immediate, pressing threats (Woody & Szechtman, 2011). Furthermore, while intrusive thoughts of harm occurring to the child are common in this period, the presence of cognitive risk factors discussed earlier (e.g., Thought-Action Fusion, Inflated Responsibility, and Overestimation of Threat) have been found to ultimately predict the development of obsessive-compulsive symptoms in this population (e.g., Abramowitz et al., 2006).

As an important rule of thumb, regardless of the content, experiencing intrusive thoughts as someone with OCD does not increase the likelihood of that fear coming to fruition or on acting out the content of their thoughts (Collardeau et al., 2019). Veale et al. (2009) note that, "…there are no cases of a person with OCD carrying out their obsession" (p. 333), as the intrusive thoughts are fearsome and hold ideas that the person would never wish to become reality. Collardeau and colleagues (2019) discuss that if the thoughts of harming an infant can truly predict harming behavior (e.g., postpartum psychosis), then there is a need to act to ensure the child's safety (e.g., alerting authorities); however, it is unnecessary to take action if the thoughts are just the common intrusive thoughts that occur during the postpartum period or are diagnosed OCD. Glazier and colleagues (2013) discuss that obsessions with aggressive or sexual themes may make professionals more likely to incorrectly report patients to authorities, serving only to falsely confirm the individual's greatest fears – that their intrusive thoughts may become reality. As the Alabama mother experienced upon confiding in her doctor about the content of her distressing intrusive thoughts, a professional falsely confirming a mother's fears that she may harm her child by taking dramatic actions (e.g., involuntary psychiatric admission) will only cause further anguish. Despite this, as exemplified by this report wherein the mother lost custody of her children for five months, and as further discussed in Glazier et al.'s (2013) study, it may unfortunately be the case that such actions are taken against those who report distressing thoughts involving harm.

As a further example of professionals taking unnecessary dramatic action against those experiencing OCD, Booth et al. (2014) had a sample of psychiatrists and psychiatry

residents read a case example involving someone experiencing intrusive thoughts of committing filicide (i.e., committing murder against one's own child). Across the sample, only 62% considered OCD in the differential diagnosis and when asked about potential management strategies, 60% suggested involuntary admission and 68% suggested reporting the individual to child welfare authorities. Though such ego-dystonic and fearful thoughts of infant-related violence are common during the perinatal period, cases of mothers actually committing filicide or infanticide typically only occur when the mother is experiencing postpartum psychosis and is exceedingly rare even then (i.e., 4%; Parry, 1995). It is further important to distinguish that the intrusive, filicidal thoughts associated with postpartum psychosis contrast those associated with perinatal OCD in that the psychotic thoughts are ego-syntonic, aligning with the mother's true intentions, with no distress experienced in relation to having the thoughts (Brandes et al., 2004; Margaret & Spinelli, 2009). So, while the presence of such thoughts may desperately call for emergency interventions in one case (postpartum psychosis), these same interventions would cause further damage and distress in the other wherein the mother is at no increased risk (perinatal OCD). This makes it all the more important for health care professionals to be keen to the critical differences between these two distinct conditions.

Stigmatizing attitudes have been disproportionally applied to Harm OCD as a subtype of the condition as compared to other presentations of OCD (i.e., Contamination and Symmetry). For instance, a recent systematic review from Ponzini and Steinman (2021) found that across studies, Harm OCD was associated with higher public desire for social distance as well as higher perceived dangerousness of the vignette character

presenting these symptoms in comparison to Contamination or Symmetry symptoms. In line with these results, McCarty et al. (2017) utilized a measure called the Attribution Questionnaire (AQ; Corrigan et al., 2003) to measure lay public stigmatizing attitudes towards OCD symptoms. They found that the symptom domains characteristic of Harm OCD (i.e., Unacceptable Thought and Responsibility for Harm) were those most associated with the fear and perceived dangerousness items on the AQ as compared to other presentations of OCD. However, this study also found that when participants were able to correctly identify the vignette as being OCD, they were less likely to report stigmatizing attitudes towards the vignette character. This shows that stigma and recognition of OCD may be related, with correct identification having a profound impact on how someone with ego-dystonic Harm symptoms is perceived by others. In line with this, Glazier et al. (2015b) found that individuals who experienced Harm OCD reported feeling less comfortable coming forward with their violent obsessions due to stigma and shame, and further reported greater fear of hospitalization. However, this was not necessarily due to fear that they may act on their obsessions, but fear that their thoughts may be misinterpreted by professionals, leading to forced hospitalization. As with the case of the Alabama mother, this fear is quite valid (Vollers, 2020).

The Present Study

As was found by Glazier et al. (2013), Glazier and McGinn (2015), and Glazier et al. (2015a), the less commonly known symptom domains of OCD, namely those involving aggressive obsessions, are misidentified by mental health professionals, general practitioners, and clinical psychology students at alarming rates. Properly identifying

intrusive thoughts of harming oneself or others as a symptom of OCD is critical as misidentification can lead to actions taken against the individual, thereby falsely confirming their greatest fear: that they are likely to cause harm to themselves or others. The current study serves to replicate and expand on previous research in the area and is interested in the knowledge and attitudes for Harm OCD in professionals and professional students using a series of clinical vignettes that depict various manifestations of Harm OCD.

This is the first study to directly compare OCD symptom dimension identification across professionals (registered psychologists and general practitioners) and professional students (M.D., clinical Ph.D., and Psy.D.), and is the first to test OCD symptom domain knowledge, attitudes, and identification rates in a sample of medical students. Additionally, I examine misidentification rates for manifestations of Harm OCD that have not yet been portrayed in a clinical vignette study, including obsessions involving infant-related harm and suicidality. Finally, this is the first study to examine diagnostic impressions of OCD vignettes relative to the new *DSM-5* diagnostic criteria (as previous studies were all based on *DSM-IV* criteria; American Psychiatric Association, 2000; American Psychiatric Association, 2013).

The objective of the present study is to examine several interrelated research questions, such as: 1) Will the experimental vignettes (Harm OCD vignettes) be more likely to be misidentified than the control vignettes (Contamination OCD and Non-OCD)?; 2) Amongst professionals (psychologists and general practitioners) and professional students (M.D., Ph.D., Psy.D.), what groups are better able to identify Harm

OCD as a subtype of OCD?; 3) Are certain presentations of Harm OCD more or less likely to be identified amongst professionals and professional students?; 4) Do certain presentations of Harm OCD make the participant more or less likely to believe that the individual is a danger to themselves or others? Because of this, are they more likely to alert authorities, and are these decisions influenced by what gender the vignette character is?

Proposed Hypotheses

In response to the varying research questions, I proposed a series of main hypotheses. These are listed below:

1. Participants would be less likely to correctly identify Harm OCD than Contamination OCD or Social Anxiety.
2. Professionals (registered psychologists, GPs) would be better able to identify Harm OCD, followed by doctoral psychology students (clinical Ph.D., Psy.D.), and M.D. students.
3. Characters featured in the Harm OCD vignettes would be perceived as being more likely to harm others than the character featured in the Contamination vignette.
4. The male vignette character (James) would be perceived as more likely to harm others as well as more likely to require imminent emergency services/referral as compared to the female character.
5. All participants were thought to have greater familiarity for Contamination and Symmetry domains as compared to the Unacceptable thoughts, and Responsibility for Harm symptom dimensions.

6. As undergraduate medical education is focused in medicine more generally and not necessarily the complexities of psychiatric illnesses, M.D. students would feel less comfortable treating OCD with aggressive obsessions as compared to psychology doctoral students and professionals.

Additionally, I conducted several exploratory analyses to determine which of the Harm OCD vignettes would show the lowest rates of identification, which presentations of Harm OCD would make participants more likely to believe that the individual is a danger to themselves or others or to alert authorities, as well as what the most common differential diagnosis was for each Harm vignette when OCD was not correctly identified. Other analyses looked at the relationship between correct identification and how dangerous participants perceived the vignette character to be. Further, a regression analysis explored the factors most associated with comfort in treating Harm OCD, entering variables such as group (professionals vs. students) as well as knowledge for the individual OCD symptom domains, experience treating OCD, and OCD training sufficiency. Finally, I explored whether participants having a background in psychology (i.e., registered psychologists, Ph.D. psychology and Psy.D. students) versus a background in medicine (i.e., GPs and M.D. students) would have an impact on Harm OCD identification and risk assessment of the Harm vignette characters.

Method

Participants

This study was approved for human participation and data collection by the Newfoundland and Labrador Health Ethics Research Board (HREB). A sample of registered psychologists and primary care practitioners (i.e., family doctors; general practitioners) were recruited from across Canada and the United States to partake in this study. Additionally, samples from Canada and the United States were taken that included students completing the Doctor of Medicine (M.D.) program, students completing a Ph.D. program in clinical psychology, and students completing the Doctor of Psychology (Psy.D.) program (power analyses presented below). Participants completed the survey between June 2021 and January 2022. To recruit professionals, respective provincial or state associations were contacted and asked to send out the study description and online link via email to potential participants. To recruit students, respective program administrators or advisors were, similarly, contacted and asked to send out the study description and online link via email. In both cases, interested participants read the email invitation and followed the included link to the online *Qualtrics* (https://www.qualtrics.com/) survey. To avoid mentioning that the study was about OCD specifically, the purpose of the study was advertised to concern identification of psychiatric conditions more generally. I received information regarding recruitment from Dr. Kimberly Glazier and modified the email sent to recruit potential participants so that it was relevant to the current study (see Appendix A). As compensation for participating, participants were entered into a raffle to win one of five $100 gift cards.

Materials

Participants completed the survey entirely online on their personal computers. They were discouraged from using search engines such as *Google* and from consulting with others while completing the survey before beginning the experiment to maintain the integrity of their answers.

Demographic Questionnaire

This questionnaire included demographic questions related to age, gender, country of residence, and occupation (psychologist, GP, or student). Depending on the answer to the occupation question, the questions following varied so that they were relevant to that specific occupation (see Appendix B).

Vignettes

The use of clinical vignettes in research has long aided in investigating how health care providers operate in clinical settings. The brief but detailed nature of these vignettes allows researchers to conveniently mimic real-life scenarios in a manner that is standardizable for cross-study comparisons (Alexander & Becker, 1978; Link et al., 2004). In addition to these benefits, further evidence supports that they offer an ideal approach when addressing research questions specific to practitioner-patient relations that are not often accessible via alternative means (Evans et al., 2015).

As outlined in Appendix B, a total of 10 clinical vignettes were used including four Harm OCD scenarios wherein the individual either exhibited obsessions surrounding perpetuating harm against their infant (inspired by Hudak & Wisner, 2012; Sharma &

Sommerdyk, 2015), harming others (i.e., their partner), blurting out harmful insults (both modified from Glazier & McGinn, 2015), or harming themselves (i.e., suicide; inspired by Al-Zaben, 2012). For each of these four Harm OCD scenarios, there was a female (Jean) and male (James) version of the vignette, making a total of eight Harm OCD vignettes. The male and female versions of these vignettes were identical except for the gender of the featured individual and the associated pronouns. Two control vignettes were included: one depicting a more typical presentation of OCD (Contamination OCD; modified from Glazier & McGinn, 2015), and one depicting a disorder other than OCD (social anxiety disorder; modified from Reavley & Jorm, 2011). A social anxiety vignette was used by Glazier and McGinn (2015) to mirror the core components of OCD with somatic obsessions while remaining distinct from other presentations of OCD (i.e., aggressive obsessions, obsessions surrounding contamination). Therefore, it was decided that social anxiety was a suitable vignette depiction to serve as a control when comparing Harm OCD and Contamination OCD. All participants received either one of the Harm OCD vignettes or the social anxiety vignette followed by the Contamination OCD vignette. The Contamination OCD vignette was always presented second to ensure that exposure to a classic presentation of that disorder did not cue participants to the nature of the preceding vignette.

Overall, participants viewed just two of the total 10 vignettes: 1. Either one of the eight Harm OCD vignettes or the Non-OCD (social anxiety) vignette; 2. The Contamination OCD vignette. The inclusion of the gender variable allowed for direct comparison of participant survey responses depending on whether the individual in the

vignette was female or male. Inclusion of the Contamination OCD vignette allowed for comparison between the symptom identification for a subtype of OCD that is more commonly known and subtypes of the disorder that are less conventional. Finally, the inclusion of the social anxiety vignette permitted comparison between identification rates of OCD in general and a Non-OCD disorder.

During experimental conditions, participants read one of the eight Harm OCD vignettes first and then the control OCD vignette (Contamination). This served to minimize possible ordering effects; specifically, to prevent participants from being primed by the Contamination OCD vignette (which is likely to be recognized as being OCD over any of the Harm OCD vignettes). This also served to prevent participants from concluding that this study concerned OCD, thereby influencing how they identify the Harm OCD vignette, and likely showing better identification than they would otherwise. Furthermore, keeping this order true for the control condition (i.e., Non-OCD-Contamination OCD) helped to discern if any practice effects were occurring for the Harm OCD-Contamination OCD conditions that would possibly lead to better identification for Contamination OCD because of identifying the Harm OCD vignette first. As the Non-OCD vignette would instead come first for this condition, it would not prime participants to think this study concerns OCD, controlling for such practice effects.

The format of the vignettes used in this study was adapted to match the format of those used by Glazier and McGinn (2015). Each vignette was 6-7 sentences long and the two vignettes that participants read featured separate individuals that were relatively close in age. For their Harm OCD or Non-OCD vignette, participants either read about 25-year-

old Jean (female character) or 25-year-old James (male character). For the Contamination OCD vignette, they read about 22-year-old Miranda. Different from Glazier and McGinn (2015), these vignettes were based on the diagnostic criteria of the *DSM-5* (American Psychiatric Association, 2013), whereas the previous study's vignettes were based on the earlier fourth edition (American Psychiatric Association, 2000).

Diagnostic Questionnaire

This questionnaire asked participants to give their diagnostic impressions of the individual featured in the vignette. This questionnaire was developed for the purpose of this experiment with influence from Glazier et al.'s (2013) methodology regarding the ranked list. First, participants answered an open-ended question wherein they listed and ranked up to three possible illnesses or conditions, with their first choice being most likely. Afterwards, they chose at least three diagnoses from a list of various *DSM-5* psychiatric illnesses as well as non-clinical conditions, again ranking their choices numerically with 1 being most likely. They were further asked to indicate how likely they believed the individual featured was to harm themselves, others, or require imminent emergency services (see Appendix B). Misidentification was operationally defined as participants not including the correct diagnosis in their top three choices. Conversely, if the correct diagnosis was included in their top three, they were considered as having properly identified the illness. However, given that Glazier et al. (2013), Glazier et al. (2015a), and Glazier and McGinn (2015) used more lenient criteria to define misidentification in that any mention of OCD was counted as correct regardless of ranking, I also reported my data in this manner for ease of later comparison.

Proficiency Questionnaire

This questionnaire asked about participants' clinical experience, knowledge, and attitudes surrounding OCD and the specific subtypes of the disorder (see Appendix B). Questions from this questionnaire were also developed for the purpose of this experiment; however, the attitude question was adapted from that used in the OCD-Knowledge and Attitudes Questionnaire (OCD-KAQ) piloted by Kyrios et al. (2010).

Procedure

After completing the demographic questionnaire, participants were randomly assigned to one of the nine vignette conditions, eight of which were experimental Harm OCD conditions and one was the control condition. Random assignment was completed automatically within the *Qualtrics* survey, ensuring that participants were assigned to each vignette condition with even probability. The experimental conditions had participants read one of the eight possible Harm OCD vignettes first and then the Contamination OCD vignette. The control condition had participants read the Non-OCD (social anxiety) vignette first and then the Contamination OCD vignette. Following each vignette, participants completed the diagnostic questionnaire.

After having read both vignettes and providing answers to both diagnostic questionnaires, participants then completed the proficiency questionnaire wherein they commented on their OCD experience, knowledge, and attitudes surrounding the condition.

Upon completing the experiment, participants were debriefed and thanked for

their participation. They were finally redirected to a survey separate from the main survey to fill in their contact information (name and email) to be entered into the raffle if they so desired. This experiment was expected to take approximately 10-15 minutes to complete.

Power Analysis

For each main comparison, a priori power analyses were conducted using G* Power (Faul et al., 2009) to determine the minimum sample size required for each analysis. In all cases, comparisons were adequately powered (i.e., statistical power of .80) based on the achieved sample size, except for the first hypothesis comparing identification of Harm OCD, Contamination OCD, and Non-OCD (social anxiety), in which I was very slightly underpowered only for the Non-OCD comparison (n = 35 per group rather than the 36 required; w = .30, α = .05, power = .80, df = 2).

Results

Sample Characteristics

A total of 353 participants completed the online study; however, 44 participants were excluded for only reporting demographic information, and a further 2 were excluded for taking less than 4-minutes to complete the entire survey. Such short durations were indicative of poor-quality responses as the survey had been estimated to take approximately 10-15 minutes and the average time to complete the survey was just over 15 minutes (M = 15.19, SD = 21.87). Demographic information for the final sample of 308 participants as well as sample size for professionals (registered psychologists, GPs) and students (clinical psychology Ph.D., Psy.D., and M.D.) are outlined in Table 2.

Table 2.

Demographic Characteristics of Entire Sample after Exclusions (N = 308).

Demographic Characteristic		***N***	**%**
Gender	Female	232	75.3
	Male	72	23.3
	Non-binary	2	0.7
	Prefer not to say	2	0.7
Race	White	214	69.5
	Asian	40	13.0
	Other	15	4.9
	Middle Eastern	11	3.6
	Black	10	3.3
	East Indian	8	2.6
	Hispanic	2	0.6
	Indigenous	2	0.6
	Prefer not to say	6	1.9
Group (Professionals)	R. Psych	62	20.1
	GP	11	3.6
Group (Students)	M.D.	143	46.4
	Clinical Ph.D.	72	23.4
	Psy.D	20	6.5
Country	Canada	306	99.4
	US	2	0.6
		M	***SD***

Years practicing (Professionals)	R. Psych	13.98	10.21
	GP	15.73	14.97
Current program year (Students)	Clinical Ph.D.	3.82	2.04
	Psy.D.	2.30	1.17
	MD	2.40	1.21

Identification Coding Method Comparison

For all analyses, alpha was set at .05. Prior to discussing my hypothesised results, I first compared the three possible ways in which correct identification could be scored. I wished to include a number of identification methods for this study to both compare the current study's results with previous literature (i.e., ranking from a provided list) as well as determine how well participants would be able to utilize an unprompted, pure form of identification that might better mimic first impressions of symptoms in a clinical setting. The comparison of the methods of identification was to identify any differences in what conditions vignette characters were labeled with as a result of relying only on base knowledge, or being presented with and choosing from a list of clinical and non-clinical diagnoses. As a reminder, participants were first offered the open-ended opportunity to list three possible conditions they believed the character in the vignette was presenting with. For this method of identification, data were coded dichotomously with 1 indicating that OCD had been correctly identified within their three open-ended labels, and 0 indicating that it had not. They were next asked to offer their diagnostic impressions of the vignette character's symptoms, but this time by choosing from a list of possible conditions. As participants were allowed to choose as many conditions from the list as they felt necessary, I calculated ranked estimates of correctly identifying OCD when participants had selected the condition at all from the list as per Glazier et al.'s (2015a) methods, but also when participants' top three choices included OCD to give a less lenient estimate. Therefore, ranking identification was coded twice: once coding 1 if participants had identified OCD in their top three rankings only and coding 0 if not, and again coding 1 if they had included OCD in their rankings at all and coding 0 if not. Mean

correct identification for each of the three coding methods (open-ended, top-three ranking, overall ranking) are summarized for the three vignette types (Harm, Contamination, and Non-OCD) in Table 3.

A series of McNemar[1] tests (e.g., Eliasziw & Donner, 1991) comparing the three methods of identification revealed that there were significant differences in Harm OCD correct identification depending on whether participants provided their diagnostic impressions via open-ended identification versus when choosing from the provided list. The analyses revealed first that the open-ended coding scheme resulted in a significantly greater probability of identifying Harm OCD than either the top three, $\chi^2(1, N = 268) = 19.17$, $p < .001$, or overall, $\chi^2(1, N = 268) = 9.00$, $p = .003$, ranking methods. Further, the more lenient overall ranking method likewise produced greater correct identification than the top-three ranking method, $\chi^2(1, N = 268) = 9.00$, $p = .003$. Interestingly, the pattern shows that open-ended identification was the most successful method for correct identification of Harm OCD despite the lack of a list to reference. Furthermore, correct identification of Contamination OCD only significantly differed between the two ranking methods of identification, $\chi^2(1, N = 292) = 5.00$, $p = .025$. Finally, there were no significant differences between the three methods of identification for the Non-OCD (social anxiety) vignette (all p's > .05). Therefore, the current study will focus on reporting results in terms of open-ended identification as this was deemed to be the most pure, unpersuaded identification method with no prompt from the list of clinical and non-clinical diagnoses. Further, participant attrition rates led to fewer responses throughout

[1] A McNemar test is a repeated-measures generalization of a classic Chi-Squared test.

the duration of the survey (see Table 3), and as this was the first method of identification used, it yielded the most data of the three methods. However, main results that significantly differ depending on the identification method used will be noted and discussed.

Main Results

I discuss my results in terms of the specific hypotheses proposed.

Hypothesis 1: Lower Correct Identification for Harm vs. Contamination and Non-OCD

I first hypothesised that Harm OCD vignettes would be identified as OCD less successfully compared to Contamination and Non-OCD vignettes across my entire sample. Correct open-ended identification rates for each vignette condition discussed here are outlined in Table 3. Two separate analyses were necessary to test this hypothesis as the vignette design utilized both within-subject (Harm OCD vs. Contamination OCD) and between-subject (Harm OCD vs. Non-OCD) comparisons. The first used a McNemar test to evaluate whether vignette type (Harm OCD, Contamination OCD) would predict correct identification of the condition. Participants in the Non-OCD condition were excluded from this analysis so as to compare Harm OCD alone to Contamination OCD identification performance. This test revealed that participants were significantly better at correctly identifying Contamination OCD than Harm OCD, $\chi^2(1, N = 261) = 52.27, p < .001$.

A Chi-Squared test of independence comparing correct, open-ended identification of Harm vignettes to the Non-OCD vignette found that there was no significant difference, $\chi^2(1, N = 307) = 1.74, p = .188$, Cramer's $V = .075$, meaning that participants

were able to identify Harm OCD and social anxiety at rates that did not significantly differ when using open-ended identification. Interestingly, this result changed when participants used ranked identification methods (top three or overall) instead of open-ended with Harm OCD correct identification rates decreasing and social anxiety correct identification rates increasing with these methods. This resulted in participants being able to identify the Non-OCD vignette in their top three rankings with significantly more success than the Harm OCD vignette, $\chi^2(1, N = 303) = 12.68$, $p < .001$, Cramer's $V = .21$, as well as identify the Non-OCD vignette in their overall rankings more successfully than Harm OCD, $\chi^2(1, N = 303) = 10.62$, $p = .001$, Cramer's $V = .19$.

To determine if practice effects were possibly at play for greater Contamination OCD identification success following presentation of Harm OCD vignettes, a Chi Square test of independence was run to see if there was a significant difference in correct, open-ended identification for Contamination OCD dependent on whether participants were in one of the experimental Harm OCD conditions compared to if they were in the control, Non-OCD condition. The result was not significant for open-ended identification, $\chi^2(1, N = 295) = .81$, $p = .368$, Cramer's $V = .052$, determining that for those in the Non-OCD condition, Contamination OCD was successfully identified at a rate that was not significantly different from Contamination OCD correct identification for those in the Harm OCD conditions, indicating that practice effects were likely not at play.

Table 3.

Vignette Correct Identification Rate by Identification Method Used.

Vignette Type	Identification Type	*N*	Identification Rate (%)
Harm OCD	Open-ended	272	75.8
	Ranked (Top 3)	268	68.3
	Ranked (Overall)	268	71.6
Contamination OCD (Harm OCD conditions)	Open-ended	262	97.0
	Ranked (Top 3)	259	94.6
	Ranked (Overall)	259	96.1
Contamination OCD (either condition)	Open-ended	295	97.0
	Ranked (Top 3)	292	94.5
	Ranked (Overall)	292	96.2
Non-OCD (social anxiety)	Open-ended	35	85.7
	Ranked (Top 3)	35	97.1
	Ranked (Overall)	35	97.1

Note. As Harm OCD vignettes and the Non-OCD vignette were manipulated between subjects, correct identification rates for Contamination OCD are given for those in the Harm OCD vignette conditions alone for within-subject comparison of these OCD vignette types, as well as for those in either the Harm and Non-OCD conditions.

Hypothesis 2: M.D. Students as Least Successful at Identifying Harm OCD

I next predicted that professionals (registered psychologists, GPs) would be better able to identify Harm OCD compared to the student sample, with M.D. students showing lower correct identification for these vignettes than psychology doctorate students (Ph.D., Psy.D.). This hypothesis did not concern the identification for the Non-OCD (i.e., social anxiety) vignette, and therefore those data are not included in this analysis. Correct

identification rates for each group are outlined in Table 4. The omnibus Chi-Square test of independence found that there was a statistically significant difference amongst the three groups in correct identification of Harm OCD, $\chi^2(2, N = 272) = 22.83$, $p < .001$, Cramer's $V = .29$. As M.D. student performance was the lowest compared to the professional and psychology doctorate student samples, a post-hoc analysis was conducted to determine if M.D. student performance was what was driving this difference. A post-hoc Chi-Squared test of independence was conducted comparing combined professionals and psychology doctorate student correct identification rates (87.1%) to that of M.D. (62.4%) students and found a significant difference, $\chi^2(1, N = 272) = 22.38$, $p < .001$, Cramer's $V = .29$, showing that of the entire sample, M.D. students showed the lowest rates of correct identification for Harm OCD.

Table 4.

Harm OCD vs. Contamination OCD Open-Ended Identification by Group (Professionals, Psychology Doctorate Students, M.D. Students).

Group	*n*	Harm Identification (%)	Contam. Identification (%)
Professionals	64	84.4	98.3
R. Psych	53	89.0	98.0
GP	11	63.6	100.0
Psy Doc Students	83	89.2	98.8
Ph.D.	64	87.5	98.4
Psy.D.	19	94.7	100.0
M.D. Students	125	62.4	95.1

Note. Contam. is Contamination OCD. Contamination OCD correct identification rates here represent only those in the Harm OCD conditions for within-subject comparison and not those in the Non-OCD condition.

Hypothesis 3: Harm OCD Vignette Character as More Likely to Harm Others

For my third hypothesis, I anticipated that the character featured in any of the Harm OCD vignettes would be perceived as more of a risk to harm others than the Contamination OCD vignette character. To test this, I implemented a paired samples *t*-test to analyse how judgements about the perceived likelihood to harm others differed based on viewing the Harm versus Contamination vignettes. This statistical test was deemed most appropriate as I compared continuous likelihood judgements depending on the within-subjects factor of viewing a Harm vignette versus the Contamination vignette. This hypothesis did not concern risk assessment for the Non-OCD (i.e., social anxiety) vignette character, and therefore those data are not included in this analysis. Overall,

Harm OCD characters were deemed as at a significantly higher risk to harm others (M = 27.25, SD = 24.04) compared to the Contamination character (M = 8.47, SD = 12.16), $t(258) = 13.84$, $p < .001$, $d = .86$, 95% CI [.71, 1.00].

Hypothesis 4: Higher Risk Perception for Male Character than Female

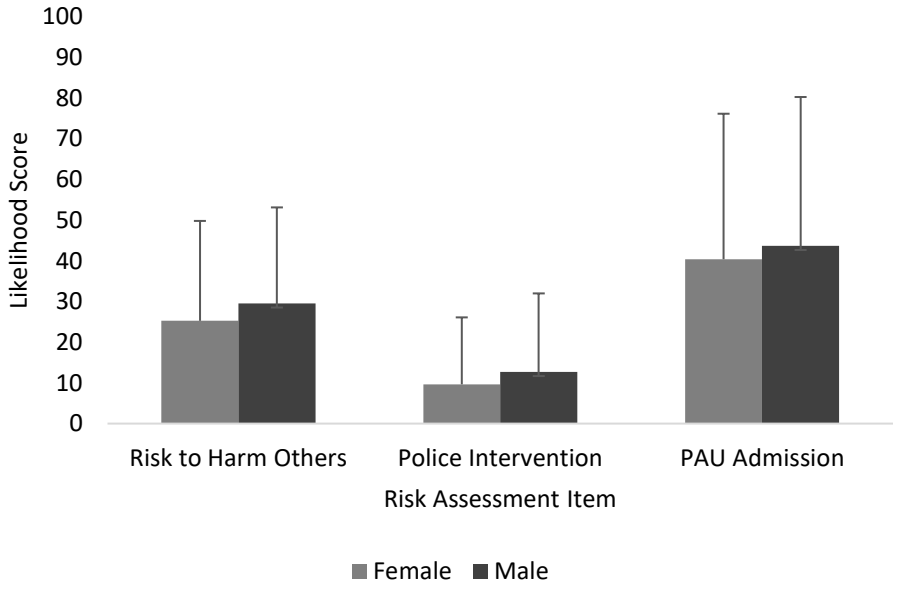
My fourth hypothesis concerned whether the male vignette character (James) would be perceived as more of a risk to harm others as well as more likely to require imminent emergency services (i.e., police intervention and admission to a psychiatric assessment unit) than the female character (Jean) for the Harm OCD vignettes. As participants were randomly assigned to read vignettes with either male or female characters featured, I wished to compare responses to the risk assessment questions across character gender. Again, this hypothesis did not concern risk assessment for the Non-OCD (i.e., social anxiety) vignette character; therefore, those data are not included in this analysis. Means and standard deviations for each item are depicted in Figure 1. An independent samples t-test was conducted with gender of the vignette character as a predictor of the likelihood scores, finding that risk to harm others scores were not significantly higher for the male character as compared to the female character, $t(266) = 1.46$, $p = .073$, $d = .18$, 95% CI [-.06, .42]. To assess whether participants viewed the male character as more likely to require emergency services over the female character, two further independent samples t-tests were run. The first concerned the degree to which participants felt that the symptoms of the vignette character would warrant police intervention and if this was impacted by the gender of the vignette character. This also found that participants were not significantly more likely to consider reporting the male

character to the police than the female character, $t(266) = 1.38$, $p = .084$, $d = .17$, 95% CI [-.07, .41]. The second assessed the degree to which participants felt that the character's symptoms warranted admission into a psychiatric assessment unit and if this was dependent on the character's gender. In line with the other analyses, participants were not significantly more likely to suggest psychiatric admission for the male character than the female character, $t(266) = .74$, $p = .231$, $d = .09$, 95% CI [-.15, .33].

Although the overall results of this hypothesis were not statistically significant, the pattern of results trended towards the male character showing higher risk assessment scores (see Figure 1), particularly for risk to harm others judgements as well as requirement of police intervention judgements. Therefore, additional exploratory analyses were conducted to see if this pattern might have differed across the various unique presentations of Harm OCD. When looking at gender differences between each of the Harm vignettes individually through a series of independent samples *t*-tests, it was found that for the Suicide vignette, the male character was perceived as significantly more likely to harm others than the female character, $t(68) = 2.21$, $p = .002$, $d = .53$, 95% CI [.04, 1.01]. There were no other significant differences found amongst the vignette types when evaluating propensity for risk nor need for emergency services for the vignette character.

Figure 1.

Risk Assessment Judgements for Harm OCD vignettes by Type of Risk (Harm to Others, Police Intervention, Psychiatric Assessment Unit Referral) and Gender (Male, Female) of the Vignette Character.



Note. Error bars represent the standard deviation for familiarity scores by dimension. This analysis concerned only risk assessment data from those participants who read a Harm OCD vignette, and therefore this figure does not include data for those who read the social anxiety vignette.

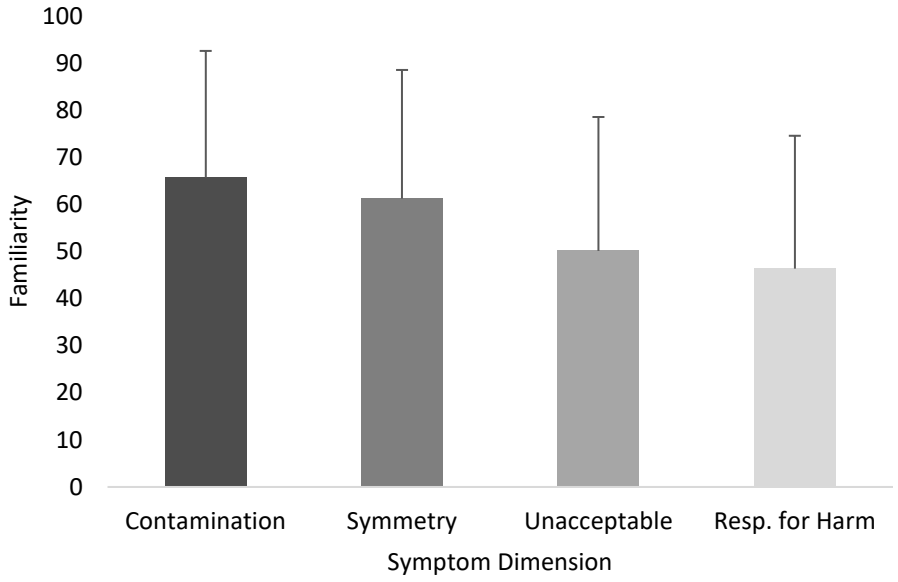
Hypothesis 5: Contamination and Symmetry Domains as Most Familiar

For my fifth hypothesis, I anticipated that participants would report greater knowledge for Contamination and Symmetry domains as opposed to the Unacceptable Thoughts and Responsibility for Harm domains. As individual familiarity judgements for each of the four domains were relevant across my entire sample, I tested this hypothesis using a repeated measures ANOVA wherein continuous Likert familiarity scale ratings

were compared as a function of symptom dimension (Contamination, Symmetry, Unacceptable Thoughts, and Responsibility for Harm). The omnibus results indicated that there was a significant difference in familiarity ratings amongst the four symptom dimensions, $F(3, 858) = 70.82$, $p < .001$, $\eta^2 = .08$. Figure 2 compares the average familiarity scores across these domains. Post hoc analyses were conducted using Tukey's HSD test, utilizing pooled standard errors and residual degrees of freedom from the repeated-measures ANOVA model for its calculation. This revealed that there were significant differences between all symptom dimensions. Contamination OCD was the most familiar with scores significantly higher than Symmetry OCD, $t(858) = 3.03$, $p = .013$, Unacceptable Thought OCD, $t(858) = 10.13$, $p < .001$, and Responsibility for Harm, $t(858) = 12.73$, $p < .001$. Further, Symmetry OCD was significantly more familiar than Unacceptable Thought OCD, $t(858) = 7.09$, $p < .001$, and Responsibility for Harm OCD, $t(858) = 9.70$, $p < .001$. There were no other significant differences, leaving Contamination OCD as the most familiar of the four dimensions, and Unacceptable Thoughts and Responsibility for Harm OCD as the least familiar amongst my sample.

Figure 2.

Mean Familiarity Scores for OCD Symptom Presentations by Dimension.



Note. Error bars represent the standard deviation for familiarity scores by dimension.

Hypothesis 6: M.D. Students as Least Comfortable in Treating Aggressive Obsessions

For my sixth and final main hypothesis, I predicted that out of the entire sample of professionals and students, M.D. students would report feeling the least comfortable in treating OCD with aggressive obsessions. To test this, I combined my sample of registered psychologists and GPs to create a "Professional" group, as well as the clinical psychology Ph.D. and Psy.D. students to create a "Psychology Doctoral" group to compare to M.D. students. I ran a one-way ANOVA to consider the responses to this attitude question as a function of participant occupation (Professional, Psychology Doctoral students, M.D. students). The omnibus test result revealed that there was a significant difference in comfort levels depending on participant group, $F(2, 284) =$

28.19, $p < .001$, $\eta^2 = .17$. A follow-up Tukey HSD analysis revealed that M.D. student comfort levels ($M = 19.85$, $SD = 23.66$), were significantly lower than Professional comfort levels ($M = 46.52$, $SD = 31.34$), $t(284) = 6.39$, $p < .001$, and Psychology Doctoral student comfort levels ($M = 42.67$, $SD = 30.38$), $t(284) = 5.99$, $p < .001$, in treating OCD with aggressive obsessions. No other significant differences were found. Therefore, my hypothesis was supported in that M.D. students reported feeling significantly less comfortable treating aggressive obsessions than the other groups in my sample.

Exploratory Results

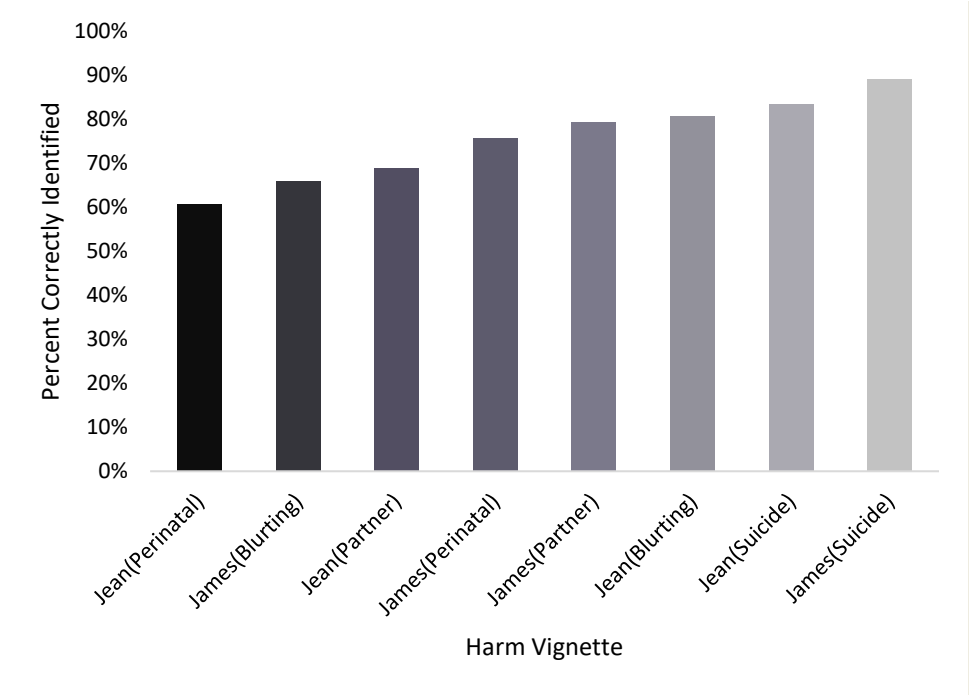
Harm Vignette Correct Identification

In addition to the results of my main hypotheses, I ran a series of exploratory analyses. For the first of these, I wished to compare correct open-ended identification rates of the Harm vignettes to determine if there were any presentations that were significantly more or less recognizable as OCD than others. The comparison included both gendered versions of the Perinatal, Partner-Focused, Suicide, and Blurting Insults Harm vignettes. It is notable that Non-OCD (i.e., social anxiety) identification rates were not included in these comparisons as I was only concerned with Harm OCD identification. The correct identification rates for each Harm vignette version are depicted in Figure 3. An omnibus Chi Squared test of independence revealed that there was no significant difference amongst the varying Harm OCD vignette versions, $\chi^2(7, n = 272) = 11.99$, $p = .101$, Cramer's $V = .21$. However, a follow-up comparison was conducted between the Harm vignette with the highest correct open-ended identification (James-Suicide; 88.9%) and the Harm vignette with the lowest (Jean-Perinatal; 60.6%). This was significant, $\chi^2(1, n = 69) = 7.43$, $p = .006$, Cramer's $V = .33$, indicating that correct

identification for the female version of the Perinatal OCD vignette was significantly poorer than that for the male version of the Suicide OCD vignette. However, it is notable that vignette identification did not significantly differ between gender for any of the four Harm OCD presentations.

Figure 3.

Percent Correct Identification Rates by Specific Harm Vignette (Male and Female).



Differential Identification

Additional analyses were run to explore the condition for which Harm OCD was most often mistaken. These data are outlined in Table 5. Across all Harm OCD vignettes, the most common label given during open-identification was tied between generalized anxiety disorder (GAD) and psychosis. Additionally, even when participants correctly labeled the Harm vignettes as being OCD, psychosis was also included in open-ended identification over a quarter of the time (26.5%). When ranking from the list of clinical

and non-clinical diagnoses, psychosis was the most common diagnosis included in participants' top three possible conditions at 42.4% when OCD was not identified. When OCD was correctly identified in participant top three rankings, psychosis was still included at over a quarter of the time (28.6%). In order to later compare this statistic to Glazier et al. (2013) and Glazier et al.'s (2015a) most common misdiagnoses, one must take all participant list rankings into consideration. When doing so, psychotic disorders were still the most common label when OCD was not correctly identified at 48.7%.

I further calculated what conditions each Harm OCD vignette was misidentified as when they were not correctly identified as being OCD (Table 5). For the Perinatal vignette, participants most often misidentified the OCD symptoms as characteristic of a psychotic disorder (e.g., postpartum psychosis) in their open-ended identification. As this rate was particularly high, and Perinatal OCD showed the lowest overall correct identification rate, I wished to further investigate this vignette by gender of the character (i.e., Jean or James). In doing so, it was found that the female character (n = 12, Jean) was misidentified as having a psychotic disorder when presenting symptoms of Perinatal OCD at a rate of 83.3%. This rate was still relatively high for the male character (n = 9, James) as well at 55.6%. Perinatal depression was the second most common label for this vignette at over 50% of the time (52.4%). This again was particularly prevalent when the Perinatal vignette character was female (83.3%), but less so for the male character (11.1%). Though these gender-specific results are interesting to consider, it is notable that the sample size of those who incorrectly identified the male version of the Perinatal vignette is particularly small. A similar pattern was found within participants' top three conditions when ranking from the list of possible diagnoses as most participants

misidentified the Perinatal OCD vignette as a psychotic disorder, with the female character (*n* = 14) misidentified with a psychotic disorder at 78.6%, and the male character (*n* = 13) at 61.5%. For ranking, the second most common label in participant top three ranking was not perinatal depression, but adjustment disorder at 55.6%, with the female (57.1%) and male (53.9%) vignettes being misidentified as adjustment disorder at similar rates.

Regarding the other Harm OCD vignettes, the Blurting Insults vignette was most often misidentified as a motor/tic disorder (e.g., Tourette's syndrome) when participants were asked to use open-ended identification to label three conditions (see Table 5). When ranking their top three diagnoses from the provided list of conditions, the result was similar to open-ended results with a motor/tic disorder being the most common alternate label to these symptoms of OCD.

When Partner-Focused Harm OCD was not correctly identified, the most common label for the symptoms was some form of psychosis once again (Table 5). As this vignette centered on an individual with intrusive fears that they might harm their partner of the opposite gender, and as one of my main hypotheses concerned gender discrepancy in likelihood to harm others, I wished to explore potential gender differences with this label. I found that likelihood to harm others judgments were particularly high for James at (50%) compared to the female character (30%). When looking at participant top three ranking, psychosis was again the most common label. However, with this type of identification, the gap between the two characters was less prominent with the male character perceived as experiencing symptoms of psychosis 37.5% of the time compared to the female at 36.4% of the time.

The final Harm vignette to discuss is the Suicide OCD vignette. This was the vignette with the highest correct identification rate overall; however, when OCD was not identified by open-ended ratings, the most common alternate label given by participants was some type of depressive condition (i.e., major depressive disorder, depressive episode, etc.). These conditions were also those most often included in participant top three ranked diagnoses when OCD was not identified (Table 5).

Table 5.

Most Common Diagnostic Label When Harm OCD Not Correctly Identified.

Vignette	Ident. Type	*n*	Label	Identification Rate (%)
All Harm	Open-ended	66	Psychosis	36.4
	Rank (Top 3)	85	Psychosis	42.4
Perinatal	Open-ended	21	Psychosis	71.4
	Rank (Top 3)	27	Psychosis	63.0
Blurting Insults	Open-ended	19	Motor/tic	63.2
	Rank (Top 3)	24	Motor/tic	66.7
Partner-Focused	Open-ended	16	Psychosis	37.5
	Rank (Top 3)	19	Psychosis	57.9
Suicide	Open-ended	10	Depression	60.0
	Rank (Top 3)	15	Depression	46.7

Note. *Ident. Type* refers to method of identification used, *n* refers to the number of times the Harm OCD vignette was not correctly identified by participants, *Label* is the most common condition OCD was misidentified as, *Identification Rate (%)* refers to the percentage of time Harm OCD was misidentified as the incorrect label when OCD was not included in identification.

Perceived Propensity for Risk by Harm Vignette

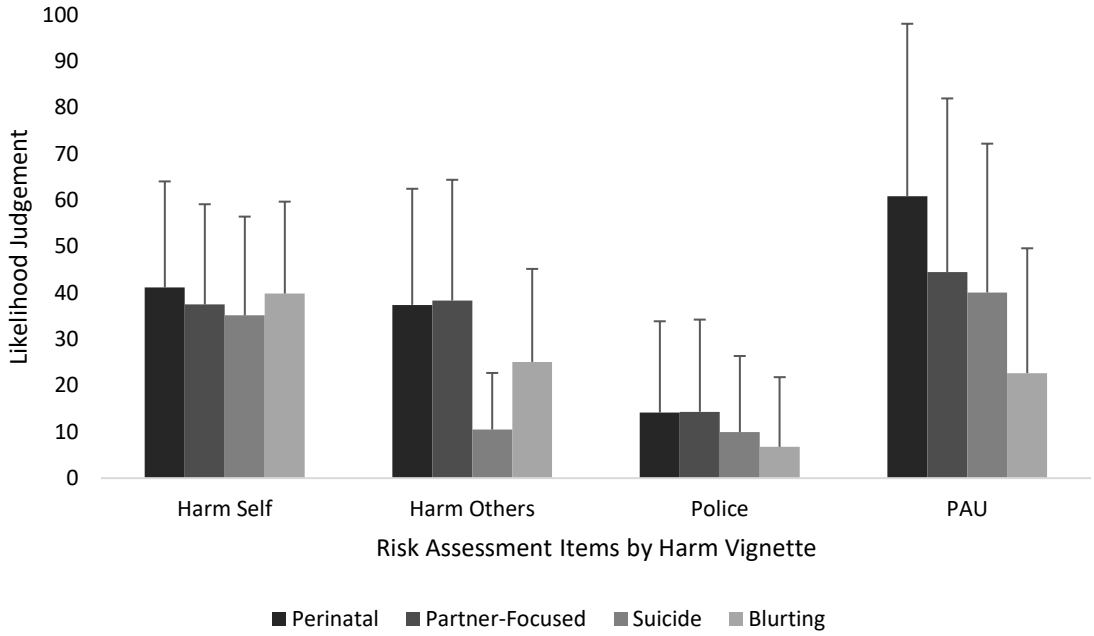
Further exploratory analyses examined whether perceived risk of the vignette character (i.e., risk to harm themselves, risk to harm others, likelihood to report to police, and likelihood to support admission into a PAU) differed between the four Harm OCD vignettes. As these comparisons dealt with continuous risk-assessment data, as well as vignette type as a categorical factor with more than two groups, a one-way ANOVA was run with each of the risk assessment items as the dependent variables with Harm OCD vignette type (Perinatal, Blurting Insults, Partner-Focused, Suicide) as the independent variable. Respective means and standard deviations across all risk assessment items for each of the Harm OCD vignettes are outlined in Figure 4. For risk to harm themselves, the ANOVA determined that participants were not significantly more likely to perceive characters of one Harm vignette as a higher risk to harm themselves than those in the other Harm vignettes, $F(3, 264) = 1.06$, $p = .365$, $\eta^2 = .01$. However, for risk to harm others, the ANOVA was significant, $F(3, 264) = 25.15$, $p < .001$. A post-hoc Tukey HSD analysis revealed that characters featured in the Suicide vignette were perceived as significantly less likely to harm others over the Perinatal vignette, $t(264) = 7.44$, $p < .001$, Partner-Focused vignette, $t(264) = 7.39$, $p < .001$, and Blurting Insults vignette, $t(264) = 4.01$, $p < .001$. Furthermore, characters in the Perinatal vignette, $t(264) = 3.38$, $p = .005$, and Partner-Focused vignette, $t(264) = 3.49$, $p = .003$, were perceived as significantly more likely to harm others than those in the Blurting Insults vignette. There were no other significant differences.

Regarding perceived need for emergency services, there was a significant overall effect for participant likelihood to notify police depending on which Harm vignette they

read, $F(3, 264) = 2.77$, $p = .042$, $\eta^2 = .03$. However, upon analysing potential differences amongst the Harm OCD vignettes post-hoc, there were actually no significant differences between the vignettes. For participant likelihood to suggest psychiatric admission for the vignette character, there were significant differences amongst the Harm OCD vignettes, $F(3, 264) = 15.02$, $p < .001$, $\eta^2 = .15$. The post-hoc Tukey HSD analysis revealed that characters featured in the Blurting Insults OCD vignette were significantly less likely to require admission to the PAU ($M = 22.68$, $SD = 22.94$) compared to characters in the Perinatal OCD vignette ($M = 60.87$, $SD = 37.22$), $t(264) = 6.67$, $p < .001$, Partner-Focused OCD vignette ($M = 44.48$, $SD = 37.49$), $t(264) = 3.66$, $p = .002$, and Suicide OCD vignette ($M = 40.09$, $SD = 32.13$), $t(264) = 3.04$, $p = .013$. Furthermore, participants were significantly more likely to suggest PAU admission for characters featured in the Perinatal OCD vignette than those in the Suicide OCD, $t(264) = 3.66$, $p = .001$, or Partner-Focused vignettes, $t(264) = 2.77$, $p = .030$. There were no other significant differences.

Figure 4.

Risk Assessment Judgements (Risk to Harm Self, Risk to Harm Others, Need for Police Intervention, Need for Psychiatric Assessment Unit Referral) by Harm OCD Vignette.



Note. Error bars represent standard deviations. Data from participants in the Non-OCD condition are not relevant to this exploratory analysis and are therefore not represented in this figure.

Harm OCD Identification in Relation to Risk Assessment

I wished to further explore whether correct identification of the Harm vignette related to how participants assessed risk in the vignette character. This was analysed using a series of independent samples *t*-tests comparing varying continuous measures of risk assessment (risk to others, risk to self, need for emergency services) between individuals who correctly identified Harm OCD and those who did not. The first assessed Harm character risk to harm others depending on correct identification and was found to

be significant, $t(266) = 5.44$, $p < .001$, $d = .78$, 95% CI [.46, 1.09], with likelihood to harm others scores significantly lower in participants who correctly identified the vignette as representing OCD ($M = 23.19$, $SD = 21.63$) than those who did not ($M = 41.05$, $SD = 26.68$). A second analysis was run to assess Harm character risk to harm themselves. This found that risk to harm self scores were significantly lower in those who identified Harm OCD ($M = 36.67$, $SD = 20.88$) as compared to those who did not ($M = 44.03$, $SD = 22.50$), $t(266) = 2.41$, $p = .008$, $d = .35$, 95% CI [.06, .63]. A third *t*-test assessed likelihood to suggest police intervention against the Harm character depending on correct identification and found that likelihood scores were significantly lower in those with correct identification ($M = 9.42$, $SD = 15.18$) as compared to those who did not correctly identify the vignette ($M = 16.94$, $SD = 24.27$), $t(266) = 2.96$, $p = .002$, $d = .42$, 95% CI [.13, .71]. A final *t*-test analysed whether participant likelihood to support admission of the Harm vignette character to a PAU depended on correct identification of the vignette. Following suit with the previous analyses, this difference was also significant, $t(266) = 5.17$, $p < .001$, $d = .74$, 95% CI [.43, 1.05], with likelihood scores being significantly lower in those who identified the vignette ($M = 35.97$, $SD = 34.38$) compared to those who did not ($M = 61.56$, $SD = 35.07$).

OCD Knowledge and Experience Predictive of Comfort to Treat Aggressive Obsessions

My experiment tested for participant knowledge for the varying possible symptom domains of OCD (i.e., Contamination, Symmetry, Responsibility for Harm, and Unacceptable Thoughts) in addition to their comfort in treating OCD featuring aggressive obsessions. I wished to explore whether knowledge of the varying symptom domains, particularly those relevant to Harm OCD, as well as experience and training in treating

patients with OCD would predict how comfortable participants would feel working with such harm-related symptoms. To do this, I conducted a stepwise regression analysis first considering profession (professionals, psychology doctorate students, M.D. students), second considering familiarity scores for the varying domains, and third considering participant OCD proficiency (i.e., experience treating OCD and OCD training sufficiency) as predictive factors of reported comfort to treat aggressive obsessions. Participant Proficiency Questionnaire responses are outlined in Table 6.

I first found that participant group was a significant predictor for how comfortable participants were in treating aggressive obsessions, $R^2 = .17$, $F(2, 282) = 28.03$, $p < .001$. Specifically, M.D. students were significantly less comfortable than professionals, $t(282) = 6.37$, $p < .001$, and psychology doctorate students, $t(282) = 5.96$, $p < .001$, in treating aggressive obsessions. When adding familiarity for the varying OCD symptom domains to the model, it was further found to be a significant predictor of comfort in treating aggressive obsessions, $R^2 = .34$, $F(6, 278) = 23.48$, $p < .001$, significantly predicting variation in this dependent variable even after accounting for profession, $\Delta R^2 = .17$, $F(4, 278) = 17.85$, $p < .001$. For this step, comfort in treating aggressive obsessions was significantly predicted by group when comparing M.D. students to professionals ($\beta = 13.83$, $p = .002$) and psychology doctorate students ($\beta = 13.71$, $p < .001$), and was further significantly predicted by familiarity for the Responsibility for Harm ($\beta = .31$, $p < .001$) and Unacceptable Thoughts, ($\beta = .19$, $p = .016$) domains. Finally, when adding reported training sufficiency and experience treating OCD, these items from the Proficiency Questionnaire were further significant predictors for comfort to treat OCD with aggressive obsessions, $R^2 = .41$, $F(8, 276) = 24.34$, $p < .001$, with higher training

sufficiency relating to significantly higher comfort levels, $t(276) = 4.98$, $p < .001$, and those with experience treating OCD reporting significantly higher comfort levels than those who did not, $t(276) = 2.43$, $p = .016$. Furthermore, this predicted significant variation in comfort levels beyond familiarity for the varying symptom domains, $\Delta R^2 = .08$, $F(2, 276) = 18.21$, $p < .001$. With this predictor added, comfort to treat aggressive obsessions was significantly predicted by group when comparing M.D. students to psychology doctorate students alone ($\beta = 11.23$, $p = .002$), and was further significantly predicted by familiarity for the Responsibility for Harm domain ($\beta = .25$, $p < .001$). It was confirmed that multicollinearity was not a concern for this model[2]. Overall, familiarity for OCD symptom domains, experience treating OCD, and perceived OCD training sufficiency all explained unique variance in comfort for treating aggressive obsessions over and above participant profession. Despite the fact that some degree programs result in decreased comfort in treating aggressive obsessions, particularly medical programs, there is the prospect that additional experience with OCD populations and sufficient training may aid professional and student comfort surrounding OCD featuring aggressive, unwanted thoughts.

[2] Multicollinearity must be assessed when including several independent variables within a regression model as it can lead to less reliable estimates of the impact each variable has on the model. VIF > 4 or Tolerance < .25 indicates that multicollinearity may be impacting the model. Our analysis revealed that multicollinearity was not a concern for group (Tolerance = .88, VIF = 1.13), for Contamination familiarity (Tolerance = .68, VIF = 1.47), for Symmetry familiarity (Tolerance = .70, VIF = 1.42), for Responsibility for Harm familiarity (Tolerance = .72, VIF = 1.39), for Unacceptable Thought familiarity (Tolerance = .70, VIF = 1.44), for experience treating OCD (Tolerance = .79, VIF = 1.27), or training sufficiency (Tolerance = .88, VIF = 1.14)

Table 6.

Participant Proficiency Questionnaire Responses by group (Registered Psychologists, GPs, Clinical Ph.D. Students, Psy.D. Students, and M.D. Students).

Item	Response	R. Psych (*n* = 57)	GP (*n* = 10)	Ph.D. (*n* = 69)	Psy.D. (*n* = 19)	M.D. (*n* = 135)
		%Indorsed				
Experience treating OCD?	Yes	89.5	20.0	50.0	57.9	21.5
	No	10.5	80.0	50.0	42.1	78.5
#OCD patients treated ever?	0	1.8	0.0	47.8	57.9	67.4
	1-5	29.8	20.0	42.0	36.8	25.2
	6-10	29.8	20.0	5.8	0	6.0
	11-20	19.3	30.0	1.5	0	0.7
	20+	19.3	30.0	2.9	5.3	0.7
		M (*SD*)				
#OCD patients treated (past 12mo)?		3.35 (4.37)	6.40 (8.76)	1.33 (3.70)	0.53 (0.70)	0.64 (2.07)
Training sufficiency?		56.60 (28.15)	60.70 (24.05)	44.68 (30.70)	40.39 (28.96)	34.89 (25.70)

Psychology Participants vs. Medical Participants

As the GP sample was particularly small, they were grouped in with the registered psychologist sample for an overarching "Professional" group throughout many of my analyses. However, an exploratory Chi Squared test of independence comparing psychology-based participants (i.e., psychologists, Ph.D. psychology, and Psy.D. students) to medical-based participants (i.e., GPs and M.D. students) on correct identification of Harm OCD revealed that Harm vignettes were identified significantly

more successfully by psychology-based participants (89%) as compared to medical-based sample (62.5%), $\chi^2(1, n = 272) = 25.93$, $p < .001$, Cramer's $V = .31$.

Based on these findings, further analyses were conducted exploring differences between these two participant categories in perception of risk involved with Harm OCD symptoms. A series of independent samples *t*-tests were run comparing psychology-based participants to medical based participants on each of the continuous, dependent measures of risk from my survey. The first *t*-test assessed likelihood to harm others scores by group (psychology, medical). This revealed that Harm vignette characters were perceived as a risk to harm others by medical-based participants (32.8%) at a rate that was significantly higher than psychology-based participants (22.2%), $t(266) = 3.68$, $p < .001$, $d = .45$, 95% CI [.69, .20]. A second *t*-test was run comparing medical and psychology participants on perceived risk of the vignette character to harm themselves. This was also significant with perceived risk of the Harm vignette character to harm themselves being significantly higher for medical-based (42.4%) as compared to psychology-based participants (34.5%), $t(266) = 3.08$, $p = .001$, $d = .38$, 95% CI [.62, .13]. I further assessed likelihood to notify police of Harm OCD symptoms by group using a third independent samples *t*-test. This was significant, revealing that likelihood scores supporting police intervention against the Harm character was low across my sample, but still significantly higher in medical participants (14.8%) as compared to psychology participants (7.6%), $t(266) = 3.35$, $p < .001$, $d = .41$, 95% CI [.65, .16]. A final *t*-test was conducted to compare medical to psychology participants on likelihood to suggest admission into a PAU for the Harm vignette character. This was once again significant with medical-based participants

showing higher scores (60.4%) in support of PAU admission as compared to psychology-based participants (23.8%), $t(266) = 9.60$, $p < .001$, $d = 1.17$, 95% CI [1.45, .89].

As my medical sample stood out in terms of Harm OCD identification performance, I wished to see if medical student identification performance improved with further progression through the M.D. program. An omnibus Chi Square test of independence was run to assess any relationship between M.D. student year of program (first, second, third, fourth) and open-ended identification performance for Harm OCD vignettes. This was found to be not significant, $\chi^2(3, n = 124) = 7.64$, $p = .054$, Cramer's $V = .25$, indicating that correct identification did not significantly differ with progression through M.D. programs. A follow up Chi Square test of independence further demonstrated that Harm OCD correct identification did not significantly differ even between first year M.D. students (52.5%) and fourth year M.D. students (69.4%), $\chi^2(1, n = 76) = 2.28$, $p = .131$, Cramer's $V = .17$.

Discussion

The goal of this study was to evaluate the ability of those primarily responsible for differentiating symptoms of psychiatric conditions to correctly identify the less understood, harm-related symptoms of OCD. Overall, identification was poorer and risk assessment was harsher for Harm OCD vignettes as compared to Contamination OCD. In particular, Perinatal OCD as a presentation of Harm OCD stood out in this respect, showing the lowest correct identification rate across the entire sample as well as significantly higher stigmatizing attitudes with respect to risk to harm others and psychiatric hospitalization requirements. I further discuss these results and others from the current study alongside their implications for the OCD community and for the

education of practitioners who most often encounter patients with the varying symptoms of this heterogeneous condition.

Harm OCD vs. Contamination OCD: Implications for Medical Practice

My first hypothesis predicted that participants would show poorer identification for Harm OCD presentations as compared to a Contamination OCD or Non-OCD presentation (i.e., social anxiety). This hypothesis was mostly supported, with participants being significantly less able to successfully identify symptoms of Harm OCD as compared to Contamination OCD, but Non-OCD only showing higher successful identification to Harm OCD through ranked identification methods. The pattern of Contamination OCD success was evident even when comparing correct identification rates across the diverse participant groups. For example, for my second hypothesis, M.D. students were found to demonstrate significantly lower correct identification for Harm OCD as compared to professionals and psychology doctorate students. Similarly, via exploratory hypotheses combining M.D. students with my small GP sample, this medical group showed significantly lower correct identification rates for Harm OCD than the remaining psychology-based group (i.e., registered psychologists, doctoral psychology students). However, even with these significant group differences when comparing Harm OCD correct identification rates, Contamination OCD by comparison was identified with astounding success regardless of profession or field, with correct identification rates ranging between 94-100%.

To compare these results to previous literature (i.e., Glazier et al. 2013; Glazier et al. 2015a), they are discussed in terms of ranked identification from the list of possible clinical and non-clinical diagnoses when OCD was included in participant ranking at all.

It was found that the ranked recognition of Harm related OCD symptoms were higher in my sample of registered psychologists when OCD was included in ranking at all (86.5%) as compared to Glazier et al. (2013) who found a correct ranked identification rate of 68.5% for their vignette depiction of aggressive obsessions across their sample of mental health professionals. However, one should note that while my mental health professional sample was comprised solely of registered psychologists, Glazier et al.'s (2013) sample included any member of the American Psychiatric Association from students to currently registered psychologists. Therefore, the current study's result may provide a more accurate estimate of correct registered psychologist identification of Harm OCD as compared to Glazier et al. (2013). However, Glazier and McGinn's (2015) correct doctoral psychology student identification rate for aggressive obsessions (77.8%) is comparable to my own doctoral psychology student sample's performance for the Harm vignettes (87.8%). In addition, although not representative, Harm OCD correct ranked identification in my small sample of GPs (45.5%) did improve from Glazier et al.'s (2015a) GP correct ranked identification rate of just 20%. With a larger sample of GPs this comparison would be strengthened; however, the overall pattern demonstrated by the current study and previous literature in the area is enough to suggest that professionals and students within mental health fields show significantly better identification of the lesser-known presentations of OCD (i.e., Harm OCD) than those in the medical field. Finally, consistent with results of the current study, the three studies led by Glazier suggested that regardless of the sample, Contamination OCD alongside Symmetry OCD were identified with the highest success across OCD vignettes. Therefore, these results collectively support not only a rift between the mental health and medical fields with

regard to OCD identification, but also the rift between the correct identification of Harm-related and Contamination symptoms of OCD.

A recent meta-analysis found that OCD with aggressive obsessional themes (i.e., Harm OCD) is prevalent in 58.3% of clinical populations, a rate decidedly similar to that for Contamination symptoms (59.5%; Hunt, 2020). Yet, my results demonstrate that those who are in primary care or training within the medical field are not able to identify symptoms of OCD that are Harm-related with the same success demonstrated for Contamination-related symptoms of the same disorder. OCD symptoms are those often first expressed to primary care physicians, granting them the critical responsibility of appropriately deciphering and addressing the intrusive thoughts and the patient's intentions. If mistaking unwanted, ego-dystonic obsessions for ego-syntonic motives to act, a physician may enact their right to warn a third party, involving social services or even law enforcement (see Smith v. Jones, 1999). Veale et al. (2009) discussed how damaging such a mistake can be for an individual living with OCD, as unnecessary, agitated reactions to harm-related symptoms falsely reinforce dysfunctional beliefs that their obsessions are meaningful. Furthermore, the egregious lag between onset of OCD and receiving treatment is perpetuated when contraindicated treatment approaches intended for high-risk-to-act patients are administered to those with OCD (Albert et al., 2019; Glazier et al., 2015a). By contrast, once OCD is correctly identified, patients are significantly more likely to receive gold-standard, evidence-based treatment intended for those living with the condition (Glazier et al., 2015a).

Misidentification for the underrepresented symptoms of OCD, particularly within medical-based samples, is a significant, but surprisingly common issue. An early study

from Hollander et al. (1997 found that nearly 40% of OCD patients who were misdiagnosed were given the incorrect diagnosis by their GP. The preliminary results from the current GP sample and the underperformance of the M.D. students suggests that there is still much room to improve. In particular, it was found that M.D. student year of study was irrelevant in predicting correct identification of Harm OCD, with no significant difference even between first and fourth year undergraduates. This lack of improvement with furthered medical education is unfortunate for students pursuing general practice and directly relates to the results of a recent medical school curriculum review of what M.D. students learn about OCD during their undergraduate degree. Through their review, Lahey et al. (2022) found that over 60% of undergraduate medical programs across Canada did not touch on all three major categories of Abramowitz et al.'s (2010) Unacceptable Thought Domain (i.e., aggressive, sexual, religious), with one third of programs not discussing aggressive obsessions specifically. They further found that the majority of medical psychiatric textbooks did not include a case example of OCD or focused their examples on Contamination or Symmetry symptoms. Given this underrepresentation of lesser-known OCD symptoms, particularly those that are aggressive or harm-related, the underperformance of the current study's medical-based samples may be indicative of what is held as the current standard of medical training in OCD. Furthermore, given the results of the current study, there does not seem to be significant improvement in what M.D. undergraduates learn about OCD as they progress through the program.

Harm OCD Characters Perceived to be at a Higher Risk to Harm Others

My third hypothesis concerned whether vignette characters presenting symptoms of Harm OCD would be perceived at an increased risk to harm others as compared to the character in the Contamination vignette. I found support for this hypothesis, despite previous literature supporting that those with OCD are not at an increased risk to act on the content of their obsessions compared to the general public (Fairbrother et al., 2022; Veale et al., 2009). My exploratory findings link the issue of risk perception to correct OCD identification, showing that risk likelihood scores were significantly lower in those who correctly identified the vignette character as presenting OCD symptoms compared to those who did not. Perceived dangerousness is often a measure of stigma, which, along with misidentification, is a major barrier to seeking treatment for OCD (McCarty et al., 2017). It is interesting then that my exploratory results support a relationship between these two barriers, replicating McCarty et al.'s (2017) finding that correct identification demonstrates a stigma-reducing effect.

This was further supported by my exploratory analysis wherein it was found that medical-based participants (i.e., those with significantly lower correct identification rates) scored the Harm vignette character as significantly more likely to harm themselves or others, and require emergency services as compared to psychology-based participants (i.e., those with significantly higher correct identification rates). According to Lahey et al.'s (2022) recent medical school curriculum review, over half of medical programs did not include discussion of risk and ego-dystonic thought relative to OCD, with a further 80% of medical textbooks not discussing lack of risk to act in those with OCD, and 60% failing to differentiate between ego-syntonic and ego-dystonic thinking in relation to

OCD and differential diagnosis. If such a dynamic relationship exists between identification and stigma as previous and current results show, then awareness and education of the varying presentations of OCD may be the key to avoid wrongful attribution of danger and the stigmatizing attitudes that follow, ultimately promoting treatment seeking behavior as a whole. These findings largely support the desperate need for more comprehensive OCD education in professional programs for the betterment of those looking to practice within primary care fields and their future patients.

As an additional note, through exploring risk to harm others across the Harm vignette types, it became clear that the three Harm vignettes involving obsessions of perpetrating some form of harm against others (i.e., Perinatal OCD being against the infant, Partner-Focused against the partner, and Blurting Insults against a friend) were those that scored the highest in judgments about risk to harm others. Across these three Harm vignettes, it is therefore reasonable to presume that the vignette characters were viewed by participants as more likely to pose a danger to others, which is precisely what those with Harm OCD most often fear (Veale et al., 2009). The cognitive model of OCD proposes that those experiencing obsessive thoughts in relation to the condition apply disproportionate importance to the unwanted thoughts they experience to the point that even experiencing the thought indicates some sort of intention to act (i.e., Thought-Action Fusion; OCCGQ, 2005). The results of the current study imply that this phenomenon may not be experienced just by those who live with OCD, but by those around them who misinterpret the intention behind the obsessions and ultimately impose that the mere existence of violent thoughts promotes a risk to harm others. Though it was expected that

the Perinatal and Partner-Focused vignettes would demonstrate this pattern, what made this exceedingly clear was the Blurting Insults vignette scoring significantly higher than the Suicide vignette. Even without the obsession involving physically harming someone else, much less the true intention to do so, participants tended to believe that any thought of harm towards someone else increased the likelihood for them to act aggressively.

Gender Not a Significant Factor in Harm OCD Risk Assessment

With regards to my fourth hypothesis, I found that across all four Harm vignette types, participants did not view the male vignette character, James, as being at a significantly greater risk to harm others, themselves, nor require emergency intervention as compared to the female character, Jean. As it had been anticipated that James would be viewed more violently or at least at a greater likelihood to act on his aggressive obsessions, this lack of a significant difference may be viewed as a positive finding. For instance, these results do not support that those living with Harm OCD will face gender-based discrimination for their symptoms. In particular, it was expected that for the Partner-Focused vignette, James would have been perceived to be at an increased risk to harm others – specifically to truly suffocate his girlfriend – given that intimate partner violence (IPV) is recognized to be predominately perpetrated by male partners over female partners in heterosexual relationships (e.g., IPV by men against women is 3.5 times higher than it is against men; *Fact Sheet: Intimate Partner Violence*, 2022). Regardless, participants in this study did not show significant gender-based prejudice relative to the propensity to act on violent impulses.

Exploratory analysis, however, did discover that for the Suicide vignette alone, the male character (James) was perceived as significantly more likely to harm others than the female character (Jean). There are several issues to discuss with this finding. First, it was unexpected that risk to harm others and not risk to harm oneself was significantly different between character genders. I anticipated that when OCD was not identified, participants would rely on base-rate data when making risk likelihood judgements, taking the vignette character's obsessional content at face value (i.e., Suicide OCD symptoms indicating a true intent to commit suicide). Therefore, given that it is generally understood that males are more likely to die by suicide as compared to females who are more likely to attempt suicide at a greater frequency (i.e., the gender paradox in suicidal behavior; Freeman et al., 2017; Schrijvers et al., 2012), it was expected participants to deem James as more likely to cause harm to himself than Jean. This was not the case. It was found, however, that some form of depressive disorder was the most common condition Suicidal OCD was mistaken for. Therefore, a second issue to discuss concerns the discrepancies in how depression is commonly expressed between males and females, and may help to explain the results of this hypothesis. Males with depression are reported to experience more frequent anger attacks and aggressive episodes as compared to females with the condition (Martin et al., 2013). This has been suggested to arise from male inhibitory reaction to the strong, negative emotions involved with depression which are more likely to be externally released through violent outbursts or other antisocial behaviors as the emotions erupt (Brownhill et al., 2005). Therefore, a male presenting what appears to be suicidal ideation, which is then mistakenly attributed to a depressive disorder, may be

blanketed under the gender-specific, aggressive expressions of depression and ultimately perceived to be at a heightened risk to harm others.

Educational and Media Influences on OCD Symptom Familiarity

The results of my fifth hypothesis found that participant familiarity for the four major symptom domains outlined by Abramowitz et al. (2010) varied significantly by domain. In support of this hypothesis, it was found that the Contamination domain scored highest in familiarity across participants, being significantly higher than all other domains including Symmetry. The domains associated with Harm OCD (i.e., Unacceptable Thoughts and Responsibility for Harm) were further reported as being the least familiar. It has been discussed how Contamination and Symmetry symptoms are often the focus of case examples in educational materials, particularly throughout medical school psychiatric curriculum, with less emphasis allotted to the other varying symptom presentations (e.g., Glazier & McGinn, 2015; Lahey et al., 2022). However, given the distorted image of OCD depicted in popular culture, it would be unsurprising if this also had some underlying influence in general familiarity, even across the current sample of professionals and students training within care fields.

Today, media has incredible influence as an increasingly prevalent source of information for what the public learns about mental illness (Cefalu, 2009). With little to no filter for misinformation regarding the nature of debilitating mental conditions, this power can do as much damage as it can do good. Compared to other conditions, stereotypical OCD symptomology has been the target of mockery and comedic material in popular media, often much to the distain, annoyance, or confusion of supporting characters (e.g., Jack Nicholson's character compulsively dodging sidewalk cracks in *As*

Good as it Gets, or Bruno from Disney's *Encanto*, whose quirky, ritualistic behaviors have been allegorically linked with obsessive-compulsive symptomology; Cefalu, 2009; May, 2022). Celafu (2009) ponders what about OCD symptomology is comical. He interestingly notes that it is specifically the physical compulsions related to OCD that are amusing to others, comparing the repetition and ritualistic behaviors to be as engaging as "…a cat chasing its tail" (p. 48). It is therefore not the debilitating nature of the condition, nor the pervasive fears that underlie, but the superficial by-product that appears to be non-sensical.

Further, there seems to be an overrepresentation of Contamination or Symmetry symptoms, leaving significant lack of coverage for other common symptom presentations such as those associated with Harm OCD. During their qualitative interview assessment asking for the opinions of those with OCD about popular media representation of the condition, Fennel and Boyd (2014) note that interviewees discuss the disconnect between what the character was doing on their screen versus the symptoms they live with everyday. Specifically, they noted a lack of representation for harm-related symptoms. Furthermore, there is little representation for the invisible, mental compulsions that are common across all symptom categories of OCD (Bell, 2010). It is possible that the focus on overt Contamination and Symmetry symptoms is because the stereotypical behaviors often associated with these domains serve the comedic angle, making for good television. Fennel and Boyd (2014) touch on the idea that surface level symptoms such as the common tapping, checking, or cleaning behaviors are those that are convenient to recreate on screen for viewer entertainment. Yet, the integral and deeper significance of such

seemingly trivial behaviors "…[does not] make for a good story" (Fennel & Boyd, 2014, p. 681) and is therefore lost amid theatrics.

The need for accurate media representation is dire, particularly when it comes to self-assessment regarding OCD symptomology. During their interviews, Fennel and Boyd (2014) found that some respondents only associated their symptoms with OCD upon seeing a character with OCD demonstrating those very symptoms. Further, Kyrios et al. (2010) found that many consumers sought out treatment for OCD from their GPs based on self-diagnosis collected from TV program representations of the condition. This may be helpful to those navigating their condition and may even be what motivates them to seek professional help to determine the root of their symptomology. However, if the scope is limited to Contamination or Symmetry symptoms, many of those living with symptoms of OCD beyond these domains will not benefit from media exposure in this way. More problematically, there runs the risk for such self diagnosis to be derived from a non-representative depiction of OCD, as even Contamination and Symmetry symptoms are often misinformed or exaggerated to the point of distorting the true diagnostic criteria of the condition (Celafu, 2009; Fennel & Boyd, 2014). This can even turn into portrayals of OCD that oppose the necessary criteria outlined by the *DSM*, quite literally representing a different condition that is still received with the "obsessive-compulsive" label. Such depictions are incredibly invalidating for those truly living with OCD as their experiences are contorted for public entertainment, making it harder for them to have a voice as animated stereotypes override their very real struggle. Media and education platforms therefore have much work to do to better represent OCD as a clinical condition and to thwart stereotypes by portraying symptoms accurately.

Influence of Education on Comfort and Confidence in Treating Harm OCD

My final main hypothesis concerned participant's comfort levels in treating OCD with aggressive obsessions with the expectation that M.D. students would report the lowest comfort levels. This hypothesis was supported, finding that that comfort levels were significantly lower for M.D. students in comparison to the professional and doctoral psychology student samples. This attitude question was adopted from Kyrios et al.'s (2010) OCD-KAQ and altered to specifically ask about aggressive obsessions. In their study, Kyrios et al. (2010) found that GPs reported feeling relatively comfortable with treating OCD generally but did not differentiate these comfort levels by symptom domain. Other than general lack of experience, the fact that the question specifically concerned OCD with aggressive obsessions may explain the lack of comfort the M.D. student sample felt towards treating such obsessions compared to the professionals (which included GP estimates) and psychology doctoral students.

OCD has been referred to as the "disease of doubt" given its symptomatic roots in perpetual doubt that feeds off uncertainty (Alvarenga et al., 2007; Glazier et al., 2015). Therefore, when it comes to assessing symptoms of OCD, confidence in the diagnosis and comfort with the decided course of action is critical. Veale et al. (2009) quote several patients with OCD on their negative experiences of practitioner uncertainty when finally seeking treatment for their unwanted harm- and sexual-related obsessions. The examples tend to focus on practitioners discussing the potential need for drastic actions should their symptoms not be attributable to OCD, but to true malicious intent. For instance, one individual recalls upon disclosing their disturbing, intrusive fear of stabbing their baby, the practitioner mentioned to them that they may truly have an unconscious desire to act

on that thought. Another individual recalls that their practitioner understood that they were unlikely to act on their urges but was still required to involve Social Services (Veale et al., 2009). Such uncertainties, while seemingly trivial on the surface, can spiral symptoms of OCD as pre-existing doubt is perpetuated. As M.D. students are still early in their broad careers in medicine, their lack of comfort is understandable. However, further exploratory analysis found a significant, positive relationship between knowledge of the domains related to Harm OCD (i.e., Unacceptable Thoughts and Responsibility for Harm) and participant comfort levels in treating aggressive obsessions. Therefore, the quality of education in OCD symptomology in addition to differential diagnosis appears integral to building confidence in these areas, and ultimately the wellbeing of their future patients.

Harm OCD Misidentified as Conditions with Disparate Symptoms

I looked at the most common labels participants applied to the Harm vignettes when they did not correctly identify OCD in their open-ended identification, their top three ranking from the list, or in their list ranking at all. Across all forms of identification, it was found that participants most often mistook Harm OCD symptoms as indicative of some form of psychotic disorder. Possible psychotic disorders that were indicated included schizophrenia, brief psychotic disorder, postpartum psychosis, and delusional disorder. It is important to note that when assessing a patient in a clinical setting, differential diagnosis is necessary in correctly identifying and ruling out any other possible conditions that may explain a patient's symptoms. However, as this finding is based only on those who did not correctly identify OCD in the first place, this alone does not account for the result. My results are comparable to Glazier et al. (2015a) who found that their sample of GPs most often mistook aggressive obsessions as symptoms of

schizophrenia 31.3% of the time. As they used ranked identification that included all possible participant rankings (i.e., not restricted to top three), I compared this to the current study's fully ranked identification for psychotic disorders which was at an even higher rate of 48.7%, or nearly half of the time. It is important to note that this rate comes from my entire sample of professionals and students, and not from my small sample of GPs alone. The result does differ when comparing it to Glazier et al.'s (2013) sample of mental health practitioners whose most common misdiagnosis for aggressive obsessions was impulse control disorder at 38%.

At any rate, the fact that psychotic disorders were the most prevalent mistaken label across all Harm vignettes, all participants groups, and all methods of identification is troubling. These conditions are some of the most highly stigmatized, particularly schizophrenia which is considered in the top three most stigmatized mental illnesses with judgements of high likelihood to harm others, common perceptions of unpredictability, as well as many believing those with schizophrenia to be difficult to talk with (Crisp et al., 2000; Crisp et al., 2005). It is also true that psychotic disorders are associated with increased likelihood to act aggressively and cause harm whereas OCD is not. For instance, a recent meta-analysis determined that the prevalence rate for physical aggression in those with schizophrenia is just under 24%, with in-patient samples more likely to act aggressively than community samples (Li et al., 2020). While such a high prevalence of physical aggression does not excuse the high stigma that surrounds psychotic disorders, it does explain it. However, because OCD is not associated with an increased risk to harm others in this way (i.e., Fairbrother et al., 2022; Veale et al., 2009), it makes the results of the current study all the more concerning. Additionally, media

influence once again propels stigma-inducing stereotypes for psychotic disorders, painting those with such conditions as “homicidal maniacs” and using psychosis as common horror movie tropes (Goodwin, 2014). This makes receiving a label of psychosis particularly difficult, but especially so when it is misattributed to the symptoms for an entirely separate condition wherein there is no increased risk to harm others (i.e., Harm OCD). Furthermore, the course of treatment for psychotic conditions differs greatly from those that are beneficial to someone living with OCD, serving to worsen OCD symptoms and prolong the gap between onset and appropriate treatment (Glazier et al., 2015a; Veale et al., 2009).

I further determined which label was most common for each Harm vignette condition when OCD was not correctly identified. Upon doing so, it was discovered that when Harm OCD was misidentified, participants were ironically most likely to mistake it for a condition at odds with the particular Harm-related symptomology, specifically regarding likelihood to act. For instance, Perinatal OCD was most often mistaken as being some form of psychosis (i.e., perinatal psychosis), wherein the parent runs the true risk of acting on their ego-syntonic, harm-related thoughts. Similarly, Partner-Focused Harm OCD was most often misidentified as a psychotic disorder, in which case the thoughts of suffocating one’s partner might put the character at an increased risk to act. Blurting Insults OCD was commonly misinterpreted as portraying a motor or tic-related disorder (i.e., Tourette’s), where again there is a high likelihood for an individual to involuntarily blurt out something inappropriate. Finally, Suicidal OCD was most often mistaken for a depressive disorder, which, by contrast, would increase the risk for ego-syntonic, suicidal behaviors or ideation. The issue with this ironic pattern is the

suggestion that those with OCD are likely to be misidentified as what they most fear by the professionals in which they put their trust. To reintroduce the case of the Alabama mother, my differential identification results are not arbitrary (Vollers, 2020). The woman in the news report experienced unwanted and disturbing intrusive thoughts of shooting both herself and her newborn baby, which her physician and later psychiatrists mistook for true intent. This mistake is what led to unnecessary, drastic actions being taken against the mother, leading to her forced hospitalization and losing custody of her children for an extended period of time.

High Stigmatization for Perinatal OCD

Through additional exploratory analyses, Perinatal OCD as a form of Harm OCD stood out in terms of misidentification and misattribution of risk. Specifically, the Perinatal vignette featuring the female character "Jean" held the lowest correct identification rate across all vignettes. When not correctly identified, this particular version of the vignette was as equally likely to be labelled as a psychotic disorder as it was postpartum depression (83.3%). The differentiating factor between OCD and these other perinatal-related conditions is whether their harm-related thoughts are consistent with their beliefs and intentions (i.e., ego-syntonic vs. ego-dystonic; Fairbrother et al., 2022). This is the constituent that ultimately determines propensity for risk in these individuals as well, with ego-syntonic thoughts of harm yielding a higher likelihood to act on the thoughts. Therefore, when Perinatal OCD (characterized by ego-dystonic thoughts of infant-related harm) is misinterpreted as either perinatal psychosis or perinatal depression (typically characterized by ego-syntonic thoughts), the potential for risk can be misconstrued. This is another issue that may be a result of media misrepresentation with a

much heavier focus on perinatal conditions such as perinatal depression and perinatal psychosis as opposed to Perinatal OCD and other anxiety-related disorders that are much more common to occur during this period (Fawcett et al., 2019). Therefore, it could be the case that clinicians are over-focused on the potential for harm based on these media cases that are quite infrequent in comparison to the other conditions that transpire over the perinatal period.

While it is absolutely critical to consider the welfare of the child in these situations, imposing risk assessment or taking dramatic action against the parent, particularly without first taking into account alternative conditions that may better explain symptomology, can be severely damaging when the thoughts are associated with Perinatal OCD. As with any Harm-related intrusive thought related to OCD, the content reflects the individuals deepest, most disturbing fears, hence the significant distress and guilt the thoughts cause. Therefore, a care-provider mistakenly attributing the thoughts to a condition wherein the risk to act is high, only serves to inflate distress and intensify compensatory behaviors that maintain OCD as patient fears are incorrectly validated (Veale et al., 2009).

This further relates to the current findings that Perinatal and Partner-Focused Harm OCD shared significantly high scores for the risk to harm others measure. While this is unjustified as those with OCD are not at an increased risk to harm others as discussed above, it is also unsurprising as these were the two vignettes wherein physical harm was targeted towards another person. In particular, it appears that the Perinatal vignette was most highly stigmatized from the sample results. This is likely due to the alarms that raise upon potential harm to befall a child, even when this possibility is as

inanely unlikely as it is with Perinatal OCD. Participants further supported PAU admission for the Perinatal vignette characters with scores significantly higher than the other Harm OCD vignettes. For those with OCD, imminent psychiatric admission is generally not required. The only time PAU admission is necessary is if OCD symptoms are severe enough to impede significantly upon day-to-day functioning or are otherwise treatment-resistant (Reddy et al., 2017). Note that this would be in no way dependent on the specific content of the obsessions involved. Veale et al. (2009) pose that there is the potential for someone with OCD to become aggressive towards others due to extreme distress or frustration if prevented from completing a compulsion. However, this again has no relation to the obsessional content itself as, by definition, those with OCD are not at an increased risk to act on their obsessions anymore "…than a person with height phobia is to jump off of a tall building" (Veale et al., 2009, p. 333).

Limitations and Future Directions

My multi-sample approach made this the first vignette-based study to directly compare OCD identification across professional and student samples. Furthermore, this was the first study to implement clinical vignette identification methods for OCD in a sample of M.D. students, as well as the first to use clinical vignettes that depict symptoms of Suicide OCD and Perinatal OCD for the purpose of symptom identification. However, there are a series of limitations to disclose for the current study. The most pressing may be that correct identification of the clinical conditions involved in this research was based off a brief vignette. This method is a weak simulation of the diagnostic process patients undergo once presenting symptoms; however, it may be sufficient in obtaining a general idea of professional and student first impressions of the symptoms that patients present.

Therefore, a future study in this area might benefit from implementing alternative, more naturalistic measures to demonstrate OCD symptomology such as a video of a patient disclosing their symptoms for participants to evaluate.

It is further notable that the current sample of GPs was unrepresentative and therefore their data should be considered tentatively. The survey was specifically designed to take approximately 10 to 15 minutes to complete in order to increase likelihood of GP participation. Still, this group was particularly difficult to reach. This may be attributable to the fact that medical associations are often reluctant to send out survey invitations if at all as there is an overwhelming desire to recruit physicians as research participants. This should not discourage future researchers in this area from targeting physicians as their knowledge and understanding of Harm OCD is critical to explore. A further limitation of this study relates to participant demographics as I did have a predominantly white sample. Therefore, my estimate is not entirely generalizable to diverse groups. Furthermore, the sample was mostly female-identifying, which may have had an impact on the gender-based hypotheses regarding the vignette characters.

Another limitation concerns the online nature of this study's survey. Although it was kindly advised that participants not utilize search engines such as *Google* during consent, there was no way of monitoring or controlling for participant activity while completing the survey. Additionally, all Harm OCD vignettes used in this study featured thoughts that were targeted against one's partner (i.e., Partner-Focused), their own child (i.e., Perinatal), a close friend (i.e., Blurting), or themselves (i.e., Suicidal). There were no vignettes that depicted intrusive thoughts of harm against a stranger. With the addition of a stranger-based vignette, changes in risk assessment may occur, such as the individual

being at a higher risk to harm others as they would not be personally attached to the "victims". Furthermore, future research may benefit from altering the age of the vignette character. For instance, with Perinatal OCD, describing the vignette character as a much younger or older parent may have a negative impact on identification or even stigma as these parents are beyond the "typical" age of caring for newborns and susceptible to public criticism and healthcare concern (e.g., Lampinen et al., 2009).

Future research may also benefit from including confidence ratings to accompany open-ended and ranked diagnostic impressions. Through the varying means of identification, it was interestingly noted that open-ended identification nearly always demonstrated the best performance compared to ranked identification, apart from Non-OCD vignette performance. I had initially thought that the provision of contextual aids in the form of the list of clinical and non-clinical diagnoses would improve correct identification. However, it appeared as though deciding amongst the options may have hindered participant confidence in their initial, intuitive diagnostic impression. Therefore, the inclusion of confidence ratings may better explore this finding. Furthermore, given the immensely heterogeneous nature of OCD, I have only scratched the surface of the possible presentations. Therefore, future research should look to implement further vignettes depicting other lesser known presentations (e.g., Relationship OCD) in samples of professionals and students from relevant fields, as well as the lay public to compare knowledge and stigma across the varying symptoms. As a final note, when comparing identification rates between groups, I was powered to detect a moderate effect (w = .30); however, an effect of this magnitude corresponds roughly to a statistical difference of 15-25% between the groups. This difference is quite large and clinically one would still be

interested in identification differences that were much smaller than these. However, to achieve this I would have required a sample with more balanced participant groups (e.g., more participants in the Non-OCD condition).

Next Steps for Professional OCD Education

The results of the current study necessitate advocacy for OCD education for healthcare professionals and learners in such professional fields. This may be achieved directly by including more diverse and comprehensive examples of OCD in such professional programs as medical school programs. As demonstrated by Glazier and McGinn (2015), by implementing an educational video intervention, correct identification of the lesser-known symptom presentations (e.g., aggressive obsessions) improved dramatically. Specifically, doctoral psychology students in the video intervention condition were seven times more likely to identify OCD than those who did not see the educational video. This may support the implementation of other educational intervention techniques to ultimately improve OCD literacy in professionals to whom individuals are most likely to present their mental health concerns to. Furthermore, comprehensive educational materials will likely improve stigmatizing attitudes towards those experiencing the lesser-represented symptoms of OCD given that the current study of professionals (and previous studies of the lay public; McCarty et al., 2017) found that with correct identification comes decreases in perceived dangerousness of the individual in question.

Educational advocacy for the lesser known presentations of OCD must also occur at a broader level via accurate media representation. As earlier discussed, media exposure is a virtually unavoidable source for public education of all forms, most definitely

including that for mental health. Therefore, film, television, and social media depictions of mental illness all have an impact on how conditions like OCD are perceived by the public – from those unaffected by OCD, to those currently navigating their experience with the condition, and the clinicians who are most often approached with the untelevised symptoms of this very condition. If OCD representation is biased toward Contamination or Symmetry symptomatology, is made a mockery of by solely focusing on stereotyped compulsions, or is entirely misrepresented by symptoms at odds with the diagnostic criteria, it can have a negative impact on the already stark treatment barrier that exists between onset of OCD symptoms and receiving treatment. For instance, Fennel and Boyd (2014) discuss how media can be a means of initial self-diagnosis for individuals living with mental illness, ultimately encouraging them to seek treatment. Inaccurate representation, therefore, prevents this potential benefit of media exposure from occurring. Further, if OCD, a serious mental illness, is instead portrayed as an eccentric personality trait, the importance of receiving treatment for it is greatly downplayed. Such misrepresentation of the benefits of treatment for OCD, or even representing therapists in films as dangerous or having an ulterior motive, certainly does nothing to improve the barrier in seeking treatment (Fennel & Boyd, 2014).

A fantastic place to begin learning about OCD and how to promote better representation of the condition is from those with lived experience. The International Obsessive Compulsive Disorder Foundation (https://iocdf.org/) is a non-profit organization that hosts an annual OCD conference in support of just that. The conference aims to bring together those living with OCD, their families, researchers, and mental health professionals, emphasizing a symbiotic learning relationship between the

professionals providing care to those living with OCD and those receiving that care. Given that OCD is such a heterogeneous condition, it is important and sensical for professionals to meet it at the individual level in this manner. Primary care practitioners that are likely to encounter patients experiencing mental health concerns, as well as students hoping to work in mental health or primary care would certainly benefit from attending such a conference to help familiarize themselves with the heterogeneous nature of OCD and the underlying mechanisms of the condition.

Conclusion

The overall findings of the current study demonstrate the inability to identify Harm OCD across professional and student samples. With comparison to Harm OCD, Contamination OCD had exceedingly high identification success regardless of participant group and method of identification, lower associations with danger to others or themselves (i.e., lower stigma), and scored highest in familiarity across all symptom presentations where domains closely related to Harm OCD scored the lowest. Therefore, one might understand that poor identification and negative attitudes are not an issue for OCD as a whole, but one that is specific to the other common, yet lesser known harm-related symptom presentations, particularly Perinatal OCD.

As long as the lag between onset of OCD symptoms and receipt of treatment exists, more attention needs to be paid to the varying barriers of seeking treatment for OCD in order to narrow the 9-year gap (Albert et al., 2019). The current results desperately call for more accurate portrayal of OCD in media representation and educational materials, specifically with regard to medical curriculum. This needs to come in the form of more encompassing, representative examples of the major symptom

domains, making use of such concise, informative materials as Abramowitz et al.'s (2010) DOCS, as well as making clear that those with harm-related, ego-dystonic obsessions are not at an increased risk to act. Given the wide range of clinical conditions M.D. students must learn over the course of their undergraduate degree, it may seem unrealistic to focus so heavily on one psychiatric disorder. However, Lahey et al. (2022) suggest that comprehensive discussion of OCD in the classroom does not require a significant amount of time to achieve and once implemented, can make a significant difference in correct identification of OCD in practice.

Physicians and psychologists have the tremendous responsibility to assess risk in their patients, and fears surrounding liability may hold discernable influence over decisions involving emergency services. To return to the opening case featuring the Alabama mother, this very issue may have played a substantial role in the series of unfortunate events that followed her presentation of symptoms. However, emphasis on distinguishing ego-dystonic and ego-syntonic thinking, particularly with reference to OCD, during training may result in more sound decision making when it comes to potential for risk. Ultimately, while we as a society have the overarching responsibility to uphold the prevention of harm, the primary principal in clinical psychological ethics is to respect the dignity of those seeking treatment (e.g., Canadian Psychological Association, 2017). Therefore, it is imperative to ensure that our practitioners have the appropriate resources available to them in order to make definitive and critical decisions with patient dignity and wellbeing in mind.

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Appendix A

Recruitment email for potential participants.

"Dear X,

I am a graduate student completing my master's thesis that involves conducting an online survey for professionals and professional students. The survey is comprised of two short clinical vignettes, followed by a brief series of questionnaires based on the vignettes you read. The average completion time based on piloted data was 10-15 minutes. All answers are completely confidential. In exchange for completing the survey, you will have the option to enter a lottery to win one of five $100 gift cards. Thank you for your consideration and I greatly appreciate your help if you do decide to participate.

Please click on the following link to proceed to the survey: http://www.placeholder.com

Sincerely,

Chelsea Lahey, B.A."

Follow-up email for potential participants

"Dear X,

I believe you may have received an email from me a couple of weeks ago regarding a research study I am conducting for my graduate school studies. If you did complete the study, thank you so much for your participation, I really appreciate your involvement. If you have not had the time to participate, I would like to remind you of the research study in hopes that you may be able to participate. The survey is comprised of one short vignette, followed by two vignette-related questions and demographic questions. The average completion time based on pilot data was found to be 10-15 minutes. All answers are completely confidential. In exchange for completing the survey, you will have the option to enter a lottery to win one of five $100 Visa gift cards.

If you have yet to take the survey and would like to do so, please click on the following link to proceed to the survey: http://www.placeholder.com

Thanks again for your time and consideration.

Sincerely,

Chelsea Lahey, B.A."

Appendix B

Demographic Questionnaire items.

1. What gender do you most identify with?
    a. Female
    b. Male
    c. Non-Binary
    d. Other
    e. Prefer not to say
2. With which ethnic group do you **most** identify?
    a. Asian
    b. Black
    c. East Indian
    d. Hispanic
    e. Indigenous
    f. Middle Eastern
    g. White
    h. Other
    i. Prefer not to say
3. Please select your current country of residence
    a. Canada
    b. United States
4. Please provide your current occupation.

   a. General Practitioner
   b. Registered Psychologist
   c. Student

If selected “General Practitioner”, these questions will follow:

5. How many years have you been practicing? (Fill in)
6. Are you currently licensed?
   a. Yes
   b. No
7. Do you specialize in a specific area?
   a. Yes
   b. No
8. If yes, please specify (Fill in)
9. Have you worked closely/collaborated with psychologists in the past as part of an interdisciplinary team?
   a. Yes
   b. No

If selected “Registered Psychologist”, these questions will follow:

4. How many years have you been practicing? (Fill in)
5. Are you currently licensed?
   a. Yes
   b. No

6. Do you specialize in a specific area?
    c. Yes
    d. No
7. If yes, please specify (Fill in)

If selected “Student”, these questions will follow:

4. Please state your highest obtained degree. (Fill in)
5. Please select your current program of study.
    a. Doctor of Medicine (M.D.)
    b. Clinical Psychology Ph.D.
    c. Doctor of Psychology (Psy.D.)
6. What year of your program are you currently in? (Fill in)
7. Do you specialise in a specific area? If this is not currently applicable, do you plan to specialize in a particular area or work with a particular population?
    a. Yes
    b. No
8. If yes, please specify. (Fill in)

The set of Clinical vignettes participants read according to condition.

Condition	Vignette 1	Vignette 2
1	PERINATAL (Female) Jean is a 25 year old woman. Since giving birth to a healthy newborn 4 weeks ago, she has had recurring thoughts of stabbing her newborn with a kitchen knife. Jean tries to ignore these invasive thoughts but is unable to do so. This causes her significant distress as she worries that she may truly harm her child. She avoids walking through the kitchen with her child and has asked her husband to hide knives and sharp objects from view. Jean's thoughts are pervasive and take up a significant part of her day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
2	PERINATAL (Male) James is a 25 year old man. Since his wife give birth to a healthy newborn 4 weeks ago, he has had recurring thoughts of stabbing their newborn with a kitchen knife. James tries to ignore these invasive thoughts but is unable to do so. This causes him significant distress as he worries that he may truly harm his child. He avoids walking through the kitchen with his child and has asked his wife to hide knives and sharp objects from view. James's thoughts are pervasive and take up a significant part of his day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
3	HARMING OTHERS (Female) Jean is a 25 year old woman. She has been happily living with her boyfriend for just over a year. However, since moving in together she has had recurring thoughts of suffocating her boyfriend with a pillow while he sleeps. These thoughts cause Jean significant distress. Fearing that she might act on these thoughts and cause her boyfriend harm, she has avoided sleeping next to him in the bedroom and has instead been sleeping on the couch. Jean's thoughts are pervasive and take up a significant part of her day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears

		are pervasive and take up a significant part of her day.
4	HARMING OTHERS (Male) James is a 25 year old man. He has been happily living with his girlfriend for just over a year. However, since moving in together he has had recurring thoughts of suffocating his girlfriend with a pillow while she sleeps. These thoughts cause James significant distress. Fearing that he might act on these thoughts and cause his girlfriend harm, he has avoided sleeping next to her in the bedroom and has instead been sleeping on the couch. James's thoughts are pervasive and take up a significant part of his day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
5	SUICIDE (Female) Jean is a 25 year old woman. She has struggled with depression in the past but has been treated and her symptoms have since remitted. However, recently she has started having unwanted thoughts of throwing herself off of her top floor apartment balcony. She has been doing relatively well in her life, so these thoughts cause her significant distress. Fearing that she may actually attempt suicide, Jean repeatedly checks her balcony door to ensure it is locked, despite never using it. Jean's thoughts are pervasive and take up a significant part of her day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
6	SUICIDE (Male) James is a 25 year old man. He has struggled with depression in the past but has been treated and his symptoms have since remitted. However, recently he has started having unwanted thoughts of throwing himself off of his top floor apartment balcony. He has been doing relatively well in his life, so these thoughts cause him significant distress. Fearing that he may actually attempt suicide, James repeatedly checks his balcony door to ensure it is locked, despite never using it. James's	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.

	thoughts are pervasive and take up a significant part of his day.	
7	BLURTING INSULTS (Female) Jean is a 25 year old woman. She has a large circle of friends with whom she has great relationships with. However, she struggles with thoughts that she might obnoxiously insult her friends. On one occasion she felt she might scream that one friend looked like a pig. These thoughts cause Jean significant distress. Jean has been seeing her friends less lately and often seeks reassurance from her mother, worried that she is just a bad friend. These thoughts are pervasive and take up a significant part of her day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
8	BLURTING INSULTS (Male) James is a 25 year old man. He has a large circle of friends with whom he has great relationships with. However, he struggles with thoughts that he might obnoxiously insult his friends. On one occasion he felt he might scream that one friend looked like a pig. These thoughts cause James significant distress. James has been seeing his friends less lately and often seeks reassurance from his mother, worried that he is just a bad friend. These thoughts are pervasive and take up a significant part of his day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.
9	NON-OCD (social anxiety) Jean is a 25 year old woman. She lives alone and since moving to a new part of town she has struggled to make friends. She fears that if she tries, she will say something foolish and they might think she was stupid or strange. This makes small talk and even brief social interactions at the grocery store a nightmare for Jean. If she orders at a drive through, she must rehearse her order to make sure she does not mess it up, and even still her heart races as she approaches the speaker. These fears are pervasive and take up a significant part of her day.	CONTAMINATION Miranda is a 22 year old woman. She is excessively worried about germs and sickness. She will avoid touching things in public areas that she knows many others may have also touched at all costs. She actively avoids public washrooms for this reason. If she does touch something that she feels carries a lot of germs, or even if she only fears that she may have touched something, Miranda will wash her hands immediately in order to avoid catching a disease, oftentimes more than once. Her fears are pervasive and take up a significant part of her day.

Note: Before each vignette, the following will be stated: "*The following is a clinical vignette featuring an individual who is exhibiting symptoms of an unidentified condition. Unless otherwise stated, the individual's symptoms below are not due to:*

- Another pre-existing condition

- A general medical condition.

- Substance use.

- Another psychiatric disorder."

Diagnostic Questionnaire items.

1. Please indicate 1-3 possible diagnoses you believe the individual featured in the vignette may have, with #1 being the diagnosis you believe is most likely. (Fill in)
2. From the list of possible psychiatric and non-clinical illnesses below, please select those that you believe the individual featured in the vignette may have. Please numerically rank at least 3 diagnoses with #1 being the diagnosis you believe is most likely. You man choose to include as many diagnoses as you like in your ranking; however, please note it is unnecessary to rank every diagnosis on the list.

__ Adjustment disorder
__ Agoraphobia
__ Alcohol use disorder
__ Anorexia nervosa
__ Antisocial personality disorder
__ Attention deficit hyperactivity disorder
__ Autism spectrum disorder
__ Avoidant personality disorder
__ Binge-eating disorder
__ Bipolar I disorder
__ Bipolar II disorder
__ Body dysmorphic disorder
__ Borderline personality disorder
__ Brief psychotic disorder
__ Bulimia Nervosa
__ Cannabis use disorder
__ Conversion disorder
__ Delusional disorder
__ Depersonalisation/derealisation disorder
__ Dissociative identity disorder
__ Domestic violence
__ Gambling disorder
__ Generalized anxiety disorder
__ Illness anxiety disorder
__ Intermittent explosive disorder
__ Major depressive disorder
__ Motor/vocal tic disorder
__ No disorder/condition
__ Obsessive-compulsive disorder
__ Obsessive-compulsive personality disorder
__ Panic disorder
__ Paranoid personality disorder
__ Pedophilic disorder
__ Posttraumatic stress disorder
__ Psychosis
__ Selective mutism
__ Schizophrenia
__ Schizotypal personality dis
__ Shyness
__ Skin picking disorder
__ Social anxiety disorder
__ Somatic symptom disorder
__ Specific learning disorder
__ Specific phobia
__ Strong religious values
__ Suicide ideation
__ Tourette's
__ Trichotillomania
__ Worry
__ Other (please specify)
_____

3. How likely is it that the individual featured in the vignette will harm themselves?

Not at all Likely	Somewhat Unlikely	Not sure/Neutral	Somewhat Likely	Extremely Likely
1	2	3	4	5

4. How likely is it that the individual featured in the vignette will harm others?

Not at all Likely	Somewhat Unlikely	Not sure/Neutral	Somewhat Likely	Extremely Likely
1	2	3	4	5

5. Does the individual require imminent emergency services? (Yes/No/Unsure)
6. How likely is it that you would you refer the individual to the following services:
    a. Police

Not at all Likely	Somewhat Unlikely	Not sure/Neutral	Somewhat Likely	Extremely Likely
1	2	3	4	5

    b. Emergency room/Psychiatric Unit

Not at all Likely	Somewhat Unlikely	Not sure/Neutral	Somewhat Likely	Extremely Likely

1	2	3	4	5

Proficiency Questionnaire items.

Experience questions:

1. Have you had any experience treating patients living with OCD?
   a. Yes
   b. No
2. Please indicate the number of OCD patients you have worked with in the previous 12 months. (Fill in)
3. Please indicate the total number of OCD patients you have ever worked with
   a. 0
   b. 1-5
   c. 6-10
   d. 11-20
   e. 25+
4. Please describe the extent of your training in OCD diagnosis, treatment, etc. (e.g., seminars, webinars, specialized training). (Fill in)
5. How sufficient was this training? (Likert Scale, 1 to 5)

Very Insufficient	Somewhat insufficient	Not sure/Neutral	Somewhat Sufficient	Very Sufficient
1	2	3	4	5

Knowledge questions:

6. Do you know of the varying symptom domains (subtypes) of OCD?
   a. Yes
   b. No
   c. Some but not all
7. If selected "Yes" or "Some but not all", please indicate the subtypes you are familiar with, keeping in mind that it is generally thought that there are 4 major OCD symptom domains (Fill in)
8. The following are brief descriptions of the 4 major OCD symptom domains outlined by Abramowitz et al. (2010). Please rate on the scales your familiarity with each subtype.
   a. *Contamination* – Feelings of being contaminated by being in contact with another person or a certain place, thoughts of germs, sickness, and spreading contamination. Taking part in washing, sanitizing, following strict routines, and avoiding people and places that may be contaminated.

Not at all Familiar		Not sure/Neutral		Very Familiar

1	2	3	4	5

b. *Responsibility for harm and mistakes* – Feeling you may have made mistakes that ultimately led to something terrible happening and thoughts that you can prevent harm by doing things a certain way. Behaviors revolve around checking and reassurance including mentally reviewing past events, as well as following strict routines and avoiding "bad" things (i.e. unlucky numbers).

Not at all Familiar		Not sure/Neutral		Very Familiar
1	2	3	4	5

c. *Unacceptable/taboo thoughts* – Intrusive and unpleasant thoughts involving sex, immorality, or violence such as believing you may complete inappropriate or terrible behaviors that go against your actual desires. Taking part in rituals such as repeating an action (physically or mentally) that combat the bad thought (i.e., praying), or avoiding certain people, places, or situations that trigger the thoughts.

Not at all Familiar		Not sure/Neutral		Very Familiar
1	2	3	4	5

Incompleteness/symmetry – The need for symmetry, balance, and exactness. Repetitive behaviors (i.e., counting senseless things, saying certain things) that continue until something feels "just right", or arranging things in a specific order.

Not at all Familiar		Not sure/Neutral		Very Familiar
1	2	3	4	5

Attitude questions:

Please rate the following statements for their relevance to your attitudes on the Likert Scale.

9. I feel comfortable treating OCD involving aggressive obsessions.

Not at all	Somewhat No	Not sure/Neutral	Somewhat Yes	Very Much
1	2	3	4	5