Thesis submitted in partial fulfilment of the degree of Doctor of Clinical Psychology (DClinPsy)



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Abstracts

Critical Review of the Literature (CRL)

Maintenance Factors of Emetophobia (A Fear of Vomit): A Systematic Review

Emetophobia, a fear of vomiting, is categorised as a Specific Phobia in the Diagnostic and Statistical Manual of Mental Disorders. Debate regarding this classification exists, with suggestions that a distinct Emetophobia psychological formulation should include maintenance factors which differ from other Specific Phobias. A systematic review was conducted to synthesise maintenance factors of Emetophobia and compare them to existing formulations for Specific Phobia and Emetophobia. Online databases (PubMed, PsychInfo, Embase, Scopus, Solo) were searched using Emetophobia-related terms. Grey literature was sought. 610 articles were identified and 22 were included in the review. The review was registered on PROSPERO (CRD42021268755). Narrative synthesis included a description of identified maintenance factors of Emetophobia and whether they are included within existing formulations. The review suggests that current formulations for Specific Phobia and Emetophobia do not capture all relevant maintenance factors for a fear of vomiting. Future research should further investigate proposed maintenance factors with the aim of validating a distinct Emetophobia formulation.

Keywords: Emetophobia, Specific Phobia of Vomit

Service Improvement Project (SIP)

Improving Responses to Disclosure of Infant-Related Intrusions of Harm in Milton Keynes Primary Care Services

Background: Distressing thoughts of harming one's child ("Infant-Related Intrusions of Harm", IRIH) are common in new parents, yet unrelated to harmful parenting. Health Visitors (HVs) and Psychological Wellbeing Practitioners (PWPs) currently have no guidelines on responding to IRIH. This risks inappropriate referrals and social service involvement, evidenced in Milton Keynes Primary Care Services. *Purpose*: A service improvement project aimed at improving Milton Keynes HVs' and PWPs' responses to IRIH disclosure. *Procedures*: Fifty-three online staff surveys (27 PWPs, 26 HVs) regarding IRIH administered across (A) pre-intervention, (B) post-intervention, and (A) 2-month follow-up. The intervention involved staff training and psychoeducational handouts regarding IRIH. *Findings*: Staff confidence and appropriate anticipated referrals for IRIH increased post-intervention and at follow-up. Qualitative analyses indicated increased staff empathy for parents experiencing IRIH. *Conclusions*: HV and PWP understanding of IRIH appeared to improve following training and handouts. *Implications for Practice*: Standardised staff interventions may improve responses to IRIH.

Keywords: Intrusive thoughts; Perinatal OCD; Perinatal Mental Health

Theory-Driven Research Project (TDRP)

Sexuality, Internalised Stigma and Obsessive-Compulsive Disorder

Minority stress models suggest that Lesbian, Gay and Bisexual (LGB) individuals are frequently exposed to stressors related to stigmatisation, which accounts for higher rates of mental disorders compared to Heterosexual individuals. The aim of this study was to explore the role of internalised stigma in the relationship between sexuality and Obsessive Compulsive Disorder (OCD), specifically distress related to intrusions containing "taboo" content. Using a between-groups design, ~~285~~ 181 adults (~~160~~ 115 Heterosexual, ~~114~~ 66 LGB) were administered online questionnaires measuring OCD symptomology, internalised stigma, and potential covariates (anxiety, depression, shame, guilt, and disgust sensitivity). LGB participants were significantly more likely to report distress regarding "taboo" intrusions compared to Heterosexual participants and this effect was greatest for LGB participants with high internalised stigma, even after controlling covariates. Internalised stigma was identified as a significant predictor of "taboo" intrusions and total OCD symptomology, beyond gender, religion, ethnicity and other covariates. This study provides evidence that internalised stigma may be an important factor in elevated rates of OCD experienced by LGB individuals and its associated treatment.

Keywords: internalised stigma, sexuality, obsessive compulsive disorder, intrusive thoughts, taboo

Critical Review of the Literature (CRL)

Maintenance Factors of Emetophobia (A Fear of Vomit): A Systematic Review

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Abstract

Emetophobia, a fear of vomiting, is categorised as a Specific Phobia in the Diagnostic and Statistical Manual of Mental Disorders. Debate regarding this classification exists, with suggestions that a distinct Emetophobia psychological formulation should include maintenance factors which differ from other Specific Phobias. A systematic review was conducted to synthesise maintenance factors of Emetophobia and compare them to existing formulations for Specific Phobia and Emetophobia. Online databases (PubMed, PsychInfo, Embase, Scopus, Solo) were searched using Emetophobia-related terms. Grey literature was sought. 610 articles were identified and 22 were included in the review. The review was registered on PROSPERO (CRD42021268755). Narrative synthesis included a description of identified maintenance factors of Emetophobia and whether they are included within existing formulations. The review suggests that current formulations for Specific Phobia and Emetophobia do not capture all relevant maintenance factors for a fear of vomiting. Future research should further investigate proposed maintenance factors with the aim of validating a distinct Emetophobia formulation.

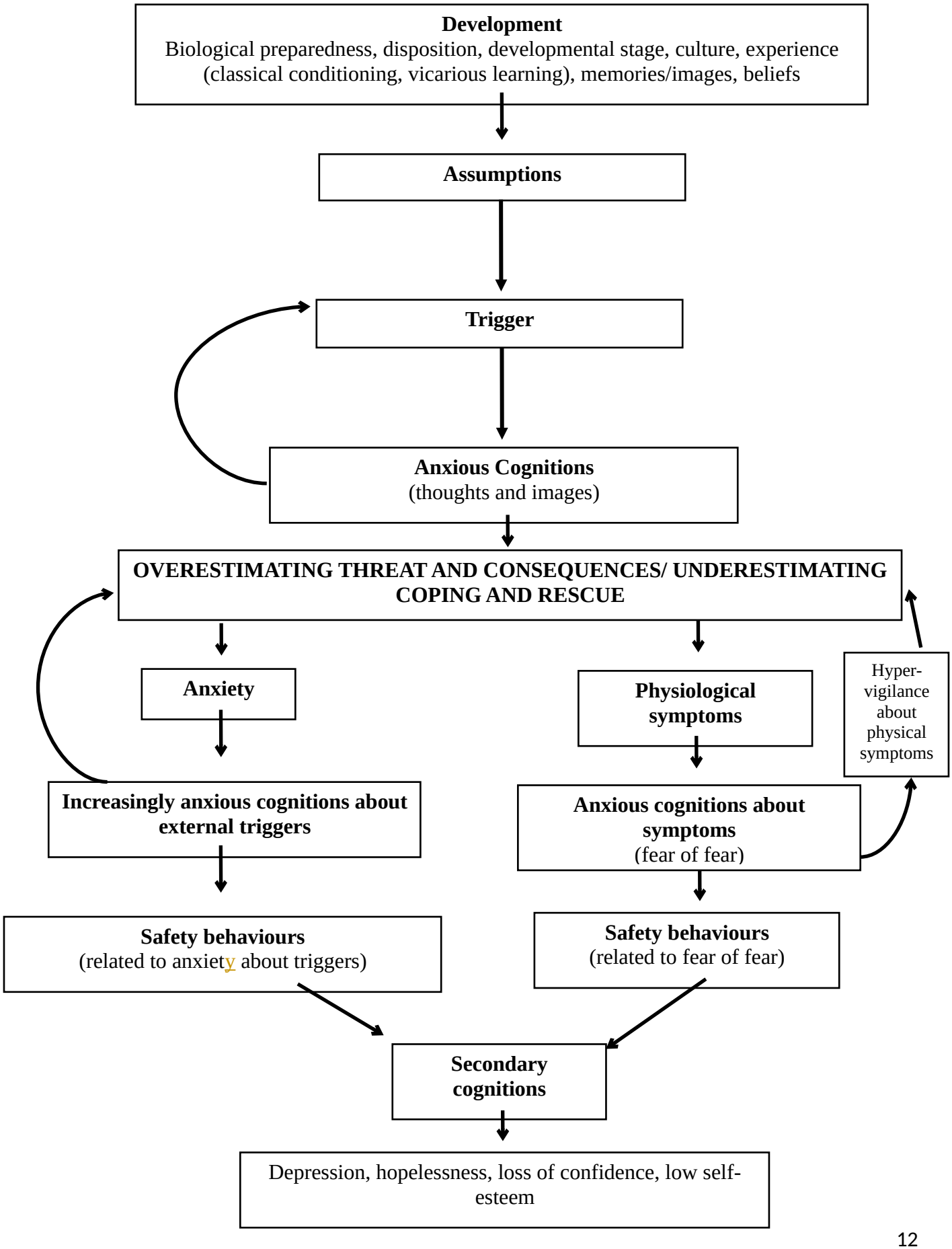
Keywords: Emetophobia, Specific Phobia of Vomit

1. Introduction

Emetophobia, or Specific Phobia of Vomiting (SPOV), involves a chronic fear of self ~~and/or~~or others vomiting (American Psychiatric Association, 2013). Whilst often neglected in research (Veale, 2009), the limited literature suggests that e~~E~~metophobia significantly reduces wellbeing despite being relatively rare in community samples (0.2% prevalence) (Liebenberg & dos Santos, 2018). For example, e~~E~~metophobia is associated with avoidance of vomit-related activities (e.g., communal eating), reducing quality of life (Keyes et al., 2018).

Emetophobia is currently classified as a "Specific Phobia: Other" subtype in the DSM-V (American Psychiatric Association, 2013). Individuals ~~diagnosed using associated criteria~~ are typically offered exposure-based therapy informed by cognitive and behavioural formulations (Odgers et al., 2022). Currently, no dominant established and evaluated cognitive-behavioural formulation for s~~S~~pecific ~~P~~phobias exists (Jean, 2021; UCL, 2023; Westbrook et al., 2011). Kirk and Rouf's (2004) preliminary formulation suggests that s~~S~~pecific ~~P~~phobias are broadly developed and maintained via: (1) Developmental Experiences; (2) Current Triggers; (3) Maintenance Factors; and (4) Key Cognitions (Figure 1).

Fig 1. Kirk and Rouf (2004) Specific Phobia Formulation



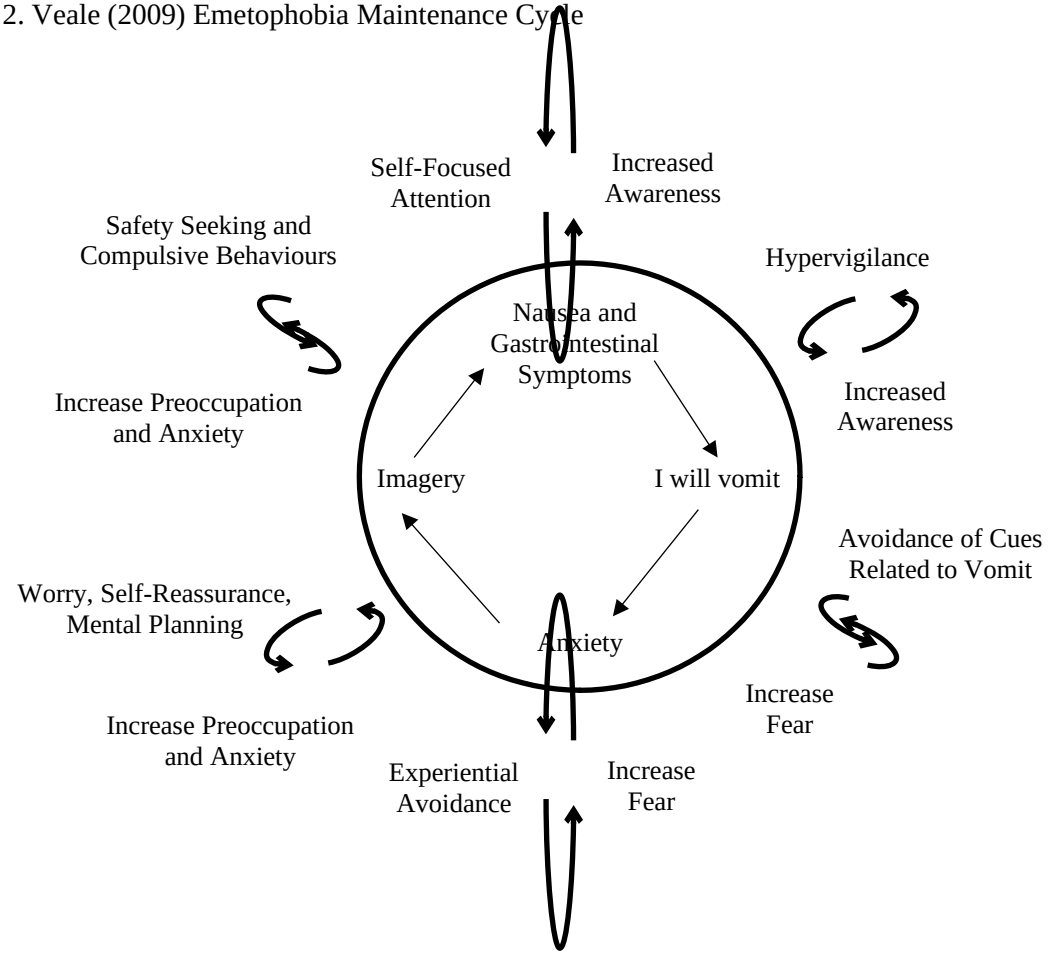
Emetophobia and its required formulation may be more complex than other s~~S~~pecific p~~P~~hobias (Keyes et al., 2018). Studies validating s~~S~~pecific p~~P~~hobia formulations make scarce reference to e~~E~~metophobia (Boschen, 2007) and associated therapy outcomes for e~~E~~metophobia are mixed (Keyes et al., 2020). This may relate to ~~features identified in e~~~~E~~metophobia features ~~which~~ seemingly extend~~ing~~ beyond other s~~S~~pecific p~~P~~hobias, including compulsions and abnormal eating behaviour (Keyes et al., 2018).

Veale et al. (2015) suggest that e~~E~~metophobia is so distinct ~~that it necessitates~~it requires reconceptualisation outside of the ~~Specific Phobia~~specific phobia category. The only systematic review regarding e~~E~~metophobia (Keyes et al., 2018) summarised that, compared to other s~~S~~pecific p~~P~~hobias, e~~E~~metophobia is rarer, involves multiple internal (e.g., nausea) rather than external triggers, is harder to treat, and has ~~significant~~ overlapping features with other disorders. Consequently, specific phobia formulations may not capture all emetophobia maintenance factors (Veale et al., 2015).

Maintenance factors are defined as the key cognitive and behavioural factors that account for the continued experience of a disorder (Wong & Rapee, 2016). ~~Consequently, Specific Phobia formulations may not capture all Emetophobia maintenance factors (Veale et al., 2015)~~Maintenance factors are conceptualised separately from ‘consequences’, generally defined as experiences that occur due to and following disorder onset (Blackburn-Munro & Blackburn-Munro, 2001). Attempts to differentiate maintenance factors and consequences have used temporal onset, with maintenance factors occurring concurrent to the disorder and having a causal role, whereas consequences are inversely caused by the disorder and only emerge post-morbidly (Lau et al., 2021). However, these can be difficult to distinguish since post-morbid consequences of a disorder (e.g., low BMI following emetophobia) can in turn maintain the disorder (e.g., physiological consequences which are interpreted as impending vomit) (Veale, 2009; Freeman et al., 2002).~~.~~

In a comprehensive paper outlining features of ~~E~~emetophobia, Veale (2009) proposed a ~~formulation~~ model directly informed by a prior attempt to formulate emetophobia (Boschen, 2007), existing cognitive-behavioural models (e.g., Clark, 1988) and Kirk and Rouf's (2004) s~~S~~pecific p~~P~~hobia model, whilst extended to include additional maintenance factors specifically relevant for fear of vomiting. Whilst Veale (2009) acknowledged multiple potential maintenance factors and the need for idiosyncratic formulation, they suggested that emetophobia is broadly maintained by: (1) Developmental Experiences; (2) Beliefs about Gastrointestinal Sensations; (3) Evaluations of the Experience of Vomiting; (4) Cognitive Processes regarding Vomiting; (5) Avoidance; and (6) Safety-Seeking Behaviours. They also highlighted the relevance of comorbid disorders. Comorbidities may simply be a consequence versus a maintenance factor for emetophobia (Van Overveld et al., 2008). Alternatively, pre-existing transdiagnostic risk factors (e.g., personality traits) may have increased vulnerability to both disorders – so any overlaps may be spurious (Boschen & Oei, 2008). Regardless, cognitive and behavioural factors of the comorbidities may mutually maintain each other (e.g., even if an anxiety disorder is a consequence of emetophobia, it may still maintain emetophobia; McAndrew et al., 2018). ~~Whilst Veale (2009) acknowledged multiple potential maintenance factors and the need for idiosyncratic formulation, they suggested that Emetophobia is broadly maintained by: (1) Developmental Experiences; (2) Beliefs about Gastrointestinal Sensations; (3) Evaluations of the Experience of Vomiting; (4) Cognitive Processes regarding Vomiting; (5) Avoidance; and (6) Safety-Seeking Behaviours.~~ Veale's (2009) ~~presented a~~ formulation is outlined in Figure 2.

Fig 2. Veale (2009) Emetophobia Maintenance Cycle



Veale's (2009) formulation has informed successful treatment of eEmetophobia (Keyes & Veale, 2021). However, evaluation via single case designs reduces generalisability and ~~the formulation~~ it was developed when eEmetophobia research was limited (Boschen, 2007). Furthermore, in a pilot randomised control trial of Emetophobia treatment, the formulation guiding therapy was ~~based on~~ a generic "maintenance of fear" model, rather than an eEmetophobia-specific model (Riddle-Walker et al., 2016). This indicates that how to formulate ~~the disorder~~emetophobia remains unclear (Keyes et al., 2018).

Unless it is clarified whether eEmetophobia has maintenance factors that extend beyond those relevant for sSpecific pPhobias, the disorder's current formulation may limit effective treatment and research (Keyes et al., 2018). Published formulations are frequently used to teach clinicians ~~the components of disorders~~disorder components (Thompson et al., 2022) and replicated with patients during treatment (Kannis-Dymand et al., 2021). Furthermore, the only systematic review regarding eEmetophobia made limited reference to formulation implications (Keyes et al., 2018). Thus, exploration of proposed formulations for eEmetophobia is warranted, particularly since treatment and evidence bases do not match effectiveness ~~achieved for~~of other sSpecific pPhobias (Keyes & Veale, 2021).

This paper includes the aim of conducting a systematic review and narrative synthesis focusing on maintenance factors (i.e., cognitive and behavioural factors accounting for a disorder's continued experience) to clarify whether emetophobia extends beyond a specific phobia formulation approach. ~~This paper includes the aim of conducting a systematic review and narrative synthesis focusing on maintenance factors to clarify whether Emetophobia extends beyond a Specific Phobia formulation approach.~~ This will be guided by the following questions:

1. What factors appear to maintain Emetophobia?

2. Are identified maintenance factors for Emetophobia included within existing Specific Phobia formulations, such as Kirk and Rouf (2004)?
3. Are identified maintenance factors for Emetophobia included within attempts to formulate Emetophobia, such as Veale (2009)?

2. Method

2.1. Design

A systematic review of the literature was registered on Prospero (CRD42021268755) ~~before~~ pre-commencement.

2.2. Search Criteria

The search term (Appendix 1a) was entered on databases PubMed, PsychInfo, Embase, Scopus and Solo. ~~Grey literature was sought via~~ Google, Google Scholar and reference lists ~~of relevant literature~~were also reviewed to enhance identification of relevant literature.

2.3. Selection Procedure

~~A broad inclusion criterion was used due to limited Emetophobia research.~~

Inclusion

- Quantitative or mixed method designs
- All participant genders and age-ranges with ~~-~~emetophobia, either diagnosed using ~~any~~ recognised diagnostic criteria (e.g., DSM-IV and beyond) or where ~~it is~~ identified as ~~the~~ focal problem
- ~~Describes~~ Indicates cognitive or behavioural factors ~~maintenance factors relevant~~that may maintain ~~for e~~Emetophobia

- Published in peer-reviewed journal

Exclusion

- Participants with e~~E~~metophobia form part of ~~the~~ sample but ~~are~~ not analysed separately
- Entirely theoretical
- Entirely qualitative
- Paper does not generate new data (e.g., literature review)
- Non-English language
- Papers with one participant

A broad inclusion criteria ~~on~~ was used due to limited e~~E~~metophobia research. However, papers with one participant (i.e., case studies) and those not peer-reviewed remained excluded. Whilst case studies in systematic reviews may be beneficial when data from largescale empirical studies is limited (Loke et al., 2007), as is relevant in emetophobia research, most systematic review guidelines (e.g., PRISMA) suggest caution due to limited generalisability and risk of bias (e.g., clinician reporting cases which are not representative of population) (Nambiema et al., 2021). Whilst guidelines are increasingly available for incorporating case studies/grey literature in reviews (Paez, 2017), some suggest literature only be considered when well-documented and scientifically rigorous (Gagnier et al., 2013). This is rarely the case for emetophobia case studies and grey literature, which were not included in the only existing systematic review (Keyes et al., 2018). Most of the limited existing attempts to conceptualise emetophobia have used qualitative designs (e.g., clinician descriptions of maintenance factors) (Maack et al., 2017). The current project attempts to further understanding by instead reviewing quantitative literature and excluding entirely qualitative literature (although associated limitations are acknowledged in the discussion).

2.4. Data Collection

Literature was imported from each database into reference management software and 225 duplicates were removed. The remaining 610 records were screened via title and abstract. Twenty percent of abstracts were screened by a second rater to ensure reliability, with inter-rater agreement of 97.1% (Cohen's Kappa = 0.83). Records appearing to meet criteria were sought for full-text review (*N* = 136). Accessed records (*N* = 135) were assessed for inclusion criteria alignment. Twenty-five percent of full texts were screened by the second rater, with inter-rater agreement of 100% (Cohen's Kappa = 1.00). Twenty-two papers satisfied criteria and were included (Figure 2; Page et al., 2021). Search terms were re-entered into databases in April 2023. Two additional papers were identified and excluded via abstract screening. Relevant data from included studies was imported into Excel. The second rater also extracted data from 50% of studies to ensure pertinent data was accessed.

2.5. Quality Assessment

Included studies were assessed using the 14-item Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields (QualSyst; Kmet et al., 2004) (Appendix 1c). Studies were scored as fully (2), partially (1), or not (0) meeting criteria. This resulted in a maximum score of 28. ~~Studies were scored 2, 1 or 0 depending on fully, partially or not meeting criteria, respectively. This resulted in a maximum score of 28.~~ Items not applicable to a study design were marked "n/a". A summary score (range: ~~ing from~~ 0-1) was calculated by summing the total score obtained across relevant items and dividing by ~~the~~ total possible score. Summary scores can indicate ~~.~~ strong (> 0.80), good (0.71-0.79), adequate (0.50-0.70) and limited (<0.50) quality (Lee et al., 2008), but caution should be taken since summary scores result from a smaller pool of quality indicators (Kmet et al., 2004). Thirty-percent of texts were

assessed by the second rater (Appendix 1d), with inter-rater agreement of 75% (summary scores within 0.5 of each other) (Cohen's Kappa = 0.53).

2.6. Narrative Synthesis

Data was subject to a narrative synthesis since the studies have highly heterogeneous methodological designs. Narrative synthesis adopts a textual approach to systematically pooling data where statistical synthesis is less appropriate (Schwarz et al., 2019).

The narrative synthesis utilised the following framework, informed by Popay et al. (2006).

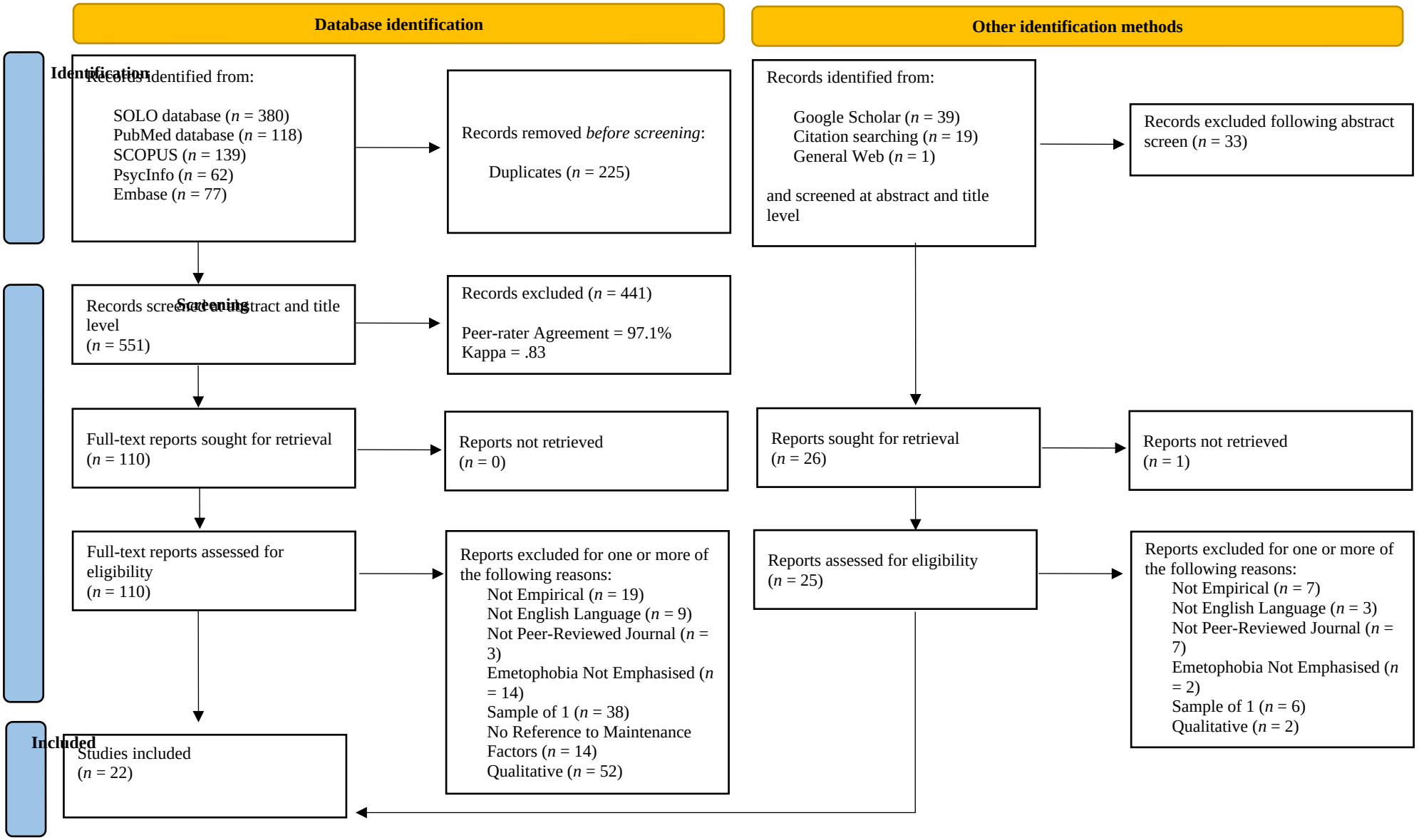
1. Summary of study characteristics and participants
2. Quality assessment findings
3. Synthesis of measures of maintenance factors and associated outcomes

Maintenance factors were analysed using an interpretive epistemological stance to acknowledge potential bias in reviewing the data. They were synthesised using Thomas and Harden's (2008) thematic synthesis protocol, which extends textual narrative synthesis by identifying analytic themes in primary research data (Barnett-Page & Thomas, 2009). Whilst commonly associated with qualitative synthesis, thematic synthesis has been successfully applied to quantitative research (Ryan et al., 2018), and is particularly recommended where there is heterogeneity in outcome measures (Booth et al., 2016). Thematic synthesis involved:

1. Initially suspending existing models regarding proposed maintenance factors of eEmetophobia and sSpecific pPhobias to code data inductively.
2. Arranging inductive codes into descriptive themes that describe patterns in maintenance factors identified across studies.
3. Introducing existing models regarding proposed maintenance factors of eEmetophobia and sSpecific pPhobias to generate analytical themes in relation to the research questions. This will constitute the narrative component of the analysis, providing narrative

descriptions of each descriptive theme (i.e., identified maintenance factors of eEmetophobia) and where they align with or diverge from existing models.

Fig 3. Screening Process using PRISMA guidelines (Page et al., 2021)



3. Results

3.1. Study Characteristics

Twenty-two studies were included. Most designs (*n* = 18) were cross-sectional, two experimental (Ahlen et al., 2015; Verwoerd et al., 2015), one was a pilot randomised control trial (Riddle-Walker et al., 2016), and one was a case review (Veale et al., 2015). Studies were set in the United Kingdom (*n* = 6), United States of America (Klonoff et al., 1984; Lipsitz et al., 2001; Maack et al., 2018; Petell et al., 2015; Riddle-Walker et al., 2016), Netherlands (Van Hout et al., 2012; Van Overveld et al., 2007; Verwoerd et al., 2015), Sweden (Ahlen et al., 2015), Germany (Holler et al., 2013), South Africa (Liebenberg & dos Santos, 2018), El Salvador (Wu et al., 2017), and three settings were mixed/unclear (Boschen et al., 2013; Veale et al., 2015; Wu et al., 2015). One study sourced international participants due to being entirely online (Sykes et al., 2015).

3.1.2. Participants

Studies recruited participants clinically (*n* = 5), online (*n* = 7), community (*n* = 1), or a hybrid (*n* = 5). Four studies did not specify recruitment approach. Total ~~participant number~~sample across studies was 4536. Across individual studies, sample size ranged from 5 – 1626. Most studies included clinical samples (*n* = 17), the remainder community (*n* = 5).

Total participants with e~~E~~metophobia across clinical studies was 1133, for which demographics were differentially reported. Available data indicated that participant mean age was 32.32 years and most were female (*M* = 92.32%). Participants were diagnosed with ~~E~~emetophobia using the DSM (*n* = 8) or Structured Clinical Interviews (*n* = 3). Some studies included participants self-reporting ~~E~~emetophobia (*n* = 2) or scoring highly on the Emetophobic

Questionnaire (*n* = 1). Three studies did not report how ~~E~~emetophobic participants were diagnosed.

Seven clinical studies included non-~~E~~emetophobic controls. Three studies included both non-clinical and non-Emetophobic clinical controls. Available data indicated that control participant mean age was 32.91 years and most were female (*M* = 83.04%).

Total participants across community studies was 2697. Available data indicated that mean age was 18.10 years and most were female (*M* = 70.28%). Three studies established participants with elevated ~~E~~emetophobia symptoms via Specific Phobia of Vomiting Inventory (SPOVI; Veale et al., 2013) scores greater than 10 (*n* = 2) or Emetophobia Questionnaire (EQ; Bouman & van Hout, 2006) scores in the highest quartile (*n* = 1).

3.2. Quality Assessment

Based on QualSyst items (Kmet et al., 2004; Appendix 1c), overall quality of papers ranged from 0.5-1 (M = 0.87), suggesting discrepancies in reliability and generalisability across studies. 18 papers were rated as 'strong' quality, 2 of 'good' (Liebenberg & dos Santos, 2018; Sykes et al., 2015), and 2 of 'adequate' quality (Klonoff et al., 1984; Lipsitz et al., 2001) (Table 1). ~~Overall quality of papers ranged from 0.5-1 (*M* = 0.87), suggesting discrepancies in reliability and generalisability across studies.~~ All studies received a score of two (out of a possible two) on design appropriateness and drawing conclusions supported by results. The most compromised areas of quality across studies were control for confounding (*M* = 1.23), sample size (*M* = 1.38), and estimates of variance for main results (*M* = 1.46). None of the included studies were interventional with random allocation, besides Riddle-Walker et al. (2016). However, studies involving interventions are not strictly necessary for reviews in which the aim is to conceptualise a disorder (Keyes et al., 2018). ~~Individual quality ratings available via corresponding author.~~

Author, Year	Quality Assessment Items														Summary Score
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Veale et al., 2012	2	2	2	2	n/a	n/a	n/a	2	1	1	1	1	2	2	0.82
Van Overveld et al., 2007	2	2	1	2	n/a	n/a	n/a	2	1	2	2	1	2	2	0.86
Veale et al., 2013	2	2	2	2	n/a	n/a	n/a	1	1	2	2	2	2	2	0.91
Van Hout et al., 2012	2	2	2	2	n/a	n/a	n/a	2	1	2	0	1	2	2	0.82
Ahlen et al., 2015	2	2	2	2	n/a	n/a	n/a	2	1	2	2	1	2	2	0.91
Sykes et al., 2015	2	2	2	2	n/a	n/a	n/a	2	1	1	0	1	2	2	0.77
Lipsitz et al., 2001	1	2	2	2	n/a	n/a	n/a	1	1	0	1	1	2	2	0.68
Wu et al., 2017	2	2	2	2	n/a	n/a	n/a	2	2	2	2	2	2	2	1
Veale et al., 2015	2	2	2	2	n/a	n/a	n/a	2	2	2	2	1	2	2	0.95
Price et al., 2012	2	2	2	2	n/a	n/a	n/a	2	1	2	2	1	2	2	0.91
Holler et al., 2013	2	2	2	2	n/a	n/a	n/a	1	2	2	1	1	2	2	0.86
Veale & Lambrou, 2006	1	2	2	2	n/a	n/a	n/a	2	2	2	2	1	2	2	0.91
Veale et al 2013	2	2	2	2	n/a	n/a	n/a	2	1	2	2	2	2	2	0.95
Riddle-Walker et al., 2016	2	2	2	2	2	0	0	2	2	2	2	1	2	2	0.82
Verwoerd et al., 2015	2	2	2	2	n/a	n/a	n/a	2	1	2	2	2	2	2	0.95

Table 1. Quality Assessment Ratings via QualSyst (Kmet et al., 2004)

Note. QualSyst items in appendix 1c. n/a = not-applicable.

Table 1 (cont). Quality Assessment Ratings via QualSyst (Kmet et al., 2004)

	Quality Assessment Items														
Author, Year	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Summary Score**
Liebenberg & dos Santos, 2018	2	2	2	1	n/a	n/a	n/a	2	1	1	0	1	2	2	0.72
Maack et al., 2018	2	2	2	2	n/a	n/a	n/a	2	2	2	2	2	2	2	1
Davidson et al., 2007	2	2	2	2	n/a	n/a	n/a	2	2	2	2	2	2	2	1
Boschen et al., 2013	2	2	2	2	n/a	n/a	n/a	2	2	2	2	2	2	2	1
Klonoff et al., 1984	1	2	2	1	n/a	n/a	n/a	1	0	0	0	0	2	2	0.5
Wu et al., 2015	2	2	2	2	n/a	n/a	n/a	2	1	2	2	1	2	2	0.91
Petell et al., 2015	2	2	2	2	n/a	n/a	n/a	2	2	2	1	1	2	2	0.91

Note. QualSyst items in appendix 1c. n/a = not-applicable.

3.3. Maintenance Factors of Emetophobia

3.3.1. Outcome Measures

Heterogeneous outcome measures aimed at establishing maintenance factors in Emetophobia were used across studies. 27 standardised measures were incorporated across studies, and 13 studies also used idiosyncratic measures.

3.3.2. Thematic Synthesis

Thematic Synthesis (Thomas & Harden, 2008) identified 11 inductive, descriptive themes regarding maintenance factors of Emetophobia (Table One, first column). The formulations of Kirk and Rouf (2004) and Veale (2009) were then introduced to support with arranging descriptive themes into analytical themes in response to research questions. Although Kirk and Rouf (2004) and Veale (2009) provided a framework to incorporate several identified maintenance factors, neither captured all. Three analytical themes were identified, depicted in Table One and described as:

1. Maintenance factors matching both Kirk and Rouf's (2004) and Veale's (2009) formulations.
2. Maintenance factors matching Veale's (2009) formulation but extending beyond Kirk and Rouf's (2004) formulation.
3. Maintenance factors extending beyond both Kirk and Rouf's (2004) and Veale's (2009) formulations.

Table 1. Thematic Synthesis overview, detailing overlapping maintenance factors for emetophobia identified in current project and existing formulations

	Current Project Proposed Maintenance Factors	**Veale (2009) Proposed Maintenance Factors**	**Kirk & Rouf (2004) Proposed Maintenance Factors**
Maintenance factors matching both Kirk and Rouf's (2004) and Veale's (2009) formulations.	Physical Health Factors	Nausea and Gastrointestinal Symptoms	Physiological Symptoms
Maintenance factors matching Veale's (2009) formulation but extending beyond Kirk and Rouf's (2004) formulation.	Nausea	*As above*	*As above*
	Safety Seeking and Compulsive Behaviours	Safety Seeking and Compulsive Behaviours	Safety Behaviours
		Worry, Self-Reassurance, Mental Planning	
	Self-Focused Attention	Self-Focused Attention	

Maintenance factors extending beyond both Kirk and Rouf's (2004) and Veale's (2009) formulations.	Comorbid Mood Disorders	Anxiety	Low Mood Anxiety
	Worry and Perceived Consequences of Vomiting	*As above* Worry, Self-Reassurance, Mental Planning Hypervigilance	Overestimating Threat Hypervigilance
	General Avoidance	Experiential Avoidance Avoidance of Cues Related to Vomit	
	Memories	Imagery	
	Abnormal Eating Behaviours		
	Social Impairment		
	Disgust		

3.4. Maintenance Factors Overlapping with Kirk and Rouf's (2004) and Veale's (2009) Formulations

3.4.1. Physical Health Factors

Seven studies identified physical health issues in emetophobic participants (Table 2)[. with] most [(*n* = 4) being of 'strong' quality]. [~~This~~ Issues] included low BMI, gastrointestinal issues, and significantly poorer physical health in emetophobic participants versus controls. [~~Four~~ Three] studies [(Klonoff et al., 1984; Price et al., 2012; Sykes et al., 2015)] highlighted complaints akin to somatoform disorder, suggesting that some physical issues experienced by emetophobic participants had no identified medical cause. [However, all three studies scored low (0) to partial (1) quality for sample size, and Klonoff et al. (1984) has the lowest overall quality rating (0.5). Thus, factors involved in somatisation may not be generalisable to all e]metophobic individuals[. ~~For example~~Yet], Wu et al.['s] (2015) ['strong' quality paper] identified a positive correlation between somatisation and SPOVI scores (r = .37, p < .001) [in their non-clinical sample of 436 participants]. [Overall, ~~T~~t]his aligns with Kirk and Rouf's (2004) reference to physiological

symptoms, but the frequency of digestive problems particularly evidences Veale's (2009) reference to gastrointestinal symptoms.

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Van Hout & Bouman, 2012	190 (24, 156)	Physical Health (Excellent/Good) (EI)	Internet: 42.1% Community: 46.7%	74.4%	*P = .003*
		Current Treatment for Physical Complaints (EI)	Internet: 42.1% Community: 46.7%	23.1%	*P = .048*
		Past Treatment for Digestive Tract Symptoms (EI)	Internet: 42.1% Community: 40%	21.8%	*P = 0.06*
Sykes et al., 2015	64	Somatoform Disorder (SCID)	7.8%		
Lipsitz et al., 2001	56	Experience of Serious Medical Problem in Adulthood	30%		
		Gastric Distress	57%		

Price et al., 2012	36	Undifferentiated Somatisation Disorder (SCID)	2.9%
Holler et al., 2013	131	Underweight (BMI)	37.4%
Liebenberg & Dos Santos, 2018	20	Stomach Not Feeling Well Associated with the Possibility of Vomiting (GIS)	80%
		Diarrhoea Associated with the Possibility of Vomiting (GIS)	35%
		Likelihood of Abdominal Cramps (GIS)	3.3
		Likelihood of Acid Eructation (GIS)	3.05
		Likelihood of Epigastric Pain (GIS)	3.10
Klonoff et al., 1984	5	Multiple Somatic Complaints (Child/ Parent-Report)	100%

Table 2. Physical Health Factors

Note. EI = Emetophobia Inventory (Van Hout & Bouman, 2012). SCID = Structured Clinical Interview for DSM Disorders (APA, 2022). BMI = Body Mass Index. GIS = Gastrointestinal Symptom Score Scale (Adam et al., 2005).

3.5. Maintenance factors overlapping with Veale's (2009) formulation but extending beyond Kirk and Rouf's (2004) formulation.

3.5.1. Safety Seeking and Compulsive Behaviours

Six studies with clinical samples referenced heterogeneous safety behaviours aimed at mitigating perceived risk of vomiting (Table 3), aligning with Kirk and Rouf (2004) and Veale (2009). All studies partially controlled for confounding and had 'strong' quality ratings besides Liebenberg & dos Santos (2018), which was rated as 'good', increasing reliability of outcomes. Safety behaviours included mental planning, threat monitoring, and reassurance seeking. However, the five 'strong' quality papers highlighted repetitive behaviours, such as hand

washing, supporting Veale's (2009) specification that both 'safety seeking and compulsive behaviours' maintain emetophobia – yet, no self-report measure specifically operationalised how repetitive such behaviours are in reality. Wu et al.'s (2017) non-clinical study also indicated significantly greater compulsive behaviour in individuals with elevated versus lower emetophobic symptomology. Veale et al. (2015) also report a significant positive correlation between frequency of hand washing and Emet-Q and SPOVI scores (r = .314, .275, respectively, $p < .05$).

Table 3. Safety Seeking and Compulsive Behaviours

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**

Veale et al., 2012	94 (32 Emetophobia, 62 Emetophobia without food restriction)	Rituals or counting in an effort to stop self from vomiting (FOVQ)	33.3%	5.8%	$X^2 = 0.3$
Van Hout et al., 2012		Not using of medication for fear of side-effects	Internet: 42.1% Community: 6.7%		
		Making sure to find the toilet in public buildings	Internet: 63.2% Community: 6.7%		
		Frequent washing of hands	Internet: 42.1% Community: 0%		
		Wearing comfortable clothing	Internet: 5.3% Community: 13.3%		
		Using chewing gum	Internet: 42.1% Community: 13.3%		
		Carrying or taking stomach pills	Internet: 53% Community: 33%		
		Postponing pregnancy	Internet: 47.4% Community: 0%		
Veale et al., 2015	83	Checking/Rituals (Mean)	63.95%		
		Reassurance (mean)	52.15		
Holler et al., 2013	131	Consulting Medical Practitioner At Least Once Due to Nausea (SR)	78%		
Veale & Lambrou, 2006	209 (100)	Excessive Behaviour (Mean)	13%		
		Checking Health of Self and Others (SR)	16%		
		Superstitious Behaviour (SR)	14%		
		Seek Reassurance from Others (SR)	12%		
Liebenberg & dos Santos, 2018	20	Safety Behaviour (mean)	32.86%		

Note. FOVQ = Fear of Vomiting Questionnaire (Veale et al., 2012). SR = Self-Report.

3.5.2. Nausea

Nine studies ~~explored~~ highlighted nausea (Table 4), most (*n* = 6) being of 'strong' and one of 'good' quality (Liebenberg & dos Santos, 2018). Two papers were of 'adequate' quality with small samples and ill-described analyses (Klonoff et al., 1984; Lipsitz et al., 2001), although results were echoed in higher quality papers with larger samples (e.g., Veale & Lambrou, 2006). Whilst Veale's (2009) formulation references nausea alongside gastrointestinal symptoms, this may not emphasise the range of nausea-related experiences. Nausea's complex role in emetophobia can be considered in three broad domains. Firstly, reportedly increased experiences of nausea (Lipsitz et al., 2001; Price et al., 2012; van Hout & Bouman, 2012; Veale et al., 2012; Veale & Lambrou, 2006). Secondly, behaviours aimed at preventing/reducing nausea (Höller et al., 2013; van Hout & Bouman, 2012a). Thirdly, fear of nausea (Höller et al., 2013; Klonoff et al., 1984; Liebenberg & dos Santos, 2018; van Hout & Bouman, 2012a). Critically, Höller et al. (2013) report that Eemetophobic individuals experiencing greater nausea demonstrated higher fear compared to those low in nausea ($U = 1044$, $p = .008$). This may suggest that the maintaining influence of nausea be considered independently.

Table 4. Nausea

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale & Lambrou, 2006	209 (100, 109 [Panic Disorder 28, Non-Clinical Control 81])	Nausea Everyday/Every Other Day (SR)	51%	Panic 22%	X^2 = 23.123**
		Nausea for more than One Hour Per Day (SR)	78%	Panic 41%	X^2 = 17.543**
Liebenberg & dos Santos, 2018	20	Likelihood of Nausea (GIS)	4.3		
		Nausea Severity (PAGI-SYM)	4.75		
Klonoff et al., 1984	5	Fear of Nausea or Vomiting (Child/Parent-Report)	100%		
Veale et al., 2012	94 (32 Emetophobia, 62 Emetophobia without food restriction)	Days experienced nausea in past week	4.5, 2.3	3.3, 2.6	T = 2.2*
Van Overveld et al., 2007	181 (138, 43)	Worrying about vomiting, bodily sensations, fear of vomiting (EQ)	206.95, 36.89	104.48, 24.48	*F* = 265.35**
Van Hout et al., 2012	190 (24, 156)	Nausea or stomach upset (PDSQ)	Internet: 100% Community: 46.7%	29.7%	*P = .0001***
		Carrying something to eat to prevent nausea	Internet: 10.5% Community: 6.7%		
Lipsitz et al., 2001	56	Nausea	82%		
Price et al., 2012	36	Days of Nausea in Last Week	3.1, 2.4		
Holler et al., 2013	131	Nausea (Mean)	48.25%		

Note. *p < .05. **p < .01. ***p < .001. EQ = Emetophobia Questionnaire (Bouman & van Hout, 2006). PDSQ = Psychiatric Diagnostic Screening Questionnaire (Zimmerman & Mattia, 2001). SR = Self-Report. PAGI-SYM = Patient Assessment of Upper Gastrointestinal Symptom Severity Index (Rentz et al., 2004). GIS = Gastrointestinal Symptom Score Scale (Adam et al., 2005).

3.5.3. Self-Focused Attention

Six studies explored self-focused attention in emetophobic participants (Table 5). Most studies comparing locus of fear (e.g., of vomiting) in emetophobic individuals identified this as more often oriented to selves compared to others Emetophobic participants had greater fear of themselves vomiting versus others (n = 4, out of a possible 5 studiesbesides Holler et al. (2013) comparing locus of fear within Emetophobic sample). The extent to which this self-focused attention is directly associated with emetophobia is unclear since only Davidson et al. (2008) and Veale et al. (2013) fully controlled confounders. Holler et al. (2013) and Lipsitz et al. (2001) Two studies also indicated that emetophobic participants had greater fear of vomiting in public versus privately. Wu et al.'s (2017) non-clinical study, which scored 2/2 across all relevant quality indicators, demonstrated a positive correlation between both internalising and externalising and SPOVI scores. This generally accords with Veale's (2009) reference to self-focussed attention.

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale et al., 2013	184 (94, 90)	Locus of fear – Self	51.1%		
		Locus of fear – others	8.5%		
		Locus of fear – both	40.4%		

Lipsitz et al., 2001	56	Locus of Fear - Self	35		
		Locus of Fear – Others	10		
		Locus of Fear – Both	11		
		Greater fear of vomiting in public	62%		
		Greater fear of vomiting in private	4%		
		Equal fear of vomiting in public/private	34%		
Price et al., 2012	36	Self Locus of Fear (FOVQ)	47.2%		
		Other Locus of Fear (FOVQ)	16.7%		
		Equal Locus of Fear (FOVQ)	36.1%		
Holler et al., 2013	131	Self Locus of Fear (SR)	35.1%		
		Others Locus of Fear (SR)	35.1%		
		Equal Locus of Fear (SR)	56.5%		
		Public Locus of Fear (SR)	67.9%		
		Private Locus of Fear (SR)	7.6%		
		Equal Private and Public Locus of Fear (Self-Report)	24.4%		
Veale & Lambrou, 2006	209 (100, 109 [Panic Disorder 28, Non-Clinical Control 81])	Fear Myself Vomiting Whether in Public or Alone (SR)	77.6%	Panic 17.9%, Control 1.4%	X^2 = 168.375***
		Fear Self and Others Vomiting Equally (SR)	47%	Panic 3.6%, Control 5.2%	X^2 = 164.11***
Davidson et al., 2008	149 (Emetophobic 51, Phobic Controls 48, Non-Phobic Controls 50)	Internal Locus of Control (RLC)	13.10, 4.33	Phobic Controls 13.10, 4.33.	*M* Difference 4.64**
				Non-Phobic Controls 8.70, 4.56.	*M* Difference 4.40**
		HLCS	3.01, 0.65	Phobic Controls 2.37, 0.61.	*M* Difference 0.64**
				Non-Phobic Controls 2.44, 0.65.	*M* Difference 0.57**

Table 5. Self-Focused Attention

Note. *p < .05. **p < .01. ***p < .001. FOVQ = Fear of Vomiting Questionnaire (Veale et al., 2012). SR = Self-report. RLC = Rotter's Locus of Control (Rotter, 1966). HLCS = Health Locus of Control Scale (Wallston et al., 1976).

3.6. Maintenance Factors Extending Beyond Both Kirk and Rouf's (2004) and Veale's (2009) formulations

3.6.1. Abnormal Eating Behaviours

Seven studies with clinical samples highlighted abnormal eating behaviours in emetophobic participants (Table 6). Klonoff et al.'s (1984) paper of 'adequate' quality reported nondescript 'eating problems' in their small sample, without indicating the actual behaviour potentially maintaining emetophobia. However, the remaining six papers of 'good' to 'strong' quality specified ~~Behaviours are~~ wide-ranging ~~but~~ behaviours related to food preparation and consumption, including excessively overcooking and washing food, avoiding certain foods, and not finishing meals - yet these were predominantly based on unvalidated self-reports. Nonetheless, ~~S~~such behaviours ~~are~~ were reported at high rates in emetophobic samples with controlled covariates (e.g., 82.2% of participants; Veale et al., 2015) and ~~some~~ Veale et al. (2012) sourced ~~paper~~a large sample~~s~~ with enough validated measures to categorise~~d~~ participants with 'Emetophobia and food restriction' as a group within itself ~~(Veale et al., 2011)~~. Thus, ~~. Since data is sourced from high-quality papers (e.g., 0.95 KMET score),~~ aabnormal eating behaviours may constitute a valid maintenance factor to be considered separately from the broad "safety" ~~and/or~~or "avoidance" behaviours suggested by Kirk & Rouf (2004) and Veale (2009).

Author, Year	Total *N* (Emetophobia *n*, Control *n*)	Measure	Emetophobia Participants (*M*, *SD*, other)	Control Participants (*M*, *SD*, other)	Stats Output
Veale et al., 2012	184 (94, 90)	Avoiding food not prepared by others (FVOQ)	5.2, 3.4	3.6, 2.8	T = 2.2*
		Excessively smell or check sell by dates and freshness of food (FVOQ)	93.5%	77.4%	X^2 = 2.7
		Cook food for longer than others consider necessary (FVOQ)	80.6%	53.2%	X^2 = 2.7*
		Avoid Certain Foods (mean)	39.8%	29.64%	X^2 = 0.5
Van Hout et al., 2012	190 (24, 156)	Buying and eating easily digestible food	Internet: 15.8% Community: 6.7%		
		Checking food for expiration date	Internet: 89.5% Community: 40%		
		Refusing eating food prepared by others	Internet: 10.5% Community: 6.7%		
		Carrying something to eat to prevent nausea	Internet: 10.5% Community: 6.7%		
Veale et al., 2015	83	Often/Always Excessively Smell or Check Sell By Dates of Food (SR)	82.2%		
Holler et al., 2013	131	Abnormal Eating Behaviour (SR)	80.4%		
		Avoiding Certain Food (SR)	61.2%		
		Eating Separately from Family (SR)	18.1%		
		Avoiding Restaurants (SR)	34.3%		
		Avoiding Invitations to Come Over to Eat (SR)	33.5%		
Veale & Lambrou, 2006	209 (100)	Repeatedly Check Sell-By Date and Food Freshness (SR)	29%		
		Wash Food Excessively (SR)	8%		
		Avoid Salad Bars or Buffets (SR)	63.1%		
		Avoid Restaurants When Alone (SR)	54.1%		
		Avoid Certain Food (Mean)	29.11%		
Liebenberg & dos Santos, 2018	20	Likelihood of Early Satiety (GIS)	3.35		
		Likelihood of Loss of Appetite (GIS)	2.7		
		Loss of Appetite Severity (PAGI-SYM)	2.75		
		Not Finish Meal (PAGI-SYM)	2.70		
		Excessively Full Severity (PAGI-SYM)	3.40		
Klonoff et al., 1984	5	Eating Problems (Child/Parent-Report)	100%		

Table 6. Abnormal Eating Behaviours

Note. *p < .05. **p < .01. ***p < .001. FOVQ = Fear of Vomiting Questionnaire (Veale et al., 2012). SR = Self-report. PAGI-SYM = Patient Assessment of Upper Gastrointestinal Symptom Severity Index (Rentz et al., 2004). GIS = Gastrointestinal Symptom Score Scale (Adam et al., 2005).

3.6.2. Social Impairment

Nine studies with clinical samples highlighted social impairment in emetophobic participants ~~(Boschen et al., 2013; Höller et al., 2013; Klonoff et al., 1984; Liebenberg & dos Santos, 2018; Lipsitz et al., 2001; van Hout & Bouman, 2012a; Veale et al., 2012, 2015; Veale & Lambrou, 2006)~~ (Table 7). This ranged from specific avoidance (e.g., parties) to nondescript 'social withdrawal'. Behaviours appear common in emetophobic samples (e.g., 89.2% of participants avoiding instances where there may be drunk people; Veale & Lambrou, 2006), and both non-clinical and clinical data indicates a positive correlation between SPOVI scores and social impairment ($r \geq .50$, $p \geq .01$; Boschen et al., 2013; Wu et al., 2015). Whilst most studies had 'strong' quality ratings, only Boschen et al. (2013) and Wu et al. (2015) controlled confounders, and Klonoff et al. (1984) and Lipsitz et al. (2001) only had 'adequate' quality outcomes. Furthermore, some measures did not specifically assess the frequency of instances of social impairment (e.g., daily, weekly). Thus, the regularity of social impairment in the daily lives of emetophobic individuals is unclear.

~~Since data is sourced from high-quality papers (e.g., 0.95 KMET score), social impairment could be considered separately from the vomit-specific avoidance suggested by Kirk & Rouf (2004) and Veale (2009).~~

Table 7. Social Impairment

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale et al., 2012	184 (94, 90)	WSAS Total	21.2, 8.1	15.4, 7.8	T = 3.2**
		Effect on relationships (WSAS)	5.0, 2.1	3.5, 2.4	T = 2.4*
		Effect on social life (WSAS)	5.7, 1.9	4.6, 2.2	T = 2.2*
		Effect on leisure activities (WSAS)	2.4, 2.5	1.3, 1.7	T = 2.6*
Van Hout et al., 2012	190 (24, 156)	Avoiding drunk people	Internet: 68.4% Community: 40%		
		Avoiding using alcohol	Internet: 63.2% Community: 6.7%		
		Avoiding visiting foreign countries	Internet: 63.2% Community: 6.7%		
		Avoiding parties and other social situations	Internet: 31.6% Community: 0%		
Lipsitz et al., 2001	56	Social Impairment	62%		
		Constricted Leisure Activities	70%		
Veale et al., 2015		Avoidance of travel, movement or location (EMET-Q)	20.6, 5.2		
		Avoidance of others who may vomit (EMET-Q)	17.1, 3.6		
Holler et al., 2013	131	Eating Separately from Family (SR)	18.1%		
		Suffering Weakness in Job or Free-Time (SR)	19.6%		
		Avoiding Invitations to Come Over to Eat (SR)	33.5%		
Veale & Lambrou,	209 (100)	Avoid Social Events (SR)	70.7%		

2006			
Liebenberg & Dos Santos, 2018	20	Minimise Presence in Public (SR)	30-55%
		Lower Enjoyment of Social Events (SR)	15-20%
Klonoff et al., 1984	5	Difficulty Going to School or School Refusal (Child/Parent-Report)	100%
		Social Withdrawal (Child/Parent-Report)	100%

Note. *p < .05. **p < .01. ***p < .001. FOVQ = Fear of Vomiting Questionnaire (Veale et al., 2012). SR = Self-report. PAGI-SYM = Patient Assessment of Upper Gastrointestinal Symptom Severity Index (Rentz et al., 2004). GIS = Gastrointestinal Symptom Score Scale (Adam et al., 2005).

3.6.3. General Avoidance

Eight studies identified avoidance behaviours unrelated to food or social events (Table 8), all of 'strong' quality besides Klonoff et al. (1984) and Van Hout et al. (2012) ('adequate' quality). This predominantly aligns with Veale's (2009) formulation, although some behaviours potentially extended beyond 'experiential avoidance' or 'avoidance of cues related to vomiting' specifically highlighted. For example, Van Hout et al. (2012) report behaviours neither explicitly experiential (i.e., aimed at avoiding thoughts and images regarding vomiting) or explicitly associated with vomit-related cues, such as avoidance of foreign countries and public transport (e.g., compared to avoiding sick people). Whilst Van Hout et al.'s (2012) study included psychometrically robust measures; generalisability is limited due to it being a lone study. However, Veale (2009) also referenced such behaviours in their original text (although not within their visual model).~~Eight studies identified avoidance behaviours unrelated to food and/or social events (Table 8). This aligns with Veale's (2009) formulation, although behaviours may extend beyond 'experiential avoidance' and/or 'avoidance of cues related to vomiting' specifically highlighted. For example, some behaviours identified are neither experiential (i.e., aimed at avoiding thoughts and images regarding vomiting) or explicitly associated with vomit-~~

~~related cues, such as avoidance of foreign countries and public transport. Veale (2009) references such behaviours in-text, but they are not represented separately within their model.~~

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Van Overveld et al., 2007	181 (138, 43)	Avoiding vomit-related situations	87.55, 18.21	49.97, 8.9	*F* = 265.25**

		(EQ)			
Van Hout et al., 2012	190 (24, 156)	Avoidance of Vomit-Related Situations (EI) Postponing pregnancy Avoiding sick people and children Avoiding visiting foreign countries Avoiding transport Avoiding unpleasant smells Avoiding certain TV programmes Not visiting dentist or physician	Internet: 5.16, 1.57. Community: 5.6, 1.99. Internet: 47.4% Community: 0% Internet: 73.7% Community: 26.7% Internet: 63.2% Community: 6.7% Internet: 31.6% Community: 6.7% Internet: 26.3% Community: 33.3% Internet: 26% Community: 7% Internet: 21% Community: 0%	0.9, 1.61	F = 102.83***
Lipsitz et al., 2001	56	Avoided/Delayed Pregnancy Avoiding the Word Vomit	44% of female participants 43%		
Veale et al., 2015		Avoidance (SPOVI) Avoidance of travel, (EMET-Q) Avoidance of others who may vomit (EMET-Q)	19.7, 6.9 20.6, 5.2 17.1, 3.6		
Price et al., 2012	36	Avoid Having Children (Self-Report) Avoid Surgery Involving General Anaesthetic (Self-Report)	33.3% of women 38.9%		
Holler et al., 2013	131	Avoiding Alcohol (SR)	10.3%		
Veale & Lambrou, 2006	209 (100, 109 [Panic Disorder 28, Non-Clinical Control 81])	Avoidance of Certain Situations (mean) Avoid Having Children (SR) Avoid General Anaesthesia or Surgery (SR)	74.77% 49% 34%	 Panic 0% Panic 0%	 X^2 = 21.32*** X^2 = 13.09***
Klonoff et al., 1984	5	Difficulty Going to School (Child/Parent-Report)	100%		

Table 8. General Avoidance

Note. *p < .05. **p < .01. ***p < .001. EQ = Emetophobia Questionnaire (Bouman & van Hout, 2006). EI = Emetophobia Inventory (Van Hout & Bouman, 2012). SPOVI = Specific Phobia of Vomiting Inventory (Veale et al., 2013). EMET-Q = Emetophobia Questionnaire (Boschen et al., 2013). SR = Self-Report

3.6.4. Memories

Three papers with clinical samples described memories associated with vomiting in emetophobic participants (Table 9), each of 'strong' quality besides Lipsitz et al. (2001) ('adequate'). In one of the only included studies with a non-emetophobic comparison group, Veale et al. (2013) report significantly greater distressing vomit-related memories and ~~Recalling~~ recollections of others vomiting ~~was highlighted~~by emetophobic individuals~~, with some experiencing vivid imagery (as referenced in Veale (2009))~~. Furthermore, participants who predominantly feared others vomiting reported significantly more distressing memories of others versus themselves vomiting (z = -2.0, p < 0.05), but participants who predominantly feared themselves vomiting showed no significant difference in distressing memories of themselves versus others vomiting (z = -0.3, p = 0.73) (Veale et al., 2013). This extends beyond Kirk and Rouf (2004). Whilst Veale (2009) acknowledged that memories regarding vomit are central to emetophobia's occurrence, they are not specifically highlighted in the model.

Author, Year	Total *N* (Emetophobia *n*, Control *n*)	Measure	Emetophobia Participants (*M*, *SD*, or other)	Control Participants (*M*, *SD*, or other)	Statistical Output
Veale et al., 2013	1841 (13894, 4390)	Age of earliest memory of own vomiting	Mdn (IQR): 6.0 (5.0-7.8)	Mdn (IQR): 7.0 (5.0-11.3)	*U* = 2831.0*
		Number of memories of own vomiting in lifetime	Mdn (IQR): 4.0 (3.0-6.0)	Mdn (IQR): 6.0 (3.5-10.0)	*U* = 2897.0**
		Number of memories of own vomiting before the age of onset of phobia	Mdn (IQR): 2.0 (2.0-4.0)	Mdn (IQR): 2.0 (0.0-4.0)	*U* = 1857.5
		Number of memories of own vomiting after the age of onset of phobia	Mdn (IQR): 1.0 (0.0-2.0)	Mdn (IQR): 3.0 (1.0-5.0)	*U* = 1445.0***
		Most distressing memory of own vomiting (rated 0-10)	Mdn (IQR): 9.0 (7.0-10.0)	Mdn (IQR): 4.0 (1.0-7.0)	*U* = 1270.5***
		Age of earliest memory of others vomiting	Mdn (IQR): 7.0 (5.0-10.5)	Mdn (IQR): 26.0 (18.0-28.0)	*U* = 126.0***
		Number of memories of others vomiting	Mdn (IQR): 3.0 (2.0-6.8)	Mdn (IQR): 0.0 (0.0-0.0)	*U* = 862.5***
		Number of memories of others vomiting before the age of onset of phobia	Mdn (IQR): 2.0 (0.0-2.0)	Mdn (IQR): 0.0 (0.0-0.0)	*U* = 698.5***
		Number of memories of others vomiting after the age of onset of phobia	Mdn (IQR): 2.0 (1.0-4.0)	Mdn (IQR): 0.0 (0.0-0.0)	*U* = 816.0***
		Most distressing memory of others vomiting (rated 0-10)	Mdn (IQR): 10.0 (8.0-10.0)	Mdn (IQR): 2.0 (1.0-5.0)	*U* = 126.0***
Lipsitz et al., 2001	56	Recollection of Severe or Vivid Bouts of Vomiting	29%		
		Recollection of Vivid Witnessing of Others Vomiting	59%		
		Distressing Experiences of Both Self and Others Vomiting	20%		
Price et al., 2012	36	Intrusive Adult Memories (II)	51.7%		
		Intrusive Childhood Memories (II)	31%		

Table 9. Memories

Note. *$p < .05$. **$p < .01$. ***$p < .001$. II = Imagery Interview (Price et al., 2012).

3.6.5. Disgust

Five studies with clinical samples highlighted the experience of disgust in emetophobic individuals (Table 10), with Van Overveld et al. (2007) and Veale et al. (2013) ~~. Disgust propensity and sensitivity were~~identifying significantly greater rates ~~in Emetophobic~~ versus control samples ~~(Van Overveld et al., 2007),. whilst~~ Verwoerd et al.~~'s~~ (2015) ~~non-clinical sample~~ evidenced ~~both~~ disgust sensitivity and propensity as significantly correlated with EQ score (propensity: $r(144) = .56$, $p < .001$; sensitivity: $r(144) = .74$, $p < .001$)~~. Furthermore~~ and~~,~~ ~~Verwoerd et al.'s (2015)~~ their logistic regression ~~analysis~~ indicated that disgust-based emotional response is predictive of high EQ score, but using a clinical sample. Yet, ~~and~~ Boschen et al. (2013) report a significant correlation between the DS-R and EmetQ-13 in both emetophobic ($r = .33$, $p = .002$) and control samples ($r = .56$, $p < .001$).

Table 10. Disgust

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale et al., 2012	94 (32 Emetophobia, 62 Emetophobia without food restriction)	DS-R	61.0, 15.4	55.8, 13.7	t = 1.6
Van Overveld et al., 2007	181 (138, 43)	DS	18.44, 4.93	15.49, 4.37	*F* = 11.09*
		DQ	107.76, 38.87	138, 35.08	*F* = 18.86**
		DPSS (Propensity)	25.18, 4.98	18.54, 4.01	*F* = 58.27**
		DPSS (Sensitivity)	25.44, 5.28	13.41, 3.64	*F* = 176.99**
Price et al., 2012	36	DS-R	55, 10.3		
Lipsitz et al., 2001	56	Recollection of Severe or Vivid Bouts of Vomiting	29%		
		Recollection of Vivid Witnessing of Others Vomiting	59%		
		Distressing	20%		

		Experiences of Both Self and Others Vomiting			
Veale et al., 2013	185 (95, 90)	DS-R	57.7, 14.4	49.5, 17.2	t = 3.4***

Note. *p < .05. **p < .01. ***p < .001. DS = Disgust Scale (Haidt et al., 1994). DS-R = Disgust Scale Revised (Olatunji, Williams, et al., 2007). DPSS = Disgust Propensity and Sensitivity Scale-Revised (Olatunji et al., 2007).

3.6.6. Comorbid Mood Disorders

Ten papers identified ~~Various~~ comorbid mental health ~~disorders were identified~~difficulties (Table 11), all using validated measures besides Lipsitz et al. (2001) who used an unvalidated internet survey. Rates varied for disorders including Depression (7.23-46%), Panic Disorder (1.2-52.6%), Anxiety (12.5-32.4%), Health Anxiety (12.5-26.3%), Social Phobia (4.82-63.2%), OCD (12.04-31.6%), Agoraphobia (1.2-84.2%), PTSD (1.2-1.6%), Eating Disorders (2.41%), Personality Disorders (2.41%), and other Specific Phobias (2.41%). There were significant positive correlations between measures of emetophobia and depression, anxiety, health anxiety, and OCD ($r \geq 0.18$, $p \geq .01$; (Boschen et al., 2013; Maack et al., 2013; Petell, 2019). Thus, ~~mental health~~comorbid difficulties of emetophobic individuals may extend beyond the low mood and anxiety highlighted by Kirk and Rouf (2004) and Veale (2009). However, depression, anxiety, and panic disorder evidenced the highest comorbidity with emetophobia~~.~~. The overlap of such disorders with emetophobia may be spurious. Transdiagnostic risk factors may have increased vulnerability to all individually. For example, a neurotic temperament has been causally linked to various anxiety-based disorders (Boschen & Oei, 2008). Alternatively, comorbidities may be a consequence of emetophobia (e.g., depression could result from emetophobia-related reductions in quality of life; Van Overveld et al., 2008). Regardless of cause/onset, features of emetophobia and comorbidities may mutually maintain each other (McAndrew et al., 2018), and Veale (2009) themself recommends that the functional relationship of comorbidities with emetophobia be considered.

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale et al., 2012	94 (32 Emetophobia, 62 Emetophobia without food restriction)	OCI	33.5, 5.8	29.6, 23.5	t = 2.0*
		HAI	22.3, 8.0	18.4, 7.9	t = 2.0*
		PHQ-9	11.7, 7.6	8.9, 7.9	t = 1.6
		GAD-7	11.7, 5.7	7.9, 6.6	t = 2.7**
Van Hout et al., 2012	190 (24, 156)	Depression (PDSQ)	Internet: 21.2% Community: 13.3%	2.6%	*P = .003***
		OCD (PDSQ)	Internet: 31.6% Community: 26.7%	2.6%	*P = .0001****
		Panic Disorder (PDSQ)	Internet: 52.6% Community: 20%	7.1%	*P = .0001****
		Agoraphobia (PDSQ)	Internet: 84.2% Community: 20%	5.8%	*P = .0001****
		Social Phobia (PDSQ)	Internet: 63.2% Community: 19.5%	12.2%	*P = .0001****
		Hypochondriasis (PDSQ)	Internet: 26.3% Community: 7.9%	5.8%	*P = .016*
Ahlen et al., 2015	23	BAI	33.3, 8.9		
		MADRS	14.2, 6.6		

Sykes et al., 2015	64	Panic Disorder (SCID)	12.5%
		Social Anxiety Disorder (SCID)	7.8%
		OCD (SCID)	12.5%
		GAD (SCID)	28.1%
		PTSD (SCID)	1.6%
		Anxiety Disorder Not Otherwise Specified (SCID)	9.4%
		Hypochondriasis (SCID)	12.5%
		Dysthymia (SCID)	3.1%
		Depression (SCID)	7.8%
		Bipolar (SCID)	0%
		Body Dysmorphic Disorder (SCID)	1.6%
		Somatoform Disorder (SCID)	7.8%
Lipsitz et al., 2001	56	Panic Attacks	*n*: 28
		Depression (SR)	46%
		Social Anxiety (SR)	21%
		OCD (SR)	18%
		Childhood Separation Anxiety	57%

Table 11. Comorbid Mood Disorders

Author, Year	**Total *N* (Emetophobia *n*, Control *n*)**	**Measure**	**Emetophobia Participants (*M*, *SD*, or other)**	**Control Participants (*M*, *SD*, or other)**	**Statistical Output**
Veale et al., 2015	83	HAI	28.6, 8.9		
		OCD (SCID)	12.04%		
		Depression (SCID)	7.23%		
		Social Phobia (SCID)	4.82%		
		Eating Disorders (SCID)	2.41%		
		Personality Disorder (SCID)	2.41%		
		PTSD (SCID)	1.2%		
		Agoraphobia (SCID)	1.2%		
		Panic Disorder (SCID)	1.2%		
		Other Specific Phobias (SCID)	2.41%		
Price et al., 2012	36	GAD (SCID)	32.4%		
		Social Phobia (SCID)	20.6%		
		Depression (SCID)	14.7%		
		Health Anxiety (SCID)	14.7%		
		Agoraphobia (SCID)	5.9%		
		OCD (SCID)	2.9%		
		Undifferentiated Somatisation Disorder	2.9%		

		(SCID)			
Veale & Lambrou, 2006	209 (100, 109 [Panic Disorder 28])	BAI	33.6	Panic 20.9	F = 14.98***
Veale et al., 2012	185 (95, 90)	OCI	33.4, 25.6	15.1, 23.2	t = 4.6***
		HAI	19.8, 8.0	7.7, 5.1	t = 11.3***
		PHQ-9	9.8, 7.8	4.4, 6.5	t = 4.9***
		GAD-7	9.4, 6.5	3.4, 5.6	t = 6.5***
Riddle-Walker et al., 2016	24 (Pre-CBT 12, Pre-Waitlist 12)	HAI	22.50, 11.21	21.27, 9.06	
		ASI	28.42, 13.04	29.58, 7.56	
		PHQ-9	6.50 6.33	5.92, 5.89	
		Depressive Disorder (SCID)	n = 2	n = 1	
		GAD (SCID)	n = 0	n = 1	
		OCD (SCID)	n = 0	n = 1	
		Other Phobia (SCID)	n = 0	n = 1	
		Panic Disorder (SCID)	n = 1	n = 3	
		Panic Disorder with Agoraphobia (SCID)	n = 1	n = 1	
		Social Phobia (SCID)	n = 1	n = 0	
		Anxiety Disorder NOS (SCID)	n = 1	n = 0	

Table 11. cont.

Note. *p < .05. **p < .01. ***p < .001. SCID = Structured Clinical Interview for DSM Disorders (APA, 2022). OCI = Obsessive Compulsive Inventory (Foa et al., 1998). HAI = Health Anxiety Inventory (Salkovskis et al., 2002). PHQ-9 = Patient Health Questionnaire (Kroenke et al., 2001). GAD-7 = Generalised Anxiety Disorder (Spitzer et al., 2006). PDSQ = Psychiatric Diagnostic Screening Questionnaire (Zimmerman & Mattia, 2001). BAI = Beck Anxiety Inventory (Beck et al., 1993). MADRS = Montgomery-Asberg Depression Rating Scale (Williams & Kobak, 2008).

3.6.7. Worry and Perceived Consequences of Vomiting

Six studies with clinical samples explored the worries of emetophobic samples (Table 12), all of 'good' to 'strong' quality with three including a comparison group. As in Kirk and Rouf (2004) and Veale (2009), there was ~~reference~~ evidence of~~to~~ general worries, overestimating threat, and mental planning being significantly greater than non-emetophobic individuals. However, worries seemed broadly related to perceived consequences of vomiting, with themes of choking ~~and/or~~or dying – some of which were referenced in Veale (2009), but within the category of "beliefs about gastrointestinal sensations".

Table 12. Worry and Perceived Consequences of Vomiting

Author, Year	**Total *N* *(*Emetophobia *n,* Control *n)***	**Measure**	**Emetophobia Participants (*M, SD,* or other)**	**Control Participants (*M, SD,* or other)**	**Statistical Output**
Veale et al., 2015	94	Dangerousness of vomit exposure (EMET-Q)	11.1, 3.1		
Price et al., 2012	36	Preoccupation with Phobia (Likert Scale 0-8) Worst-Case Images (II)	4.6, 2.6 17.2%		
Van Overveld et al., 2007	181 (138, 43)	Worrying about vomiting (EQ)	206.95, 36.89	104.48, 24.48	*F* = 265.35**
Van Hout et al.,	190 (24, 156)	Fear of losing	50.2% (mean)	9%	*P*

2012		control or going crazy (PDSQ)			*= .0001***
		Fear of dying (PDSQ)	23.9% (mean)	5.8%	*P = .006*
Liebenberg & dos Santos, 2018	20	Fear of Dying (SR)	75%		
		Anxiety (SR)	85%		
Veale & Lambrou, 2006	209 (100, 109 [Panic Disorder 28, Non-Clinical Control 81])	Thinking I will be Paralysed with Fear (SR)	35.21	Panic 18.18	*F* = 5.22*
		Likelihood I will Lose Control If I Vomit (LS 0-100)	63, 32.5	Panic 22, 24.7. Control 10, 18.6.	*F* = 82.88***
		Likelihood I will Choke (LS 0-100)	34, 27.2	Panic 20, 28.7. Control 9, 15.3.	*F* = 23.14***
		Likelihood I will Die (LS 0-100)	20, 25.7	Panic 11, 21.7. Control 3, 6.7.	*F* = 14.28***
		Likelihood I will Faint (LS 0-100)	35, 37.7	Panic 22, 28.7. Control 11.7, 20.2.	*F* = 10.99***
		Likelihood Others will Find Me Repulsive (LS 0-100)	50, 34.8	Panic 24, 30. Control 23, 26.3.	*F* = 17.33***

Note. *$p < .05$. **$p < .01$. ***$p < .001$. EMET-Q = Emetophobia Questionnaire (Boschen et al., 2013). SR = Self-Report. II = Imagery Interview (Price et al., 2012). PDSQ = Psychiatric Diagnostic Screening Questionnaire (Zimmerman & Mattia, 2001). LS = Likert Scale.

5. Discussion

This project included the aim of systematically reviewing maintenance factors of emetophobia, whilst considering whether these extend beyond existing specific phobia (Kirk & Rouf, 2004) and emetophobia (Veale, 2009) formulations. Thematic synthesis identified three analytical themes: Maintenance factors matching both formulations; Maintenance factors matching Veale (2009) but extending beyond Kirk and Rouf's (2004); Maintenance factors extending beyond both Kirk and Rouf (2004) and Veale (2009). Results suggest that

emetophobia extends beyond a specific phobia formulation. Furthermore, whilst Veale's (2009) emetophobia formulation successfully captures most maintenance factors, it may not highlight all identified.

5.1. Specific Phobia Formulation (Kirk & Rouf, 2004)

Multiple maintenance factors identified extend beyond Kirk and Rouf's (2002) specific phobia formulation. The first analytical theme highlighted one overlapping maintenance factor – physical health factors. The five other maintenance factors (Figure 2) proposed by Kirk and Rouf (2004) are extended upon by Veale (2009). This aligns with arguments that emetophobia should be reconceptualised outside of the specific phobia category (Veale, 2015), and may explain the mixed outcomes for emetophobia treatment based on specific phobia formulations (Keyes et al., 2020).

Physical health factors were identified in both Kirk and Rouf (2004), Veale (2009), and the present project (Table 2), highlighting this as an important maintenance factor. Physical health factors identified ranged from gastrointestinal symptoms to ~~hospital admissions~~low BMI ~~to psychosomatic complaints, and gastrointestinal symptoms were frequent~~. ~~Such~~ Associated ~~symptoms~~ experiences may be catastrophically misinterpreted as impending vomit (Dargis & Burk, 2019), maintaining emetophobia. Thus, medically managing physiological factors may optimise treatment. ~~Alternatively,~~Overlaps in ~~treatment protocols for~~factors maintaining medically-unexplained symptoms and emetophobia ~~alongside Emetophobia~~ could be further researched since psychosomatic symptoms were ~~commonly comorbid~~highlighted (Deary et al., 2007) ~~(Deary et al., 2007)~~. However, this should be approached cautiously since such outcomes were mostly identified in 'adequate' quality papers with small clinical samples, limiting generalisability. ~~I~~

5.2. Emetophobia Formulation (Veale, 2009)

Veale's (2009) formulation captures most emetophobia maintenance factors identified, including safety seeking and compulsive behaviours (Table 3). Whilst Kirk and Rouf (2004) referenced safety-seeking behaviours, Veale's (2009) specification of 'compulsive' was supported. This is because five 'strong' quality papers with partial control of confounding highlighted ~~multiple~~ behaviours which were internal (e.g., counting) ~~and/~~or repetitive (e.g., hand-washing), reducing the possibility that such behaviours are influenced by covariates. Nonetheless, confounding was not fully controlled and self-report measures limit reliability – a limitation present for most included literature. The possible role of compulsive behaviours in maintaining emetophobia can be understood via cognitive theory (e.g., Salkovskis, 1985), which posits that the temporary relief offered by compulsions inadvertently reinforces the notion that vomiting will occur unless preventative action is taken. ~~, which are difficult to target in pure exposure-based treatment (Reid et al., 2021).~~ Thus, emetophobia treatment ~~therapy~~ may require an exposure and response prevention approach, like OCD (Ferrando & Selai, 2021). This supports suggestions that research should explore overlap between emetophobia and OCD (Veale et al., 2015).

Self-focused ~~focused~~ attention was highlighted (Table 5). As in Veale (2009), emetophobic individuals' locus of fear often regarded ~~Emetophobic participants~~their perceived risk of themselves ~~tended to fear themselves~~ vomiting compared to others (e.g., Veale et al., 2013). Some also reported a greater fear of vomiting in public versus privately (e.g., ~~Lipsitz et al., 2001~~Holler et al., 2013). Lacking control of confounding reduces the extent emetophobia can be directly attributed to self-focused attention, although findings are echoed in papers scoring consistently well across all relevant quality indicators (e.g., Wu et al., 2017). When considered alongside evidence of high rates of ~~When considered alongside~~ social impairment and ~~high rates of~~ social phobia in emetophobic individuals (e.g., 63.2%, Van Hout et al., 2012), ~~Emetophobic individuals may have~~ increased self-focused attention compared to the general population may

be a generally reliable finding. Locus of control theory may explain its maintaining role (Rotter, 1966). Overt self-focus is linked to greater perceived control over the environment, biasing attention toward vomit-related cues which the individual feels they must monitor (Davidson et al., 2008). ~~could encourage a~~

The current project suggests that nausea ~~may~~ could be constituted as a maintenance factor for emetophobia within itself, despite being highlighted by Veale (2009) alongside gastrointestinal symptoms. Nine papers (41% of included literature), mostly of 'strong' quality and all drawing conclusions wholly supported by data, highlighted the link between nausea and emetophobia (Table 4). If the emetophobic individual has a conditioned association between nausea and impending vomit (which could have occurred via self or vicarious learning; Boschen et al., 2009), further anxiety and nausea may occur (Veale, 2009). Furthermore, ~~This is because Emetophobic~~ participants not only reported increased nausea compared to controls, but evidence increased fear regarding nausea, and behaviours aimed at preventing/reducing it. Highlighting nausea as a maintenance factor may prevent clinicians overlooking associated cognitions and behaviours maintaining emetophobia.

5.3. Additional Maintenance Factors

Certain maintenance factors were not individually highlighted by Kirk and Rouf (2004) or Veale (2009). For example, validated psychometrics indicated various ''~~'~~Comorbid Mood Disorders' in emetophobic samples ~~acknowledged that Emetophobic patients experience mental illnesses~~ beyond depression (highlighted by Kirk and Rouf [2004]) and anxiety (highlighted by Veale [2009]) (Table 11). Yet, conceptualising a comorbid mood disorder as a maintenance factor is contentious since such disorders occurring alongside emetophobia may be due to transdiagnostic risk factors increasing vulnerability to each disorder individually (e.g., neuroticism; Boschen & Oei, 2008). Alternatively, comorbidities could be a consequence of

emetophobia itself (Van Overveld et al., 2008). Yet, regardless of comorbidity cause/onset, features could maintain emetophobia in a manner outlined by the Mutual Maintenance Model (Sharp & Harvey, 2001). For example, even if social phobia is a consequence of emetophobia, avoidance of social events (e.g., parties) can further prevent individuals from re-appraising the likelihood of vomit exposure in such settings, maintaining fear of both (Hunter & Antony, 2009). ~~Critically, comorbid mood disorders may partially account for maintenance factors in Emetophobia. For example, OCD is associated with compulsive behaviours (Reid et al., 2021).~~ Whilst Veale (2009) acknowledged various potential comorbidities which could influence emetophobia, highlighting 'Comorbid Mood Disorders' as a maintenance factor in the formulation itself might encourage a transdiagnostic treatment approach, evidencing benefits due to e~~E~~metophobia's frequent comorbidity (Dargis & Burk, 2019). However, future research with a longitudinal design would better establish if this truly represents a maintenance factor or consequence of emetophobia (Lau et al., 2021).

'Worry and Perceived Consequences of Vomiting' may constitute a maintenance factor. Whilst Veale (2009) referenced 'Worry, Self-Reassurance, Mental Planning', self-reassurance and mental planning may ~~be distinct~~be captured within safety seeking and compulsive behaviours due to their active nature and overlap with OCD (Salkovskis & Kobori, 2015). Alternatively, 'worry' broadly describes anxiety about perceived problems, with content differing across disorders (Hirsch & Mathews, 2012). The current project included ~~that many~~three 'good-strong' quality studies reporting significantly greater ~~Emetophobic individuals~~ worries~~d~~ ~~about~~ regarding perceived consequences of vomiting (~~,~~ e.g., choking) in emetophobic versus non-emetophobic individuals (Table 12). Without specifying 'Worry and Perceived Consequences of Vomiting' as a maintenance factor, therapy may target broad worries more akin to Generalised Anxiety Disorder treatment rather than vomit-related concerns (Hanrahan et al., 2013). Since evidence suggests that participants were preoccupied with the phobia and

consequences, Veale's (2009) reference to Hypervigilance may also be subsumed in this category.

General Avoidance is a maintenance factor that mostly reflects the ~~both subsumes and extends beyond the~~ 'Experiential Avoidance' and 'Avoidance of Cues Related to Vomit' referenced by Veale (2009), but cautiously prompts consideration of broader avoidance potentially exhibited by emetophobic individuals (Table 8). This is because Van Hout et al. (2012) report avoidance behaviours ~~were identified~~ that may not be ~~were neither experiential (i.e., aimed at avoiding thoughts and images regarding vomiting) or~~ explicitly associated with vomit-related cues by a non-emetophobic clinician but are still driven by the patient's fear of vomit, such as avoidance of foreign countries and holidays. Despite this paper having 'strong' overall quality and psychometrically-robust measures, such behaviours could arguably be associated with vomiting and results of a lone study should be generalised with extreme caution. Interestingly, Veale (2009) also references such behaviours in their original text. Highlighting 'general avoidance' may encourage broad consideration of what emetophobic patients may avoid beyond that explicitly related to vomit, since avoidance prevents cognitive reappraisal of feared stimuli (Gross, 1998).

Social Impairment ~~appeared common in Emetophobia~~was highlighted in nine papers, mostly of 'strong' quality (Table 7). This prevents cognitive reappraisal of the risk of vomiting when exposed to related cues in social settings (e.g., alcohol). Furthermore, social impairment ~~This enables Emetophobic patients to avoid various vomit-related cues (e.g., alcohol), preventing cognitive reappraisal of the risk of vomiting when exposed to such cues. Yet, beyond avoidance, there was evidence that Emetophobic individuals perceived themselves as socially isolated (Veale et al., 2011) - this~~ is linked with ~~depression~~ low mood (Quach & Burr, 2021) which reduces motivation to make behavioural changes necessary for alleviating a disorder (Millgram et al., 2023)~~, which is frequently comorbid with Emetophobia~~. ~~Distinguishing~~ Thus, social

impairment's role in maintaining emetophobia could be understood as preventing cognitive reappraisal whilst decreasing motivation to change (Ekers et al., 2014). ~~Social Impairment as a maintenance factor may promote behavioural activation approaches aimed at social engagement (Ekers et al., 2014).~~ However, further research with alternative measures may be required because, whilst various examples of social impairment were common, measures did not consistently record frequency (e.g., daily, monthly). Thus, which socially-impaired behaviours are predominantly present in the daily lives of emetophobic individuals is unclear.

Abnormal Eating Behaviour ~~was~~ has high frequency ~~frequent~~ in papers with relatively large emetophobic samples (Table 6), including studies with controlled covariates (Veale et al., 2015), increasing confidence in its direct association with emetophobia. Despite risk of bias remaining due to there being no non-emetophobic control groups, the maintaining role of Abnormal Eating Behaviour can be theoretically justified similarly to Social Impairment and Physical Health Factors. Food avoidance can be perceived as minimising risk of vomiting (e.g., preventing food poisoning), but stops cognitive reappraisal and causes physiological effects (e.g., hunger) that could be catastrophically misinterpreted as impending vomit (Dargis & Burk, 2019). ~~, which is relevant to maintenance factors including Physical Health Factors and Social Impairment. This suggests that Abnormal Eating Behaviour constitutes a maintenance factor to be considered separately from the broad "safety" and/or "avoidance" behaviours suggested by Kirk & Rouf (2004) and Veale (2009). Furthermore,~~ Abnormal eating behaviour can be furthered in individuals who readily perceive items/experiences as disgusting since humans are evolutionarily prone to find disgust aversive ~~disgust~~(Brown et al., 2022). ~~-~~ Emetophobic participants evidence high rates of disgust sensitivity and propensity (Table 10), ~~appears relevant in selective eating (Brown et al., 2022). Increased disgust sensitivity and propensity (versus controls) were identified~~which may account for why vomit (and anything perceived as increasing its risk, such as certain food groups) is highly avoided. Unlike papers exploring eating behaviour,

risk of bias for disgust-based literature is partially controlled by the use of ~~,~~ non-emetophobic comparisons. This increases reliability in~~suggesting that~~ disgust's ~~-~~maintain~~ing role in~~s emetophobia ~~and, potentially, associated eating behaviours~~, particularly since ~~. Critically,~~ an updated version of Veale's (2009) model accessed by the author post-commencement of the current project (Veale, 2023; personal communication) specifically references disgust as a maintenance factor.

Only three papers highlighted ~~M~~memories regarding vomiting (Table 9), one of 'adequate' quality (Lipsitz et al., 2001), potentially limiting reliability of its maintaining role. However, two 'strong' quality papers reported high rates of ~~were identified in this project, but not explicitly stated by prior formulations. Emetophobic individuals reporting greater~~distressing vomit-related memories, with Veale et al. (2013) reporting this as significantly greater than ~~compared to~~ controls ~~(Veale et al., 2013)~~. These historic aversive experiences may maintain the perception of vomiting as extremely awful, and are re-experienced as if about to reoccur (Mueller et al., 2004). ~~Indeed,~~ Veale (2009) even acknowledged that memories regarding vomit are central to emetophobia despite not including it in his model, and in the updated version (Veale 2023, personal communication) "replaying past events in mind" is included. ~~indicates that this may be related to other factors, including hypervigilance. There was evidence that memories of others vomiting were greater than oneself vomiting (e.g., Lipsitz et al., 2001).~~Including memories regarding vomit in formulations could promote re-scripting of past aversive experiences of vomiting (Veale, 2009)~~thought challenging whereby clinicians confront patients with discrepancies between perceived likelihood versus actual occurrence of vomiting~~. ~~Indeed, Veale (2009) acknowledged that memories regarding vomit are central to Emetophobia, and in the updated version (Veale 2023, personal communication) "replaying past events in mind" is included.~~

5.4. Limitations

This review includes a relatively small number of papers with heterogeneous methodologies, reducing reliability and potentially limiting the identification of relevant maintenance factors. Future reviews could increase papers by including case studies, ~~-~~qualitative, and grey literature (e.g., Dargis & Burk, 2019), which can provide rich data for disorder conceptualisation unexplored via quantitative designs (Kim et al., 2017). ~~but generalisability may be limited. However~~Whilst generalisability may be limited, methodological heterogeneity is partially controlled by the narrative and thematic syntheses used, which are deemed more effective for reviews with inconsistent methodologies compared to statistical syntheses (Ryan et al., 2018). Furthermore, guidelines are increasingly available for reviewing case studies/grey literature (Paez, 2017).

~~Furthermore, a~~A mean quality ~~rating~~ rating of 0.87/1 categorises the overall quality of papers ~~suggests that papers were of reasonable quality~~as ‘strong’ (Lee et al., 2008), yet summary scores may introduce bias since outcomes are based on a smaller pool of quality indicators (Kmet et al., 2004). Furthermore, low (0) to partial (1) control for confounding (e.g., demographics) and small sample size were present in most studies (Table 1). Therefore, this project’s results have a risk of bias, particularly since proposed maintenance factors could be unfounded in larger, well-powered samples or influenced by uncontrolled factors. Reassuringly, all studies exhibited conclusions supported by results, suggesting that all cognitive and behavioural factors identified reflect the data, although there are methodological limitations.

Gender imbalances ~~and comorbid disorders~~ were not controlled for. Over 92% of the total sample were female, limiting generalisability of maintenance factors to males with Emetophobia. However, most patients presenting for Emetophobia treatment are female (Dargis & Burk, 2019). Thus, controlling gender imbalances may have reduced the clinical utility of this project since maintenance factors identified may not have been representative of those presenting for treatment.

Finally, Veale (2009) acknowledged that Emetophobia formulations should be idiosyncratic. Therefore, emphasis on maintenance factors proposed in Figure 2 may be reductionist, particularly since Veale's (2009) text explores potential additional factors (although this is highlighted in this paper where relevant). Yet, visual formulations are frequently used to teach clinicians the components of disorders (Thompson et al., 2022) and shared with patients during treatment (Kannis-Dymand et al., 2021). Therefore, validating a comprehensive visual formulation of Emetophobia may be key in enhancing clinician and patient shared understanding Emetophobia and what maintains it – which is the ultimate aim of formulation (Cox, 2021).

5.5. Conclusion

This paper included the aim of identifying maintenance factors to clarify whether emetophobia extends beyond a specific phobia formulation approach. Most identified maintenance factors extended beyond those proposed in Kirk and Rouf's (2004) specific phobia formulation. This suggests that emetophobia formulations should be distinct from those for other specific phobias. Whilst Veale's (2009) emetophobia formulation captured most identified maintenance factors, it did not individually highlight all – potentially because it was developed approximately 13 years prior to the current review. Overall, there is evidence that emetophobia is maintained by factors both within and beyond those in existing formulations. Future research could investigate the legitimacy of proposed maintenance factors and, potentially, aim to standardise and validate an emetophobia formulation including such factors. This could improve understanding and treatment of emetophobia, which currently stands as an understudied and poorly treated disorder.

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Service Improvement Project (SIP)

Improving Responses to Disclosure of Infant-Related Intrusions of Harm in Milton Keynes Primary Care Services

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Abstract

Background: Distressing thoughts of harming one's child ("Infant-Related Intrusions of Harm", IRIH) are common in new parents, yet unrelated to harmful parenting. Health Visitors (HVs) and Psychological Wellbeing Practitioners (PWPs) currently have no guidelines on responding to IRIH. This risks inappropriate referrals and social service involvement, evidenced in Milton Keynes Primary Care Services. *Purpose*: A service improvement project aimed at improving Milton Keynes HVs' and PWPs' responses to IRIH disclosure. *Procedures*: Fifty-three online staff surveys (27 PWPs, 26 HVs) regarding IRIH administered across (A) pre-intervention, (B) post-intervention, and (A) 2-month follow-up. The intervention involved staff training and psychoeducational handouts regarding IRIH. *Findings*: Staff confidence and appropriate anticipated referrals for IRIH increased post-intervention and at follow-up. Qualitative analyses indicated increased staff empathy for parents experiencing IRIH. *Conclusions*: HV and PWP understanding of IRIH appeared to improve following training and handouts. *Implications for Practice*: Standardised staff interventions may improve responses to IRIH.

Keywords: Intrusive thoughts; Perinatal OCD; Perinatal Mental Health

Introduction

Intrusions are unexpected thoughts that enter one's mind (NHS, 2019). Intrusion content varies, but themes commonly include sex, violence and blasphemy (Warman, 2020). Most individuals experience intrusions, but only some experience significant associated distress (Audet et al., 2020). People with Obsessive Compulsive Disorder (OCD) experience a cycle of distressing, obsessive intrusions and compulsive behaviours (NHS, 2019).

Salkovskis (1999) theorises that OCD emerges when individuals interpret intrusions with a heightened sense of responsibility for preventing harm. Compulsions are framed as attempts to reduce perceived 'risk' of harm occurring, supported by Mathieu et al.'s (2020) findings that inflated responsibility appraisals for oneself/others increases OCD susceptibility.

Perinatal mental disorders, occurring during pregnancy or the year following birth, are common due to stress and poor sleep (Fanti et al., 2022). During this period, most new parents experience an infant-related intrusion of harm ("IRIH") (Mulcahy et al., 2020). Since parenthood involves sudden increased responsibility for their infant, some experience great associated distress (Walker et al., 2021). Indeed, Barrett et al. (2015) found postpartum women experienced increased responsibility interpretations regarding IRIH versus harm-based intrusions in non-baby-related situations; and these responsibility interpretations predicted OCD symptoms, mirroring Salkovskis' (1999) theory.

Critically, evidence consistently indicates no direct relationship between IRIH and harmful parenting (Fairbrother et al., 2022). This is because IRIH are "egodystonic", opposing parents' true desires and self-perception (Clark, 2005).

The NHS long-term plan outlines that by 2023/24, new parents experiencing mental disorders be referred for evidenced-based psychological therapies (NHS, 2019), whilst NICE (2014) promote early detection and effective management of mental disorders during the perinatal period. For perinatal OCD, Cognitive-Behavioural Therapy (CBT) is recommended (NICE, 2005). CBT empowers parents to alter catastrophic perceptions of IRIH and learn that distress decreases without compulsions (Finley, 2015).

NHS plans and NICE guidelines are partially dependent on Improving Access to Psychological Therapies (IAPT), commissioned since 2008 to provide evidence-based therapy in the community (NHS, 2021). IAPT has a competency framework for staff treating patients in the perinatal period (IAPT Perinatal Competency Framework, 2021) andstandards promotes the assessment of new parents within six weeks of referral (NHS, 2015). This relies on Psychological Wellbeing Practitioners (PWPs) who assess all IAPT referrals. Due to shame, parents may not self-refer to IAPT (Knepper, 2021). Thus, Health Visitors routinely meeting new parents should respond effectively to IRIH disclosures (Department of Health, 2013).

Healthcare professionals currently have no standardised policies regarding IRIH disclosures (Collardeau et al., 2019). Thus, disclosure may trigger immediate safeguarding proceedings or inappropriate treatment referrals (Mulcahy et al., 2020). Whilst risk assessments ensure the safety of both parent and child, immediate enquiry regarding the parent's likelihood of enacting IRIH may enhance distress (Challacombe et al., 2019). A more compassionate approach - normalising IRIH and validating distress prior to risk assessment - can build rapport, improving

outcomes (Lawrence et al., 2017). Furthermore, risk assessments should consider both primary (e.g., enacting thoughts) and secondary (e.g., self-harm) risks (Veale et al., 2009). This ensures that parent wellbeing is also considered, in-line with NICE (2014). Critically, perinatal OCD can be chronic without appropriate treatment referral (Fairbrother et al., 2022).

~~Healthcare professionals currently have no policies regarding IRIH disclosures. Thus, disclosure may trigger inappropriate treatment referrals or child protection proceedings (Mulcahy et al., 2020). Critically, perinatal OCD can be chronic without CBT (Fairbrother et al., 2022).~~

Public Health England (2021) has prioritised training on perinatal mental health to address service issues. Rumball's (2015) unpublished doctoral thesis indicated that HVs trained on Perinatal OCD were more likely to consider the diagnosis, and mothers cared for by trained HVs were less bothered by IRIH versus those cared for by untrained HVs. However, sole emphasis on HVs, entirely quantitative results, lacking reference to anticipated referrals and absent follow-up measures limited ~~Rumball's (2015)~~ generalisability.

An incident reflected on by Milton Keynes Primary Care Services (Central and North West London NHS Trust – "CNWL") in 2019 involved a child being assaulted by their father. Subsequently, Milton Keynes Safeguarding Specialists promoted "caution" regarding disclosures of IRIH (Personal Communication, 2021). This aligns with CNWL's Safeguarding Policy (2014) that staff consider Children's Social Care referrals for any child welfare concerns.

However, the perpetrator had significant forensic history. Thoroughly assessing such information, alongside IRIH appraisals, is critical in distinguishing risk versus benign IRIH (Collardeau et al., 2019). Where benign IRIH is present, responding inappropriately may increase shame. Where benign IRIH is normalised prior to risk assessment, distress may reduce (Berry, 2011).

Beyond this incident, Milton Keynes CBT Therapists shared that ~~-~~multiple patients disclosing IRIH reported negative staff responses. Since Milton Keynes' IAPT has increasing perinatal referrals (369 in 2019, 489 in 2020, 742 in 2021 [Personal Communication, 2022]), improving staff responses to IRIH disclosure was deemed critical.

This Service Improvement Project for Milton Keynes IAPT and Health Visitor services includes the aims of establishing:

1. ~~1.~~ **Psychological Wellbeing Practitioners' (PWPs) and Health Visitors' (HVs) current responses to IRIH disclosure**.
2. ~~;~~ ~~2.~~ **PWP and HV confidence in responding to disclosure**.~~;~~
3. ~~3.~~ **Patient experiences of disclosing IRIH to PWPs and HVs**;.~~-~~
4. ~~4.~~ **How improvement measures** (e.g., training, handouts) **informed by above information** ~~(e.g., training, handouts) influences~~improves **PWP and HV** ~~confidence and~~ **responses to disclosure** - operationalised as increased confidence and compassion during responses to disclosures and subsequent risk assessment.~~-~~

Method

Design

A mixed-methods ABA design was employed, including (A) baseline, (B) post-intervention, and (A) 2-month follow-up phases. Baseline informed improvement strategies. Appendix 2a includes design overview.

Relevant Services

This project centred on ~~Improving Access to Psychological Therapies (IAPT)~~IAPT and Health Visitor (HV) services in Milton Keynes. IAPT recruits Psychological Wellbeing Practitioners (PWPs) who provide psychological assessment and therapies to adults experiencing 'common mental health problems' referred via their GP or themselves (NHS, 2021). The HV service provides health-needs assessments and onwards healthcare referrals from 10-14 days post-birth for new parents and their children in Milton Keynes (NHS, 2020). Whilst comprising separate services, both are governed by CNWL Trust and frequently provide simultaneous patient care, and Health Education England (2016) recommend ~~that both work collaborative~~collaborative work~~ly~~.

Procedure, Participants and Materials

'Plan, Do, Study, Act' (PDSA) models guided procedure, encouraged by NHS (2022) for service improvement projects.

'Plan'

Three questions guided planning (NHS, 2022).

What are we trying to accomplish?

Consultations with patients who disclosed IRIH, IAPT therapists, and CNWL Safeguarding Leads highlighted a need to improve clinician responses to IRIH disclosure.

What change measures will we use?

Measure development was guided by Department of Health's (DoH; 2008) definition of quality improvement as "Safety", "Experience of care characterised by compassion", and "Effectiveness of care".

Surveys. Online surveys for PWPs and HVs were developed using Qualtrics (2022) (Appendix 2c). Pre-improvement surveys included an IRIH vignette and 10 quantitative and qualitative questions ~~exploring~~rating staff confidence (0-100) and exploring "initial" ~~staff~~ verbal responses to review post-disclosure interactions (emphasising confidence and compassion); post-improvement surveys included three additional questions exploring intervention impact. Surveys lasted approximately 10 minutes and were piloted on one trainee PWP and two Clinical Psychologists.

Patient interviews. Semi-structured interviews for patients who disclosed IRIH to service PWPs ~~and/or~~or HVs included 11 open-ended questions and lasted approximately 40 minutes. Individual interviews were used due to sensitivity regarding IRIH.

What changes will cause improvement?

Due to financial limits and evidence that fewer recommendations improve implementation (NHS, 2014), change principles emphasised improving staff confidence and compassionate responses regarding IRIH.

Ethics

Project approval was via CNWL Trust's Quality and Information Governance Teams and MK NHS Trust's Clinical Director of Mental Health Services (Appendix 2b).

'Do'

Recruitment

Staff. Nine PWPs and eight HVs completed the pre-improvement survey, recruited via email including the information sheet and survey link.

Patients. Two adult female, Caucasian patients (mean age = 32 years, *SD* = 0) completed a semi-structured interview via Microsoft Teams. Recruitment was via current (*n* = 1; the primary researcher) or former therapist (*n* = 1). Both disclosed IRIH to service PWPs ~~and/or~~or HVs within the year prior to interview and had received (*n* = 1) or were currently receiving (*n* = 1) CBT.

Analysis and Improvement Development

~~Survey and interview data~~Data ~~were~~ was thematically analysed using inductive analysis and an essentialist lens guided by Braun and Clarke (2006). ~~Resulting themes informed trialled improvements.~~

The researcher's position as a Caucasian, male therapist working clinically in CNWL may have influenced analysis. However, inductive approaches are data-driven and ~~renders themes~~ less vulnerable to personal perspectives (Kiger & Varpio, 2020).

Improvement Implementation

The researcher provided 30-minute training and handouts to 10 PWPs and 13 HVs separately via Microsoft Teams aimed at improving staff responses to IRIH disclosure, operationalised as increased confidence and compassion during disclosure and subsequent risk assessment (Appendix 2d). Intervention content is expanded upon in 'Intervention Implementation' to detail influence of pre-intervention data (and relevant literature). Questions from attendees were asked ~~only~~ at the end of ~~the~~ training to ensure cross-session consistency.

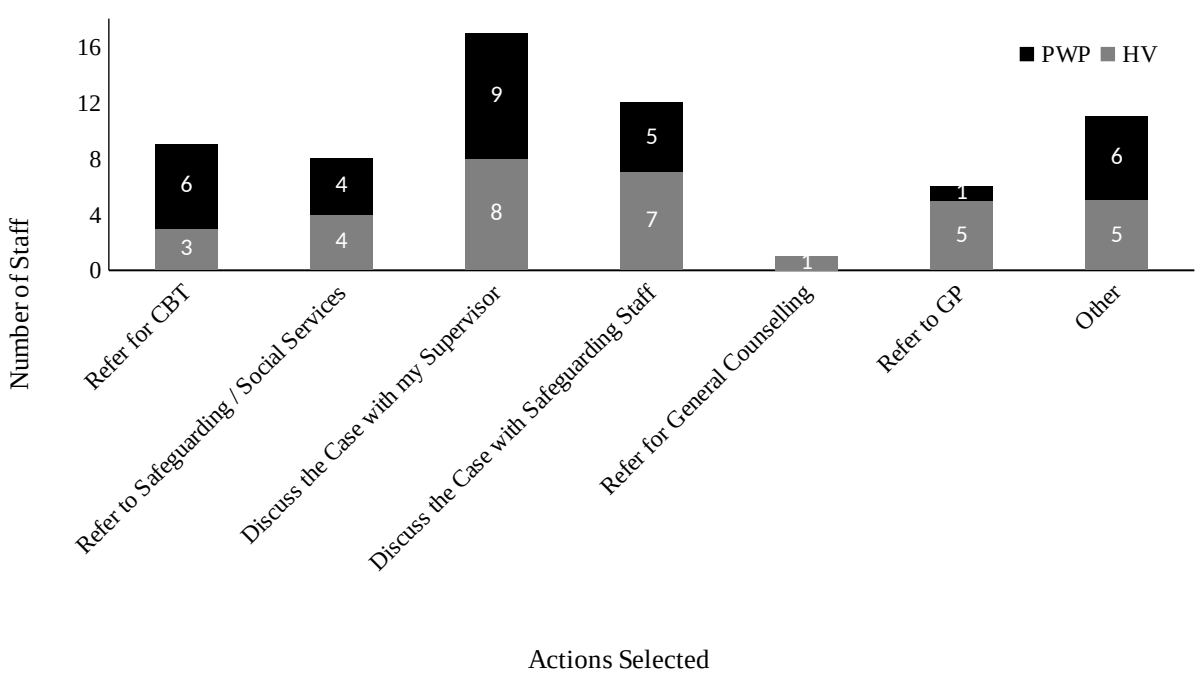
'Study' and 'Act'

Post-improvement surveys were emailed post- and two months following training. Results were mapped onto a PDSA cycle shared with stakeholders.

Results

Pre-Intervention Quantitative Outcomes

Nine PWPs and eight HVs completed the pre-intervention survey. Staff-reported confidence ratings (scale: 0-100) in managing IRIH disclosures ranged from 20 to 100 (*Mdn* = 60). A Mann-Whitney U test indicated no significant difference in pre-intervention confidence for HVs (*Mdn* = 65) versus PWPs (*Mdn* = 60), $U = 36.00$, $z = .00$, $p = 1.00$, $r = 0.00$. Staff-anticipated actions following disclosure are in Figure 1. ~~'Other' actions included referral to perinatal team and/or GP.~~



~~**Fig 1.** Baseline Staff Actions Following IRIH Disclosure~~

~~**Pre-Intervention Thematic Analyses**~~

~~Thematic analysis of surveys and interviews yielded several themes.~~

Patient Interview Them~~atic Analysises~~

Difficulty Disclosing IRIH

Both patients shared their difficulty disclosing IRIH to staff.

"I couldn't say anything without crying" [Patient #2]

"You feel like you're opening up your soul" [Patient #1]

Patients linked difficulty with disclosure to others' misconceptions that OCD solely regards cleanliness, and those experiencing IRIH may enact intrusions.

"They think it's about the cleaning... they have no idea of the nature of the intrusive thoughts" [Patient #1]

"I thought people would think that I was actually going to do anything to my daughter... I would never hurt her" [Patient #2]

Discomfort disclosing IRIH seemed partially related to feared implications of social service involvement and incarceration.

"My previous therapist she talked about social services... that shut me off... that made me so fearful for future experiences with a therapist" [Patient #1]

Negative Staff Experiences Post-Disclosure

Both described staff interactions regarding IRIH perceived as negative, particularly by General Practice staff.

"My issue was with the GP service... who I felt had no understanding of what I was experiencing and was very kind of dismissive" [Patient #1]

"Only recently have my doctors found out... I just feel like they've put me into this box of crazy lady" [Patient #2]

Where staff identified OCD following disclosure, patients shared experiences where staff responses were not helpful nor followed NICE protocols.

"When I first had an intrusive thought and I went to my doctor... it took six months for me to go to... CBT" [Patient #1]

More specifically, patients referenced how staff appeared quick to risk assess without validating or normalising.

> *"They* [PWP] *were perfectly nice but... it was very much a check box kind of like task... some people may have cut-off"* [Patient #1]

Negative staff experiences seemed to delay access to evidence-based treatment, with some hypothesising that pregnancy enabled quicker access.

> *"I do believe had I not been pregnant... the process would have been so much longer"* [Patient #1]

Value of Staff Validation and Normalisation

Patients referenced times when staff were positive in their recovery, emphasising staff normalising IRIH.

> *"My health visitor... was so good she had explained at the beginning that it was normal and that other people experience it"* [Patient #2]

Patients appeared to find it particularly helpful when staff validated the difficulty of disclosing IRIH.

> *"You're always so amazing* [the primary researcher - the patient's therapist] *and say "can I just say... how brave you've been like telling me that"... that kind of rapport as well would be really good especially for somebody... so fearful y'know telling their thoughts"* [Patient #1]

Patients particularly valued staff sharing personal experiences regarding intrusive thoughts.

"My health visitor used one where... somebody... put their hands near her mouth she absolutely wants to bite their fingers off... that's the thought... so... I'm completely normal and it it doesn't just happen when you've had a baby" [Patient #2]

Pre-Intervention Staff Survey Thematic Analysises

Wanting to Normalise

Some PWPs appeared aware of IRIH and wanted to normalise patient experiences.

"These are thoughts that we do sometimes hear about with perinatal mental health, it can be quite normal" [PWP]

"Maybe could say some Psyeducation on intrusive thoughts and is very common" [PWP]

The Need to Risk Assess

Desire to normalise appeared less common amongst HVs, referencing instant risk assessment post-disclosure.

"Ask if she is alone, has she done it or intend to do it now" [HV]

"Have you actually done it and how long have these thoughts being going on?" [HV]

Needing to quickly risk assess seemed related to concerns about infant safety.

"Scared and worried about safety of the baby." [HV]

"Mum may flee with baby or harm baby" [HV]

Concerns about infant safety were shared by some PWPs. However, PWPs appeared relieved by their wider understanding of intrusive thoughts.

"*It does make me nervous to hear this kind of thought initially, I'm usually able to shut down that thought... rememering that intrusive thoughts do tend to be of a violent or sexual nature and often its the response that indicates danger level.*" [PWP]

"I would feel initial concerns in exploring intent. Upon knowing they are intrusive thoughts with no intent I would feel sad for the patient" [PWP]

Confusion Regarding How to Respond

Staff seemed concerned about saying something 'incorrect' to patients following IRIH disclosure.

"I would worry I would say or do or not do something that would put baby at risk of significant harm" [HV]

Staff felt that training related to IRIH and associated handouts would improve their confidence in responding to disclosure.

"Training- specifically focussing on what to do" [HV]

"Some helpful examples so patient can feel reassured/understood and supported. Maybe a useful OCD handout might be helpful" [PWP]

Intervention Implementation

The intervention consisted of staff training and handouts developed by the researchers aimed at improving staff responses to IRIH disclosure (i.e., increased confidence and compassion during disclosure and subsequent risk assessment; Appendix 2d), informed by staff and patient responses during Phase A and relevant literature.

Regarding the influence of relevant literature on training, the nature of OCD was outlined with reference to common intrusion themes beyond contamination (e.g., harm) (Salkovskis, 1999). Empirical evidence regarding the absence of actual harmful behaviours following intrusions was highlighted (Fairbrother et al., 2022). Exemplar questions to differentiate risk versus benign IRIH were offered (e.g., Lawrence et al., 2017; Challacombe et al., 2019) in both handouts and training.

Regarding the influence of Phase A data, common clinician concerns were noted and normalised. Patients' perceived benefits of staff normalising and validating experiences post-disclosure and prior to risk assessment were highlighted in both handouts and training.

Critically, how to risk assess IRIH was reported and details of how to access advice from safeguarding nurses were outlined. However, alongside standard risk assessment protocols, there was emphasis on staff validating and normalising the patient's experience prior to asking risk-related questions (Challacombe et al., 2019; Lawrence et al., 2017). Furthermore, staff were encouraged to consider risk from a broad perspective - assessing both primary (i.e., actual harm to infant) and secondary (i.e., 'fallout' from OCD, such as parental self-harm which could also affect the infant) risk (recommended by Veale et al., 2009). This also emphasises parental wellbeing, in-line with NICE (2014).

~~Aforementioned themes informed the training and handouts, available upon request to the primary researcher.~~

Post-Intervention Quantitative Outcomes

10 PWPs and 13 HVs completed the survey post-intervention. Confidence ratings in managing IRIH disclosure ranged from 29 to 100 (*Mdn* = 80). A Mann-Whitney U test did not indicate a significant difference in confidence post-intervention for HVs (*Mdn* = 72) versus PWPs (*Mdn* = 81), $U = 35.50$, $z = -1.84$, $p = .07$, $r = 0.15$.

Staff-anticipated actions ~~following disclosure~~ post-intervention are in Figure ~~2~~1.

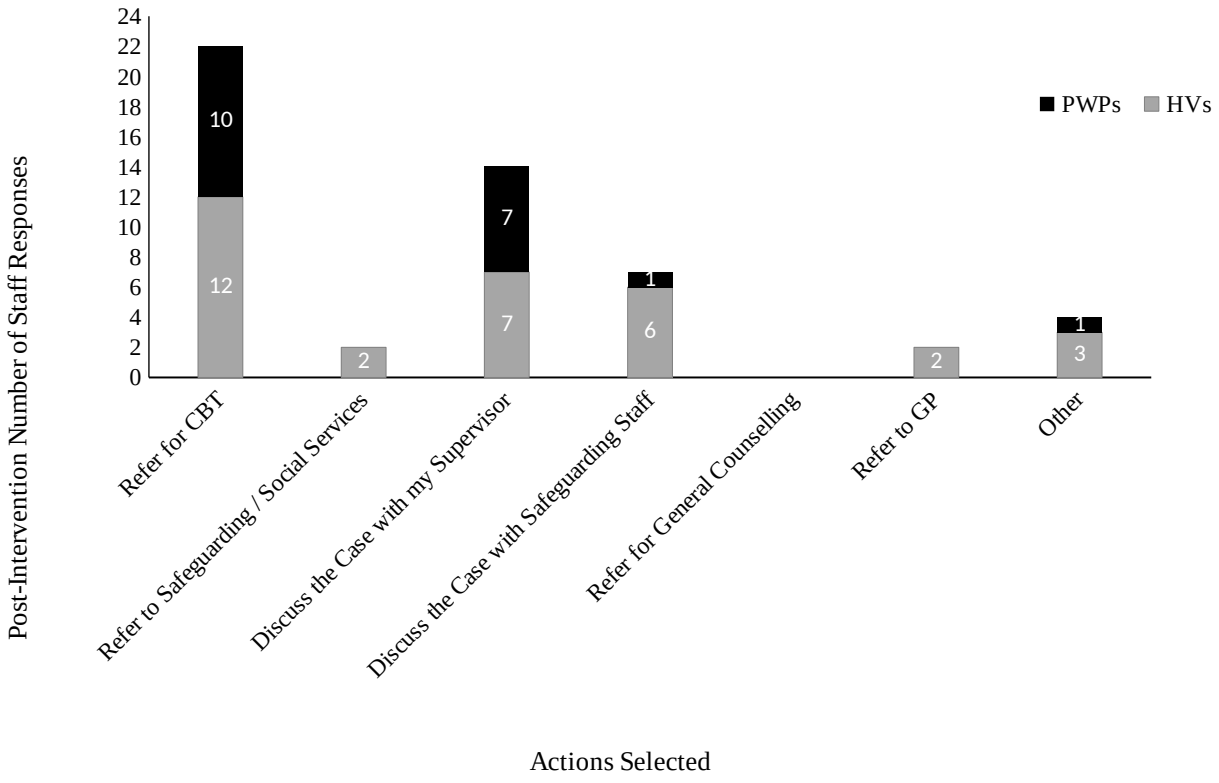


Fig 2. Post-Intervention Staff Actions Following IRIH Disclosure

Post-Intervention Staff Survey Thematic Analyses

Empathy towards Patients

Post-intervention, multiple staff referenced increased empathy for patients experiencing IRIH.

"I would have a lot of empathy for them" [PWP]

"Slightly sad, emphathy" [PWP]

Multiple staff perceived disclosing IRIH as brave.

"Acknowledge their bravery with sharing their intrusions" [PWP]

"I would greatly admire and respect/encourage them for being brave in opening up" [HV]

Furthermore, there appeared desire to normalise IRIH.

"Reassure and normalise" [HV]

"Normalise intrusive thoughts" [PWP]

Training Benefits

Staff reported finding the intervention helpful, highlighting increased confidence in responding to IRIH.

"Useful in learning more about them and the skills we can use in our response, also useful to have some specific risk assessment questions" [PWP]

"Helpful to hear about the clients views as well and their experiences" [PWP]

Staff valued the notion of service collaboration when responding to IRIH disclosure.

"Knowing that we can contact IAPT" [HV]

"Re-validation and knowing about the CBT option" [HV]

Continuing Professional Needs

Staff acknowledged some continuing concerns regarding safeguarding.

"With HV hat on we look at the needs of the child as a priority and look at safeguaring risks" [HV]

"What if I miss some risk factors" [PWP]

However, multiple reported that confidence would continue to improve if exposed to actual cases ~~and/or~~or using clinical supervision.

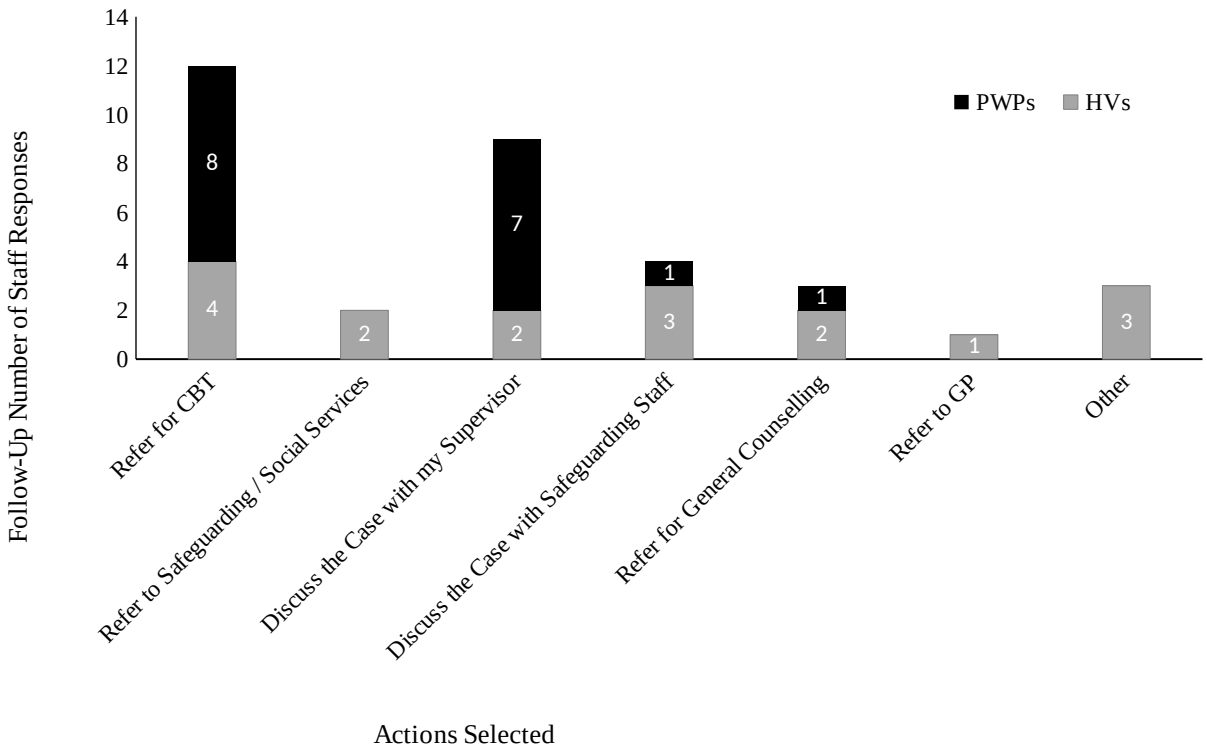
"I think exposure to these cases or perhaps recordings ~~and/or~~or role plays" [PWP]

"Seeking supervision for individual cases" [PWP]

"Being exposed to a few" [HV]

Follow-Up Quantitative Outcomes

8 PWPs and 5 HVs completed the survey two months post-intervention. Confidence ratings in managing IRIH disclosure ranged from 50 to 100 (*Mdn* = 79). A Mann-Whitney U Test indicated no significant difference in confidence ~~at follow-up~~ for HVs (*Mdn* = 81) versus PWPs (*Mdn* = 77.5), *U* = 23.00, *z* = .44, *p* = .72, *r* = 0.12. Staff-~~reported~~ anticipated actions ~~following disclosure~~ at follow-up are in Figure ~~3~~1.



~~Fig 3.~~ ~~Two-Month Follow-Up Staff Actions Following IRIH Disclosure~~

Follow-Up Staff Survey Thematic Analyses

Empathy for Patients

Staff appeared keen to normalise IRIH.

> *"it sounds like like an intrusive thought which is really normal"* (PWP)

> *"It is very common for new parents to have these feelings but doesnt mean you will act on them"* (HV)

Staff also anticipated validating parent experiences.

> *"It can be really difficult to experience these thoughts"* (PWP)

> "*Reassure, validate their emotions"* (PWP)

Underlying staff's normalising and validating approaches was recognition of patient bravery.

> *"Thank them for being brave and disclosing"* (PWP)

> *"Say how brave it was to contact us and ask for help"* (HV)

> "*Very proud of them that they have felt brave enough to disclose"* (PWP)

Training Benefits

Staff shared that the training, handouts and time to practise the skills facilitated ongoing benefits for clinical practice.

> *"100% influenced and reassured me. feel much more confident with parents on these thoughts - I have openly discussed such thinking early on so that parents aware of such thoughts before it becomes a problem."* (HV)

"Empathise a lot more and be understanding and reassuring towards the patient and not just think of the procedures that need to be followed" (PWP)

Some PWPs shared that the training helped them to feel more comfortable in sharing their own examples of intrusive thoughts with patients.

"Able to self-disclose more about my own examples of intrusive thoughts (not with any personal information, or not anything distressing that might scare the person)" (PWP)

Ongoing Needs

Both PWPs and HVs remained conscious of risk assessment.

"Whether they have plans or intent to act on thoughts" (PWP)

"That the mother may follow through and harm her baby" (HV)

However, staff appeared conscious of not distressing patients during risk assessment, whilst risk conceptualisation now also ~~considered~~ 'secondary' risks to the parent's safety and attachment between parent and child.

"I wouldn't worry at all about the patient acting on them... so I wouldn't have any safeguarding concerns... I hope I can reassure the person enough and provide adequate enough psycho-education... so they do not feel ashamed" (PWP)

"Offer support to mum in case these thoughts are a barrier to her enjoying her baby and attachment" (HV)

To address ongoing needs, staff requested refresher training, support from supervisors, and exposure to actual clinical cases.

"Regular clinical skills" (PWP)

"More exposure to people experiencing intrusions" (PWP)

"Experience in talking with people about their mental health" (HV)

Phase Comparison

Percentage of staff-anticipated actions following disclosure (by staff group across phases) are in figure 1. There was an approximately 41% increase in CBT referrals and 33% decrease in referral to social services across post-intervention and follow-up compared to baseline across both staff groups. 'Other' actions included referral to perinatal team.

Median staff confidence remained approximately 16.75% higher than baseline. A Friedman's ANOVA analysed the effect of timepoint (pre-, post-, ~~and two-month-post-intervention~~follow-up) on overall confidence ratings in responding to IRIH (Figure 2). Results did not indicate statistically significant changes in confidence at each time point, $X^2(2) = 3.04$, $p = .22$. Wilcoxon tests were used to follow up this finding. It appeared that confidence did not significantly differ statistically from pre-intervention to post-intervention, $T = 114.50$, $r = 0.31$, from pre-intervention to follow-up, $T = 50.00$, $r = 0.30$, or from post-intervention to follow-up, $T = 51.50$, $r = 0.08$.

The effect size associated with difference in confidence pre-intervention versus post-intervention (and follow-up) falls between 'medium' and 'large' effect size classifications (Cohen, 1992). Thus, a relatively substantial proportion of variance in confidence ratings can be explained by whether confidence was rated pre-, post- or following intervention after controlling other potential causes of variance (Lakens, 2013).

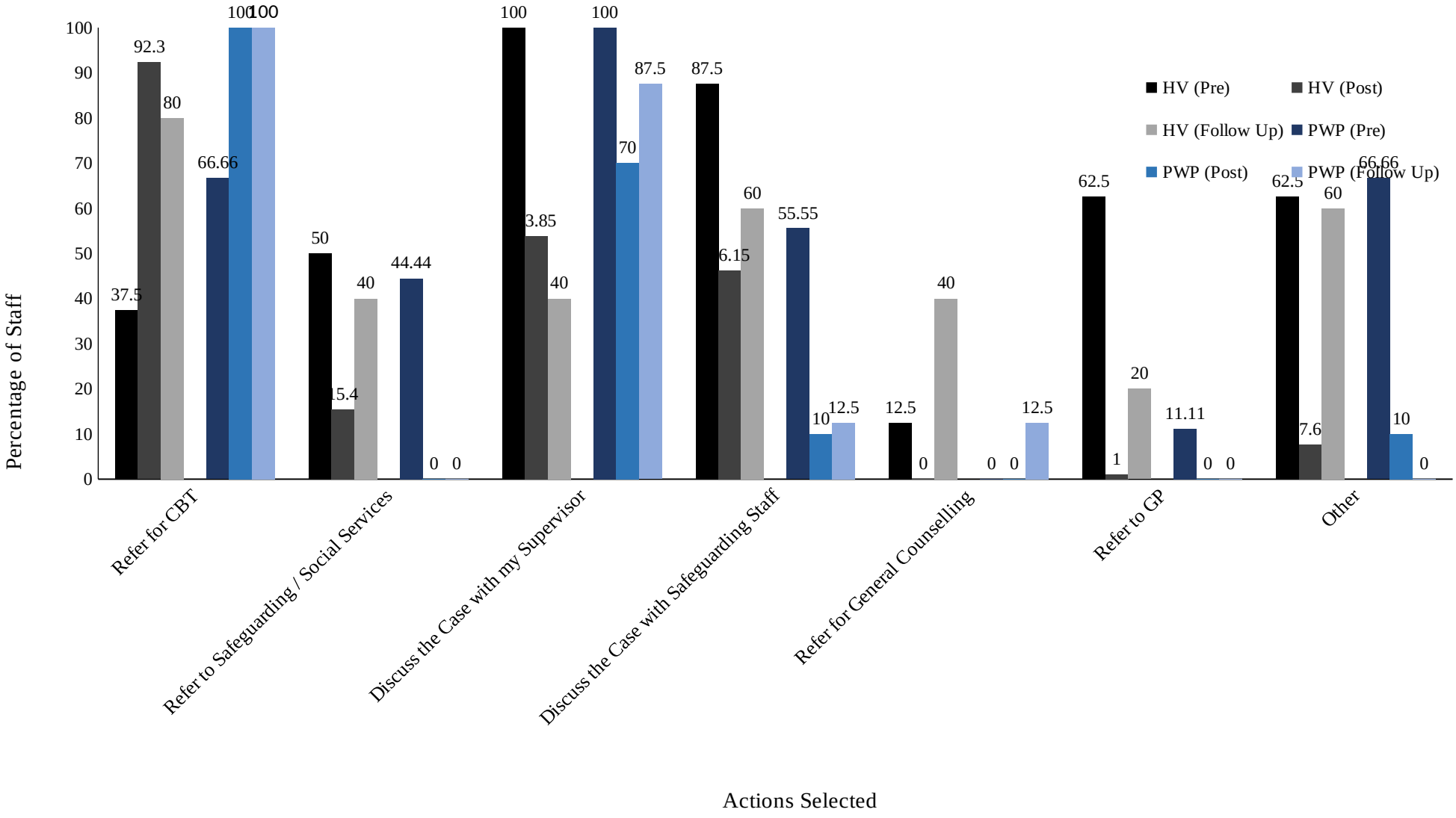

Percentage of Staff
Actions Selected
HV (Pre)
HV (Post)
HV (Follow Up)
PWP (Pre)
PWP (Post)
PWP (Follow Up)
Refer for CBT
Refer to Safeguarding / Social Services
Discuss the Case with my Supervisor
Discuss the Case with Safeguarding Staff
Refer for General Counselling
Refer to GP
Other
37.5
92.3
80
66.66
100
100
50
15.4
40
44.44
0
0
100
3.85
40
100
70
87.5
87.5
6.15
60
55.55
10
12.5
12.5
0
40
0
0
12.5
62.5
1
20
11.11
0
0
62.5
7.6
60
66.66
10
0

Fig 1. Phase Comparison of Staff-Anticipated Actions (%) by Staff Group Following IRIH Disclosure

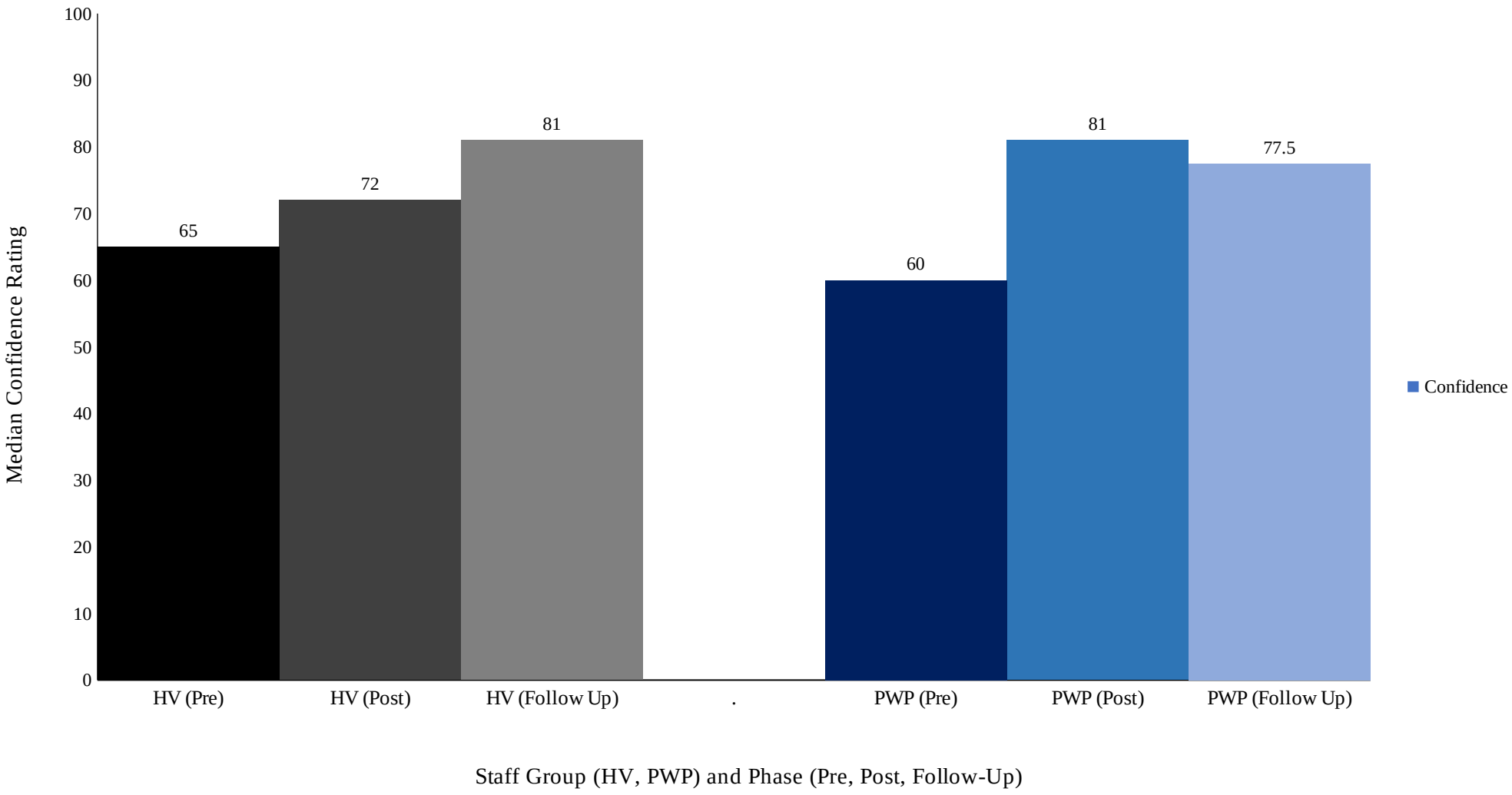


Fig 2. Phase Comparison of Staff Confidence (Median) by Staff Group Regarding Responding to IRIH Disclosure

Dissemination

Results and initial recommendations were presented at IAPT's Care Quality Innovation Forum in February 2022, attended by clinical leads, business managers and therapists. Attendees were asked *"How could we implement our findings? What barriers might there be?"*. 12 staff responded anonymously via Slido.com (2022) and one CBT Therapist emailed the primary researcher post-meeting.

The presentation was shared with the Health Visitor Operational Manager due to their service meetings being postponed at the time of study. The manager sought contact with IAPT to implement initial recommendations.

Service Response

Thematically analysing staff reflections shaped final recommendations. Key excerpts included below.

Clinical Implications

The service appeared keen to develop how it addresses IRIH, namely via its postnatal mental health group ("PND Group").

> *"Important to bring the psycho-education into the group, love this idea... so much more proactive rather than reactive"*

> *"We already have the intrusive thoughts information in the PND in session 2 so we can cover it right from the beginning"*

One stakeholder felt IRIH examples and statistics offered by this project could benefit the PND group.

> *"Great to add some more examples from genuine clients... and the changes since services have had training on it so it helps clients discuss with other professionals with less worries"*

Potential barriers included missed appointments and shame regarding IRIH. Sharing handouts prior to sessions was considered to address such barriers.

> *"Addressing it in a careful and sensitive way so it doesn't scare people... To overcome this it could be useful to send handouts for the session BEFORE"*

Maintaining Staff Awareness

Staff appeared keen to maintain knowledge by routinely providing training. Training attendance, assumptions about existing knowledge, and other information being retained were considered potential barriers.

> *"People tend to attend their training VERY infrequently and there's a lot of other info that day"*

> *"Assumptions that the information is already known, clearly it is not"*

Some suggested that barriers could be overcome by mandating training, potentially enabling additional staff accessing content.

> *"Mandatory LDZ training"*

"Included in the postnatal or perinatal depression training provided by the trust. This way all health care professionals can be included."

Some considered incorporating questions regarding IRIH in "Triage Documents" used when assessing every referral. Induction packs for new staff and regular team emails regarding IRIH were also suggested.

"We could encorporate it into our Triage document or just send round the few validating statements by email"

"Definitely in induction packs"

Multi-Agency Work

Multiple stakeholders noted potential benefits of maintaining contact between HV and IAPT services.

"Think it's sooo important to raise awareness of HV team"

"Need to relate more with HV, they have suggested they feel they don't hear from us"

Some considered expanding connections, including General Practice staff.

"Definitely keep running this with HV team and midwives too but we need to be careful not to step on the toes of... the perinatal service."

"Could invite the GP Practice Leads too and then they could filter this down to their GPs/nurses"

Multi-agency working suggestions included training delivered by IAPT and the Perinatal Mental Health Team, and routine drop-in supervision slots with Perinatal Mental Health Team staff.

"Changes may need to start here so some training for them (given by IAPT and Perinatal mental health)"

"Liaising with perinatal lead- possibly perinatal supervision"

Developments to Postnatal Therapy Group

Following results dissemination, stakeholders updated PND group content to incorporate IRIH content, using quotes from patient interviews, and discussions dedicated to normalising and validating experiences.

Discussion

This service improvement project aimed to improve Milton Keynes' PWP and HV responses to IRIH disclosure, operationalised as increased confidence and compassion following disclosure and during subsequent risk assessment.

Aim 1 was to establish current staff responses to disclosure. Pre-intervention, multiple staff anticipated referring parents to social services ~~and/or~~or safeguarding. Only nine of 18 staff

anticipated referring for CBT. This does not align with NICE recommendations (2005) nor NHS (2019) long-term plans to refer parents for appropriate psychological treatments.

Qualitatively, this appeared underpinned by confusion about responding to disclosure and concerns about harm occurring. This echoes findings that professionals may feel unconfident due to lacking employer guidance (Fairbrother et al., 2022). Indeed, as in Aim 2 (establish confidence in responding to disclosure), mean pre-intervention confidence ratings were 63.21/100.

Aim 3 sought to establish patient experiences of disclosing IRIH to PWPs and HVs. Interviews indicated negative staff interactions following disclosure and immediate risk assessments without normalising or validation. This appeared to deter participants from help-seeking, reflecting suggestions that negative staff responses may increase shame (Gezginç et al., 2008). Importantly, participants shared incidents where staff had normalised, validated and referred for CBT. This was associated with recovery, echoing theories that reducing perceived personal responsibility for IRIH occurrence alleviates distress (Salkovskis, 1999).

The final aim was to explore how training and handouts ~~modelled on~~informed by~~information gathered via prior aims~~baseline data and relevant literature influences confident and compassionate responses to disclosures of IRIH and subsequent risk assessment. Indicating that the intervention aims were met, ~~staff confidence and responses to IRIH disclosure. P~~post-intervention ~~, mean~~ median confidence increased. All staff excluding one anticipated referring for CBT and, qualitatively, there was desire to normalise and validate. In fact, patient "bravery" was highlighted – suggesting that professionals' empathy increased, ~~crucial in optimal healthcare (Høglend, 2014) and~~ aligning with DoH's (2008) emphasis on compassionate care.

Two HVs ~~still~~ anticipated referring to safeguarding/social services and there remained qualitative reference to risk at follow-up. Yet, risk assessments are components of any PWP or

HV-led assessment, regardless of IRIH (Jomeen et al., 2013), and the working context of HVs is fundamentally based on safeguarding infants (NHS, 2020). In fact, the current intervention ~~recommended~~ aimed for primary and secondary risks to both infant and parent ~~to both parent (e.g., suicidality) and child~~ be considered, but following normalisation and validation – which was evidenced in qualitative results, aligning with NICE (2014) guidelines for the detection of mental ill-health in new parents. Therefore, referencing risk is, to some extent, expected and may not represent limited intervention impact.

At follow-up, median staff confidence remained approximately 16.75% higher than baseline (Figure 2), in accordance with intervention aims. However, there was percentage increase in unexpected areas (e.g., approximately 20% increase in referrals for general counselling). This may have been skewed by the reduction in participant sample from 23 to 13, highlighting that results should be interpreted with caution. Yet, all excluding one continued to anticipate referring for CBT and reference to patient bravery remained. Whilst risk was still referenced qualitatively, intentions to minimise parents' concerns were reported. This aligns with the aims of the intervention and IAPT's Perinatal Competency Framework (2021) which indicates that immediate risk procedures could be detrimental to parental wellbeing. Staff shared that ongoing practice would be beneficial.~~At follow-up,mean staff confidence increased. Whilst participant sample reduced from 23 to 13, two months may have allowed staff to consolidate their skills mean staff confidence increased. Whilst participant sample reduced from 23 to 13, two months may have allowed staff to consolidate their skills. All excluding one anticipated referring for CBT and reference to patient bravery remained. Whilst risk was still referenced qualitatively, intentions to minimise parents' concerns were reported. Staff shared that ongoing practice would be beneficial.~~

~~Statistically significant d~~Differences in confidence at different timepoints were ~~unidentified~~not statistically significant. However, the effect size associated with impact of timepoint on confidence suggests that a relatively substantial proportion of variance in confidence ratings can be explained by whether confidence was rated pre-, post- or following intervention (Lakens, 2013). Together with qualitative themes, changes in confidence may be substantially accounted for by intervention.

Stakeholder responses to results were positive. Maintaining staff awareness of IRIH was considered important. Barriers included low staff attendance, a common NHS issue (Brand, 2015), but stakeholders reported that mandatory attendance could assist. Inter-team working including PWPs, HVs, GPs, nurses and midwives was felt necessary – groups likely to have contact with parents disclosing IRIH (Shakespeare et al., 2018) and named during patient interviews. Since result dissemination, the Postnatal Therapy Group protocol incorporated project findings, evidencing that recommendations are influencing clinical practice.

Clinical Application

Maintaining Staff Awareness

Re-running training may maintain the newfound staff awareness of IRIH. Maintained benefits at follow-up suggests that training could be once per year, preserving staff resources (Brand, 2015). CPD slots could be hosted by Trainee CBT Therapists or Clinical Psychologists for whom such presentations would contribute to training competencies (BPS, 2019). Recording attendance via CNWL Trust's Education Portal (2022) could ensure improved attendance.

Whilst training can influence change, systemic factors dictating service provision must be considered (Toner et al., 2015). Since patient interviews noted fears about disclosure, service-wide referral assessment templates could incorporate a normalising and validating question

regarding IRIH. This would also support staff's reported desire to practise responding to IRIH with patients.

NHS staff turnover is frequent (NHS, 2020). New recruitments may miss recent IRIH training. "New starter" packs could include project handouts. Team emails including key training points could be disseminated, as similarly done with Milton Keynes IAPT's 'Wellbeing Wednesdays' team emails (personal communication, November 2020).

Postnatal Therapy Group

Milton Keynes IAPT's Postnatal Therapy Group (PTG) has already been updated to reference project findings within its second session. Since the PTG includes patients with a range of experiences, this should raise awareness of treatment options should IRIH emerge whilst normalising IRIH for those already experiencing them. Since parents in Milton Keynes may initially disclose IRIH to HVs, the group referral process should be shared with the HV team. PTG adaptations should be monitored via PDSA cycles.

Inter-Team Working

As referenced in interviews, parents may disclose IRIH in various services, but CBT is primarily delivered via IAPT (NHS, 2022). Promoting liaison between IAPT and HV teams will better ensure parents are identified and referred for CBT – in-line with NICE guidelines and NHS plans (NICE, 2022). This could be achieved by re-running training with HVs and PWPs together, reserving staff resources (Brand, 2015). Coordinating team diaries may raise issues. 'Perinatal supervision drop-in' slots could compensate. For example, Milton Keynes IAPT host monthly drop-ins with Safeguarding professionals for risk-related concerns – a similar format with perinatal mental health staff could be developed, allowing IAPT and HV staff to explore their approach to IRIH. Critically, negative responses to IRIH disclosure reportedly extends to

nurses and GPs. Thus, project results and referral procedures for IAPT could be disseminated more widely via (e.g.) CNWL Communications emails.

Ongoing PDSA Cycles

This project was guided by the 'Plan, Do, Study, Act' (PDSA) model for improvement (NHS, 2022), allowing stakeholders to see which aspects of proposed changes work. Running several PDSA cycles sequentially or simultaneously could extend this project since results indicate that a different approach is needed. This will ensure that any implemented recommendations are both beneficial and effective. An example PDSA cycle for the Postnatal Therapy Group (Figure 4) highlights how this may look in practice. However, PDSA cycles should be collaboratively developed by the team to increase motivation to implement strategies (NHS, 2022).

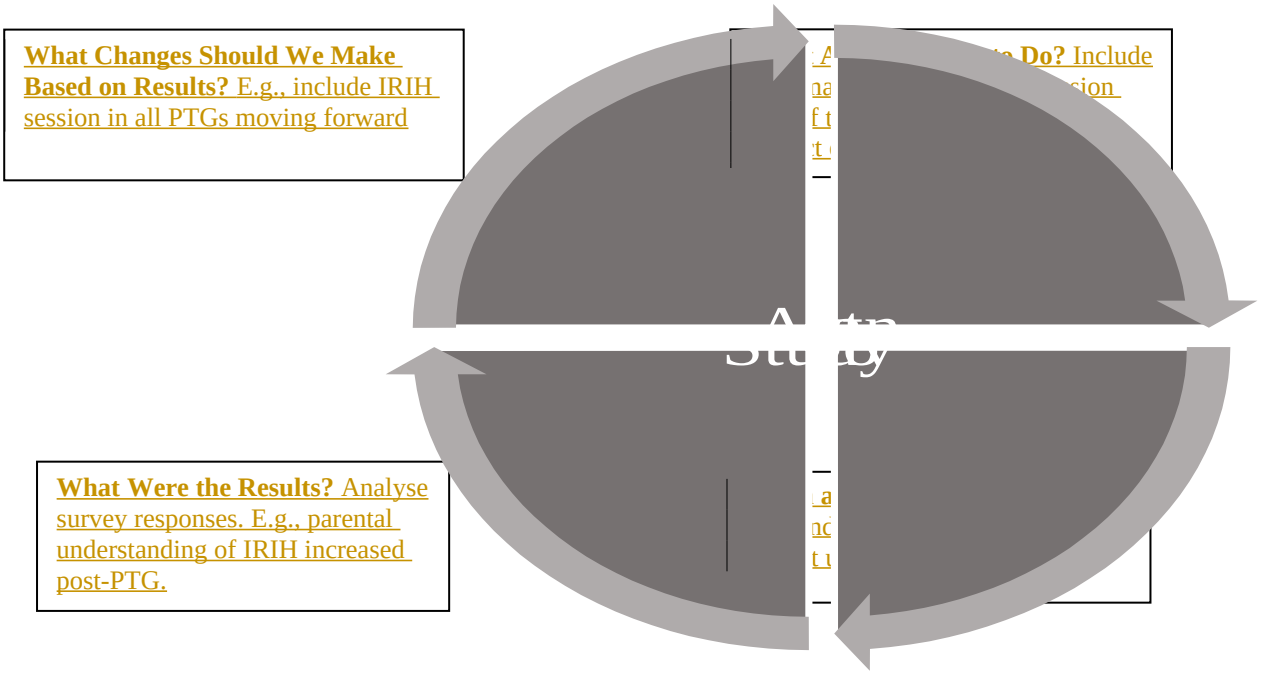


Figure 4. Example PDSA cycle for proposed changes to postnatal therapy group.

Limitations

Online surveys typically get brief responses (Braun et al., 2021). This increases the risk that staff simply did not report the compassionate interactions that would have occurred with patients disclosing IRIH pre-intervention, potentially rendering this an invalid measure of the aim. However, this is partially controlled by survey questions specifically enquiring about "initial verbal response" to patients.

Surveys were developed in-line with literature, yet criterion validity was unestablished. Limited existing measures explore staff responses to IRIH disclosure both quantitatively and qualitatively, and similar projects used idiosyncratic measures (e.g., Rumball, 2015). Results appear similar, but caution should be utilised when generalising findings from unvalidated surveys.

Staff self-report post-intervention may be biased towards indicating improvements to their clinical practice (Walters et al., 2016), so whether the intervention's aims to increase compassionate responses to IRIH disclosure was observed in practice is uncertain. Furthermore, staff participation decreased at follow-up, potentially limiting the sample's representativeness. Interviews with patients who have disclosed IRIH in Milton Keynes post-intervention could enable objective insight into changes in-line with project aims.

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~~limiting the sample's representativeness. Interviews with patients who have disclosed IRIH in Milton Keynes post-intervention could enable objective insight into changes.~~

Conclusion

This service improvement project used a PDSA cycle to explore the impact of training and handouts on PWP and HV responses to IRIH disclosure. Findings suggest that staff confidence, compassionate risk assessment, anticipated referrals, and perceptions of parents improved post-intervention. This potentially highlights the benefits of re-running and expanding such training concerning IRIH for services having contact with new parents, optimising referral procedures and treatment access for a vulnerable group having distressing and frequently stigmatised experiences of IRIH.

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Theory-Driven Research Project (TDRP)

Sexuality, Internalised Stigma and Obsessive-Compulsive Disorder

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Abstract

Minority stress models suggest that lesbian, gay and bisexual (LGB) individuals are frequently exposed to stressors related to stigmatisation, which accounts for higher rates of mental disorders compared to heterosexual individuals. The aim of this study was to explore the role of internalised stigma in the relationship between sexuality and Obsessive Compulsive Disorder (OCD), specifically distress related to intrusions containing "taboo" content. Using a between-groups design, 285 adults (160 heterosexual, 114 LGB) were administered online questionnaires measuring OCD symptomology, internalised stigma, and potential covariates (anxiety, depression, shame, guilt, and disgust sensitivity). LGB participants were significantly more likely to endorse "taboo" intrusions compared to heterosexual participants and this effect was greatest for LGB participants with high internalised stigma, even after controlling covariates. Internalised stigma was identified as a significant predictor of "taboo" intrusions and total OCD symptomology, beyond gender, religion, ethnicity and other covariates. This study provides evidence that internalised stigma may be an important factor in elevated rates of OCD experienced by LGB individuals and its associated treatment.

Keywords: internalised stigma, sexuality, obsessive compulsive disorder, intrusive thoughts, taboo

Introduction

Lesbian, gay and bisexual ("LGB") individuals comprise 3.1% of the UK population (ONS, 2020) yet evidence disproportionately greater ~~rates of~~ mental disorders ~~compared to~~versus heterosexual individuals (Pelts & Albright, 2015). This is linked to ~~significantly~~ greater psychiatric service utilisation in LGB versus heterosexual populations (Filice & Meyer, 2018). Subsequently, adapting psychological therapies as queer-affirmative is being prioritised (Holt et al., 2019), whilst the National Health Service (NHS) pledges to develop ~~the~~ evidence ~~base~~ regarding psychological treatments for LGB individuals (NHS, 2017).

Minority Stress Models (Brooks, 1981; Meyer, 1995) posit that LGB individuals' exposure to stigma-based stressors ~~related to stigmatisation~~ increases vulnerability for mental ill-health. Meyer (2003) distinguishes between distal and proximal ~~minority~~ stressors. Distal stressors include objectively distressing experiences, e.g., violence (Oswalt & Wyatt, 2011). Proximal stressors are subjective internalisations and expectations of negative attitudes. This includes internalised stigma (or "internalised homophobia"), whereby LGB individuals internalise stigmatised~~ing~~ narratives of LGB groups (Ong et al., 2021). For example, LGB individuals report ~~experiencing~~ internalised stigma whereby they perceive themselves as sinful, shameful, and rejectable (Cassim, 2019). Research suggests that proximal stressors, such as internalised stigma, account for greater variance in mental health ~~outcomes~~ for LGB individuals ~~compared to~~versus distal stressors (Ramirez & Galupo, 2019; Walch et al., 2016). Thus, internalised stigma may constitute an important factor when addressing LGB health disparities (Chan & Leung, 2021).

Internalised stigma's role in LGB mental health can be understood using Modified Labelling Theory (Link et al., 1989). Whilst the theory originally emphasised mental illness, its proponents suggest that parallels exist between discriminatory experiences of LGB and mentally-

ill groups, rendering associated literature relevant (Corrigan et al., 2013). Thus, Modified Labelling Theory would suggest that as LGB individuals internalise stigmatised attitudes ~~associated with their population~~ (e.g., 'immoral'), they foster low self-esteem (Corrigan et al., 2013). As they feel devalued, they become hypervigilant for further risks of public disrespect. This may be associated with increased avoidance and reduced motivation to self-alleviate distress, increasing vulnerability to mental illness (Owen et al., 2013).

Obsessive-Compulsive Disorder (OCD) is a debilitating mental illness with increased prevalence in LGB populations (Germann et al., 2021; Pinciotti & Orcutt, 2020), with rates up to 9% identified for sexual minorities versus 0.5-0.9% for heterosexuals (Pelts & Albright, 2015; Przedworski et al., 2015). OCD incorporates cycles of intrusions and compulsions (NHS, 2019). Intrusions are distressing and unwanted thoughts that enter one's mind, typically leading to behaviour aimed at alleviating distress (i.e., compulsions). Intrusions commonly feature themes including ~~taboo~~ aggressive acts, contamination, need for symmetry, and responsibility for harm/injury/bad luck (Doron et al., 2016). There is evidence regarding the mediating role of depression, anxiety, stress, disgust-sensitivity, shame- and guilt-propensity on finding intrusions distressing (Audet et al., 2020; Bhikram et al., 2017~~; Melli et al., 2014~~). Certain demographics are also linked to OCD vulnerability (e.g., race, gender, age, religion) (Williams et al., 2017). Yet, most individuals experience intrusions but do not find them bothersome (Brewin, 1996), so there is interest in factors accounting for LGB populations' increased distress (Holt et al., 2019).

Appraising intrusions as personally relevant is associated with distress (i.e., worry, difficulty disregarding intrusion) (Pinciotti & Orcutt, 2020; Purdon & Clark, 1999). This is evidenced by sensitivity to infant-harm intrusions in new mothers (Brok et al., 2017) and greater distress regarding blasphemous intrusions in religious versus less-religious groups (Himle et al., 2011). Clark and Inozu's (2014) literature review suggested that individuals with preconceived

sensitivities in variables relevant to certain intrusions (e.g., morality) may interpret them as personally relevant and experience greater distress.

LGB individuals with higher levels of internalised stigma who internalise prejudiced attitudes and anticipate public devaluation may be hypersensitive to "taboo" intrusions associated with rejection (Corrigan et al., 2009; Pinciotti & Orcutt, 2020) compared to heterosexual peers and intrusions associated less with rejection (e.g., contamination; Cathey & Wetterneck, 2013). Indeed, minority stress experiences predict increased rumination and suppression, key features of OCD (Hatzenbuehler et al., 2009). Furthermore, priming negative self-perceptions activates cognitive biases important in OCD's development and maintenance (Abramovitch et al., 2013). Yet, research has not clarified whether LGB individuals experiencing internalised stigma report more distress regarding taboo intrusions ~~compared to~~versus heterosexuals.

In one of limited relevant studies, Pinciotti and Orcutt (2020) surveyed 515 adults using the Dimensional Obsessive-Compulsive Scale (Abramowitz et al., 2010). This measures OCD symptoms across four domains: Contamination; Symmetry; Responsibility for Harm/Injury/Bad Luck; and 'Unacceptable' Thoughts (e.g., unusual sexual acts). Empirical research has validated the classification of the latter two domains as "taboo" since their content is associated with stigma and shame by both individuals with OCD and individuals without OCD who were made aware of the intrusion content (Cathey & Wetterneck, 2013; Glazier et al., 2015; Simonds & Thorpe, 2003). ~~This measures distress regarding intrusions in four domains: Contamination; Symmetry; Responsibility for Harm/Injury/Bad Luck; and 'Unacceptable' Thoughts (e.g., unusual sexual acts) - the latter two containing "taboo" content.~~ Sexual minority participants reported significantly greater distress

regarding Unacceptable intrusions versus heterosexuals, even after controlling overlapping OCD symptoms, trauma, and demographic factors. The authors suggested that LGB individuals, already sensitised to stigma, ascribed greater threat to socially-devalued intrusions. However, this included no measure of internalised stigma. Therefore, internalised stigma's role in distress regarding 'taboo' intrusions cannot be determined. The current study addresses this by administering measures of internalised stigma and OCD to LGB and heterosexual individuals. This is important because internalised stigma may represent an avenue for treating OCD experienced by LGB individuals, subsequently minimising health disparities.

The aim of the current project was to explore the relationship between sexuality, OCD and internalised stigma. The hypotheses were:

(i) LGB participants will display greater OCD symptomology than heterosexual participants even when potential confounders (depression, anxiety, stress, disgust-sensitivity, shame-propensity, guilt-propensity) are controlled.

(ii) The effect of sexuality on OCD symptomology will be stronger for "taboo" intrusions than less taboo intrusions.

(iii) LGB participants with greater internalised stigma will display greater endorsement of "taboo" intrusions than LGB participants with lower internalised stigma or heterosexual participants.

(iv) Internalised stigma will significantly predict OCD symptomology and endorsement of "taboo" intrusions beyond potential confounders and demographic factors.

Method

Participants

Two Hundred Eighty-Five adult participants were recruited for an online survey. Seventy-seven surveys were automatically discontinued (and data automatically excluded) following the initial demographic questionnaire. This is because responses met exclusion criteria, including: self-identifying as a sexuality other than LGB/Heterosexual (e.g., pansexual); non-binary gender; under 18 years of age; non-fluent in English language (the latter two were screened for in the consent form but participants may have inadvertently commenced to the demographic questionnaire). Twenty-three participants partially completed the survey, and tests of assumptions indicated four datasets including significant outliers. Removal of this resulted in data from 181 participants being entered into analysis (Table 1).

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Table 1

Participant Characteristics

Characteristic	Heterosexual Participants (n = 115)	LGB Participants (n = 66)
Gender Identity		
Cisgender Man	35 (30.4%)	18 (27.3%)
Cisgender Woman	80 (69.6%)	48 (72.7%)
Sexual Orientation		
Heterosexual	115 (100%)	0 (0%)
Gay	0 (0%)	15 (22.7%)
Lesbian	0 (0%)	18 (27.2%)
Bisexual	0 (0%)	33 (50%)
Age Range		
18-24 Years	21 (18.3%)	20 (30.3%)
25-34 Years	50 (43.5%)	43 (65.2%)
35-44 Years	18 (15.6%)	3 (4.5%)
45-54 Years	13 (11.3%)	0 (0%)
55-64 Years	13 (11.3%)	0 (0%)
Current Religion		
No Religion	68 (59.1%)	54 (81.8%)
Christian (all Christian Denominations)	39 (33.9%)	7 (10.6%)
Buddhist	2 (1.7%)	2 (3.0%)
Hindu	2 (1.7%)	1 (1.5%)
Prefer Not to Say	2 (1.7%)	1 (1.5%)
Not Listed (specified)	2 (1.7%)	1 (1.5%)
Ethnicity		
White	97 (84.3%)	57 (86.4%)
Asian or Asian British	6 (5.2%)	6 (9.1%)
Black, African, Caribbean or Black British	3 (2.6%)	1 (1.5%)

Mixed or Multiple Ethnic Groups	5(4.3%)	1 (1.5%)
Prefer Not to Say	2 (1.7%)	0 (0%)
Other Ethnic Group (specified)	2 (1.7%)	1 (1.5%)

Procedure

The study was piloted on two ~~healthy~~ controls, one individual experiencing OCD symptoms, and one individual accessing LGBT- specialist healthcare ~~in a LGBT-specialist service~~.

Participants were recruited via study posters disseminated on social media (e.g., Twitter, Instagram) and snowball sampling (e.g., research team requesting onward sharing of posters via social media). The research team also emailed LGB charities (e.g., Stonewall) to request sharing of posters via mailing lists. ~~Recruitment p~~Posters includ~~ed~~~~ing~~ ~~the~~ study information and hyperlink (Appendix 3b)~~, information and consent sheet were disseminated via social media~~ leading to an ~~. Participants completed an~~ online survey ~~comprised of an~~including information and consent form and questionnaires via Qualtrics (2022).

Measures

Sociodemographics

Participants answered questions regarding gender, sexuality, age, religion and ethnicity guided by Office for National Statistics (ONS, 2021).

Depression Anxiety Stress

The 21-item Depression, Anxiety, Stress Scale (DASS-21, Lovibond & Lovibond, 1995) self-report questionnaire includes items scored ~~on a~~ 0-3 ~~scale~~, greater scores indicating higher depression, anxiety ~~and/or~~or stress. This evidences good reliability (Cronbach's α = .89~~); Akin & Çetin, 2007)~~ and is validated for LGB individuals (Lindley & Bauerband, 2022).

Disgust Sensitivity

The 25-item Disgust Scale - Revised (DS-R, Olatunji et al., 2007) self-report questionnaire includes items scored ~~on a~~ 0-4 ~~scale~~, greater scores indicating higher sensitivity/propensity to disgust~~-eliciting stimuli~~. It evidences strong validity and reliability (Cronbach's α = .87; van Overveld et al., 2011).

Guilt and Shame Propensity

The 75~~15~~-item Test of Self-Conscious Affect (TOSCA-4, Tangney et al., 2008) self-report questionnaire includes items scored ~~on a~~ 1-5 ~~scale~~, greater scores indicating higher propensity for guilt, shame ~~and/or~~or blame-externalisation. It evidences strong internal consistency (~~shame scale~~ Cronbach's α = .97~~); Weingarden et al., 2016)~~ and construct validity (Malouf et al., 2017).

~~Distress regarding~~Taboo Intrusions

The Dimensional Obsessive-Compulsive Scale (DOCS, Abramowitz et al., 2010) is a 20-item self-report measure of OCD symptoms ~~in~~ across four intrusion domains: contamination; need for symmetry; responsibility (e.g., for harm, bad luck); and unacceptable thoughts. ~~-~~ Replicating Pinciotti and Orcutt (2020), the latter two domains represent 'taboo' themes due to their stigma-associated content (Cathey & Wetterneck, 2013; Glazier et al., 2015; Simonds & Thorpe, 2003), ~~the latter two domains incorporating 'taboo' content (Pinciotti & Orcutt, 2020).~~ Items are scored on a five~~5~~-point Likert scale encompassing time occupied by obsessions and compulsions, avoidance, impairment, and difficulty disregarding obsessions. Associated research encapsulates these various concepts of OCD symptomology by using total scores to represent overall 'distress' ~~, greater scores indicating higher distress~~(Pinciotti & Orcutt, 2020; Wetterneck et al., 2021)~~, impairment, and difficulty disregarding intrusions~~. ~~It~~ DOCS evidences good validity and reliability (Cronbach's α = 0.89) across subscales (Ojalehto et al., 2021).

Obsessive-Compulsive Disorder Symptomology

The 18-item Obsessive-Compulsive Inventory - Revised (OCI-R, Foa et al., 2002) self-report questionnaire specifically asks about distress regarding OCD symptoms on six factors: washing, checking, ordering, obsessing, hoarding, and mental-neutralising. ~~includes i~~Items are scored from 'not at all' – 'extremely', greater scores indicating higher ~~frequency and severity of~~distress ~~OCD symptoms on six factors: washing, checking, ordering, obsessing, hoarding, and mental-neutralising~~. It evidences strong validity and reliability (Cronbach's α = .83, Abramovitch et al., 2020). It has outweighed other OCD measures (e.g., the Yale-Brown Obsessive-Compulsive Scale Symptoms Checklist; Sulkowski et al., 2008) and is increasingly used clinically to determine overall OCD symptomology (Veale et al., 2016).

Internalised Stigma

The 9-item Internalised Stigma of Mental Illness Scale (ISMI-9, Hammer & Toland, 2017) has individuals self-report their agreement with adapted items of stigmatised narratives regarding sexuality on a 1-4 Likert scale, greater mean scores indicating higher internalised stigma (Appendix 3c~~b~~). Adapted items allow for both heterosexual and LGB participants to respond, unlike other internalised stigma measures (e.g., Mak & Cheung, 2010), enabling between-group comparisons. ISMI-9 items have been adapted approximately 55 times to explore internalised stigma across various minoritised groups (González-Domínguez et al., 2018), evidencing good psychometric properties in all previous cases and in the current study (Cronbach's α = .77). Internalised stigma level can be Minimal (general disagreement with items, *M* = 1.00-2.00), Mild (agreement with roughly less than half of items, *M* = 2.01-2.50), Moderate (agreement with more than half of items, *M* = 2.51-3.00), or Severe (agreement with most items, *M* = 3.01-4.00) (Lysaker et al., 2007).

Debrief

Upon survey completion, participants were automatically directed to debrief information detailing support options.

Design

This study included two between-subject factors, Sexuality (LGB and heterosexual) and Internalised Stigma Level (Minimal, Mild, Moderate and Severe). Twelve OCD-related dependent variables were present~~: , including~~ overall OCD symptomology (Total OCI-R and DOCS scores), ~~distress regarding~~ Symmetry-, Contamination-, Responsibility-based and Unacceptable intrusions (DOCS subscales), and Washing, Checking, Hoarding, Ordering, Neutralising, and Obsessing symptoms (OCI-R subscales). There are nine covariates~~: , including~~ disgust sensitivity, anxiety, depression, stress, guilt (remorse and amend), shame (hide and negative-self), and blame-externalisation.

Analysis

Hypotheses (i), (ii) and (iii) were addressed using a 2 x 4 Multivariate Analysis of Covariance (MANCOVA) with DOCS and OCI-R scores as dependent variables, Sexuality ~~(LGB, heterosexual)~~ and Internalised Stigma Level ~~(Minimal, Mild, Moderate, Severe)~~ as independent variables, and covariates ~~of~~ DS, TOSCA-4 and DASS-21~~ scores~~. MANCOVAs control overall Type I error rate, particularly when pairwise comparisons are considered only if the overall test is significant (Mohr et al., 2022).

Hypothesis (iv) was addressed using a Multiple Linear Regression to explore whether OCD variables highlighted by the MANCOVA (and total OCI-R score due to its use clinically [Veale et al., 2016]) were predicted by Internalised Stigma, potential ~~confounders (depression, anxiety, stress, disgust-sensitivity, shame-propensity, guilt-propensity)~~covariates ~~and/or~~or demographic factors ~~(sexual orientation, age, gender, religion, ethnicity)~~.

A post-hoc power analysis in G*Power3 (Faul et al., 2007) using a medium effect size (*f* = .25), and an alpha of .05 indicated that the 181 participants resulted in a power of .81.

Ethics

Ethical approval received from Medical Sciences Inter-Divisional Research Ethics Committee, University of Oxford (R78379/RE002).

Results

Descriptive Statistics

A Mann-Whitney U Test indicated a significant difference between LGB and heterosexual participants for internalised stigma, $U(N_{LGB}=66, N_{Heterosexual}=115) = 2622.00$, $Z = -5.35$, $p < .001$, $R^2 = .16$ (Table 2).

Table 2

Internalised Stigma Levels for LGB versus heterosexual Participants

	LGB *n* (%)	Heterosexual *n* (%)
Minimal Internalised stigma	42 (63.6)	109 (94.8)
Mild Internalised stigma	17 (25.8)	4 (3.5)
Moderate Internalised stigma	6 (9.1)	0 (0)

Severe Internalised stigma	1 (1.5)	2 (1.7)

Descriptive statistics for LGB versus heterosexual participants ~~for OCD-related constructs~~ are in Table 3. Mean outcomes are below clinical threshold, which is somewhat expected for non-clinical samples. Yet, the broad ranges suggest variable OCD traits were present.

Table 3

Descriptive Statistics for OCD-related constructs

	Heterosexual Participants				LGB Participants			
	Mdn	Mean	Range	SD	*Mdn*	Mean	Range	SD
OCI-R Total	9	12.57	0-49	10.15	12.5	16.92	0-61	13.64
DOCS Total	10	11.72	0-46	9.18	9.5	13.98	0-44	12.25
Responsibility Intrusions (DOCS)	2	2.88	0-12	2.95	2	3.56	0-17	4.04

Unacceptable Intrusions (DOCS)	2	3.30	0-18	3.71	4	4.68	0-19	4.52
Contamination Intrusions (DOCS)	2	3.19	0-11	2.83	2	3.33	0-11	3.20
Symmetry Intrusions (DOCS)	1	2.35	0-11	2.76	0	2.41	0-14	3.77
Obsessing Compulsions (OCI-R)	2	2.84	0-12	3.09	3	4.12	0-12	3.50
Hoarding Compulsions (OCI-R)	1	2.36	0-12	2.61	1	2.64	0-11	3.07
Ordering Compulsions (OCI-R)	3	2.78	0-11	2.48	3	3.61	0-12	3.31
Neutralising Compulsions (OCI-R)	0	1.18	0-7	1.67	1	1.88	0-11	2.63

Table 3. (cont.)

Descriptive Statistics for non-OCD constructs

	Heterosexual Participants				LGB Participants			
	Mdn	Mean	Range	SD	*Mdn*	Mean	Range	SD
DS-R	46.5	48.00	10-81	14.86	49.5	51.70	24-82	13.86
TOSCA (Shame Negative)	40	41.23	15-70	12.94	49	47.91	22-72	13.83
TOSCA (Shame Hide)	26	28.30	15-59	10.15	31	32.41	22-72	13.83

TOSCA (Guilt Remorse)	67	63.41	24-75	9.24	68	65.79	34-75	9.30
TOSCA (Guilt Amend)	68	67.05	47-75	5.66	68	66.88	55-75	5.27
TOSCA (Blame Externalisation)	23	23.71	15-45	5.92	23	24.94	15-46	6.95
Depression (DASS)	4	4.89	0-21	4.61	5	6.56	0-19	5.66
Anxiety (DASS)	2	3.24	0-18	3.18	3	4.54	0-17	4.42
Stress (DASS)	7	6.90	0-18	4.42	8	8.65	0-19	4.35

MANCOVA

Hypothes~~e~~is (i) & (ii)

The 2 x 4 MANCOVA addressed the hypothes~~e~~is that (i) LGB participants will display greater OCD symptomology than heterosexual ~~s~~participants, and (ii) the effect of sexuality on OCD symptomology will be stronger for “taboo” intrusions than less taboo intrusions.~~.~~

Significant main effects of sexuality, $F(11, 155) = 2.58$, $p = .005$, Pillai's Trace = .16, $\eta p^2 = .16$, internalised stigma, $F(33, 471) = 2.13$, $p = <.001$, Pillai's Trace = .39, $\eta p^2 = .13$, and interaction between sexuality and internalised stigma, $F(22, 312) = 2.04$, $p = .005$, Pillai's Trace = .251 $\eta p^2 = .13$, on DOCS and OCI-R measures were identified.

~~*Hypothesis (ii)*~~

To explore ~~the hypothesis that the~~the main effect of sexuality on OCD ~~symptomology~~outcomes ~~will be stronger for "taboo" intrusions than less taboo intrusions~~, Tests of Between-Subject Effects were reviewed. In accordance with hypothesis (i) and partial accordance with hypothesis (ii), there were significantly greater ratings by LGB versus heterosexual participants for responsibility intrusions, $F(1, 165) = 4.50$, $p = .04$, $\eta p^2 = .03$, after controlling covariates (Table 3). However, there were also significantly greater ratings by LGB versus heterosexuals for contamination intrusions, ~~These indicated significant differences between LGB and heterosexual participants for distress regarding Responsibility-based, $F(1, 165) = 4.50$, $p = .04$, $\eta p^2 = .03$, and Contamination intrusions,~~ $F(1, 165) = 6.87$, $p = .01$, $\eta p^2 = .04$.~~, after controlling covariates. Descriptive statistics indicated that LGB participants had greater mean distress ratings regarding Responsibility-based and Contamination intrusions (Table 3).~~Non-significant differences between LGB and heterosexuals were identified for Unacceptable intrusions, $F(1, 165) = 3.67$, $p = .06$, $\eta p^2 = .02$, Obsessing, $F(1, 165) = .454$, $p = .50$, $\eta p^2 = .00$, Washing, $F(1, 165) = .356$, $p = .55$, $\eta p^2 = .00$, Checking, $F(1, 165) = .013$, $p = .91$, $\eta p^2 = .00$, Hoarding, $F(1, 165) = .668$, $p = .42$, $\eta p^2 = .00$, Ordering, $F(1, 165) = .139$, $p = .71$, $\eta p^2 = .00$, Neutralising, $F(1, 165) = .783$, $p = .38$, $\eta p^2 = .01$, Unacceptable intrusions, $F(1, 165) = 3.67$, $p = .06$, $\eta p^2 = .02$, Obsessing, $F(1, 165) = .454$, $p = .50$, $\eta p^2 = .00$, Symmetry intrusions, $F(1, 165) = 1.09$, $p = .30$, $\eta p^2 = .01$, OCI-R total, $F(1, 165) = .130$, $p = .72$, $\eta p^2 = .00$, and DOCS total, $F(1, 165) = .072$, $p = .79$, $\eta p^2 = .00$.

Tests of Between-Subject Effects indicated that the main effect of Internalised Stigma was driven by significant differences in total DOCS score, $F(3, 165) = 3.30$, $p = .02$, $\eta p^2 = .06$, OCI-R score, $F(3, 165) = 5.30$, $p = .002$, $\eta p^2 = .09$, ~~distress regarding~~ Contamination Intrusions, $F(3, 165) = 4.21$, $p = .007$, $\eta p^2 = .07$, Symmetry-based Intrusions, $F(3, 165) = 6.99$, $p < .001$, $\eta p^2 = .11$, Washing, $F(3, 165) = 4.39$, $p = .005$, $\eta p^2 = .07$, Checking, $F(3, 165) = 2.83$, $p = .04$, $\eta p^2 = .05$, Ordering, $F(3, 165) = 5.26$, $p = .002$, $\eta p^2 = .09$, and Neutralising symptoms, $F(3, 165) = 4.72$, $p = .003$, $\eta p^2 = .08$. Non-significant differences were identified for Unacceptable intrusions, $F(3, 165) = 1.76$, $p = .16$, $\eta p^2 = .03$, Responsibility intrusions, $F(3, 165) = 2.29$, $p = .08$, $\eta p^2 = .08$, Hoarding, $F(3, 165) = 1.35$, $p = .26$, $\eta p^2 = .02$, and Obsessing, $F(3, 165) = 1.16$, $p = .33$, $\eta p^2 = .02$, symptoms. Pairwise Comparisons of significant factors indicated greater Internalised Stigma was generally associated with significantly greater levels (Table 4). ~~Pairwise Comparisons indicated that participants with greater Internalised Stigma generally reported significantly greater levels of these factors (Table 4).~~

Table 44

Significant Pairwise Comparisons of Internalised Stigma Main Effect

	Internalised Stigma Level (A)	Internalised Stigma Level (B)	Mean Difference (A-B)	Sig. (*p*)
Total DOCS	Minimal	Moderate	-12.198	<.001
	Mild	Moderate	-9.917	.014
Total OCI-R	Minimal	Moderate	-18.160	<.001
	Mild	Moderate	-14.624	.002
	Moderate	Severe	13.899	.047
Contamination Intrusions (DOCS)	Minimal	Moderate	-2.787	.014
	Moderate	Severe	4.580	.019
Symmetry Intrusions (DOCS)	Minimal	Moderate	-5.552	<.001
	Mild	Moderate	-5.339	<.001
	Moderate	Severe	8.019	<.001
Washing Compulsions (OCI-R)	Minimal	Moderate	-2.800	.001
	Mild	Moderate	-3.129	.001
Checking Compulsions (OCI-R)	Minimal	~~Mild~~Moderate	-2.906	.006
	Moderate	Severe	4.637	.010
Ordering Compulsions (OCI-R)	Minimal	Mild	-1.594	.039
		Moderate	-4.421	<.001
	Mild	Minimal	1.594	.039
		Moderate	-2.827	.030
Neutralising Compulsions (OCI-R)	Minimal	Moderate	-3.818	<.001
	Mild	Moderate	-3.078	.002
	Moderate	Severe	3.255	.025

	Internalised Stigma Level (A)	Internalised Stigma Level (B)	Mean Difference (A-B)	Sig. (*p*)
Total DOCS	Minimal	Mild	-2.281	.338
		Severe	-3.703	.476
	Mild	Severe	-1.422	.795
	Moderate	Severe	8.495	.159
Total OCI-R	Minimal	Mild	-3.537	.200
		Severe	-4.261	.479
	Mild	Severe	-.724	.909
Contamination Intrusions (DOCS)	Minimal	Mild	-.239	.755
		Severe	1.794	.285
	Mild	Moderate	-2.547	.050
		Severe	2.033	.251
Symmetry Intrusions (DOCS)	Minimal	Mild	-.214	.803
		Severe	2.467	.190
	Mild	Severe	2.681	.177
Washing Compulsions (OCI-R)	Minimal	Mild	.328	.565
		Severe	-.629	.614
	Mild	Severe	-.957	.467
	Moderate	Severe	2.171	.133
Checking Compulsions (OCI-R)	Minimal	Mild	-1.137	.108
		Severe	1.731	.263
	Mild	Moderate	-1.769	.139
		Severe	2.868	.080
Ordering Compulsions (OCI-R)	Minimal	Severe	-1.028	.541
	Mild	Severe	.566	.750
	Moderate	Severe	3.393	.082
Neutralising Compulsions (OCI-R)	Minimal	Mild	-.740	.195
		Severe	-.564	.651
	Mild	Severe	.177	.893

Table 4 (cont.)

Non-Significant Pairwise Comparisons of Internalised Stigma Main Effect

Hypothesis (iii)

Tests of Between-Subject Effects addressed the hypothesis that LGB participants with greater internalised stigma will display greater endorsement of "taboo" intrusions than LGB participants with lower internalised stigma or heterosexual participants.

Results indicated significant interactions between Internalised Stigma and Sexuality for Responsibility-based, $F(2) = 6.09$, $p = .003$, $\eta p^2 = .07$, and Contamination Intrusions, $F(2) = 3.07$, $p = .049$, $\eta p^2 = .04$. Non-significant interactions were identified for Unacceptable intrusions, $F(2) = 2.48$, $p = .09$, $\eta p^2 = .03$, Obsessing, $F(2) = .788$, $p = .46$, $\eta p^2 = .01$, OCI-R total, $F(2) = .347$, $p = .71$, $\eta p^2 = .00$, DOCS total, $F(2) = .658$, $p = .52$, $\eta p^2 = .01$, Washing, $F(2) = 1.685$, $p = .19$, $\eta p^2 = .02$, Checking, $F(2) = .049$, $p = .95$, $\eta p^2 = .00$, Hoarding, $F(2) = 1.32$, $p = .27$, $\eta p^2 = .02$, Ordering, $F(2) = .042$, $p = .952$, $\eta p^2 = .00$, and Neutralising, $F(2) = 1.32$, $p = .27$, $\eta p^2 = .02$.

In partial accordance with hypothesis (iii), pairwise comparisons indicated that LGB participants high in internalised stigma were generally more likely to report distressendorse regarding Responsibility-based intrusions compared to other participants (Tables 5 5 and 6).6). However, For Contamination-based Intrusions, LGB participants with moderate internalised stigma were also significantly more likely to report distress endorse Contamination-based intrusions compared toversus other LGB participants with relatively lower internalised stigma. Conversely, , yet LGB participants with severe internalised stigma were significantly less likely to report distressendorse Contamination-based intrusions versus both LGB participants with relatively lower internalised stigma and heterosexuals participants with the same internalised stigma level.

Table 55

MANCOVA: Significant Pairwise Comparisons for Sexuality by Internalised Sstigma Level

	Sexuality (LGB/Heterosexual)	Internalised stigma Level (A)	Internalised stigma Level (B)	Mean Difference (A-B)	Sig. (*p*)
Responsibility-Based Intrusions	LGB	Severe	Minimal	8.80	.002
			Mild	8.26	.003
		Moderate	Minimal	3.52	.003
			Mild	2.99	.018
		Mild	Minimal	4.35	<.001
Contamination-Based Intrusions	LGB	Severe	Minimal	-5.65	.037
			Mild	-6.18	.023
			Moderate	-8.79	.002
		Moderate	Minimal	3.14	.008
			Mild	2.60	.036

Table 5 (cont.)

Non-Significant Pairwise Comparisons for Sexuality by Internalised Stigma Level

	Sexuality (LGB/Heterosexual)	Internalised stigma Level (A)	Internalised stigma Level (B)	Mean Difference (A-B)	Sig. (*p*)
Responsibility-Based Intrusions	LGB	Minimal	Mild	-.535	.492
		Moderate	Severe	-5.272	.069
	Heterosexual	Minimal	Mild	-1.515	.258
			Severe	2.205	.247
		Mild	Severe	3.720	.101
Contamination-Based Intrusions	LGB	Minimal	Mild	-.534	.485
	Heterosexual	Minimal	Mild	-.056	.966
			Severe	-2.061	.270
		Mild	Severe	-2.117	.341

Table 6~~6~~

MANCOVA: ~~Significant~~ Pairwise Comparisons for Internalised ~~s~~Stigma Level by Sexuality

	Internalised stigma Level	Sexuality (A)	Sexuality (B)	Mean Difference (A-B)	Sig. (*p*)
Responsibility-Based Intrusions	Minimal	LGB	Heterosexual	-.806	.088
	Mild	LGB	Heterosexual	-1.786	.223
Responsibility-Based Intrusions	Severe	LGB	Heterosexual	10.19	.002
Contamination-Based Intrusions	MinimalSevere	LGBLGB	Heterosexual Heterosexual	-.700-8.41	.131.008
	Minimal	LGB	Heterosexual	-.700	.131
	Severe	LGB	Heterosexual	-8.41	.008

Multiple Regression

Hypothesis (iv)

A multiple linear regression was used to tested the hypothesis (iv) that internalised stigma will significantly predict DOCS distress regarding Responsibility subscale scores -based intrusions beyond depression, anxiety, stress, disgust-sensitivity, shame-propensity, guilt-propensity, sexual orientation (LGB or heterosexual, and lesbian, gay, bisexual, heterosexual or other), age, gender, religion, ethnicity. These variables significantly predicted distress, $F(4, 164) = 8.58$, $p < .001$, $R^2 = .46$.

In partial accordance with the hypothesis Internalised Stigma, as well as Age, Anxiety, and Shame (Hide), added statistically significantly to the prediction (Table 77). Four Spearman's Rank-Order Correlations indicated that the strongest predictors were Anxiety ($r_s(200) = .46$, $p < .001$), Shame (Hide) ($r_s(200) = .40$, $p < .001$), Age ($r_s(200) = -.25$, $p < .001$), and Internalised Stigma ($r_s(200) = .14$, $p = .042$), respectively.

Table 77

Multiple Regression Coefficients for Responsibility-Based Intrusions

	Unstandardised Coefficients			
Independent Variable	B	Standard Error	T	Sig. (*p*)
Internalised Stigma Level	.80	.39	2.04	.043
Age	-.42	.21	-2.06	.041
Anxiety (DASS)	.15	.04	3.96	<.001
Shame – Hide (TOSCA)	.06	.03	2.06	.041
Heterosexual or LGB	.666	1.202	-1.164	.580
Gender	-.057	.577	-.098	.922
Religion	.051	.157	.325	.745
Ethnicity	-.235	.218	-1.164	.246
Depression (DASS)	-.011	.025	-.436	.663
Stress (DASS)	.048	.034	1.420	.158

Disgust Sensitivity	.012	.016	.730	.467
Shame - Negative Self (TOSCA)	-.008	.027	-.287	.774
Guilt – Remorse (TOSCA)	.063	.035	1.795	.075
Guilt – Amend (TOSCA)	.008	.049	.171	.864
Blame Externalisation (TOSCA)	-.009	.037	-.234	.815

Multiple linear regression was calculated to predict overall OCD symptomology (OCI-R) based on the same variables. These variables significantly predicted OCI-R score, $F(16, 164) = 8.40$, $p < .001$, $R^2 = .45$.

Internalised Stigma Level, Age, Anxiety, and Disgust Sensitivity added significantly to the prediction (Table 88). Spearman's Rank-Order Correlations indicated that the strongest predictors were Anxiety ($r_s(201) = .49$, $p < .001$), Internalised Stigma ($r_s(200) = .35$, $p < .001$), Age ($r_s(201) = -.32$, $p < .001$), and Disgust Sensitivity ($r_s(200) = .25$, $p < .001$), respectively.

Table 88

Multiple Regression Coefficients for OCI-R Total Score

	Unstandardised Coefficients			
Independent Variable	B	Standard Error	T	Sig. (*p*)
Internalised Stigma Level	4.07	1.37	2.98	.003
Age	-1.162	.71	-2.28	.024
Anxiety (DASS)	.49	.13	3.67	<.001
Disgust Sensitivity	.12	.06	2.10	.037
Heterosexual or LGB	-1.146	4.162	-.275	.783
Gender	-3.892	1.999	-1.947	.053
Religion	.027	.543	.051	.960
Ethnicity	.149	.754	.197	.844
Depression (DASS)	-.061	.087	-.697	.487
Stress (DASS)	.127	.117	1.088	.278
Shame – Negative Self (TOSCA)	.026	.093	.279	.780
Shame – Hide (TOSCA)	.187	.098	1.913	.057
Guilt – Remorse (TOSCA)	.048	.122	.390	.697

Guilt – Amend (TOSCA)	-.121	.171	-.704	.482
Blame Externalisation (TOSCA)	-.047	.128	-.366	.715

Exploratory Analyses

Exploratory statistics included a two-way MANOVA exploring the effects of Sexuality and Internalised Stigma on DOCS and OCI-R (with no other dependent variables entered into the analysis), and a two-way MANOVA exploring the effects of Sexuality and Internalised stigma on DOCS and OCI-R and other forms of psychological distress (available via request to corresponding author). These continued to display main and interaction effects of Sexuality and Internalised Stigma on OCD, and participants that were LGB or high in internalised stigma generally reported significantly greater levels of Depression, Anxiety, Stress, Shame, Guilt and Blame Externalisation compared to participants that were heterosexual or relatively lower in internalised stigma.

Discussion

The aim of this study was to explore the role of internalised stigma in OCD experienced by LGB individuals, particularly intrusions including “taboo” contentintrusions. In accordance with Hypotheses (i) and (ii), LGB participants reported significantly greater distress endorsement

than heterosexual participants regarding Responsibility-based and Contamination intrusions. As in Hypothesis (iii)Furthermore, LLGB participants high in internalised stigma were generally significantly more likely to report distressendorse these regarding Responsibility-based intrusions compared toversus other participants. Regarding Hypothesis (iv)Finally, internalised stigma was identified as a significant predictor of "taboo" intrusions and total OCD symptomology.

Sexuality and Taboo Intrusions

Supporting hypothesis (i), LGB participants reported greater distress OCD symptomology versus for Responsibility-based and Contamination intrusions versus heterosexual participants, even after controlling covariates including disgust sensitivity, guilt, shame, depression, anxiety and stress. Exploratory analyses indicated that LGB participants reported significantly greater levels of these covariates (besides disgust sensitivity) versus heterosexual participants. This warrants further the investigation of internalised stigma's contribution to the relationship between sexuality and OCD, since these covariates are previously identified mediators of OCD mediators (Szentágotai-Tătar et al., 2020). However, significantly greater OCD symptomology was only identified for Responsibility-based and Contamination themes on the DOCS measure, with non-significant findings across other constructs. Whilst the DOCS is a psychometrically-robust measure of OCD (Ojalehto et al., 2021), and OCD symptomology can centre on one obsessional theme at a single timepoint (Dorfan & Woody, 2012), hypothesis (i) would be more reliably supported if replicated on additional measures and subscales (e.g., OCI-R).

In partial accordance with hypothesis (ii), the effect of sexuality was driven by significantly greater ratings of responsibility-based intrusions (a 'taboo' theme) and

contamination intrusions (a non-taboo theme). This only partly reflects Pinciotti and Orcutt's (2020) finding that sexual minorities report greater distress regarding taboo intrusions compared to heterosexuals. Pinciotti and Orcutt (2020) identified significant differences in scores regarding 'unacceptable' rather than 'responsibility' intrusions on the DOCS. The contents of 'unacceptable' intrusions may be more validly representative of taboo content (sex, immorality) versus the broad category of 'responsibility' obsessions (causing something awful to happen or having bad luck). Thus, endorsing 'responsibility' intrusions may not be a valid indicator of hypothesis (ii) being met. The validity of this result is further questionable due to non-significant differences between LGB and heterosexual participants for the OCI-R 'obsession' subscale. This includes stigmatised content similar to both the DOCS Unacceptable and Responsibility categories (e.g., 'nasty/unpleasant thoughts'), but specifically asks about 'distress'. Since the DOCS measures various concepts (e.g., functional impairment), the OCI-R may represent a more valid measurement of a hypothesis regarding 'distress' about taboo content. However, Abramovitch et al. (2020) argue that distress regarding obsessions is multidimensional, and is truly represented by the DOCS' various concepts. Furthermore, the DOCS responsibility domain can still be linked to stigma (e.g., causing a 'terrible accident' due to carelessness). These represent more 'everyday' taboo situations that a non-clinical sample may be more cognisant of versus "extreme" examples regarding sex and violence in the 'Unacceptable' domain (Wetterneck et al., 2014), potentially accounting for responsibility intrusions' greater endorsement – although this does not explain the contrast with Pinciotti and Orcutt (2020). Still, the content of the responsibility domain has been consistently associated with stigma and shame in empirical studies (Cathey & Wetterneck, 2013; Wetterneck et al., 2014), suggesting that this finding partially supports the hypothesis that the effect of sexuality on OCD symptomology will relate to endorsement of taboo intrusions.

These results partially reflect Pinciotti and Orcutt's (2020) finding that sexual minority individuals report greater distress regarding taboo intrusions compared to heterosexual individuals. However, Pinciotti and Orcutt (2020) identified significant differences in distress regarding 'Unacceptable' rather than Responsibility-based intrusions. Yet, Responsibility-based intrusions are also classified as "taboo" due to their socially-devalued content (Cathey & Wetterneck, 2013) despite being categorised separately from 'Unacceptable' intrusions in the DOCS measures (Abramowitz et al., 2010). FurthermoreInternalised stigma content is multifaceted in its content (Chan & Leung, 2021), which may further explain why greater endorsement of responsibility-based intrusions was identified in the current project but not Pinciotti and Orcutt's (2020) non-clinical sample. The iInternalised stigma experienced by LGB participants in the present study may have been rooted in 'harmful' narratives more akin to the Responsibility-based intrusions versus the (e.g.) 'sexually unusual' themes of 'Unacceptable' intrusions (Hu et al., 2013). This could be related to ever-increasing media representation of non-heterosexual relationships reducing societal stereotypes of gay/bisexualqueer relationships being as 'unnatural' (Crees et al., 2022), yet perceptions persisting of gay/bisexualqueer relationships being as 'harmful' to both sexual minorities and others (Witton, 2021).

In a non-hypothesised outcome, LGB participants reported significantly greater contamination intrusions versus heterosexuals (a non-taboo theme). Critically, contamination-based intrusions could be conceptualised as "taboo" since spreading illness is often perceived as 'harmful', similar to Responsibility-based intrusion content (Shafran et al., 2020). Thus, this finding may support the hypothesis that LGB participants display greater distress for taboo intrusions. However, this should be interpreted with extreme caution since it is based on unplanned post-hoc comparisons which hold risk of Type I error (i.e., false-positive results (Altman, 2000)).

Internalised Stigma and Taboo Intrusions

In partial accordance with hypothesis (iii), LGB participants high in internalised stigma displayed significantly greater endorsement of taboo intrusions (Responsibility) than others. This can be interpreted using Modified Labelling Theory (Link et al., 1987). LGB participants were likely exposed to negative societal narratives regarding their sexuality (e.g., 'sinful' [Cassim, 2019]). As indicated by the Internalised Stigma measure, multiple LGB participants had internalised discriminatory attitudes and, resultingly, may be hypervigilant for seemingly 'confirmative' events (Corrigan et al., 2013). Thus, when Responsibility-based intrusions containing taboo content occur, LGB participants may be more prone than heterosexuals participants to appraise them as personally significant, generating greater distress (Holt et al., 2019).

The relationship between sexuality, internalised stigma and taboo intrusions may be even greater than indicated in this project. Recruitment relied on those self-identifying as LGB (or heterosexual). This depends on LGB participants having "come out", a psychological process in whichwhereby sexual minorities privately and/oror publicly embrace their sexuality (Ali & Lambie, 2019). "Coming out" may buffer internalised stigma, since it enables a greater sense of self and group identification, protective against discrimination (Corrigan et al., 2013). Indeed, individuals who have "cominge out" evidence is associated with improved reduced mental illness versus those who have notwellbeing (Pachankis & Jackson, 2022). Future research incorporating LGB participants yet to "come out" may reveal greater effects than identified currently.

However, in a non-hypothesised outcome, LGB participants with moderate internalised stigma were also significantly more likely to report distress regardingendorse contamination-based intrusions versus LGB participants with lower internalised stigma. This may may be partially still be explained by Modified Labelling Theory (Link et al., 1989). Sexual minorities have experienced discriminatory social narratives regarding the spread of illness due to 'immoral

behaviour' (e.g., HIV, Monkeypox [Williams et al., 2022]). Internalisation of prejudiced health-based narratives may have predisposed LGB participants with moderate internalised stigma to distress regardingendorse contamination-based intrusions, which would support the hypothesis that LGB participants with greater internalised stigma display greater distress regarding "taboo" intrusions than LGB participants with lower internalised stigma or heterosexuals.. Alternatively, contamination-based intrusions may be better conceptualised as "taboo" since spreading illness is often perceived as 'harming' others, similar to the content of Responsibility-based intrusions (Shafran et al., 2020). Thus, this finding may lend itself to indications that LGB participants with high internalised stigma display great distress for taboo intrusions. HoweverIn contrast to this interpretation, LGB participants with severe levels of internalised stigma were significantly less likely to report distress regardingendorse contamination-based intrusions compared to both LGB participants with relatively lower internalised stigma and heterosexuals participants with the same internalised stigma level. Furthermore, risk of a false-positive outcome due to unplanned follow-up tests means that this should be interpreted with extreme caution (Altman, 2000). Thus, overall, hypothesis (iii) is only partially supported.

Yet, as referenced earlier, it is possible that internalised stigma experienced by LGB participants with severe levels may have included themes more akin to the responsibility-based versus contamination intrusions (Hu et al., 2013).

The Predictive Value of Internalised Stigma in OCD

Partly supporting hypothesis (iv), Iinternalised stigma, a ge, anxiety, and shame (hide) was one of four significantly predictedors (amongst 15) of outcomes regarding Responsibility-based intrusions. Whilst not the strongest predictor as hypothesised, Iinternalised stigma was one of only four significant predictors (amongst 15). It also significantly predicted total OCI-R score, a

measure increasingly used in UK clinical servicestreatment (Veale et al., 2016). This is relevant to clinical practice. Other significant predictors, such as anxiety and shame, are typically targeted during OCD treatment therapy (NHS, 2022), whilst age is unchangeable. Yet, internalised stigma is modifiable (Corrigan et al., 2013) but overlooked in current treatment protocols. OCD treatment for sexual minorities y people is broadly effective (Bezahler et al., 2022) but this study suggests that further investigation into internalised stigma may refine protocols.

Critically, sexuality was not indicated as significantly predicting Responsibility-based intrusions nor total OCD symptomology. This highlights that being of a minoritised sexuality is not pathological nor causal of mental distress, yet, sadly, negative experiences that commonly co-occur with a minoritised sexuality (e.g., internalised stigma) seemingly mediate the relationship between sexuality and mental distress. Positively, the current project's findings promote encourage the development of treatments targeting amenable factors, such as internalised stigma, to alleviate OCD in sexual minoritiesy individuals, which is relevant in the context of ongoing discourse regarding unethical and unevidenced "conversion" therapies which target sexuality itself (Conine et al., 2022).

Limitations

The adapted internalised stigma measure (ISMI-9) is unvalidated. Whilst the original questionnaire displays good psychometric propertiesis psychometrically-robust and is regularly adapted for minoritised populations (González-Domínguez et al., 2018), and the adapted version was piloted, produced satisfactory internal reliability, and allowed both heterosexual and LGB participants to respond, survey findings from the survey should be generalised cautiously since it cannot be ruled out that responses are an scale artifact of the scale rather than a 'true'valid representation reflection of internalised stigma. Furthermore, few participants actually met threshold for clinically-significant OCD or criteria for moderate/severe internalised stigma.

Whilst range of scores on OCD measures indicates that some participants experienced clinically-significant OCD, and smaller rates of moderate-severe internalised stigma are expected (Boyd et al., 2014), replicating findings with a larger clinical samples of participants experiencing experiencing moderate-severe internalised stigma would improve reliability.

This project did not explore differences between Lesbian, Gay, and Bisexual individuals nor other sexualities or genders. Furthermore, 85.1% of participants were white-British with no religious affiliation. This wassSnowball sampling on westernised social media platforms meaning likely meant that demographically-similar individuals viewed recruitment materials (Talbot et al., 2020), limiting generalisability to a biased sample of individuals. As a resultResultingly, the current projectoutcomes may underrate healthcare needs of minoritised groups. This is because mental wellbeing can vary across LGB groups (Shearer et al., 2016) and internalised stigma appears high in transgender and intersectional populations due to exposure to discriminatory societal narratives regarding multiple aspects of identity (e.g., sexuality and gender) (Austin et al., 2022; Lefevor et al., 2022). Therefore, outcomes may be even stronger in a diverse, intersectional sample. Future research could replicate this study with a diverse sample whilst investigating the relevance of specific sexualities and gender diversity. Liaison withrepresentatives of the populationJoint recruitment with population representatives could support by helping to recruiting individuals hesitant due to wariness regarding research (Ellard-Gray et al., 2015).This project did not explore the differences between Lesbian, Gay, and Bisexual individuals nor other sexualities or genders. Mental wellbeing can vary across LGB groups (Shearer et al., 2016) and internalised stigma appears high in transgender individuals (Austin et al., 2022). Future research may aim to replicate this study whilst explicitly investigating the relevance of specific sexualities and gender diversity in the relationship between internalised stigma and OCD.

Implications

Clinicians should be vigilant for Responsibility-based intrusions during assessment of LGB individuals, since such experiences are rarely spontaneously disclosed due to shame and fear of punishment (Fairbrother et al., 2022). Integrating internalised stigmatising beliefs into formulations could enhance treatment (Corrigan et al., 2013) as they can . Internalised stigmatising beliefs can also be challenged using cognitive/ and/or behavioural techniques (Carvalho et al., 2022). Internalised stigma manifests following exposure to negative societal attitudes (Meyer, 2003). Whilst systemic changes that reduce homophobia (e.g., policy reforms) may prevent internalised stigma from developing, clinicians may also subtly alleviate it by adapting therapy to be queer-affirmative (as outlined by Bettergarcia et al. (2021)). Yet, despite exposure to stigma, the queer community is one of resilience and inspiration (Haworth, 2022). Clinicians and academics should consider protective factors that maintain LGB individuals' wellbeing in spite of adversity.

Future research should aim to include both robustly-validated and qualitative measures of internalised stigma. This may enable insight into the internalised attitudes relevant for specific intrusion themes, whilst clarifying how sexuality-based internalised stigma manifests in heterosexuals. Statistical analyses should also explore differences between sexual and gender minorities. Recruiting participants yet to "come out" may be insightful, but barriers would likely include access and ethical dilemmas around inducing participant distress. Pparticipants yet to "come out" in specific contexts (e.g., the workplace) but otherwise identifying as a sexual minority could provide an avenue for recruitment whilst potentially increaseing the number of participants with high internalised stigma (Hodson et al., 2018).

Conclusion

This study investigated the relationship between sexuality, internalised stigma and OCD. Findings suggest that LGB individuals are more likely to experience distress regarding certain 'taboo' intrusions compared to heterosexual individuals, and that internalised stigma plays a significant role in this. Ongoing research may further justify OCD treatments for LGB individuals targeting internalised stigma.

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Executive Summary

Lesbian, Gay and Bisexual (LGB) individuals consistently evidence higher rates of mental illness compared to Heterosexual individuals. Theories suggest that this is related to LGB individuals' repeated exposure to stressors, which can include objectively discriminatory experiences (e.g., being a victim of a hate crime) and/oror internal experiences, such as internalised stigma.

Internalised stigma involves internalising discriminatory narratives about one's group. For example, there is evidence that some LGB people experience internalised stigma whereby they perceive themselves as sinful and prone to rejection. Research suggests that such internal experiences contribute to poorer mental health in LGB people, with some evidence that it contributes more greatly to mental health disorders than the objective discriminatory experiences that LGB people might have.

One mental disorder with increased prevalence in the LGB community is Obsessive-Compulsive Disorder (OCD). OCD involves a chronic cycle of intrusive thoughts experienced as distressing and subsequent compulsive behaviour. There is evidence that perceiving an intrusion as personally relevant and/oror relating to a domain of personal sensitivity contributes to the associated distress, such as mother's reporting increased distress regarding intrusions of infant harm, and religious groups reporting increased distress regarding blasphemous intrusions. Thus, it has been queried whether LGB individuals, who might perceive themselves as sinful and prone to rejection due to internalised stigma, might be more distressed by 'taboo' intrusions compared to Heterosexual individuals, accounting for the differences in OCD prevalence.

Support for the theory that increased rates of OCD in LGB populations may be related to internalised stigma comes from findings that LGB individuals report significantly greater distress specifically regarding 'taboo' intrusions compared to Heterosexual individuals. It was hypothesised that this was because LGB individuals, prone to internalised-stigma, ascribed

greater threat to intrusions with taboo content. However, this research included no measure of internalised stigma. Therefore, the relevance of internalised stigma in distress regarding 'taboo' intrusions cannot be determined.

The current project included the aim of exploring the role of internalised stigma in the relationship between sexuality and Obsessive Compulsive Disorder (OCD), specifically distress related to intrusions containing "taboo" content. Two-hundred-eight-five adults (160 Heterosexual, 114 LGB) were administered online questionnaires measuring OCD, internalised stigma, and other factors of interest (anxiety, depression, shame, guilt, and disgust sensitivity).

Results indicated that LGB participants were significantly more likely to report distress regarding 'taboo' intrusions compared to Heterosexual participants and this effect was greatest for LGB participants with high internalised stigma, even after accounting for the other factors of interest. Internalised stigma was also identified as a significant predictor of 'taboo' intrusions and total OCD symptomology, beyond gender, religion, ethnicity and other factors of interest.

The current project provides evidence for internalised stigma being an important factor in elevated rates of OCD experienced by LGB individuals. Future research replicating such findings could support the targeting of internalised stigma during OCD treatment for LGB individuals.

Word Count: 470

Reflective Connecting Narrative

Obsessive-compulsive and related disorders broadly connect the domains of this thesis, but stigmatised conditions/populations are emphasised. For example, OCD is referenced in the TDRP and SIP, but queer populations and/oror 'taboo' intrusions are emphasised. The CRL focuses on Emetophobia which overlaps with OCD, but is often neglected in research and associated with shame. Therefore, this work largely contributes to literature regarding OCD and related disorders, but highlights the experiences of individuals from minoritised, stigmatised, and often overlooked populations.

TDRP

As a gay person with lived experience of OCD, the project centring on OCD in the queer community is hugely important to me. To work at University of Oxford alongside professionals who developed the treatments that have empowered me to manage the disorder has been an invaluable experience. To feel like I am now positioned to examine and 'hold expertise' regarding the disorder with which I previously struggled is incredible!

Current treatment for OCD is effective and, luckily, standardised. Yet, I couldn't shake the feeling that there was an undercurrent influencing my experiences which the protocols weren't quite targeting. Sadly, many queer people have insidious experiences telling them that getting 'better' is not something that they deserve, and that, as a queer person, feeling shame and disgust is expected. I began wondering about the role that such experiences played in OCD, and whether this was a potential reason for the increased prevalence of OCD in LGB populations.

When a friend sent me Pinciotti and Orcutt's (2020) paper regarding OCD in LGB populations, it felt like they had summarised in-text something that I had been struggling to explain for years! The notion that internalised stigma – those feelings of shame and disgust - could contribute to LGB individuals' distress regarding certain intrusions made sense. The

opportunity to expand upon this felt necessary – to ignore this could ultimately prevent other queer people accessing the help that they deserve.

One of the major learning experiences during the TDRP was scaling the project. Since this field aligns with my values and lived experience, there was much I wanted to investigate! I initially sought after a complex experimental design. Receiving feedback at Project Approval Sessions (PAS) to scale-back was initially confronting. Yet, with hindsight, I am now aware that it was much better to do a 'smaller'-scale project to the best of my ability, rather than a largescale project of lower quality. This has allowed me many points of reflection and learning, including the importance of collaboration, being curious about constructive criticism, and accepting that my passion for a field should not obscure the scientist-practitioner approach to doing high-quality research.

SIP

For many minoritised and/oror vulnerable populations, disclosure is a difficult psychological process (e.g., the queer person 'coming out', the individual sharing the theme of their obsessions). During my first placement at IAPT, I became particularly interested in the experiences of parents disclosing intrusive thoughts regarding their children. During my work with such patients, shame and fear was tangible. From my own experiences of disclosure, I was extremely conscious of how pivotal the moments surrounding disclosure are – responding well could minimise shame and empower the individual to seek the support they deserve, but to respond inappropriately could drive the individual away from services forever. I had the lovely experience of patients sharing with me how monumental my responses to their disclosures were in their recovery – I wanted to disseminate these experiences onward.

The SIP was significant in my learning of how to engage staff and services within research. Balancing different schedules and maximising engagement was somewhat tricky – persistence and flexibility was required. I also learned that tangible and brief 'take-home

messages' were required – the nature of the NHS means that time is often not a luxury, and busy clinicians understandably do not want to be reading hoards of literature. Again, this sometimes clashed with my desire to comprehensively discuss the research outcomes. Yet, the process was humbling. I became aware of the privilege of clinical training which has allowed opportunities to comprehensively learn about the minutiae of patient-staff interaction surrounding (e.g.) disclosure – something which many professions are not afforded. This made me conscious of my responsibility as a clinical psychologist – to disseminate such learning to the systems in which I am positioned, and to be curious about the experiences and wealth of knowledge of other professions.

SRL

Emetophobia is a disorder which commonly overlaps with OCD and significantly detriments the lives of those experiencing it, yet is often neglected in research. Upon wondering why this may be, I generally assumed that it was because of its rarity. However, reflecting upon this assumption raised frustrations – because a minority experience something distressing, does that automatically mean that it should not be explored? This contrasts with my values and themes throughout my research, in that I believe the experiences of minoritised groups matter, even if they do not necessarily match the majority.

Exploring an understudied disorder raised hurdles. Sparse literature meant that I had to be somewhat novel in my approach to the systematic review. This meant that I could not easily rely on former SRL examples or recommended guidelines, making the process more cumbersome (e.g., researching different potential approaches). There were points that, in the context of having multiple deadlines, I wondered whether a different research field may have been simpler. Yet, again, this misaligned with my values of prioritising the experiences of minoritised groups. This showed me that if I am researching something I am passionate about, I feel able to dedicate

myself to the process – no matter how difficult it may feel at times. This has shown me that I do truly enjoy research, particularly when it incorporates my values.

Future Research

I am dedicated to continuing with research throughout my career. The process of my thesis has allowed me to know that, when aligned with my values, it is something that I enjoy. It affords me the opportunity to disseminate findings on a top-down level, with the ultimate aim of benefiting as many individuals as possible.

Word Count: 1000

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To the participants, experts-by-experience, and patients that have contributed to this body of work. I am extremely grateful for your time, openness, and willingness to be vulnerable to contribute to work which may help others.

Appendices

Appendix 1a – CRL Search Term

1. (SPOV or Specific Phobia of Vomit or Emetophob* or Specific phobia vomit*).ab,ti.*

2. vomiting/ or nausea/ or "purging (eating disorders)"/

3. ((Vomit or Regurgitat* or Purge or Purging or Nausea) adj6 (Fear or Phob* or Anxiety or Anxious or Scared or Frightened)).ab,ti.*

Appendix 1b – CRL Instructions to Authors

Clinical Psychology Review author guidelines can be accessed via

https://www.elsevier.com/wps/find/journaldescription.cws_home/652?generatepdf=true

Article structure

Manuscripts should be prepared according to the guidelines set forth in the most recent publication manual of the American Psychological Association. Of note, section headings should not be numbered.

Manuscripts should ordinarily not exceed 50 pages, *including* references and tabular material. Exceptions may be made with prior approval of the Editor in Chief. Manuscript length can often be managed through the judicious use of appendices. In general the References section should be limited to citations actually discussed in the text. References to articles solely included in meta-analyses should be included in an appendix, which will appear in the on line version of the paper but not in the print copy. Similarly, extensive Tables describing study characteristics, containing material published elsewhere, or presenting formulas and other technical material should also be included in an appendix. Authors can direct readers to the appendices in appropriate places in the text.

It is authors' responsibility to ensure their reviews are comprehensive and as up to date as possible (at least to 3 months within date of submission) so the data are still current at the time of publication. Authors are referred to the PRISMA Guidelines (http://www.prisma-statement.org/) for guidance in conducting reviews and preparing manuscripts. Adherence to the Guidelines is not required, but is recommended to enhance quality of submissions and impact of published papers on the field.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and

equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Essential title page information

Title. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. **Note: The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.**

Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

Corresponding author. Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

Present/permanent address. If an author has moved since the work described in the article was done, or was visiting at the time, a "Present address"' (or "Permanent address") may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights

Highlights are mandatory for this journal as they help increase the discoverability of your article

via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract

A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

Graphical abstract

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be

sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References

Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the most recent publication manual of the American Psychological Association. Information can be found at https://apastyle.apa.org/

Appendix 1c – QualSyst Items (Kmet et al., 2004)

1. Question / objective sufficiently described?
2. Study design evident and appropriate?
3. Method of subject/comparison group selection or source of information/input variables described and appropriate?
4. Subject (and comparison group, if applicable) characteristics sufficiently described?
5. If interventional and random allocation was possible, was it described?
6. If interventional and blinding of investigators was possible, was it reported?
7. If interventional and blinding of subjects was possible, was it reported?
8. Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported?
9. Sample size appropriate?
10. Analytic methods described/justified and appropriate?
11. Some estimate of variance is reported for the main results?
12. Controlled for confounding?
13. Results reported in sufficient detail?
14. Conclusions supported by the results?

Appendix 1d – Second Rater Quality Assessment Ratings

Study	Quality Assessment Items														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Summary Score**
Veale et al., 2011	2	2	2	2	n/a	n/a	n/a	2	1	2	2	2	2	2	0.95
Van Overveld et al., 2007	2	2	1	1	n/a	n/a	n/a	2	1	2	2	1	2	2	0.82
Veale et al., 2013	2	2	2	2	n/a	n/a	n/a	2	1	2	2	2	2	2	0.95
Van Hout et al., 2012	2	2	2	2	n/a	n/a	n/a	2	1	2	0	1	2	2	0.82
Ahlen et al., 2015	2	2	2	2	0	0	0	2	1	2	2	1	2	2	0.71
Sykes et al., 2015	2	2	2	2	n/a	n/a	n	2	1	2	0	1	2	2	0.82
Lipsitz et al., 2001	2	2	2	2	n/a	n/a	n/a	1	1	0	1	1	2	2	0.73
Wu et al., 2017	2	2	2	2	n/a	n/an	n/a	2	2	2	2	2	2	2	1

Note. QualSyst items in appendix 1c. n/a = not-applicable.

Appendix 2a – SIP Design

Phase	Research Question Addressed	Method	Sample & Frequency	Collected By (Role)
A	*1. How do IAPT staff and HVs currently respond to disclosures of IRTH, with reference to figures on cases "misclassified" as risk?*	Online survey #1* and review of IAPTUS for figures	Surveys completed by PWPs and HVs pre-improvement phase.	Trainee Clinical Psychologist (recruitment & analysis) supported by Clinical Leads of PWPs and HVs.
	2. How confident are IAPT staff and HVs in their responses to IRTH in the context of risk assessment procedures?	Online survey #1	Achieved via above.	Achieved via above.
	3. How did patients experience the process of disclosing IRTH to IAPT staff and/oror HVs?	Individual interviews*	Patients who have previously made sensitive disclosures to Milton Keynes IAPT staff/HVs.	Trainee Clinical Psychologist (recruitment, facilitation & analysis) supported by CBT Therapist (recruitment).
B	*4. How do the improvement measures (e.g., training) informed by above information affect IAPT staff and HVs' responses and confidence when assessing parents who disclose IRTH?*	Online survey #2	Surveys completed by PWPs & HVs immediately post-intervention.	Trainee Clinical Psychologist (recruitment & analysis) supported by PWP and HV Clinical Leads (recruitment).
A	*4. How do the*	Online survey #2	Surveys	Trainee Clinical

	improvement measures (e.g., training) informed by above information affect IAPT staff and HVs' responses and confidence when assessing parents who disclose IRTH?	completed by PWPs & HVs 2 months post-intervention.	Psychologist (recruitment & analysis) supported by PWP and HV Clinical Leads (recruitment).

Note. * = Expert-By-Experience consultation.

Appendix 2b – SIP Ethics

Milton Keynes University Hospital NHS Trust CQIF Meeting Minutes:

7.	**Presentation on Quality**	
	JV (Trainee Clinical Psychologist, University of Oxford) presented his Service Improvement Project proposal for clearance to proceed with the project and associated data collection. The project - • Will centre on intrusive thoughts of infant harm in the perinatal period, and how staff members (Milton Keynes Psychological Wellbeing Practitioners and Health Visitors) respond to disclosures of intrusive thoughts of infant harm. • Aim - to use the outcomes of an online staff survey and a focus group of IAPT patients who have formerly made disclosures of intrusive thoughts to inform improvement measures regarding how staff best respond to intrusive thought disclosures. Implementation of these improvement measures shall be followed by a re-administration of the survey to determine their impact. • JV will write up the project for his Doctoral Training and it is intended that the project be submitted for publication. SO / SL – confirmed for the project to go ahead as no objections from the forum were received. GA – asked for JV to link up with / have input from PMH clinical team – agreed. **Action - JV to email GA.**	

Milton Keynes Quality Governance Clearance:

Morning Joe

I think you are good to go ahead now.

We will let the Divisional clinical Lead for the trust know but we don't require their sign off.

Please can I ask that you let us know the results of the outcome on the attached.

Best wishes

Lisa Judd
Quality Governance Support

Quality Governance - Diggory Division
Tel: 01908 725312
Email lisa.judd1@nhs.net

Central and North West London NHS Trust DPIA Confirmation:

NHS
Central and
North West London
NHS Foundation Trust

Stage Five – Project sign off

Sign-off for any DPIAs can only be by a member of the information governance team and IT. For those scoring above 6 this must be signed off from the Trusts' Senior Information Risk Owner (Ross Graves), Data Protection Officer (Jonathan Craven), demonstrating that risks have been acknowledged and accepted.

DPIA approved by: Shakira Dongo
Job Title: Senior Information Governance Officer/Deputy DPO
Date: 24/09/2021

Appendix 2c – Staff Surveys

Pre-Intervention Staff Survey:

What is your job title?

- ◯ Trainee Psychological Wellbeing Practitioner
- ◯ Qualified Psychological Wellbeing Practitioner
- ◯ Health Visitor
- ◯ Other (please specify)

During a telephone assessment with a new parent, they tell you that they have been having thoughts of harming their baby such as by shaking, drowning, smothering them or sexually touching their genitals. What would be your initial verbal response to the parent whilst on the call?

When the parent discloses this information, what would your initial thoughts, emotions and/or feelings be and why?

Would you ask the parent any follow-up questions?

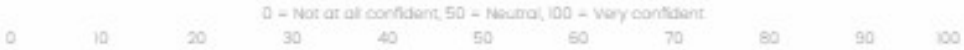
- ◯ No
- ◯ Yes (please specify)

As the telephone assessment continues, the parent discloses that they find the thoughts of harming their baby to be unwanted, distressing, and they do not want to act on them. What would be your initial verbal response to the parent following this disclosure?

Following the telephone assessment, what steps would you take with regards to dealing with this presentation? (Select as many as relevant)

- ☐ Refer for Cognitive Behavioural Therapy (CBT)
- ☐ Refer to Safeguarding / Social Services
- ☐ Discuss the case with my supervisor
- ☐ Discuss the case with safeguarding staff
- ☐ Refer for general counselling
- ☐ Refer to GP
- ☐ Other (please specify)

On a scale of 0 - 100, please indicate how confident would you feel in managing this situation? (0 = not at all confident, 50 = neutral, 100 = very confident).

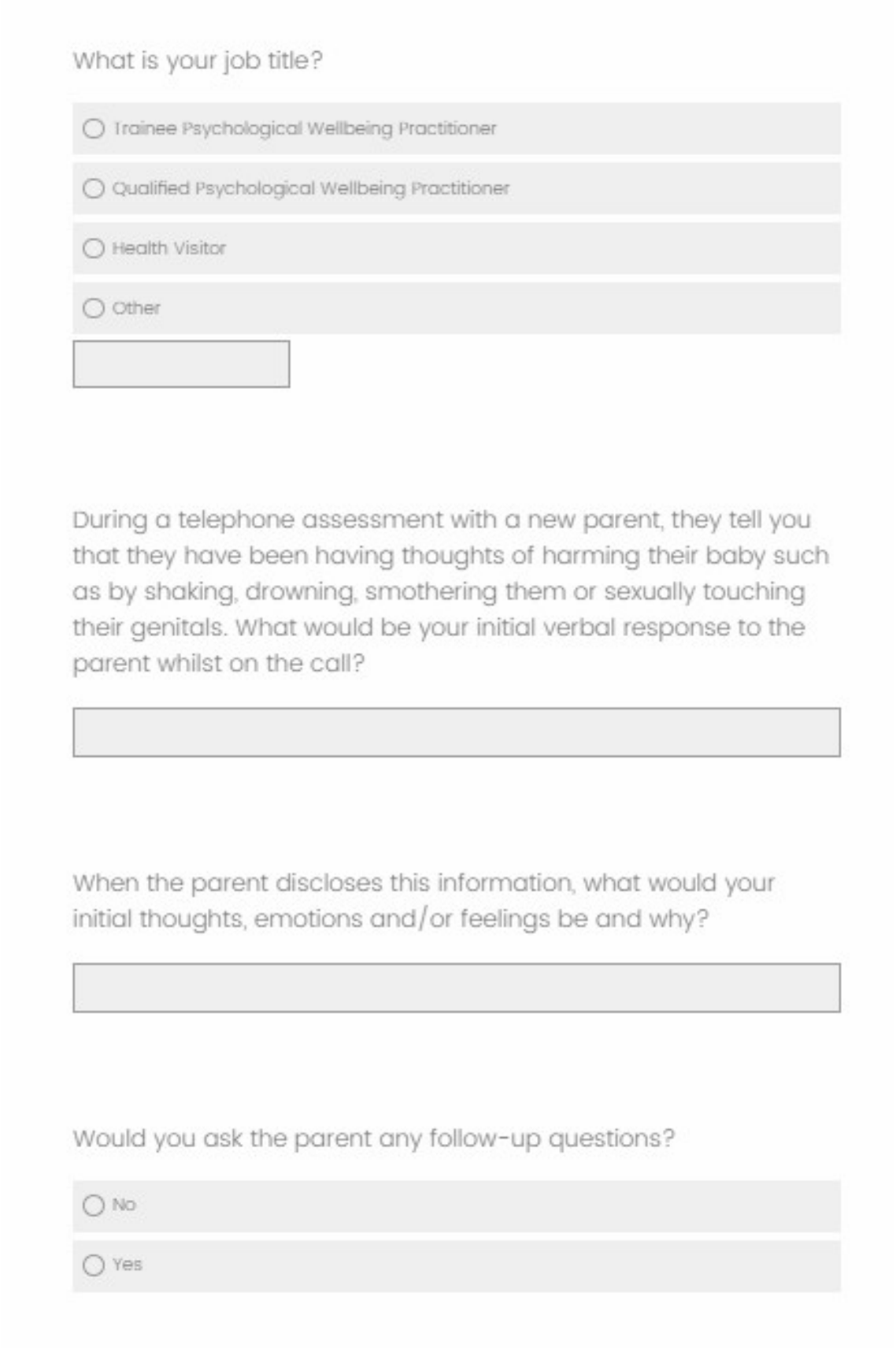


Confidence rating

What would your concerns be when dealing with such a presentation?

What would make you feel more confident in dealing with such a presentation?

Post-Intervention Staff Surveys:



What is your job title?

- ◯ Trainee Psychological Wellbeing Practitioner
- ◯ Qualified Psychological Wellbeing Practitioner
- ◯ Health Visitor
- ◯ Other

During a telephone assessment with a new parent, they tell you that they have been having thoughts of harming their baby such as by shaking, drowning, smothering them or sexually touching their genitals. What would be your initial verbal response to the parent whilst on the call?

When the parent discloses this information, what would your initial thoughts, emotions and/or feelings be and why?

Would you ask the parent any follow-up questions?

- ◯ No
- ◯ Yes

As the telephone assessment continues, the parent discloses that they find the thoughts of harming their baby to be unwanted, distressing, and they do not want to act on them. What would be your initial verbal response to the parent following this disclosure?

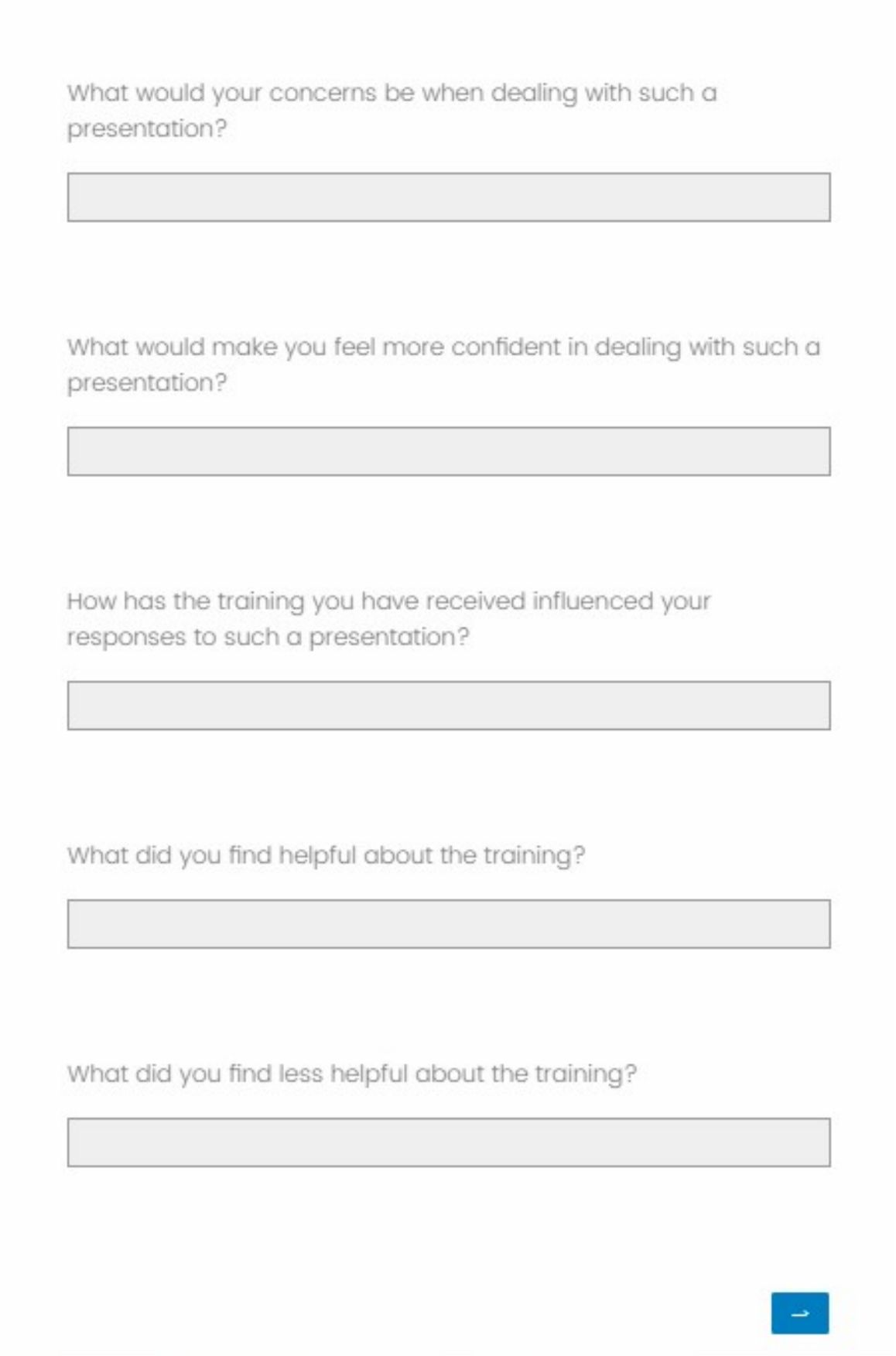
Following the telephone assessment, what steps would you take with regards to dealing with this presentation? (Select as many as relevant)

- [ ] Refer for Cognitive Behavioural Therapy (CBT)
- [ ] Refer to Safeguarding / Social Services
- [ ] Discuss the case with my supervisor
- [ ] Discuss the case with Safeguarding staff
- [ ] Refer for general counselling
- [ ] Refer to GP
- [ ] Other

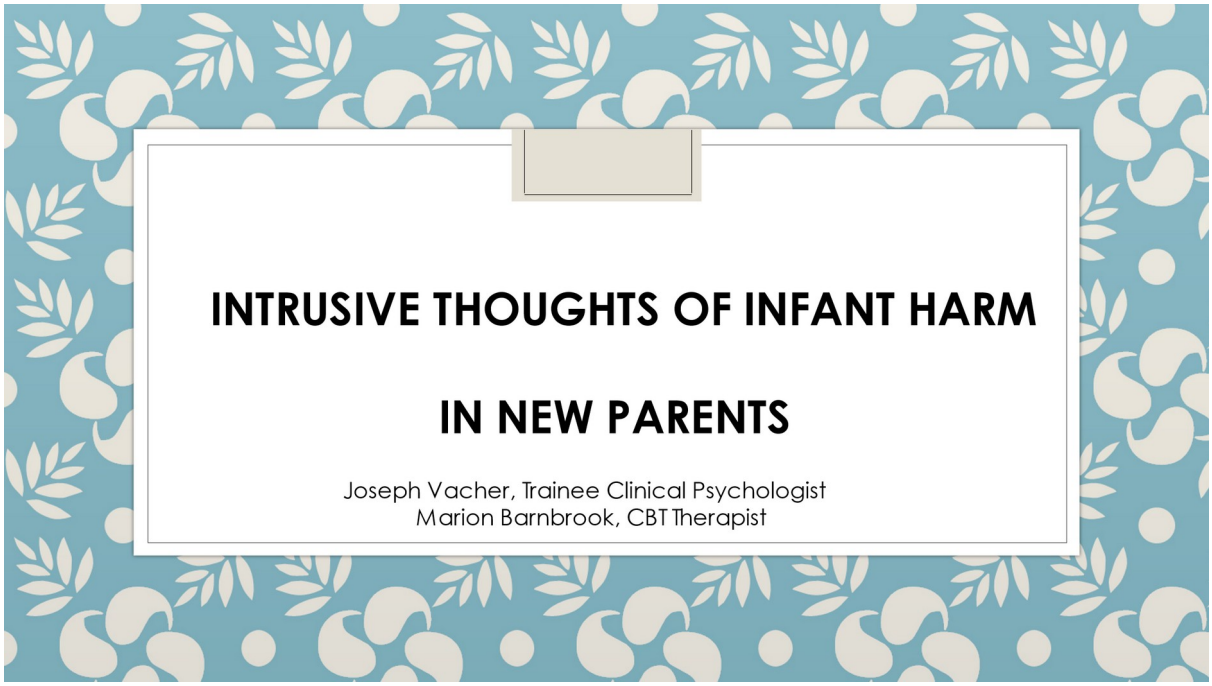
On a scale of 0 - 100, please indicate how confident would you feel in managing this situation? (0 = not at all confident, 50 = neutral, 100 = very confident).



Confidence Rating



Appendix 2d – SIP Intervention (Training and Handouts)



Overview:

- What are intrusions?
- Common intrusions in postnatal period
- How to respond to intrusion disclosures
- Risk assessment

Trigger warning: reference to intrusions and obsessions related to harm of infants

Michelle & Baby Henry



Michelle & Baby Henry



Michelle & Baby Henry



What Are "Intrusions"?

- Unwelcome thoughts, images, urges, worries and/or doubts that repeatedly appear in a person's mind
- These are extremely common in the general population (up to 84% of people report experiencing sexual intrusive thoughts)
- Most people simply let the intrusion go (or barely even notice it!)
- However, some people experience great anxiety and/or discomfort

Common Intrusion Themes

SEXUAL



VIOLENT



RELIGIOUS



MAGICAL



Common Intrusions in Perinatal Period

- Thoughts
  - "What if I smothered my baby whilst they cry?"
  - "Put the baby in the oven/microwave"
- Images
  - Touching the baby's genitals in a sexual manner
  - Pushing the pram into busy traffic
- 'Urges'
  - To push the baby's fontanelle (soft spot on their head)
  - To shake the baby
- Doubts
  - "Did I just feel physically aroused when bathing my baby?"
  - "Am I having the image of hurting my baby because I would like to do this?"
  - "Did I spend too long touching my baby's genitals when changing their diaper?"

Common Clinician Concerns

- Do intrusions indicate actual risk of harm to the child?

There are no recorded cases of people with obsessive-compulsive intrusions acting on their thoughts

- Will I increase the risk of patient acting on thought if I enquire, or upset them?

There is no evidence that enquiring about intrusions increases likelihood of patient acting on thought

Common Clinician Concerns

- What if the parent doesn't tell me that they are experiencing intrusions?

Parents very rarely spontaneously volunteer having intrusive thoughts of harming their child due to fear of negative outcomes

"I have spoken to new parents in the past that have had unwanted thoughts about their baby that have bothered them, and together we found useful ways of helping them"

- How do I respond to these disclosures?

Normal for staff to feel uncomfortable or worried

Where possible, respond in a calm and confident manner, noting that such experiences are extremely common and by themselves indicate nothing sinister

Common Patient Concerns During Assessment

"What if they think I actually want to hurt my child?"

"I am going to be locked up"

"I can't even say the words out loud"

"They will be petrified of me"

"They will think I am crazy"

"This feels like a dirty secret"

"What is wrong with me?"

"I am so fearful"

"I am scared"

"It feels like I am opening up my soul to somebody"

"If they talk about social services that will shut me off straight away"

"I could easily not disclose these thoughts during this assessment"

What do patients believe helps?

- **Instantly acknowledge the distress**
  - Before risk assessing, take a moment to recognise how brave the parent has been in disclosing these scary intrusions
  - Thank them for sharing this with you and reinforce that they have done the correct thing

- **Normalise the intrusions**
  - Respond calmly and confidently, noting that this is a really common experience for new parents
  - Where appropriate, share your own experiences with intrusions (e.g., an urge to throw your phone out of the car window)

What do patients believe helps?

- **Display your understanding of OCD**
  - Parents can sometimes feel too scared to disclose the full extent of their intrusions
  - Confidently and curiously explore, e.g., "we know that some parents have thoughts about..."
- **Recognise that many parents have been waiting years for this moment**
  - Some parents waited 10 years before coming to IAPT
  - All parents detailed poor experiences with staff in the past which made them too scared to seek further help

Responding to Disclosures

- **Validate**
  - "Thank you for sharing this with me, I can imagine that was incredibly difficult and we know that such experiences can be very scary, and we are going to find the best way to support you"
- **Normalise**
  - "Having scary and unwanted thoughts, images, urges or doubts is actually very common and make you no more likely to harm your child than any other parent"

Responding to Disclosures

- **Advise**
  - "There is no need to avoid situations that increase these experiences. Actually, avoiding these things tends to increase their frequency."
- **Refer**
  - Milton Keynes Talking Therapies – Cognitive Behavioural Therapy
    - cnw-tr.iaptmiltonkeynes@nhs.net 01908 725099
  - Self-help materials
    - https://www.rcpsych.ac.uk/mental-health/problems-disorders/perinatal-ocd
  - If necessary, CNWL safeguarding nurses
    - Carol Smith, 01908 725072, carol.smith46@nhs.net

Risk Assessment

- Staff should aim to clarify the following:
  - Is the parent indifferent to the intrusions?
  - Is the parent emotionally unaffected by the thoughts?
  - Does the parent purposefully trigger the thoughts? E.g., for pleasure.
  - Does the parent decline help to manage the thoughts?
  - Does the parent plan to act out the thoughts?
  - Has the parent ever intentionally harmed the infant?
- Negative answers are entirely consistent with a very minimal risk of a parent deliberately harming their infant.
  - Conversely, an affirmative answer to the initial four questions does not necessarily indicate that a parent will harm their infant. Rather, the overall clinical picture from these questions is more informative.
- However, if the parent acknowledges intention to act out the thoughts or has a history of previously harming the infant, risk factors need to be considered seriously.

Risk Assessment

- Remember to thoroughly risk assess the parent themselves!
  - Parent themselves may be at greater risk due to shame, guilt and perceived isolation
  - Self-harm, self-punishment (e.g., hitting head to "stop thoughts"), fluid/food intake, medication compliance?
  - Thoughts, plans and/or intent to end life?

"Opening up to somebody made me realise that it isn't just you... you're not alone... that other people have them...

***I'm completely normal.**"*

THANK YOU

MK IAPT patients
Marion Barnbrook
Holly Fountain

THANK YOU FOR LISTENING

Any questions or comments?

https://psychiatryoxford.qualtrics.com/jfe/form/SV_9zVjoES3W0v4rR4

Staff Handout:

RESPONDING TO INTRUSIVE THOUGHT DISCLOSURES BY NEW PARENTS

Validate

"Thank you for sharing this with me, I can imagine that was incredibly difficult and we know that such experiences can be very scary, and we are going to find the best way to support you"

Normalise

"Having scary and unwanted thoughts, images, urges or doubts is actually very common and make you no more likely to harm your child than any other parent"

Advise

"There is no need to avoid situations that increase these experiences. Actually, avoiding these things tends to increase their frequency."

Refer

Milton Keynes Talking Therapies – Cognitive Behavioural Therapy

cnw-tr.iaptmiltonkeynes@nhs.net 01908 725099

Self-help materials

https://www.rcpsych.ac.uk/mental-health/problems-disorders/perinatal-ocd

If necessary, CNWL safeguarding nurses

Carol Smith

01908725072, carol.smith46@nhs.net

RISK ASSESSMENT

Staff should aim to clarify the following:

- Is the parent indifferent to the intrusions?
- Is the parent emotionally unaffected by the thoughts?
- Does the parent purposefully trigger the thoughts? E.g., for pleasure.
- Does the parent decline help to manage the thoughts?
- Does the parent plan to act out the thoughts?
- Has the parent ever intentionally harmed the infant?

Negative answers are entirely consistent with a very minimal risk of a parent deliberately harming their infant.

Conversely, an affirmative answer to the initial four questions does not necessarily indicate that a parent will harm their infant. Rather, the overall clinical picture from these questions is more informative.

However, if the parent acknowledges intention to act out the thoughts or has a

history of previously harming the infant, risk factors need to be considered seriously.

Remember to thoroughly risk assess the parent themselves!

- Parent themselves may be at greater risk due to shame, guilt and perceived isolation
- Self-harm, self-punishment (e.g., hitting head to "stop thoughts"), fluid/food intake, medication compliance?
- Thoughts, plans or intent to end life?

Appendix 2ce – SIP Instructions to Authors

Midwifery (Elsevier) author guidelines can be accessed via

https://www.elsevier.com/wps/find/journaldescription.cws_home/623060?generatepdf=true

Article structure

Full length articles and reviews should be approximately 5,000 words in length, excluding references, tables and figures.

Double-blind peer review - This journal uses double-blind review, which means that both the reviewer and author name(s) are not allowed to be revealed to one another for a manuscript under review. The identities of the authors are concealed from the reviewers, and vice versa. To facilitate anonymity, the author's names and any reference to their addresses should only appear on the title page.

Blinded manuscript (no author details): The main body of the paper (including the references, figures and tables) should not include any identifying information, such as the authors' names or affiliations. Authors should also ensure that the place of origin of the work or study, and/oror the organization(s) that have been involved in the study/development are not revealed in the manuscript – "X" can be used in the manuscript and details can be completed if the manuscript is processed further through the publication process.

Headings

Headings in the article should be appropriate to the nature of the paper. Research papers should follow the standard structure of: Introduction (including review of the literature), Methods, Findings and Discussion.

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Methods

Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

Results

Results should be clear and concise.

Discussion

This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Please note that the Title Page should be provided as a separate file.

Essential title page information

• ***Title.*** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.

• ***Author names and affiliations.*** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.

• ***Corresponding author.*** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**

• ***Present/permanent address.*** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

•Authors are also encouraged to include their personal Twitter handles on the title page if they wish for these to be published.

Title page information and declarations.

Authors are required to make certain declarations on their Title Page under the following mandatory headings 1-3, and in the order given here:

(1) Conflict of Interest,

(2) Ethical Approval,

(3) Funding Sources. If some, or all three, do not apply, please still include the headings and state "None declared" / "Not applicable" next to them if necessary (for example "Conflict of Interest - None Declared").

Further headings may be used if applicable:

(4) Clinical Trial Registry and Registration number (if applicable) and

(5) Acknowledgments (if applicable).

Authors are also required to upload a completed Conflict of Interest checklist for each author (corresponding author and co-author's) from the ICMJE website - http://icmje.org/conflicts-of-interest/ as a separate 'Supplementary Material' file entitled "Conflict of Interest Checklist".

Highlights

Highlights are optional yet highly encouraged for this journal, as they increase the

discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights. Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract

A summary should be in the 'Structured Summary Format' giving objective, design, setting, participants, interventions (if appropriate), measurements and findings, key conclusions and implications for practice (see https://www.elsevier.com/__data/promis_misc/midwifery-abstracts.pdf, Vol 10, p58 for further information).

Highlights

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

See https://www.elsevier.com/highlights for examples.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords. The purpose of these is to increase the likely accessibility of your paper to potential readers searching the literature. Therefore, ensure keywords are descriptive of the study. Refer to a recognised thesaurus of keywords (e.g. CINAHL, Medline) wherever possible.

Abbreviations

As this is an international journal, please note that abbreviations can be used but the full name of the organisation must be included. No abbreviations should be used in abstracts.

Acknowledgements

For original submissions Acknowledgements should be included in the title page file to facilitate blinded review. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, it is recommended to include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References

Citation in Text

Please ensure that every reference cited in the text is also present in the reference list (and vice

versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not permitted. Citations of a reference as 'in press' implies that the item has been accepted for publication.

Appendix 3a – TDRP Instructions to Authors

Psychology of Sexual Orientation and Gender Diversity author guidelines can be accessed via https://www.apa.org/pubs/journals/sgd

Abstract and keywords

All manuscripts must include an abstract containing a maximum of 250 words typed on a separate page.

After the abstract, please supply up to five keywords or brief phrases.

PSOGD encourages submissions from all countries and aspires to disseminate knowledge about sexual orientation and gender diversity internationally.

To this end, authors should submit abstracts and keywords in English and, if they wish, in addition provide abstracts in any other language(s) relevant to the submission in question.

Specifically, authors may submit abstracts and keywords in languages in addition to English in the following circumstances:

- When the research subjects or content matter involve non-English speaking populations
- When the authors are based in a non-English speaking country or comprise a multi-national team with some members from non-English speaking countries.
- There may be other circumstances where authors wish abstracts in other languages to be included. These should be reviewed and approved by the founding editor.

Note that all submissions must include an abstract and keywords in English.

Formatting

Double-space all copy. Other formatting instructions, as well as instructions on preparing tables, figures, references, metrics, and abstracts, appear in the *Manual*. Additional guidance on APA Style is available on the APA Style website.

Below are additional instructions regarding the preparation of display equations, computer code, and tables.

References

List references in alphabetical order. Each listed reference should be cited in text, and each text citation should be listed in the references section.

Appendix 3b – Recruitment Poster

Self-Stigma and Intrusive Thought Sensitivity in Lesbian, Gay and Bisexual (LGB) versus Heterosexual Individuals

Ethics Approval Reference: [R78379/RE001]

VOLUNTEERS NEEDED FOR ONLINE RESEARCH EXPLORING THE RELATIONSHIP BETWEEN SEXUALITY, STIGMA AND DISTRESSING INTRUSIVE THOUGHTS



Random intrusive thoughts that pop into the mind about things like sex and violence are really common, but some people find them really distressing. Psychologists have found that Lesbian, Gay and Bisexual (LGB) people report feeling more distressed about certain intrusive thoughts compared to Heterosexual people. We want to further explore why this might be so that we can improve mental health treatment for LGB people.

We are looking for Heterosexual, Lesbian, Gay or Bisexual volunteers to complete a series of online questionnaires regarding your mood, some features of your personality and how you typically respond to certain thoughts. The research will take about 20 minutes.

If you are 18 years of age or above, can read and write in English language, and self-identify as a man or woman who is attracted to: the opposite sex (Heterosexual), the same sex (Gay or Lesbian), or both sexes (Bisexual) you are eligible for participation.

If you self-identify as a sexual orientation not listed above (e.g., asexual, pansexual, etc.) you are not eligible for participation since this project aims to extend previous research on LGB and Heterosexual populations.

If you are interested, please follow the link or scan the QR code below:

https://psychiatryoxford.qualtrics.com/jfe/form/SV_3LgbTIDn7S2zllQ

If you would like more information, contact joseph.vacher@hmc.ox.ac.uk. There is no obligation to take part. Thank you!

Hover over this with your phone camera!

Appendix 3cb – TDRP Adapted ISMI-9

These are the final questions! They relate to how your sexuality might influence how you view yourself and others.

We are going to use the term “my sexuality” in the rest of this questionnaire, but please think of it as whatever you feel is the best term for it. For example, if you are of a Straight sexuality, you might think of it as "being Straight" or "heterosexuality", and if you are of a Gay sexuality you might think of it as "being Gay" or "homosexuality".

For each question, please mark whether you strongly disagree (1), disagree (2), agree (3), or strongly agree (4).

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
Stereotypes about my sexuality apply to me	○	○	○	○
In general, I am able to live life the way I want to	○	○	○	○
Negative stereotypes about my sexuality keep me isolated from the ‘normal’ world	○	○	○	○
I feel out of place in the world because of my sexuality	○	○	○	○
Being around people who don’t have the same sexuality as me makes me feel out of place or inadequate	○	○	○	○
People who do not have the same sexuality as me could not possibly understand me	○	○	○	○
Nobody would be interested in getting close to me because of my sexuality	○	○	○	○
I can’t contribute anything to society because of my sexuality	○	○	○	○
I can have a good, fulfilling life, despite my sexuality	○	○	○	○