



Disorder Relevant or Disorder Specific: Measuring Fear of Losing Control in Relation To the Experience of Anxiety and Related Issues

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Abstract

Objectives Research suggests fear of losing control may play a role in multiple anxiety disorders. However, the question of disorder specificity versus disorder relevance has not been examined in fear of losing control. Focusing on cognitive factors related to the experience of OCD and panic disorder, this study aimed to develop an extended questionnaire—the Fear of Losing Control Inventory (FOLCI)—that taps into potentially disorder-specific aspects of feared loss of control.

Methods A pool of potential FOLCI items was administered to a non-clinical sample ($n=603$), along with the existing Beliefs About Losing Control Inventory-II (BALCI-II) and other psychological measures. FOLCI and BALCI-II items were subjected to exploratory factor analyses. Exploratory regression analyses examined the relationship between FOLCI and BALCI-II subscales, and symptoms of psychopathology.

Results Six factors were derived, accounting for 71.25% of variance: ‘Agent of Harm’, ‘Thoughts and Feelings’, ‘Self-appraisals’, ‘Timeframe’, ‘Bodily Sensations’ and ‘Escape and Avoidance’. In exploratory regression analyses, the FOLCI and BALCI-II were significant predictors of symptoms of OCD, panic, generalized anxiety, depression and functional impairment, as was the FOLCI’s Thoughts and Feelings subscale, and the BALCI-II’s inflated beliefs about Probability/Severity subscale.

Conclusions Fear of losing control may be relevant across anxiety disorders, and possibly in depression too. Exploratory analyses suggest fear of losing control of thoughts and feelings, and inflated beliefs about the probability and severity of loss of control, are potentially transdiagnostic. Possible domains of disorder specificity include fear of losing control of bodily sensations, and the timeframe within which a catastrophe would occur following a feared loss of control.

Introduction

Research has identified a number of fears and cognitive constructs that are specific to particular anxiety disorders, including fear of: negative social evaluation in social anxiety

disorder (Winton et al., 1995); specific objects in specific phobias (Thorpe & Salkovskis, 1995); ill health in health anxiety (Salkovskis & Warwick, 1986); responsibility for harm in Obsessive Compulsive Disorder (OCD) (Salkovskis & Warwick, 1985); and imminent physiological harm to

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self in panic disorder (Clark, 1986). Identifying disorder-specific fears has underpinned the development of effective disorder-specific cognitive behavioural treatments for anxiety disorders (Hofmann et al., 2012).

In recent years, research has tended to shift focus to identifying transdiagnostic mechanisms that cut across diagnostic boundaries (Mansell et al., 2008). Numerous transdiagnostic cognitive mechanisms have been identified, including worry and rumination, which is relevant to Generalised Anxiety Disorder (GAD), panic, social anxiety, and depression (McEvoy et al., 2013), inflated sense of responsibility across GAD and OCD (Pozza & Dèttore, 2014; Sugiura & Fisak, 2019), intolerance of uncertainty across GAD, OCD and panic disorder (Vander Haegen & Etienne, 2016), as well as various control related constructs.

Perceived control—the extent to which one perceives oneself as having control over internal emotional experiences and external threats (Barlow, 2002)—was found to be negatively correlated with symptoms across anxiety disorders in a meta-analysis (Gallagher et al., 2014). Research suggests change in perceived control may be a transdiagnostic predictor of CBT outcomes (Gallagher et al., 2014). Metacognitive beliefs about the uncontrollability of worrying thoughts were found to predict symptoms of emotional distress, depression and anxiety four to five months later (Salguero & Ramos-Cejudo, 2023).

This builds on a broad body of research underscoring the importance of control-related beliefs in multiple anxiety disorders, including OCD (Sandstrom et al., 2024), panic (Clark, 1986; Sanderson et al., 1989) and social anxiety (Cloitre et al., 1992). Despite earlier indications that the fear of losing control may be important across anxiety disorders (Chambless & Gracely, 1989), it is only recently that research has focused on elaborating the construct of feared loss of control (Radomsky, 2022).

Radomsky and Gagné (2020) initially focused on fear of losing control in OCD, developing the Beliefs About Losing Control Inventory (BALCI) to measure that construct. Three factors were identified: (1) Negative beliefs about losing control over one's thoughts, behaviour, and emotions; (2) Beliefs about the importance of staying in control; and (3) Beliefs about losing control over one's body/bodily functions.

Subsequent experimental research suggested fear of losing control might play a causal role not only in OCD symptoms, including checking behaviour (Gagné & Radomsky, 2017) and anxiety and intrusions (Gagné & Radomsky, 2020), but also in social anxiety symptoms (Gagné et al., 2021; Kelly-Turner & Radomsky, 2020, 2022). As such, Kelly-Turner and Radomsky (2024b) expanded the BALCI to incorporate a wider range of fears about losing control across thoughts, feelings, behaviours, emotions and

physiological sensations. The BALCI-II (Kelly-Turner & Radomsky, 2024b) includes four subscales (1) Overwhelming Emotions; (2) Dangerous Behaviour; (3) Madness; (4) Inflated beliefs about probability/severity of loss of control. The BALCI-II predicted symptoms of OCD and social anxiety—but not panic—independently of general psychopathology and belief domains relevant to each disorder.

Radomsky (2022) suggested fear of losing control may be broadly transdiagnostic, but speculated that some domains may differ between disorders, such as thoughts in OCD, and physical sensations in panic and social anxiety. However, the question of disorder specificity versus disorder relevance (Salkovskis & Clark, 1993) has not been examined in fear of losing control. That is, the extent to which particular constructs are uniquely associated with a diagnosis (disorder specific), as opposed to factors which play a role across several diagnoses and are relevant to their maintenance (disorder relevant).

The BALCI-II sought to incorporate a wider range of beliefs about losing control potentially pertinent to multiple anxiety disorders. However, we take the view that the scale taps into disorder-relevant rather than disorder-specific beliefs. As such, the present study aimed to: (1) develop an extended questionnaire that taps into aspects of feared loss of control that are potentially disorder specific; (2) develop hypotheses regarding the disorder specificity /relevance of feared loss of control that could subsequently be tested with a clinical sample. The study focused on OCD, in which there is already an established relationship with control related constructs (Sandstrom et al., 2024) and fear of losing control (Sandstrom & Radomsky, 2024), and panic disorder, in which the importance of control related constructs (Chambless & Gracely, 1989; Clark, 1986)—but not yet fear of losing control (Kelly-Turner & Radomsky, 2024b)—is well-established.

Methods

Participants

The study aimed to recruit a general community sample through social media (Twitter, Facebook, Reddit and Next-Door), the University of Oxford website and newsletters. People aged 18 and over, based in the UK and fluent in English were invited to participate. A typical social media recruitment message ran as follows: “*Can you help us with #PsychologicalResearch? #OxfordUniversity are looking for UK-based volunteers to participate in a 20-minute online survey exploring fears about losing control. You can participate here [Link to Qualtrics survey]*”.

The study aimed to recruit a minimum of 10 participants per questionnaire item to be included in factor analysis (Nunnally & Bernstein, 1994). With the 32-item BALCI-II and a pool of 45 potential items for the novel Fear of Losing Control inventory (FOLCI) combined, the study therefore aimed to recruit 770 participants. The study recruited 985 participants. 352 participants did not complete the survey and were therefore excluded. Of the remaining 633 participants, 30 were excluded because they failed one or more of the two attention checks. This left 603 participants who were included in factor analyses (84.6% female, 93.9% white, mean age = 46.59, SD = 14.7).

Although the study recruited from the general community, on average participants showed clinical levels of symptomatology across all psychological measures. On average, participants reported moderate symptoms of depression on the PHQ-8 (Kroenke et al., 2009; $M=10.24$, $SD=6.56$), moderate OCD symptoms on the OCI-R (Abramovitch et al., 2020; $M=20.18$, $SD=30.52$), mild to moderate anxiety symptoms on the GAD-7 (Spitzer et al., 2006; $M=9.12$, $SD=6.02$), borderline symptoms of panic disorder on the PDSS (Furukawa et al., 2009; $M=6.75$, $SD=7.13$) and a WSAS score associated with “significant functional impairment but less clinical symptomatology” (Mundt et al., 2002; $M=16.3$, $SD=9.74$) (Table 1).

Design and Procedure

The study was conducted online using Qualtrics. Participants were initially presented with the participant information sheet and invited to provide consent. They then completed demographic measures, and the pool of potential FOLCI items along with other questionnaires.

Participants were invited to consent to participate in a follow-up one week later to evaluate test-retest reliability. 210 participated and 205 completed the FOLCI retest ($M=7.51$, $SD=2.21$ days).

The Fear of Losing Control Inventory (FOLCI)

A pool of potential items for the FOLCI was developed by drawing on: (a) theoretical principles rooted in cognitive theories of OCD and panic (e.g. Clark, 1986; Salkovskis & Warwick, 1985) (b) Kelly-Turner and Radomsky’s (2024b) BALCI-II, and perceived gaps therein pertaining to OCD and panic disorder; (c) consultation with service users, experienced clinicians and written lived experience accounts of OCD and panic.

Four themes supplementary to the BALCI-II were identified as potentially containing disorder specificity, and therefore able to differentiate between people with OCD and panic: (1) consequences and self-appraisals linked to

loss of control; (2) the focus of loss of control (thoughts vs. bodily sensations); (3) the timeframe within which catastrophic consequences would occur following loss of control (immediate versus delayed catastrophe); (4) perceived agency related to locus of control (the extent to which loss of control is related to factors that can/cannot be controlled). See Supplementary Material 1 for further theoretical details.

Twenty-two new items captured consequences, self-appraisals and perceived appraisals by others that would result from loss of control. Themes specific to OCD, included responsibility for causing harm (e.g. “If I lost control, I might hurt someone”) and self as dangerous (e.g. “If I lost control, it would mean I am a dangerous person”; Ferrier & Brewin, 2005) and panic, such as impending harm to self (e.g. “If I lost control, something bad might happen to me”) and madness (Chambless et al., 1984; e.g. “If I lost control, people would think I’m mad”).

The focus of feared loss of control (i.e. thoughts, feelings, bodily sensations), is broadly covered in the BALCI-II. Two supplementary items were included, tapping into the OCD-specific construct of thought action fusion (Shafran et al., 1996; “I am afraid of acting out my thoughts against my will”), and the panic-relevant misinterpretation of bodily sensations (Clark, 1986; “Feeling an unusual sensation in my body means I am likely to lose control”).

It was hypothesised that perceived catastrophes associated with loss of control would be more imminent in panic disorder than in OCD, and nine new timeframe items tapped into these hypothesised differences (e.g. “If I lost control, something bad could happen immediately”; “If I lost control, something bad could happen in the following weeks”).

Locus of control (LOC; Rotter, 1966) is characterised by the extent to which individuals perceive outcomes as contingent on their own actions (internal LOC), or on chance or powerful others (external LOC). Twelve new items reflected potential differences in locus of control, with OCD linked with lower external LOC (Kennedy et al., 1998) and panic with elevated endorsement of the chance component of external LOC (Cloitre et al., 1992; e.g. “I am afraid of losing control of things I can directly control”; “The best way for me to avoid losing control is to avoid stressful situations”).

Consultation with Experts by Experience

During the development of these categories, people with lived experience of OCD and panic disorder were consulted to explore their phenomenological experience of fear of losing control, and to seek their perspectives on the relevance of potential categories. These experts by experience were recruited through OCD and panic disorder charities, with the specific requirement that they have lived experience of OCD or panic disorder. Two items emerged specifically

Table 1 Descriptive statistics for demographic and psychological variables

Variable	<i>n</i>	%
Gender		
Female	510	84.6
Male	74	12.3
Non-binary	12	2.0
Gender Neutral	1	0.2
Gender queer	1	0.2
Prefer not to say	5	0.8
<i>Ethnicity</i>		
White	566	93.9
Asian	17	2.8
Mixed	12	1.7
Jewish	1	0.2
Latin	1	0.2
Other	4	0.7
Prefer not to say	2	0.3
<i>Education</i>		
No formal qualification	11	1.8
Primary	2	0.3
Secondary	79	13.1
Post-Secondary Diploma or prof qual	114	18.9
Undergraduate Degree	182	30.2
Postgraduate Degree	215	35.7
<i>Employment</i>		
Paid work	369	61.2
Unpaid work	21	3.5
On sick leave	34	5.6
Not employed	167	27.7
Prefer not to say	12	2.0
<i>Psychological therapy past or present</i>		
Yes	462	76.6
No	141	23.4
<i>Currently taking medication for mental health</i>		
Yes	261	43.3
No	342	56.7
	<i>M</i>	<i>SD</i>
Age	46.59	14.70
<i>Psychological variables</i>		
WSAS	16.30	9.74
PHQ-8	10.24	6.56
GAD-7	9.12	6.02
OCI-R	20.18	14.67
PDSS	6.75	7.13
BALCI-II	41.88	30.52
Overwhelming Emotions	16.31	9.46
Dangerous Behaviour	6.89	8.22
Madness	7.96	8.25
Probability/ Severity	10.71	7.84
FOLCI	64.75	46.46
Agent of Harm	11.38	13.65
Thoughts and Feelings	19.64	14.52
Appraisals	11.47	11.06
Timeframe	10.87	10.55
Bodily Sensations	5.07	6.02
Escape and Avoidance	9.87	5.29
Immediate Catastrophe	2.10	1.19

Table 1 (continued)

Variable	<i>n</i>	%
Gender		
Delayed Catastrophe	2.30	1.22
FOLCI Retest	76.24	47.75

WSAS=Work and Social Adjustment Scale; PHQ-8=The eight-item Patient Health Questionnaire depression scale; GAD-7=Generalized Anxiety Disorder-7; OCI-R=Obsessive Compulsive Inventory-Revised; PDSS=Panic Disorder Severity Scale; BALCI-II=Beliefs About Losing Control Inventory-II; FOLCI=Fear of Losing Control Inventory; FOLCI Retest=total FOLCI score at retest (*n*=205)

from these discussions: “If I get everything straight in my head, I can avoid losing control”; “It is important to maintain control of my surroundings”.

Once the final pool of items was agreed upon, it was reviewed by people with lived experience of OCD and panic disorder to check for clarity, comprehensibility and acceptability.

Items were answered using a 5-point Likert scale (0 = “not at all true”, 1 = “slightly true”, 2 = “moderately true”, 4 = “very true”, and 5 = “totally true”).

Measures

Psychological Measures

BALCI-II (Kelly-Turner & Radomsky, 2024b): The BALCI-II is a 32-item self-report scale that measures beliefs and fears about losing control. Items are rated on a five-point Likert scale. (0 = “None at all”, 1 = “A little”, 2 = “Somewhat”, 3 = “A lot”, 4=A great deal). In the present study, following consultation with the researchers who developed the BALCI-II, the scale anchors were altered for clarity (0 = “Not at all true”, 1 = “Slightly true”, 2 = “Moderately true”, 3 = “Very true”, 4 = “Totally true”). The BALCI-II has shown good convergent and divergent validity, test-retest reliability, and excellent internal consistency across each of the four subscales (Overwhelming Emotions $\alpha=0.90$; Probability/Severity $\alpha=0.91$; Dangerous Behaviour $\alpha=0.92$; Madness $\alpha=0.90$) and the overall scale ($\alpha=0.96$; Kelly-Turner & Radomsky, 2024b). In the present study, the BALCI-II showed excellent Internal consistency (full scale $\alpha=0.97$; Overwhelming Emotions $\alpha=0.92$; Probability/Severity $\alpha=0.93$; Dangerous Behaviour $\alpha=0.94$; Madness $\alpha=0.94$).

The Work and Social Adjustment Scale (WSAS; Mundt et al., 2002). The five-item WSAS measures functional impairment on a 9-point Likert scale (0 = “not at all impaired” to 8 = “very severely impaired”) across five domains (work, home management, social leisure activities, private leisure activities and relationships). The WSAS has demonstrated convergent and discriminant validity, test-retest reliability and acceptable to excellent internal consistency ($\alpha=0.70$ to 0.94) (Mundt et al., 2002). In the present study, internal consistency was good ($\alpha=0.86$).

Obsessive Compulsive Inventory-Revised (OCI-R; Foa et al., 2002): The 18-item self-report OCI-R assesses OCD symptoms across six subscales (washing, checking, ordering, obsessing, hoarding and mental neutralising) with a five-point Likert scale (0 = “not at all,” to 4 = “extremely”). Scores range from 0 to 72, with 21 recommended as a cutscore (Foa et al., 2002). The OCI-R has demonstrated good convergent and discriminant validity, test-retest reliability and good to excellent internal consistency ($\alpha=0.90$) in a mixed clinical and non-clinical sample (Foa et al., 2002). OCI-R internal consistency was excellent ($\alpha=0.92$) in the present study.

Panic Disorder Severity Scale (PDSS; Shear et al., 1997): The seven-item self-report PDSS assesses severity of panic disorder symptoms (panic attack frequency, associated distress, anticipatory anxiety, agoraphobic and interoceptive avoidance, and occupational and social functional impairment) on a five-point Likert scale. Scores range from 0 to 28, with a recommended cut-off score of 8 (Shear et al., 2001). The scale has demonstrated convergent and discriminant validity, test-retest reliability and good internal consistency ($\alpha=0.88$; (Shear et al., 2001). PDSS internal consistency was excellent ($\alpha=0.95$) in the present study.

Generalised Anxiety Disorder-7 (GAD-7; Spitzer et al., 2006): The seven-item self-report GAD-7 assesses GAD symptoms (e.g. “feeling nervous, anxious, or on edge” and “worrying too much about different things”) with a 4-point Likert scale (0 = “not at all” to 3 = “nearly every day”). Scores range from 0 to 21, with a cutoff score of 10, and scores of 0–4 indicating minimal anxiety, 5–9 mild anxiety, 10–14 moderate anxiety and 15–21 severe anxiety (Spitzer et al., 2006). The GAD-7 has shown good test-rest reliability, excellent internal consistency ($\alpha=0.92$), and good convergent (Spitzer et al., 2006) and discriminant validity (Rutter & Brown, 2017). In the present study internal consistency was excellent ($\alpha=0.92$).

The eight-item Patient Health Questionnaire depression scale (PHQ-8; Kroenke et al., 2009). The eight-item self-report PHQ-8 assesses the presence of depression symptoms (e.g. ‘Feeling down, depressed, or hopeless’) during the preceding two weeks using a four-point Likert scale (0 = “not at all” to 3 = “nearly every day”). The PHQ-8 has a range of 0–24, and a cutoff score of 10 (Kroenke et al., 2009). It has demonstrated good internal reliability ($\alpha=0.87$; Arias de la

Torre et al., 2023) and construct validity (Kroenke et al., 2009), while the PHQ-9 (which includes an extra risk question) has shown excellent test-retest reliability (Kroenke et al., 2001). In the present study, internal consistency was excellent ($\alpha=0.91$).

Attention Check Measure

The survey included two questions designed to check participant attentiveness ((1) ‘For this question, please click [‘Moderately true’]’; (2) ‘Slightly true’). Of the 633 participants who completed the survey, 30 were excluded because they failed one or more of the two attention checks.

Ethical Considerations

Ethical approval for this study was granted by The University of Oxford Research Ethics Committee (R87791/RE001). Participants provided informed consent and were offered the right to withdraw their data up until survey completion. A debrief provided details of support services.

Data Analyses

All BALCI-II and FOLCI items were included in an exploratory factor analysis (EFA), which was conducted using principal axis factoring and promax rotation ($k=2$) as factors were expected to correlate (Dien, 2010; Hakstian, 1971). Kurtosis and skew were examined for each item, Bartlett’s test of sphericity was used to screen for adequate correlations, and collinearity was further checked by examining the correlation matrix for items with correlations of <0.3 or >0.9 (Field, 2018). A Kaiser-Meyer-Olkin (KMO) test was conducted to test for sampling adequacy, and the anti-image correlation matrix was checked for items with a KMO index of <0.5 .

Eigenvalues (with a threshold of 1.00; Kaiser, 1960) and scree plot were examined to determine how many factors to retain. Items were considered for retention if their loading was 0.40 or greater for a particular factor and less than 0.40 for other factors. Cross-loadings of individual items were then inspected by examining the ratio of the largest variance to the smallest variance, with <1.5 considered problematic cross-loading, and <2 considered potential cross-loading, with theoretical consistency considered in deciding whether to include or exclude individual items (Hair et al., 2019). A second EFA was conducted with the fixed number of factors determined in the previous analyses and factor loadings were checked again. The total variance accounted for by the factor solution was checked. Internal consistency was checked for the overall FOLCI and subscales using Cronbach’s alpha. Test-retest reliability was assessed by

calculating Spearman’s correlation coefficients for individual FOLCI items.

Exploratory regression analyses were conducted to compare the predictive value of the FOLCI with the BALCI-II. FOLCI or BALCI-II subscales were entered as predictor variables, with psychological variables (OCI-R, PDSS, WSAS, GAD-7, PHQ-8) entered as dependent variables in separate analyses. The variance accounted for by FOLCI and BALCI-II subscales was examined with reference to R^2_{Adjusted} (meaning adjusted to account for the number of independent variables).

Results

Data Screening

No items were excluded based on kurtosis (all items <3) and skewness (all items <2) checks. Bartlett’s test indicated adequate sphericity, $\chi^2_{(2926)}=50448.55$, $p<.001$. Collinearity checks showed no correlations between items >0.9 , while one item was excluded due to more than 15 correlations of <0.3 . The KMO test indicated sampling adequacy (KMO=0.98), with all individual scores >0.96 .

Factor Analysis

The initial EFA (see Supplementary Table S1), including all BALCI-II and FOLCI items, derived eight factors with an eigenvalue >1 . Ten items were removed due to factor loadings <0.4 , two were removed due to a cross-loading ratio <2 and three were removed for theoretical consistency. All items ($n=7$) in the two factors with the lowest eigenvalues were removed as the factors had three or fewer items with a loading >0.4 . A second EFA conducted with the 55 retained items found a six-factor solution (see Table 2), accounting for 71.25% of the variance. All items had loadings >0.4 , with little cross loading. The six factors were labelled as: ‘Agent of Harm’, ‘Thoughts and Feelings’, ‘Self-appraisals’, ‘Timeframe’, ‘Bodily Sensations’ and ‘Escape and Avoidance’.

Reliability

The factors showed good to excellent internal consistency (full scale $\alpha=0.98$; Agent of Harm $\alpha=0.97$; Thoughts and Feelings $\alpha=0.96$; Self-appraisals $\alpha=0.96$; Timeframe $\alpha=0.96$; Escape/ Avoidance $\alpha=0.85$; Bodily Sensations $\alpha=0.94$).

The FOLCI showed good test-rest reliability across all scales excluding BALCI-II items (Agent of Harm $r_s = 0.88$; Self-appraisals $r_s = 0.87$; Timeframe $r_s = 0.88$; Escape/

Table 2 Factor loadings from second exploratory factor analysis

Item source	Item	Factor loading					
		1	2	3	4	5	6
Factor 1: Agent of Harm							
F	If I lost control, I might hurt someone	0.89	-0.11	0.04	0.07	0.01	0.05
B _{DB}	I may lose control of myself and injure someone	0.86	0.03	-0.03	0.03	0.14	-0.03
B _{DB}	I'm afraid I might lash out and break something or hurt someone if I'm not careful	0.84	0.11	-0.01	-0.05	0.03	0.04
B _{DB}	If I get too angry, I might do something dangerous	0.84	0.11	0.01	0.00	0.02	0.03
F	I am afraid of losing control and doing something that would result in harm to others	0.76	0.00	0.10	0.09	-0.01	0.03
B _{DB}	If I can't always control my thoughts it means I might become a dangerous person	0.75	0.12	0.07	-0.02	0.11	-0.06
B _{DB}	If I lose control at the wrong time I might cause an accident or hurt someone	0.73	0.08	-0.05	0.13	0.10	0.01
F	If I lost control, it would mean I am a dangerous person	0.69	-0.03	0.29	0.08	0.02	0.02
F	If I lost control, I might do something bad	0.65	0.27	0.01	-0.08	-0.05	0.16
B _{DB}	If I lose control of my anger, I don't know what I might do	0.59	0.12	0.18	0.28	-0.05	-0.01
F	Losing control of my thoughts could lead to dangerous behaviour	0.55	0.17	0.18	0.22	-0.03	-0.02
F	I have to maintain control of myself to keep others safe	0.44	0.03	0.06	0.24	0.02	0.16
F	I am afraid of losing control and doing something awful	0.41	0.18	0.26	0.30	-0.03	0.03
Factor 2: Thoughts and Feelings							
B _{PS}	I am likely to lose control of my emotions	0.12	0.73	0.05	-0.02	0.08	0.00
B _{PS}	If I get too emotional, I worry that I might never calm down	0.10	0.71	0.05	0.01	0.01	0.16
B _{OE}	If I lose control over my emotions, I might go crazy	0.02	0.65	0.11	0.16	0.05	0.02
B _{PS}	I am afraid of losing control of my thoughts	0.09	0.65	0.09	-0.03	0.07	0.14
B _{PS}	I'm afraid that I might not be able to keep my emotions in check	0.12	0.65	0.04	0.01	0.11	-0.01
B _{OE}	If I can't control my emotions, I might lose control of my whole life	0.12	0.61	0.11	0.02	0.03	0.13
B _M	Having a bad thought puts me at risk of going crazy	0.01	0.61	0.17	0.11	0.19	-0.05
B _{PS}	I'm more likely to lose control than other people	0.09	0.61	0.08	0.07	0.10	0.06
B _M	If I have too many thoughts, I could lose control of my mind	0.08	0.60	0.09	0.16	0.09	0.08
B _{PS}	I'm concerned about my ability to handle my emotions	0.15	0.59	0.06	0.06	0.08	0.11
B _{PS}	I am likely to lose control over my thoughts	0.09	0.57	0.14	0.05	0.26	-0.09
B _M	If I don't manage the thoughts, images or impulses in my mind, I will lose control	-0.04	0.53	0.09	0.09	0.11	0.26
B _{OE}	If I lose control, I will get too anxious	0.11	0.51	0.12	0.16	0.19	0.09
Factor 3: Self-appraisals							
F	Losing control of my thoughts would mean I am a bad person	0.08	0.10	0.75	0.05	0.11	0.02
F	If I lost control, it would mean I am a disgusting person	-0.02	0.10	0.74	0.05	0.09	0.14
F	If I lost control, it would mean I am a weak person	0.06	0.09	0.69	0.11	0.13	-0.01
F	If I lost control, it would mean I am a bad person	0.12	0.12	0.68	0.08	0.00	0.08
F	If I lost control, people would think I'm a bad person	0.19	0.14	0.60	0.15	-0.09	0.13
F	If I lost control, people would think I'm an evil person	0.29	0.10	0.58	0.13	-0.01	-0.07
F	If I lost control, it would mean I am weird	0.05	0.03	0.57	-0.04	0.32	0.19
F	Losing control of my bodily sensations would mean I am a weak person	0.01	0.16	0.55	0.17	0.13	0.07
F	If I lost control, people would think I'm mad	0.10	0.29	0.42	0.16	0.01	0.13
Factor 4: Timeframe							
F	If I lost control, something bad could happen in the following days	0.19	0.08	0.18	0.64	0.05	0.00
F	If I lost control, something bad could happen within minutes	0.28	0.04	0.16	0.59	0.09	0.02
F	If I lost control, something bad could happen later	0.15	0.10	0.21	0.59	0.02	0.09
F	If I lost control, something bad could happen in the following weeks	0.13	0.05	0.26	0.56	0.03	0.07
F	If I lost control it would eventually lead to a catastrophe	0.19	0.12	0.24	0.52	0.03	0.08
F	If I lost control, something bad could happen within seconds	0.24	0.07	0.16	0.47	0.21	0.04
F	If I lost control, it could result in a cascade of consequences	0.19	0.17	0.24	0.44	-0.09	0.20
F	If I lost control, something bad could happen immediately	0.26	0.14	0.13	0.43	0.17	0.10
F	If I lost control, it would result in an immediate catastrophe	0.19	0.15	0.24	0.41	0.10	0.04
Factor 5: Bodily Sensations							

Table 2 (continued)

Item source	Item	Factor loading					
		1	2	3	4	5	6
Factor 1: Agent of Harm							
B _M	I might lose control if I feel a strange sensation in my body	0.05	0.16	0.04	0.03	0.71	0.08
F	Feeling an unusual sensation in my body means I am likely to lose control	0.00	0.17	0.10	0.08	0.71	0.06
B _M	If I feel weird in my body in ways I can't explain, it means I'm about to completely lose it	0.12	0.28	0.06	-0.02	0.65	0.01
B _M	If I can't keep physical sensations in check, I may never regain control	0.04	0.34	0.07	0.00	0.59	0.06
B _M	Feeling shaky means I am about to go insane	0.15	0.25	0.14	0.06	0.50	-0.06
B _M	If I don't control my physical sensations, I might go crazy	0.07	0.37	0.01	0.12	0.47	0.08
Factor 6: Escape and Avoidance							
B _{OE}	Staying in control of my emotions means things won't get out of hand	0.14	0.13	0.02	0.05	0.05	0.58
F	If I get everything straight in my head, I can avoid losing control	0.05	0.18	0.08	0.04	0.08	0.56
F	If I start to feel out of control in a situation, the best thing to do is to leave that situation	-0.06	0.07	0.23	0.08	-0.01	0.54
F	It is important to ensure I can easily escape a situation in case I lose control	0.15	0.21	0.01	0.14	0.15	0.52
F	The best way for me to avoid losing control is to avoid stressful situations	0.07	0.12	0.17	0.01	0.03	0.49

Principle axis factoring with promax rotation (k=2). Factor loadings > 0.4 are shown in bold

F = item from FOLCI pool of potential items; B_{DB} = item from BALCI-II Dangerous Behaviour subscale; B_{PS} = item from BALCI-II Probability/Severity; B_{OE} = item from BALCI-II Overwhelming Emotions subscale; B_M = item from BALCI-II Madness subscale

Avoidance $r_s = 0.82$; Bodily Sensations $r_s = 0.7$). No individual items showed test-retest reliability of $r_s < 0.64$.

For exploratory analyses, the Timeframe subscale was decomposed into Immediate Catastrophe ((1) If I lost control, something bad could happen [in the following days]; (2) within minutes; (3) within seconds; (4) immediately; (5) If I lost control, it would result in an immediate catastrophe) and Delayed Catastrophe. ((1) If I lost control, something bad could happen [later]; (2) in the following weeks; (3) If I lost control, it would eventually lead to a catastrophe; (4) If I lost control, it could result in a cascade of consequences). Both subscales showed excellent internal consistency (Immediate Catastrophe $\alpha = 0.94$; Delayed Catastrophe $\alpha = 0.93$).

Exploratory Analyses

Simple linear regression analyses were conducted to examine whether FOLCI and BALCI-II subscales predicted OCI-R, PDSS, GAD-7, PHQ-8 and WSAS scores variables (see Table 3 and Supplementary Tables S2. to S6). Separate regression analyses were conducted with FOLCI or BALCI-II subscales as the independent variable, and each of the psychological variables as dependent variables. The FOLCI was a significant predictor of all dependent variables, including the OCI-R ($R^2_{\text{Adjusted}} = 0.426$, $p < .001$), the PDSS ($R^2_{\text{Adjusted}} = 0.48$, $p < .001$), GAD-7 ($R^2_{\text{Adjusted}} = 0.472$, $p < .001$), PHQ-8 ($R^2_{\text{Adjusted}} = 0.449$, $p < .001$) and WSAS ($R^2_{\text{Adjusted}} = 0.407$, $p < .001$). The BALCI-II also significantly predicted all dependent variables, including the OCI-R ($R^2_{\text{Adjusted}} = 0.412$, $p < .001$), the PDSS ($R^2_{\text{Adjusted}} = 0.478$,

$p < .001$), GAD-7 ($R^2_{\text{Adjusted}} = 0.463$, $p < .001$), PHQ-8 ($R^2_{\text{Adjusted}} = 0.429$, $p < .001$) and WSAS ($R^2_{\text{Adjusted}} = 0.408$, $p < .001$).

The FOLCI's Thoughts and Feelings subscale, and the BALCI-II's Probability/Severity subscale significantly predicted all dependent variables. The FOLCI's Delayed Catastrophe subscale significantly predicted all variables except for the PDSS, while the BALCI-II's Madness subscale significantly predicted OCI-R, PDSS and GAD-7 scores. The FOLCI's Self-appraisals subscale significantly predicted OCI-R scores.

Finally, to evaluate incremental validity, hierarchical regressions (with BALCI-II subscales entered at step one, and FOLCI subscales entered at step two) and each psychological measure entered separately as dependent variables (GAD-7, OCI-R, PDSS, PHQ-8, WSAS), all showed that FOLCI subscales predicted these measures over and above BALCI-II subscales. Change in R^2 between the first and second models was significant in all instances, ranging from an extra 1.6% of variance accounted for in the PDSS ($p = .009$) to an extra 3.5% in the OCI-R ($p < .001$).

Discussion

This study aimed to develop items to supplement the BALCI-II in order to tap into potentially disorder-specific aspects of fear of losing control, and to develop hypotheses regarding the disorder-specificity/relevance of fear of losing control. Six factors were derived from exploratory factor analyses: 'Agent of Harm', 'Thoughts and Feelings',

Table 3 Exploratory regression analyses, with FOLCI or BALCI-II subscales as predictor variables, and symptom measures as independent variables

Model	Predictors	OCI-R			PDSS			GAD-7			PHQ-8			WSAS		
		β	<i>p</i>	Adj. R^2	β	<i>p</i>	Adj. R^2	β	<i>p</i>	Adj. R^2	β	<i>p</i>	Adj. R^2	β	<i>p</i>	Adj. R^2
1	FOLCI	0.021	<0.001	0.426	-0.061	<0.001	0.48	-0.051	<0.001	0.472	-0.015	<0.001	0.449	-0.046	<0.001	0.407
	Agent of Harm	0.285	0.691	0.216	0.438	0.216	0.298	0.699	0.298	0.298	0.720	0.768	0.449	0.739	0.380	0.380
	Thoughts and Feelings	0.119	<0.001	0.493	-0.039	<0.001	0.776	0.016	<0.001	0.776	0.094	0.110	0.449	-0.010	<0.001	0.870
	Self-appraisals	0.187	0.001	0.184	0.316	<0.001	0.184	0.068	0.184	0.184	-0.076	0.151	0.449	-0.135	0.014	0.014
	Bodily Sensations	0.048	0.293	0.845	0.008	0.845	0.407	-0.036	0.407	0.407	-0.064	0.148	0.449	-0.052	0.264	0.264
	Escape/Avoidance	-0.083	0.264	0.105	0.116	0.105	0.016	-0.174	0.016	0.016	-0.162	0.027	0.449	-0.043	0.568	0.568
	Immediate Catastrophe	0.165	0.025	0.374	-0.062	0.374	0.038	0.147	0.038	0.038	0.150	0.037	0.449	0.150	0.044	0.044
	Delayed Catastrophe	<0.001	<0.001	0.478	-0.093	<0.001	0.463	0.016	<0.001	0.463	0.038	0.541	0.429	0.028	<0.001	0.408
	BALCI-II	0.052	0.410	0.120	-0.093	0.120	0.792	0.016	0.792	0.792	0.038	0.541	0.429	0.028	0.657	0.657
	Overwhelming Emotions	0.050	0.275	0.570	-0.024	0.570	0.067	-0.080	0.067	0.067	-0.001	0.979	0.429	0.013	0.782	0.782
2	Dangerous Behaviour	0.422	<0.001	0.464	0.464	<0.001	0.221	0.221	<0.001	0.080	0.185	0.215	-0.077	0.215	0.215	
	Madness	0.161	0.022	0.356	0.356	<0.001	0.527	0.527	<0.001	0.556	<0.001	0.215	0.673	<0.001	0.215	
	Probability/Severity	0.161	0.022	0.356	0.356	<0.001	0.527	0.527	<0.001	0.556	<0.001	0.215	0.673	<0.001	0.215	

For further details, see Supplementary Tables S2 to S6

FOLCI = Fear of Losing Control Inventory; BALCI-II = Beliefs About Losing Control Inventory-II; OCI-R = Obsessive Compulsive Inventory-Revised; PDSS = Panic Disorder Severity Scale; GAD-7 = Generalized Anxiety Disorder-7; PHQ-8 = The eight-item Patient Health Questionnaire depression scale; WSAS = Work and Social Adjustment Scale

‘Self-appraisals’, ‘Timeframe’ and ‘Escape and Avoidance’. Exploratory analyses suggest it could be hypothesised that many aspects of feared loss of control may be transdiagnostic, including the FOLCI’s Thoughts and Feelings subscale, and the inflated beliefs about the probability/severity of the consequences of losses of control, captured by the BALCI-II.

The FOLCI’s factors show some overlap with the BALCI-II, but are predominantly distinct. The FOLCI’s Agent of Harm subscale aligns with the BALCI-II’s Dangerous Behaviour subscale, while the FOLCI’s Thoughts and Feelings subscale incorporates items from the BALCI-II’s Overwhelming Emotions, Probability/Severity and Madness subscales. Reflecting the present study’s aim to supplement the BALCI-II with components of feared loss of control that may show disorder-specificity, four further factors were derived that are not captured by the BALCI-II subscales: Self-appraisals, Timeframe, Bodily Sensations and Escape and Avoidance.

The Agent of Harm factor encompasses beliefs that a loss of control could result in one causing harm to others. This factor accounted for the largest proportion of variance, and is consistent with a recent qualitative study, in which 20 out of 21 participants referred to harm to oneself or others as a salient fear associated with losing control and 15 out of 21 described concerns about hurting and mistreating others (Kelly-Turner & Radomsky, 2024a). Extensive research demonstrating the importance of cognitions related to inflated responsibility for harm (e.g. Foa et al., 2001; Parrish & Radomsky, 2011) in OCD suggests the Agent of Harm subscale should predict OCD symptoms. In exploratory analyses, the Agent of Harm subscale did not predict OCD symptoms. However, future research should test the theoretically derived hypothesis that feared loss of control would result in causing harm to others is specific to OCD within a clinical sample.

In the development of the BALCI-II, a separate factor related to bodily sensations was not derived, in contrast to the FOLCI, and the first version of the BALCI. The initial BALCI’s Body/Bodily Functions subscale significantly predicted all OCD belief domains, independently of the importance of controlling thoughts domain (Radomsky & Gagné, 2020). In exploratory analyses in the present study, the FOLCI’s Bodily Sensations subscale significantly predicted both OCD and panic symptoms, although the coefficient was larger for panic symptoms. A recent systematic review found broad support for the specificity of catastrophic misinterpretation of bodily sensations in panic disorder (Aslam et al., 2024). However, research has also underscored the role of a range of uncomfortable sensations in OCD, such as associations between ‘not-just right experiences’ and incompleteness with OCD symptom severity (for a review,

see Wilson et al., 2025). Exploratory analyses in the present study leave open the possibility that fear of losing control of bodily sensations may be relevant to both OCD and panic, or specific to panic.

The Self-appraisals factor encompasses a range of negative beliefs about the self linked to a feared loss of control. The relationship between perceived loss of control and negative self-appraisals has been highlighted in Kelly-Turner and Radomsky's (2024a) qualitative study, in which loss of control was perceived as a violation of personal or social standards, which reflected negatively on one's character. In exploratory analyses in the present study, the Self-appraisals subscale predicted OCD symptoms on the threshold of statistical significance. Such a relationship would be consistent with cognitive models of OCD (Rachman, 1998) and research that suggests negative self-inferences may be particularly acute for people with OCD (Riskind et al., 2018), more so than for other anxiety disorders in the context of intrusive thoughts (Ferrier & Brewin, 2005). Further research with a clinical sample will clarify the disorder-specificity of negative self-appraisals related to feared loss of control.

In exploratory analyses, the timeframe factor was decomposed into two separate subscales: Immediate Catastrophe and Delayed Catastrophe. Delayed Catastrophe significantly predicted all psychological variables, except for panic symptoms. Conversely, Immediate Catastrophe did not significantly predict OCD symptoms, was a significant negative predictor of GAD-7 and PHQ-8 symptoms, but only trended towards positively predicting panic symptoms. It may be that the timeframe within which a feared catastrophe would occur following loss of control is to some extent disorder specific, with immediate catastrophe unique to panic disorder, and delayed catastrophe relevant to OCD and potentially other disorders. This would be consistent with Salkovskis and Clark's (1993) prediction that the timescale of feared catastrophes is a key differentiator between panic and health anxiety.

Other exploratory analyses highlighted several components of feared loss of control that may be transdiagnostic. The FOLCI's Thoughts and Feelings subscale and the BALCI-II's Probability/Severity subscale (which mostly focuses on loss of control of thoughts and feelings) both significantly predicted all psychological variables, including the PHQ-8. This suggests that fear of losing control of thoughts and feelings may be relevant across anxiety disorders, and potentially to depression symptoms too. Although the role of distressing thoughts is a core component of cognitive behavioural models of all disorders, the importance of controlling thoughts has long been recognised as an important, and potentially disorder-specific factor in OCD (Tolin et al., 2006), in contrast to the disorder-relevance indicated

in the present study. This finding is more consistent with Kelly-Turner and Radomsky's (2024a) qualitative study with a mixed sample, in which all participants described 'abnormal thinking' in the context of perceived losses of control.

Relatedly, Salguero and Ramos-Cejudo (2023) found that, out of a range of metacognitive beliefs, only metacognitive beliefs about the uncontrollability of worrying thoughts longitudinally predicted symptoms of emotional distress, depression and anxiety, leading the researchers to underscore the transdiagnostic role of the construct. Similarly, Arbulu et al. (2023) found that beliefs about the uncontrollability of emotions were significantly associated with emotional distress in a non-clinical sample, a relationship mediated by maladaptive emotion regulation strategies. These studies examining metacognitive beliefs about the uncontrollability of worrying thoughts and emotions as transdiagnostic factors are broadly consistent with the exploratory analysis in this study, which indicates that the FOLCI's Thoughts and Feelings factor predicted all psychological variables. However, it seems there are important differences in the constructs. Metacognitive beliefs about uncontrollability suggest thoughts are already out of control, whereas fear of losing control implies that maintaining control is possible, or, as Kelly-Turner and Radomsky (2024a) suggest, that it is the default state, while losses of control are frightening aberrations. This would align with the transdiagnostic anxiety equation (Salkovskis, 1996), which suggests anxiety is a function of the perceived awfulness \times perceived likelihood of a catastrophe. It would also explain the exploratory finding in the present study that the BALCI-II's Probability/Severity subscale was a significant predictor of all psychological variables. Future research should test the hypothesis that fear of losing control of thoughts and feelings is relevant across anxiety disorders, as well as examining whether this fear is a construct distinct from metacognitive beliefs about uncontrollability of thoughts and emotions.

Limitations

This study has several limitations. Firstly, a sample of convenience was recruited, which resulted in a disproportionate representation of female, white, and educated participants. OCD presentations may differ between males, who are more likely to experience obsessions with sexual/religious themes, and females, for whom cleaning/contamination symptoms are more likely (Labad et al., 2008). Gender differences have also been noted among people with panic disorder, with females reporting greater physical concerns, and males reporting greater social concerns (Foot & Koszycki, 2004). Among women, prevalence is higher for both OCD

(Fawcett et al., 2020) and panic disorder (Bekker & van Mens-Verhulst, 2007).

Secondly, the study used a non-clinical sample, which to some extent limits generalisation to clinical populations. However, given that anxiety symptoms occur on a continuum, analogue samples are deemed reliable for studying psychopathology including OCD (Abramowitz et al., 2014) and fear of losing control (Kelly-Turner & Radomsky, 2024a). Despite the non-clinical nature of the sample, on average, participants showed clinical levels of symptoms across psychological variables, indicating a likely sufficient level and spread of symptoms to examine the phenomena studied.

This study used exploratory factor analysis, and regression analyses were also exploratory in nature. As such, strong conclusions cannot be drawn. However, the aim of the study was to develop a scale and hypotheses to be tested in further examination of the disorder relevance/specificity of fear of losing control in OCD and panic disorder. As such, exploratory analyses were suitable for these aims.

Theoretical and research implications

The factors derived from factor analysis are theoretically consistent with existing models of OCD and panic disorder. Both FOLCI and BALCI-II subscales predicted a significant amount of variance across all psychological variables, suggesting fear of losing control may be relevant across anxiety disorders, and possibly depression too. This is consistent with existing research suggesting the construct may be transdiagnostic (e.g. Kelly-Turner & Radomsky, 2024b). However, the FOLCI supplements the BALCI-II with subscales that may offer insight into the disorder-relevance/specificity of fear of losing control. Exploratory analyses, combined with theoretical principles, have suggested hypothesised domains of specificity represented by the FOLCI's Timeframe, Bodily Sensations, Agent of Harm and Self-Appraisals subscales.

Prior research examining fear of losing control has typically been conducted with non-clinical samples of undergraduates (e.g. Kelly-Turner & Radomsky, 2024b). The present research suggests fear of losing control is a construct whose validity extends to an older sample with higher levels of clinical symptoms. It also demonstrates the utility of the BALCI-II as a measure in this different sample. However, the construct is yet to be examined in a clinical sample, and future research should fill this gap by testing hypothesised differences between clinical groups of people experiencing OCD and panic, and between these clinical groups and healthy controls.

Experimental manipulations have indicated that fear of losing control may play a causal role in OCD (Gagné

& Radomsky, 2017, 2020) and social anxiety symptoms (Kelly-Turner & Radomsky, 2020, 2022). Future research could extend these experimental manipulations to other anxiety disorders. The present research suggests panic disorder, and potentially GAD would be important future foci. The role of feared loss of control of thoughts and feelings in depression may also be worthy of exploration. Hypothesised disorder relevance/specificity could be further examined by experimentally manipulating potentially disorder-specific domains of feared loss of control, to see whether this affects symptoms of one disorder, but not the other. Future research could also examine whether manipulating fear of losing control in one domain also affects other domains, which would indicate a higher order construct that could be targeted by clinicians more parsimoniously.

Clinical implications

The present research contributes to a growing body of evidence suggesting fear of losing control may be relevant across multiple disorders. As such, it is potentially an important construct for clinicians to consider during assessment and treatment. Although further research is required to delineate the construct, and examine its role in different disorders, Fridgen and Radomsky (2025) have already demonstrated that appraisals of past and predictions of future loss of control can be reduced by a brief cognitive reappraisal intervention. As such, fear of losing control is likely amenable to change through established cognitive behavioural interventions, including examination of evidence for and against the possibility of losing control, and behavioural experiments testing such fears. These could take the form of deliberate attempts to lose control of thoughts, feelings or bodily sensations, or alternating phases of attempts to control and lose control over different components of experience. How best to use these measures clinically requires further research specifically focussing on the sensitivity of the scales to treatment and the extent to which post-treatment scores predict longer term outcome.

Conclusion

This study aimed to develop a fear of losing control questionnaire that supplements the BALCI-II with factors that may be specific to OCD or panic disorder. It also aimed to develop hypotheses regarding the disorder-relevance/specificity of fear of losing control in OCD and panic, which can be tested with a clinical sample. Exploratory analyses identified the FOLCI's Thoughts and Feelings factor, and the BALCI-II's Inflated Probability/Severity factor as potentially transdiagnostic components of feared loss of control.

Potentially disorder-specific domains include the FOLCI's Agent of Harm and Self-appraisals subscales, which pre-existing theory and research suggest should be specific to OCD, and the FOLCI's Bodily Sensations subscale, which may be specific to panic disorder. Exploratory analyses also suggest that timeframe of feared catastrophes may show some specificity, with immediate catastrophe possibly specific to panic, and delayed catastrophe relevant to OCD and possibly other disorders. These hypotheses should be tested in future research with clinical groups.

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Author Contributions J.L., P.S. and V.E. conceptualised the study, and A.R. assisted in this process. J.L. led data collection. J.L., P.S. and V.E. conducted data analysis. J.L. wrote the main manuscript text. P.S., V.E. and A.R. reviewed and suggested revisions to the manuscript. P.S. was primary research supervisor, and V.E. was secondary research supervisor.

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Data Availability Research data will be made available upon request to the corresponding author.

Declarations

Conflict of interest The authors have no conflicts of interest to declare.

Ethical Approval This study was performed in line with the principles of the Declaration of Helsinki for experiments involving humans. Ethical approval was granted by The XXX Research Ethics Committee (R87791/RE001).

Informed Consent Informed consent was obtained from all participants in this study, which included both consent to participate and consent to publish.

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References

- Abramovitch, A., Abramowitz, J. S., Riemann, B. C., & McKay, D. (2020). Severity benchmarks and contemporary clinical norms for the Obsessive-Compulsive Inventory-Revised (OCI-R). *Journal of Obsessive-Compulsive and Related Disorders*, 27, 1–8. <https://doi.org/10.1016/j.jocrd.2020.100557>
- Abramowitz, J. S., Fabricant, L. E., Taylor, S., Deacon, B. J., McKay, D., & Storch, E. A. (2014). The relevance of analogue studies for Understanding obsessions and compulsions. *Clinical Psychology Review*, 34(3), 206–217. <https://doi.org/10.1016/j.cpr.2014.01.004>
- Arbulu, I., Salguero, J. M., Ramos-Cejudo, J., Bjureberg, J., Gross, J. J., Arbulu, I., Salguero, J. M., Ramos-Cejudo, J., Bjureberg, J., & Gross, J. J. (2023). Emotion beliefs are associated with emotion regulation strategies and emotional distress. *Current Psychology* 2023, 43(5). <https://doi.org/10.1007/s12144-023-04633-x>
- Aslam, S. Y., Zortea, T., & Salkovskis, P. (2024). The cognitive theory of panic disorder: A systematic narrative review. *Clinical Psychology Review*, 113, 102483. <https://doi.org/10.1016/j.cpr.2024.102483>
- Barlow, D. H. (2002). *Anxiety and its disorders: The nature and treatment of anxiety and panic* (2nd ed.). The Guilford Press.
- Bekker, M. H. J. P., & van Mens-Verhulst, J. P. (2007). Anxiety disorders: Sex differences in Prevalence, Degree, and Background, but Gender-Neutral treatment. *Gender Medicine*, 4(2), S178–S193. [https://doi.org/10.1016/S1550-8579\(07\)80057-X](https://doi.org/10.1016/S1550-8579(07)80057-X)
- Chambless, D. L., & Gracely, E. J. (1989). Fear of fear and the anxiety disorders. *Cognitive Therapy and Research*, 13(1), 9–20. <https://doi.org/10.1007/bf01178486>
- Chambless, D. L., Caputo, G. C., Bright, P., & Gallagher, R. (1984). Assessment of fear of fear in agoraphobics: The body sensations questionnaire and the agoraphobic cognitions questionnaire. *Journal of Consulting and Clinical Psychology*, 52(6), 1090–1097. <https://doi.org/10.1037/0022-006X.52.6.1090>
- Clark, D. M. (1986). A cognitive approach to panic. *Behaviour Research and Therapy*, 24(4), 461–470. [https://doi.org/10.1016/0005-7967\(86\)90011-2](https://doi.org/10.1016/0005-7967(86)90011-2)
- Cloitre, M., Heimberg, R. G., Liebowitz, M. R., & Gitow, A. (1992). Perceptions of control in panic disorder and social phobia. *Cognitive Therapy and Research*, 16(5), 569–577. <https://doi.org/10.1007/BF01175142>
- de la Arias, J., Vilagut, G., Ronaldson, A., Valderas, J. M., Bakolis, I., Dregan, A., Molina, A. J., Navarro-Mateu, F., Pérez, K., Bartoll-Roca, X., Elices, M., Pérez-Sola, V., Serrano-Blanco, A., Martín, V., & Alonso, J. (2023). Reliability and cross-country equivalence of the 8-item version of the patient health questionnaire (PHQ-8) for the assessment of depression: Results from 27 countries in Europe. *Lancet Reg Health Eur*, 31, 100659–100659. <https://doi.org/10.1016/j.lanepe.2023.100659>
- Dien, J. (2010). Evaluating two-step PCA of ERP data with Geomin, Infomax, Oblimin, Promax, and varimax rotations. *Psychophysiology*, 47(1), 170–183. <https://doi.org/10.1111/j.1469-8986.2009.00885.x>
- Fawcett, E. J., Power, H., & Fawcett, J. M. (2020). Women are at greater risk of OCD than men: A Meta-Analytic review of OCD prevalence worldwide. *The Journal of Clinical Psychiatry*, 81(4), 19r13085. <https://doi.org/10.4088/JCP.19r13085>
- Ferrier, S., & Brewin, C. R. (2005). Feared identity and obsessive-compulsive disorder. *Behaviour Research and Therapy*, 43(10), 1363–1374. <https://doi.org/10.1016/j.brat.2004.10.005>
- Field, A. P. (2018). *Discovering statistics using IBM SPSS statistics* (5th edition, North American edition. ed.). Sage Publications Inc.
- Foa, E. B., Amir, N., Bogert, K. V. A., Molnar, C., & Przeworski, A. (2001). Inflated perception of responsibility for harm in obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 15(4). [https://doi.org/10.1016/S0887-6185\(01\)00062-7](https://doi.org/10.1016/S0887-6185(01)00062-7)
- Foa, E. B., Huppert, J. D., Leiberg, S., Langner, R., Kichic, R., Hajcak, G., & Salkovskis, P. M. (2002). The obsessive-compulsive inventory: Development and validation of a short version. *Psychological Assessment*, 14(4), 485–496.

- Foot, M., & Koszycki, D. (2004). Gender differences in anxiety-related traits in patients with panic disorder. *Depression and Anxiety*, 20(3), 123–130. <https://doi.org/10.1002/da.20031>
- Fridgen, C. P. E. A., & Radomsky, A. S. (2025). Reappraising beliefs about losing control: An experimental investigation. *Journal of Behavior Therapy and Experimental Psychiatry*, 87, 102004–102004. <https://doi.org/10.1016/j.jbtep.2024.102004>
- Furukawa, T. A., Katherine Shear, M., Barlow, D. H., Gorman, J. M., Woods, S. W., Money, R., Etschel, E., Engel, R. R., & Leucht, S. (2009). Evidence-based guidelines for interpretation of the panic disorder severity scale. *Depression and Anxiety*, 26(10), 922–929. <https://doi.org/10.1002/da.20532>
- Gagné, J. P., & Radomsky, A. S. (2017). Manipulating beliefs about losing control causes checking behaviour. *Journal of Obsessive-Compulsive and Related Disorders*, 15, 34–42. <https://doi.org/10.1016/j.jocrd.2017.08.013>
- Gagné, J. P., & Radomsky, A. S. (2020). Beliefs about losing control, obsessions, and caution: An experimental investigation. *Behaviour Research and Therapy*, 126, 103574–103574. <https://doi.org/10.1016/j.brat.2020.103574>
- Gagné, J. P., Radomsky, A. S., & O'Connor, R. M. (2021). Manipulating alcohol expectancies in social anxiety: A focus on beliefs about losing control. *Cognitive Therapy and Research*, 45(1), 61–73. <https://doi.org/10.1007/s10608-020-10165-6>
- Gallagher, M. W., Naragon-Gainey, K., & Brown, T. A. (2014). Perceived control is a transdiagnostic predictor of Cognitive–Behavior therapy outcome for anxiety disorders. *Cognitive Therapy and Research*, 38(1), 10–22. <https://doi.org/10.1007/s10608-013-9587-3>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (Eighth edition, ed.). Cengage.
- Hakstian, A. R. (1971). A comparative evaluation of several prominent methods of oblique factor transformation. *Psychometrika*, 36(2), 175–193.
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of Meta-analyses. *Cognitive Therapy and Research*, 36(5), 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20(1), 141–151. <https://doi.org/10.1177/001316446002000116>
- Kelly-Turner, K., & Radomsky, A. S. (2020). The fear of losing control in social anxiety: An experimental approach. *Cognitive Therapy and Research*, 44(4), 834–845. <https://doi.org/10.1007/s10608-020-10104-5>
- Kelly-Turner, K., & Radomsky, A. S. (2022). Always saying the wrong thing: Negative beliefs about losing control cause symptoms of social anxiety. *Cognitive Therapy and Research*, 46(6), 1137–1149. <https://doi.org/10.1007/s10608-022-10325-w>
- Kelly-Turner, K., & Radomsky, A. S. (2024a). At the mercy of myself: A thematic analysis of beliefs about losing control. *Psychology and Psychotherapy*, 97(2), 271–287. <https://doi.org/10.1111/pap.12515>
- Kelly-Turner, K., & Radomsky, A. S. (2024b). Update and validation of the beliefs about losing control Inventory-II (BALCI-II): A psychometric investigation. *Cognitive Behaviour Therapy*, 1–14. <https://doi.org/10.1080/16506073.2024.2410833>
- Kennedy, B. L., Lynch, G. V., & Schwab, J. J. (1998). Assessment of locus of control in patients with anxiety and depressive disorders. *Journal of Clinical Psychology*, 54(4), 509–515. [https://doi.org/10.1002/\(SICI\)1097-4679\(199806\)54:4%3C509::AID-JCLP12%3E3.0.CO;2-J](https://doi.org/10.1002/(SICI)1097-4679(199806)54:4%3C509::AID-JCLP12%3E3.0.CO;2-J)
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine: JGIM*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kroenke, K., Strine, T. W., Spitzer, R. L., Williams, J. B. W., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders*, 114(1), 163–173. <https://doi.org/10.1016/j.jad.2008.06.026>
- Labad, J., Menchon, J. M., Alonso, P., Segalas, C., Jimenez, S., Jaurieta, N., Leckman, J. F., & Vallejo, J. (2008). Gender differences in obsessive–compulsive symptom dimensions. *Depression and Anxiety*, 25(10). <https://doi.org/10.1002/da.20332>
- Mansell, W., Harvey, A., Watkins, E. R., & Shafran, R. (2008). Cognitive behavioral processes across psychological disorders: A review of the utility and validity of the transdiagnostic approach. *International Journal of Cognitive Therapy*, 1(3), 181–191. <https://doi.org/10.1680/ijct.2008.1.3.181>
- McEvoy, P. M., Watson, H., Watkins, E. R., & Nathan, P. (2013). The relationship between worry, rumination, and comorbidity: Evidence for repetitive negative thinking as a transdiagnostic construct. *Journal of Affective Disorders*, 151(1), 313–320. <https://doi.org/10.1016/j.jad.2013.06.014>
- Mundt, J. C., Marks, I. M., Shear, M. K., & Greist, J. M. (2002). The work and social adjustment scale: A simple measure of impairment in functioning. *British Journal of Psychiatry*, 180(5), 461–464. <https://doi.org/10.1192/bjp.180.5.461>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Parrish, C. L., & Radomsky, A. S. (2011). An experimental investigation of factors involved in excessive reassurance seeking: The effects of perceived threat, responsibility and ambiguity on compulsive urges and anxiety. *Journal of Experimental Psychopathology*, 2(1), 44–62. <https://doi.org/10.5127/jep.011110>
- Pozza, A., & Dettore, D. (2014). The specificity of inflated responsibility beliefs to OCD: A systematic review and meta-analysis of published cross-sectional case-control studies. *Research in Psychology and Behavioral Sciences*, 2(4), 75–85.
- Rachman, S. (1998). A cognitive theory of obsessions: Elaborations. *Behaviour Research and Therapy*, 36(4), 385–401. [https://doi.org/10.1016/s0005-7967\(97\)10041-9](https://doi.org/10.1016/s0005-7967(97)10041-9)
- Radomsky, A. S. (2022). The fear of losing control. *Journal of Behavior Therapy and Experimental Psychiatry*, 77, 101768–101768. <https://doi.org/10.1016/j.jbtep.2022.101768>
- Radomsky, A. S., & Gagné, J. P. (2020). The development and validation of the beliefs about losing control inventory (BALCI). *Cognitive Behaviour Therapy*, 49(2), 97–112. <https://doi.org/10.1080/16506073.2019.1614978>
- Riskind, J. H., Wright, E. C., & Scott, M. (2018). Anticipated Criticism/Rejection and negative Self-Appraisals: Do they independently predict OCD symptoms and the negative significance of intrusive thoughts? *International Journal of Cognitive Therapy*, 11(1), 4–16. <https://doi.org/10.1007/s41811-018-0006-0>
- Rutter, L. A., & Brown, T. A. (2017). Psychometric properties of the generalized anxiety disorder Scale-7 (GAD-7) in outpatients with anxiety and mood disorders. *Journal of Psychopathology and Behavioral Assessment*, 39(1), 140–146. <https://doi.org/10.1007/s10862-016-9571-9>
- Salguero, J. M., & Ramos-Cejudo, J. (2023). A multi-study examination of the relevance of the metacognitive beliefs about uncontrollability in emotion regulation and clinical symptoms. *Journal of Affective Disorders*, 340, 812–819. <https://doi.org/10.1016/j.jad.2023.08.090>
- Salkovskis, P. M. (1985). Obsessional-compulsive problems: A cognitive-behavioural analysis. *Behaviour Research and Therapy*, 23(5). [https://doi.org/10.1016/0005-7967\(85\)90105-6](https://doi.org/10.1016/0005-7967(85)90105-6)
- Salkovskis, P. (1996). The cognitive approach to anxiety: Threat beliefs, safety seeking behavior and the special case of health anxiety and obsessions. (Ed.) *Frontiers of cognitive therapy* (Vol. 1). Frontiers of cognitive therapy. PM Salkovskis.

- Salkovskis, P. M., & Clark, D. M. (1993). Panic disorder and hypochondriasis. *Advances in Behaviour Research and Therapy*, 15(1), 23–48. [https://doi.org/10.1016/0146-6402\(93\)90002-J](https://doi.org/10.1016/0146-6402(93)90002-J)
- Salkovskis, P. M., & Warwick, H. M. C. (1986). Morbid preoccupations, health anxiety and reassurance: A cognitive-behavioural approach to hypochondriasis. *Behaviour Research and Therapy*, 24(5), 597–602. [https://doi.org/10.1016/0005-7967\(86\)90041-0](https://doi.org/10.1016/0005-7967(86)90041-0)
- Sanderson, W. C., Rapee, R. M., & Barlow, D. H. (1989). The influence of an illusion of control on panic attacks induced via inhalation of 5.5% carbon Dioxide-Enriched air. *Archives of General Psychiatry*, 46(2), 157–162. <https://doi.org/10.1001/archpsyc.1989.01810020059010>
- Sandstrom, A., & Radomsky, A. S. (2024). Beliefs about losing control and other OCD-related cognitions: An experimental investigation. *Journal of Behavior Therapy and Experimental Psychiatry*, 82, 101919–101919. <https://doi.org/10.1016/j.jbtep.2023.101919>
- Sandstrom, A., Krause, S., Ouellet-Courtois, C., Kelly-Turner, K., & Radomsky, A. S. (2024). What's control got to do with it? A systematic review of control beliefs in obsessive-compulsive disorder. *Clinical Psychology Review*, 107, 102372.
- Shafran, R., Thordarson, D. S., & Rachman, S. (1996). Thought-action fusion in obsessive compulsive disorder. *Journal of Anxiety Disorders*, 10(5). [https://doi.org/10.1016/0887-6185\(96\)00018-7](https://doi.org/10.1016/0887-6185(96)00018-7)
- Shear, M. K., Brown, T. A., Barlow, D. H., Money, R., Sholomskas, D. E., Woods, S. W., Gorman, J. M., & Papp, L. A. (1997). Multi-center collaborative panic disorder severity scale. *The American Journal of Psychiatry*, 154(11), 1571–1575. <https://doi.org/10.1176/ajp.154.11.1571>
- Shear, M. K., Rucci, P., Williams, J., Frank, E., Grochocinski, V., Vander Bilt, J., Houck, P., & Wang, T. (2001). Reliability and validity of the panic disorder severity scale: Replication and extension. *Journal of Psychiatric Research*, 35(5), 293–296. [https://doi.org/10.1016/S0022-3956\(01\)00028-0](https://doi.org/10.1016/S0022-3956(01)00028-0)
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, 166(10), 1092–1097. <http://doi.org/10.1001/archinte.166.10.1092>
- Sugiura, Y., & Fisak, B. (2019). Inflated responsibility in worry and obsessive thinking. *International Journal of Cognitive Therapy*, 12(2), 97–108. <https://doi.org/10.1007/s41811-019-00041-x>
- Thorpe, S. J., & Salkovskis, P. M. (1995). Phobic beliefs: Do cognitive factors play a role in specific phobias? *Behaviour Research and Therapy*, 33(7), 805–816. [https://doi.org/10.1016/0005-7967\(95\)00022-P](https://doi.org/10.1016/0005-7967(95)00022-P)
- Tolin, D. F., Worhunsky, P., & Maltby, N. (2006). Are obsessive beliefs specific to OCD? A comparison across anxiety disorders. *Behaviour Research and Therapy*, 44(4), 469–480. <https://doi.org/10.1016/j.brat.2005.03.007>
- Vander Haegen, M., & Etienne, A. M. (2016). Cognitive processes across anxiety disorders related to intolerance of uncertainty: Clinical review. *Cogent Psychology*, 3(1), 1215773. <https://doi.org/10.1080/23311908.2016.1215773>
- Wilson, L. A., Scarfo, J., Jones, M. E., & Rehm, I. C. (2025). The relationship between sensory phenomena and interoception across the obsessive–compulsive spectrum: A systematic review. *Bmc Psychiatry*, 25(1). <https://doi.org/10.1186/s12888-024-06441-4>
- Winton, E. C., Clark, D. M., & Edelman, R. J. (1995). Social anxiety, fear of negative evaluation and the detection of negative emotion in others. *Behaviour Research and Therapy*, 33(2), 193–196. [http://doi.org/10.1016/0005-7967\(94\)E0019-F](http://doi.org/10.1016/0005-7967(94)E0019-F)

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