

A Novel Cognitive Domain in OCD: Beliefs about Losing Control and Their Association with a Control Mismatch



Jean-Philippe Gagné & Adam S. Radomsky
Department of Psychology, Concordia University, Montréal, Canada



Abstract

Individuals with obsessive-compulsive disorder (OCD) often report concerns about a potential loss of control over their thoughts and behaviour. For instance, research has shown a positive relationship between the fear of losing self-control and OCD symptoms. Still, the associations between these beliefs about losing control and OCD symptoms are not well understood. Interestingly, it has been suggested that one's sense of control and desire for control, along with any discrepancy between the two (a "control mismatch"), may play a role in the development and maintenance of the disorder. We hypothesized that focusing on this control mismatch could shed light on the links between beliefs about losing control and OCD symptoms. A preliminary inventory assessing people's beliefs about losing control was developed ($\alpha = .95$) and completed by undergraduate student participants ($N = 501$). Controlling for symptoms of depression, anxiety, and stress, this domain of beliefs significantly predicted both higher levels of OCD symptoms and a more pronounced control mismatch. A mediation analysis indicated that beliefs about losing control significantly explained the relationship between a control mismatch and OCD symptoms. Results suggest that beliefs about losing control may be a risk factor for experiencing a control mismatch, which also results in attempts at increasing one's perceptions of control through compulsions. Beliefs about losing control should potentially be targeted during cognitive-behavioural therapy to reduce OCD symptoms.

Introduction

- The role of **control cognitions in OCD** is critical given the relationships found between one's perceived disruption of control and anxiety level, but largely understudied (Moulding & Kyrios, 2006).
- Individuals with OCD often report concerns regarding a potential **loss of control** over their thoughts and behaviour (Reuven-Magril, Dar, & Liberman, 2008). For instance, Freich, Vartanian, Grisham, and Touyz (2016) found a positive relationship between the fear of losing self-control and OCD symptoms. However, **beliefs about losing control** have not been examined in detail, and the associations between this domain of beliefs and OCD symptoms are not well understood.
- Importantly, having a low sense of control and a high desire for control (a "**control mismatch**"; i.e., when one's perceived level of control does not match their desired level of control) has been associated with obsessive-compulsive symptoms (Moulding & Kyrios, 2007).
- Moreover, Braith, McCullough, and Bush (1998) suggested that anxious people with fears of losing control had **high levels of desire for control**.
- It is thus logical to expect that beliefs about losing control may be a **risk factor** for experiencing a control mismatch, which could result in attempts at increasing one's perceptions of control through compulsions.

Hypotheses

- Beliefs about losing control will be **positively** associated with OCD symptoms.
- Beliefs about losing control will predict a **more pronounced** control mismatch.
- Beliefs about losing control will **mediate** the relationship between a control mismatch and OCD symptoms.

Method

Participants

- Undergraduate student participants ($N = 501$) were recruited from the Concordia University community (Montréal, Québec, Canada).
- Participants were, on average, 22.91 ($SD = 5.17$) years old.
- The sample was 87% female.

Procedure

- A preliminary questionnaire (37 items) assessing people's beliefs about losing control was developed ($\alpha = .95$).
 - Sample items (0 = Not at all; 4 = Very much)
 - "I am afraid of losing control of my thoughts."
 - "I need to try to stay in control more than others do."
 - "Sometimes, I fear that I might not be able to contain myself."
- Participants completed a series of questionnaires online.

Measures

- Preliminary questionnaire assessing beliefs about losing control
- Depression Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995)
- Vancouver Obsessional Compulsive Inventory (VOCI; Thordarson et al., 2004)
- Desirability of Control Scale (DCS; Burger & Cooper, 1979)
- Anxiety Control Questionnaire - Revised (ACQ-R; Brown et al., 2004)

Results

Hypotheses 1 and 2

- To test hypotheses 1 and 2, multiple regression analyses were conducted.
- For hypotheses 1 and 2, symptoms of depression, anxiety, and stress (DASS-21), and beliefs about losing control (preliminary questionnaire) were entered as **IVs**.
- For hypothesis 1, OCD symptoms (VOCI) were entered as the DV; for hypothesis 2, the difference between sense of control and desire for control (ACQ-R minus DCS) was entered as the DV (with more negative values indicating a more pronounced control mismatch).

Table 1. Summary of Multiple Regression Analyses

	R ²	b	SE(b)	β
OCD symptoms	.353			
Depression, anxiety, and stress		.786	.128	.273***
Beliefs about losing control		.486	.055	.393***
Control mismatch	.255			
Depression, anxiety, and stress		-.170	.066	-.122**
Beliefs about losing control		-.253	.028	-.424***

Note. ** $p < .01$, *** $p < .001$

Hypothesis 3

- To test hypothesis 3, a bias-corrected mediation analysis based on 10,000 bootstrap samples was conducted (Process tool; Hayes, 2013). Control mismatch (difference between sense of control and desire for control) was entered as the IV, OCD symptoms as the DV, and beliefs about losing control as the mediator.

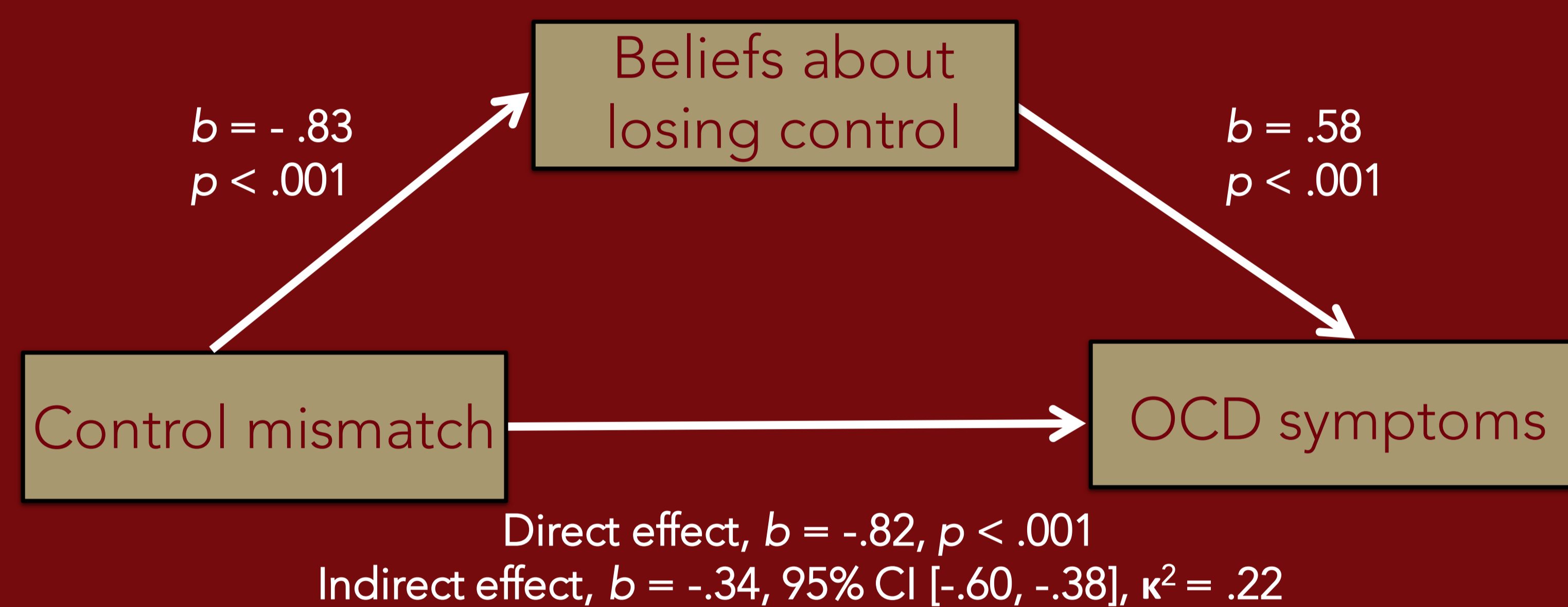


Figure 1. Model of a control mismatch as predictor of OCD symptoms, mediated by beliefs about losing control. The confidence interval for the indirect effect is a Bca bootstrapped CI based on 10,000 samples.

Discussion

- Controlling for symptoms of depression, anxiety, and stress, higher levels of beliefs about losing control predicted higher levels of OCD symptoms suggesting that such beliefs may be one of the factors contributing to the development and maintenance of OCD.
- Higher levels of beliefs about losing control predicted a more pronounced discrepancy between one's sense of control and desire for control—a larger control mismatch—above and beyond symptoms of depression, anxiety, and stress. This finding suggests that maladaptive beliefs about losing control could lead people to perceive their level of control as low and wish their level of control was higher.
- Analyses revealed that beliefs about losing control mediated the relationship between a control mismatch and OCD symptoms. This could potentially indicate that beliefs about losing control are a risk factor for developing a control mismatch, which also results in attempts at increasing one's perceptions of control through compulsions.
- Beliefs about losing control should be targeted during cognitive-behavioural therapy to ultimately decrease OCD symptoms. Future work should employ experimental designs to establish the causal directions of these associations.

References

- Braith, J. A., McCullough, J. P., & Bush, J. P. (1988). Relaxation-induced anxiety in a subclinical sample of chronically anxious subjects. *Journal of Behavior Therapy and Experimental Psychiatry*, 19(3), 193-198.
- Brown, T. A., White, K. S., Forsyth, J. P., & Barlow, D. H. (2005). The structure of perceived emotional control: Psychometric properties of a revised Anxiety Control Questionnaire. *Behavior Therapy*, 35(1), 75-99.
- Burger, J. M., & Cooper, H. M. (1979). The desirability of control. *Motivation and Emotion*, 3(4), 381-393.
- Freich, F. V., Vartanian, L. R., Grisham, J. R., & Touyz, S. W. (2016). Dimensions of control and their relation to disordered eating behaviours and obsessive-compulsive symptoms. *Journal of Eating Disorders*, 4(1), 1-9.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343.
- Moulding, R., & Kyrios, M. (2006). Anxiety disorders and control related beliefs: the exemplar of Obsessive-Compulsive Disorder (OCD). *Clinical Psychology Review*, 24(5), 573-583.
- Moulding, R., & Kyrios, M. (2007). Desire for control, sense of control and obsessive-compulsive symptoms. *Cognitive Therapy and Research*, 31(6), 759-772.
- Reuven-Magril, O., Dar, R., & Liberman, N. (2008). Illusion of control and behavioral control attempts in obsessive-compulsive disorder. *Journal of Abnormal Psychology*, 117(2), 334-341.
- Thordarson, D. S., Radomsky, A. S., Rachman, S., Shafran, R., Sawchuk, C. N., & Hakstian, A. R. (2004). The Vancouver Obsessional Compulsive Inventory (VOCI). *Behaviour Research and Therapy*, 42(11), 1289-1314.