

**The Importance of Meta-Emotional Beliefs: Secondary Emotions Mediate Links Between  
Emotion Uselessness Beliefs and Transdiagnostic Psychopathology**

Vuillier, L.<sup>1</sup>, Moseley, R.L.<sup>1</sup>

1: Department of Psychology, Bournemouth University, Poole, United Kingdom

Contact details:

Corresponding author: Dr Laura Vuillier, Bournemouth University, Poole, UK:

01202 964046, [lrenshawvuillier@bournemouth.ac.uk](mailto:lrenshawvuillier@bournemouth.ac.uk)

Rachel Moseley: [rmoseley@bournemouth.ac.uk](mailto:rmoseley@bournemouth.ac.uk)

ORCID:

Vuillier: 0000-0001-6502-0676

Moseley: 0000-0002-5985-6175

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## **Abstract**

Emotion regulation difficulties are widely recognised as transdiagnostic mechanisms underlying emotional disorders, yet the role of beliefs about the usefulness of emotions remains underexplored. This study investigated whether beliefs that emotions are useless contribute to symptoms of depression, anxiety, and eating disorders via secondary emotions (i.e. emotions about emotions, such as feeling guilty about feeling angry). A large sample of students ( $N = 1036$ ) completed validated self-report measures assessing emotion beliefs (EBQ), secondary emotions (DERS), depression (PHQ-9), anxiety (GAD-7), and eating psychopathology (EDE-Q). Participants with high levels of psychological distress showed significantly stronger emotion uselessness beliefs ( $\eta^2 = .01$ ) and elevated secondary emotions ( $\eta^2 = .16$ ). Mediation analyses revealed secondary emotions significantly mediated relationships between uselessness beliefs and all three conditions, with complete mediation for eating psychopathology. These findings suggest that viewing emotions as harmful or pointless may lead to maladaptive emotional responses, which in turn contribute to psychological distress. The results support the conceptualisation of depression, anxiety, and eating disorders as emotional disorders with shared underlying mechanisms and highlight the potential of transdiagnostic interventions targeting emotion beliefs and secondary emotions to improve treatment efficiency across diverse clinical presentations.

## **Introduction**

Worldwide, depression, anxiety and eating disorders pose among the greatest threat to health and longevity of any mental illnesses re associated ; the disease burden they exert is all the more worrying in that it is certainly an underestimation (Vigo et al., 2022). While they differ in prevalence and diagnostic features, the co-occurrence of these conditions is high: while over 70% of people with eating disorders present with psychiatric comorbidities, anxiety and depression are prevalent in 53% and 43% respectively (Keski-Rahkonen & Mustelin, 2016), and over 50% of individuals with a primary diagnosis of anxiety are also diagnosed with depression (Breteler et al., 2021). This high comorbidity, and notable similarities in underlying difficulties interpreting and regulating emotions, have led to recognition of all three conditions within a framework of emotional disorders (Bullis et al., 2019; Sloan et al., 2017; Steele et al., 2018) or the emotional dysfunction super spectrum (Watson et al., 2022). While these categorisations relate to the centrality of emotion regulation difficulties in the development and maintenance of these disorders (Fernandez et al., 2016; Leppanen et al., 2022; Prefit et al., 2019) – and the related efficacy of transdiagnostic emotion-focused treatment approaches (Carlucci et al., 2021; Sakiris & Berle, 2019) – certain emotion processes, strongly related to emotion regulation and hence implicated in the pathogenesis of these conditions, remain understudied. The current paper aims to evaluate the link between two such understudied emotion processes - beliefs about the usefulness of emotions, and secondary emotions – and their relationship with psychological distress, symptoms of anxiety and depression, and eating psychopathology. Understanding how maladaptive emotion beliefs may be linked to secondary emotions and subsequent psychopathology could be key to finding effective treatments across multiple forms of

psychopathology that often co-occur and maintain each other (Christian et al., 2023; Martín et al., 2019), instead of focusing on disorder-specific treatments.

Thus far, research exploring the contributions of emotion beliefs to psychological dysfunction has centred on beliefs about emotion controllability: individuals' perceptions regarding their capacity to regulate their emotional experiences. A growing evidence base suggests that believing that emotions are uncontrollable is associated with maladaptive emotion regulation strategies, negative affect, poorer wellbeing, and increased symptomatology across eating disorders (Glisenti et al., 2023; Strodl & Sorensen, 2023; Vuillier et al., 2021), as well as depression and anxiety (Deplancke et al., 2023; Ge et al., 2024; Guo et al., 2025; Johnston, Petrova, et al., 2024; Vuillier et al., 2021; Zhang, Guo, et al., 2023; Zhang, Li, et al., 2023). Investigation of the *usefulness* of emotions, i.e. whether people view their emotions as beneficial and functional, versus harmful and/or pointless, remains in its infancy. There is theoretical precedent to underpin the importance of believing in the functional use of emotions (Ford & Gross, 2018, 2019). Within this framework, individual differences in emotion usefulness beliefs appear to significantly impact how people experience their emotions. For example, when individuals perceive emotions as valuable and informative, they may be more inclined to engage with and learn from their emotional states. Conversely, those who view emotions as harmful or without purpose may actively avoid or suppress emotional experiences, potentially leading to maladaptive coping patterns. Ford and Gross (2018) suggest that these utility-focused beliefs directly influence people's emotional goals and regulatory strategies, ultimately shaping both immediate emotional responses and long-term psychological outcomes. While research examining usefulness beliefs remains relatively sparse compared to other emotion-related constructs, preliminary evidence suggests that negative attitudes toward the usefulness of

emotions, i.e. beliefs that emotions are useless, are linked to problematic emotion management and increased psychological distress (Ford et al., 2018; Manser et al., 2012; Preece et al., 2022; Shulkin et al., 2025; Veilleux, Chamberlain, et al., 2021; Veilleux, Pollert, et al., 2021). Vitality, beliefs in the uselessness of emotions have also been linked to secondary emotions (Predatu et al., 2020a, 2020b) – a link which might, indeed, *explain* the deleterious impacts of negative attitudes about emotion usefulness.

Secondary emotions, also called meta-emotions, are defined as an emotion about an emotion: for example, feeling guilty about feeling angry, with anger the primary emotion (Bailen et al., 2019; Mitmansgruber et al., 2009; Predatu et al., 2020a, 2020b). While Gottman et al. (1996) coined "meta-emotions" in 1996 within parent-child relationships, the field has become encumbered by multiple definitions that threaten conceptual clarity. The term has, for example, been employed to describe cognitive beliefs about emotions—such as believing that emotions are bad or problematic (Bartsch et al., 2010; Beer & Moneta, 2010; Strodl & Sorensen, 2023)—yet these constructs remain distinct from secondary emotions (Willroth et al., 2023). We therefore advocate for "secondary emotions" to describe an emotional response about a primary emotion, distinguishing it from the broader concept of meta-emotions.

Secondary emotions emerge when primary emotions are perceived as unacceptable, or ‘bad’ (Corstorphine, 2006), although they can also happen in response to a positive emotion (e.g. feeling grateful about being happy). As they tend to obscure the primary emotion, they can create confusion for people experiencing them. For instance, an individual experiencing anger toward housemates for neglecting chores may subsequently feel guilty about their anger, rendering the original concern incomprehensible (i.e. why should they feel guilty about their housemates’ untidiness). This can lead to exacerbated distress and interfere with the individual’s ability to

attend to the primary emotion, which makes it hard to solve the problem the primary emotion is alerting them to (i.e. for example, using problem-solving skills to discuss a cleaning rota). Such interference contributes to emotion regulation difficulties and maladaptive coping behaviours like binge eating (Corstorphine, 2006). Despite their clinical significance, secondary emotions remain understudied in psychopathology research. Bailen et al. (2019) found that secondary emotions—particularly negative responses to negative emotions—correlate with increased depressive severity, while Predatu et al. (2020a) observed elevated secondary emotions in adults with emotional disorders compared to non-clinical individuals. Within eating disorder research, although Corstorphine (2006) articulates their theoretical role in perpetuating distress, empirical investigation of secondary emotions remains limited. Vuillier et al. (2024) developed an intervention addressing secondary emotions (amongst other emotion processes) in eating disorder populations. They found that the intervention reduced emotion regulation difficulties, alongside the experience of secondary emotions. The intervention was also linked with improvements in eating psychopathology, as well as reduction in symptoms of depression and anxiety, with a participant for example reporting *“Learning how to separate primary and secondary emotions helped to make more sense of what I was feeling. This was very useful to me as I stopped dismissing my emotions as stupid and illogical”*.

Thus far, evidence of a relationship between beliefs about emotion uselessness and secondary emotions is limited: while Predatu and colleagues (Predatu et al., 2020a, 2020b) observed relationships between adopting ‘rational’ beliefs about emotions and the experience of secondary emotions (called ‘meta emotions’ therein), their conceptualisation of a ‘rational’ emotion mindset incorporated elements beyond the usefulness of emotions, such as the extent to which people catastrophise or globally evaluate themselves on the basis of experiencing certain

emotions (a construct which, as such, overlaps somewhat with the concept of secondary emotions it was explored in relation to). The literature also lacks evidence about the relationships between emotion uselessness beliefs, secondary emotions and the symptomatology of depression, anxiety and eating disorders as ‘emotional disorders’, as well as whether secondary emotions *mediate* the relationship of uselessness beliefs to these forms of psychopathology. Herein, we aimed to examine emotion uselessness beliefs and secondary emotions as a function of emotional disorder symptomatology, using more precise, standardised measures to differentiate between these two understudied emotion constructs. We also aimed to examine their relationship to one another, and, relatedly, their transdiagnostic relevance to these different emotional disorders. We did so through exploring relationships between uselessness beliefs and depressive, anxious and eating disorder symptomatology via the mediator of secondary emotions. In a large sample from a population in whom emotional disorders are over-represented, namely undergraduate students (House of Commons Library, 2025), we made the following hypotheses:

H1: People with high levels of psychological distress will demonstrate greater endorsement of beliefs about emotion uselessness and elevated secondary emotional responses, compared to those with low levels.

H2: Secondary emotions will mediate the links between beliefs about the uselessness of emotions and depression, anxiety and eating disorder psychopathology.

## **Methods**

## Participants

Power analyses were conducted to determine the required sample size for both research questions. For the MANOVA comparing uselessness beliefs and secondary emotions between groups, G\*Power calculations indicated that 931 participants were needed to detect a small effect size ( $f^2 = 0.01$ ) with 95% power,  $\alpha = 0.05$ , and 2 dependent variables. To ensure an adequate number of participants after data cleaning, we aimed to recruit 1000 to 1200 participants. For the mediation analyses, we used the PROCESS macro for SPSS model with the number of bootstrap samples set to 5000.

Undergraduate psychology students were recruited between November 2022 and May 2024 (45.8% were recruited in the 2022-2023 academic year between November 2022 and May 2023, while the remainder were recruited in the same months during the 2023-2024 academic year). The study was advertised on the research participation system of the authors' institution, with participation rewarded with course credits. A total of 1089 participants were recruited, with 53 participants excluded due to incomplete responses on one or more questionnaires, or failing two out of three attention check items. This resulted in a final sample of  $N = 1036$  (mean age = 23.5,  $SD = 10.2$ ). The majority of the sample reported their sex assigned at birth as female ( $n = 776$  females,  $n = 258$  males,  $n = 2$  other); similarly, most of the sample reported their gender identity as female ( $n = 728$  females,  $n = 252$  males, with the remainder expressing non-binary or trans gender identities). A third of our sample (33.7%;  $n = 349$ ) self-reported a current or past diagnosis of a mental health condition. The most common reported disorder was anxiety ( $n = 235$ ), followed by depression ( $n = 194$ ), an eating disorder ( $n = 61$ ), PTSD ( $n = 29$ ), OCD ( $n = 17$ ), personality disorder ( $n = 25$ ), bipolar disorder ( $n = 6$ ), and schizoaffective disorder ( $n = 1$ ), with the vast majority (97.7%) reporting two or more diagnoses (2.3% reported one diagnosis; 72.9%

reported two; 18.7% reported three; 5.2% reported four; and 0.9% reported five diagnoses). Most participants were White British or White European (81.1%), followed by Asian (7.0%), mixed race ethnic group (6.7%), Black (4.7%), or other (0.5%).

## **Measures of emotional functioning**

### ***Beliefs about the usefulness or uselessness of emotions: the Emotion Beliefs Questionnaire (EBQ)***

The EBQ (Becerra et al., 2020) contains 16 items examining emotion-related beliefs across two dimensions: perceived controllability and perceived usefulness (or indeed uselessness) of emotions. We focused, herein, on the usefulness scale. Its items are rated on a 7-point Likert scale (1= strongly disagree to 7= strongly agree). Scores range between 8-56: lower scores indicate beliefs that emotions are useful and adaptive, while higher scores indicate stronger beliefs that emotions are useless, harmful or unimportant. While the EBQ measures useful vs. uselessness beliefs for positive and for negative emotions differentially, the literature on which we base our hypotheses about the relationship between uselessness beliefs and secondary emotions focuses on emotions typically experienced as aversive (i.e. negative emotions), such as sadness, anger or fear (Bailen et al., 2019; Corstorphine, 2006; Predatu et al., 2020a, 2020b). As such, we focused on the four items which comprised the negative usefulness subscale (i.e. the uselessness of negative emotions). This usage is appropriate in relation to the psychometric properties of the EBQ, where the subscale of negative usefulness functions as one of three distinct factors (Becerra et al., 2020; Johnston, McEvoy, et al., 2024). Just as in these previous

publications, internal consistency for the negative usefulness subscale in our sample was good ( $\alpha = .77$ ).

***Secondary emotions: The Difficulty in Emotion Regulation Scale, Short form (DERS-SF)*** The DERS-SF (Kaufman et al., 2016) comprises 18 items measuring six facets of emotion dysregulation. Importantly, we use only the non-acceptance subscale as a measure of an individual tendency to experience secondary emotions, given that this subscale specifically captures emotional responses to one's own emotions with the following three items: “When I’m upset, I become embarrassed for feeling that way”, “When I’m upset, I feel guilty for feeling that way”, and “When I’m upset, I become irritated at myself for feeling that way”. Items are scored on a 5-point scale (1= almost never to 5= almost always), with higher scores (ranging between 3-15) indicating greater tendency to experience negative emotions . Usage of this single subscale is supported by the six-factor structure and strong psychometric properties of the scale (Burton et al., 2022; Kaufman et al., 2016): in our sample, internal consistency of the non-acceptance subscale was similarly strong ( $\alpha = .83$ ).

## **Measures of psychopathology**

### ***Depressive symptoms: Patient Health Questionnaire-9 (PHQ-9)***

The PHQ-9 (Kroenke & Spitzer, 2002) is a 9-item self-report instrument measuring depressive symptom severity over the past two weeks. Items are rated on a 4-point scale (0 =not at all to 3= nearly every day), yielding total scores of 0-27 where higher values indicate greater depression severity. The measure demonstrates strong psychometric properties (Beard et al., 2016), with high internal consistency which was confirmed in our sample ( $\alpha = .90$ ). A cut-off of 10 or above

is recommended as indicative of major depressive disorder (Manea et al., 2015):  $n = 544$  participants met that cut-off.

***Anxious symptoms: Generalised Anxiety Disorder-7 (GAD-7)***

The GAD-7 (Spitzer et al., 2006) comprises 7 items assessing generalized anxiety symptoms experienced over the preceding two weeks. Items are rated on a 4-point scale (0 =not at all to 3= nearly every day), yielding total scores of 0-21 where elevated scores reflect increased anxiety severity. The instrument exhibits robust psychometric characteristics (Plummer et al., 2016), with internal consistency similarly strong in the present sample ( $\alpha = .92$ ) A cut-off of 8 or above is recommended for identifying generalised anxiety symptoms:  $n = 634$  of our participants met that cut-off.

***Eating disorder symptoms: Eating Disorder Examination Questionnaire (EDE-Q)***

The EDE-Q (Fairburn & Beglin, 2008) is a 28-item self-report measure assessing eating disorder psychopathology and behaviors over the past 28 days. Items are rated on a 7-point scale (0 = no days/not at all, to 6 = every day/markedly): scores are averaged across items, generating both a global score and four subscale scores (Restraint, Eating Concern, Weight Concern, and Shape Concern) where higher scores indicate greater eating disorder symptomatology. We used only the total score in the present study, which showed high internal consistency in our sample ( $\alpha = .96$ ) and has been well-validated elsewhere (Berg et al., 2012). A cut off of 4 or above is typically indicative of a clinically significant eating disorder (Jennings & Phillips, 2017):  $n = 155$  of our participants met that cut-off.

**Procedure**

This study received ethical approval from the Research Ethics Panel at the first author's

institution. The questionnaires were presented through the online platform Qualtrics (Qualtrics, Provo, UT). After completing some brief demographic questions, participants completed first the DERS-SF, followed by the EDEQ, the EBQ, the GAD-7 and the PHQ-9. Participants also answered other questionnaires not reported in the current paper.

### **Statistical analyses**

All analyses were conducted using SPSS version [29]. To examine our first hypothesis concerning beliefs about emotion uselessness and secondary emotions in participants with high vs low levels of psychological distress, we created a binary variable categorising participants as above (1) or below (0) cut-offs in one or more of our three measures of psychopathology. Just under a third (31%,  $n = 321$ ) did not meet cut-offs for either the PHQ-9, GAD-7 or EDEQ (hereafter the “low psychological distress” group); the remaining 69% ( $n = 715$ ) met one or more of these cut-offs (hereafter the “high psychological distress” group). In accordance with the frequent co-occurrence of these disorders (Bullis et al., 2019), 51.6% of the high psychological distress group met cut-offs on two of these scales, and 17.3% met cut-offs for all three conditions. We performed a one-way multivariate analysis of variance (MANOVA) with group (high/low psychological distress) as the independent variable, and as dependent variables the negative usefulness subscale of the EBQ and the DERS non-acceptance subscale (as a measure of secondary emotion). Effect sizes were calculated using partial eta-squared for significant effects.

For our second hypothesis concerning the mediating role of secondary emotions, three separate mediation analyses were conducted using Hayes' PROCESS macro (Model 4) with 5000 bootstrap samples. Each model tested whether beliefs about the usefulness of negative emotions

(EBQ negative usefulness subscale) was associated with psychopathology through secondary emotions (DERS non-acceptance subscale). The three dependent variables were depressive symptoms (PHQ-9), anxiety symptoms (GAD-7), and eating disorder psychopathology (EDE-Q), analysed in separate models. Indirect effects were considered significant if the 95% confidence intervals did not include zero.

All assumptions for MANOVA and mediation analyses were assessed and met prior to interpretation, including multivariate normality, homogeneity of variance-covariance matrices, and linearity. Statistical significance was set at  $\alpha = 0.05$  for all analyses.

## Results

**H1: People with high levels of psychological distress will demonstrate greater endorsement of beliefs about emotion uselessness and elevated secondary emotional responses, compared to those with low levels.**

Significance tests for our dependent variables showed that participants with high psychological distress reported stronger beliefs in the uselessness of negative emotions ( $F [1, 1032] = 8.29, p = .004, \eta^2 = .01, \text{Mean} = 11.8, \text{SD} = 4.9$ ), and greater tendency to experience secondary emotions when upset ( $F [1, 1032] = 195.14, p < .001, \eta^2 = .16, \text{Mean} = 9.5, \text{SD} = 3.2$ ), compared to participants in the low psychological distress group (Mean uselessness = 10.9, SD= 4.6; Mean secondary emotions = 6.6, SD= 2.6).

**H2: Secondary emotions will mediate the links between beliefs about the uselessness of emotions and depression, anxiety and eating disorder psychopathology.**

The results for the mediation analyses on symptoms of depression, anxiety and eating

psychopathology are displayed in Figure 1 (A, B, and C, respectively).

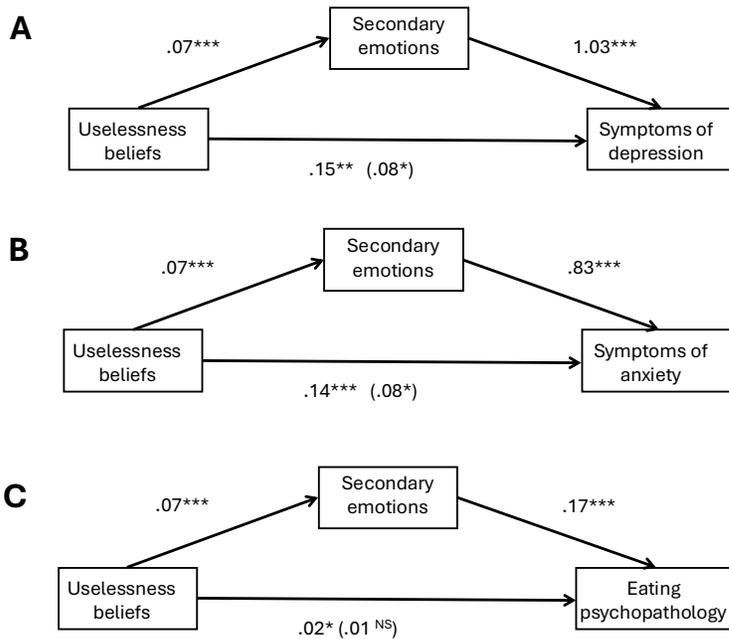


Figure 1: Mediation models representing the relationship between beliefs about emotional uselessness and symptoms of depression (A), anxiety (B), or eating psychopathology (C), mediated via secondary emotions. \*\*\* denotes  $<.001$  significance, \*\* denotes  $<.01$  significance, \* denotes  $<.05$  significance, <sup>NS</sup> means not significant.

In all three models, greater beliefs about emotional uselessness were associated with more secondary emotions (path a:  $\beta=.07$ ,  $p=.001$ ). With depressive symptoms as the dependent variable, we found that emotion uselessness beliefs also predicted depressive symptoms (path c:  $\beta=.15$ ,  $p=.003$ ), as did greater experience of secondary emotions (path b:  $\beta=1.03$ ,  $p<.001$ ). When controlling for secondary emotions, the direct effect of beliefs about emotional usefulness on depressive symptoms became smaller albeit remained significant, suggesting partial mediation (path c':  $\beta=.08$ ,  $p=.026$ ). The indirect effect of beliefs about emotional usefulness on depressive symptoms via secondary emotions was significant ( $ab=.07$ , CI: .03, .12).

A very similar picture was observed with anxious symptoms. A significant total effect of beliefs in emotion uselessness on anxious symptoms (path c:  $\beta=.14$ ,  $p=.0002$ ) was reflective of a significant association between secondary emotions and anxious symptomatology (path b:  $\beta=.83$ ,  $p<.001$ ) and a smaller but still significant direct effect of emotion uselessness beliefs (path c':  $\beta=.08$ ,  $p=.016$ ), with a significant indirect effect supporting partial mediation by secondary emotions ( $ab=.06$ , CI: .02, .10).

As pertaining to eating disorder symptomatology, however, we observed a significant relationship between greater experience of secondary emotions and more severe eating disorder symptoms (path b:  $\beta=.17$ ,  $p<.001$ ) but *no* significant direct effect of emotion uselessness beliefs (path c':  $\beta=.01$ ,  $p=.344$ ). A significant total effect of emotion uselessness beliefs (path c:  $\beta=.02$ ,  $p=.032$ ), and a significant indirect effect of emotion uselessness beliefs via secondary emotions ( $ab=.01$ , CI: .004, .02), suggesting that the impact of emotion uselessness beliefs on eating disorder symptoms was fully mediated by secondary emotions.

## Discussion

In the present paper, we aimed to evaluate the link between beliefs about the usefulness of emotions, secondary emotions, and symptoms of depression, anxiety and eating disorders. Using a cross-sectional design, we compared students over and below cut-offs for these conditions on measures of beliefs about the usefulness of negative emotions and experience of secondary emotions (H1) and tested the mediating role of secondary emotions in the relationship between uselessness beliefs about emotions and depression, anxiety and eating psychopathology (H2). Our findings provided strong support for both hypotheses as we found that participants with high levels of psychological distress endorsed significantly stronger beliefs in the uselessness or harmfulness of negative emotions and were significantly more likely to report experiencing secondary emotions compared to their below cut-offs' counterparts. Our mediation analyses revealed that secondary emotions significantly mediated the relationship between emotion usefulness beliefs and all three forms of psychopathology examined, although the extent of this mediation differed by condition.

Our findings build upon Ford and Gross's (2018, 2019) theoretical framework, which posits that individuals' beliefs about emotions shape their emotional experiences and well-being. Our results provide empirical support for this model, demonstrating that individuals with elevated distress are indeed more likely to view their emotions as pointless. This finding is consistent with preliminary evidence linking beliefs toward emotion uselessness to problematic emotion management and increased psychological distress (Ford et al., 2018; Johnston, Petrova, et al., 2024; Manser et al., 2012; Preece et al., 2022; Shulkin et al., 2025; Veilleux, Chamberlain, et al., 2021; Veilleux, Pollert, et al., 2021). The elevated secondary emotions observed in our high-distress group also corroborate emerging research on meta-emotional processes in

psychopathology. For example, our findings align with those of Bailen et al. (2019), who found that secondary emotions—particularly negative responses to negative emotions—correlate with increased depressive severity. Similarly, our results support Predatu and colleagues' (2020a) observation of elevated secondary emotions in adults with emotional disorders, and the theorised role of secondary emotions in eating disorder psychopathology (Corstorphine, 2006). The robust effect size in our group ( $\eta^2 = .16$ ) suggests that these beliefs may represent a substantial and shared factor for emotional dysfunction across multiple forms of psychopathology, as per identification of these conditions in relation to emotion dysfunction (Bullis et al., 2019; Sloan et al., 2017; Steele et al., 2018; Watson et al., 2022).

Our mediation analyses revealed that secondary emotions serve as a significant pathway through which maladaptive emotion beliefs contribute to psychopathology across multiple disorders. The finding that beliefs about emotion usefulness were consistently associated with increased secondary emotions across all three models supports the theoretical proposition that when individuals perceive their emotions as harmful or pointless, they are more likely to experience negative emotional reactions to their primary emotions, confirming earlier findings (Rogier et al., 2023; Veilleux, Pollert, et al., 2021; Willroth et al., 2023). The strong association between secondary emotions and all forms of psychopathology also further underscores the clinical significance of these meta-emotional responses.

Moreover, the differential mediation patterns observed across the three disorders may provide an insight into shared and varying mechanisms underlying different forms of psychopathology. The complete mediation observed for eating psychopathology suggests that the relationship between emotion uselessness beliefs and eating psychopathology operates almost entirely through secondary emotions, indicating that these meta-emotional responses may be the primary

mechanism through which maladaptive emotion beliefs contribute to eating-related difficulties. This supports Corstorphine's (2006) conceptualization of secondary emotions as central to eating disorder maintenance, where individuals who view their emotions as harmful or useless may experience intense guilt, shame, or anger about their primary emotional responses, leading to emotional avoidance through restrictive eating, binge eating, or purging behaviours. In contrast, the partial mediation observed for depression and anxiety suggests that while secondary emotions represent an important pathway, additional mechanisms beyond meta-emotional responses also contribute to this relationship, such as avoidance behaviours which might arise as a consequence of believing emotions are useless. Believing that emotions are useless has indeed been linked to behavioural and emotional avoidance (Sydenham et al., 2017; Trincas et al., 2016). Johnston et al., (2025) also found that individuals may use suppression to avoid having to deal with emotions that they believe are useless or even harmful, and suppression as an emotion regulation strategy has been linked to depression and anxiety disorders (Dryman & Heimberg, 2018). Future research should further evaluate the association between beliefs about emotions, secondary emotions and avoidance behaviours to better understand their role in emotional disorders.

### **Implications**

Our findings demonstrate that beliefs about emotions and secondary emotions play an important role across eating disorders, anxiety, and depression, corroborating that these conditions share fundamental underlying emotional mechanisms. This pattern supports the conceptualisation of these disorders as "emotional disorders" characterized by common emotional vulnerabilities rather than entirely distinct pathological processes (Bullis et al., 2019; Sloan et al., 2017; Steele et al., 2018; Watson et al., 2022), and the related appropriateness of transdiagnostic emotion-

focused interventions (Carlucci et al., 2021; Sakiris & Berle, 2019). Relatedly, our research team has developed an emotion-focused toolkit targeting beliefs about emotions and secondary emotions specifically for individuals with eating disorders (Vuillier et al., 2024; Vuillier et al., in preparation). Preliminary evaluation of this intervention revealed promising results, with participants showing not only improvements in eating disorder symptoms but also significant reductions in anxiety and depression. While this toolkit was originally designed for eating disorder populations, our current findings suggest that similar emotion-focused interventions could prove effective for individuals with primary anxiety or depression diagnoses (e.g. (Cain et al., 2024)), consistent with the emotional disorders' framework (Bullis et al., 2019; Sloan et al., 2017; Steele et al., 2018; Watson et al., 2022). Given that co-occurring psychopathology can maintain individual disorders (Christian et al., 2023; Martín et al., 2019), the development of interventions that can be applied across diagnostic categories holds considerable promise for improving healthcare efficiency and reducing costs within mental health services, while simultaneously addressing the health burden of these conditions (Global Burden of Disease Study, 2022; Gibson et al., 2024; Vigo et al., 2022). Similarly, in that greater reductions in serious health conditions can be yielded by preventive measures (Pirkis et al., 2024; Waechter et al., 2023), the relevance of emotion beliefs to secondary emotions and multiple forms of psychopathology also has implications for building protective resilience in children and young people – through which, again, the economic burden of mental illness might be reduced (McDaid et al., 2019).

### **Limitations and Future Directions**

A significant limitation of the current study is its cross-sectional design, which prevents us from drawing causal conclusions about the relationships between emotion beliefs, secondary

emotions, and psychopathology. Indeed, whilst our findings demonstrate associations between these constructs, we cannot determine whether maladaptive emotion beliefs *lead to* increased secondary emotions and subsequent psychological distress, or whether individuals with existing psychopathology develop more negative attitudes toward their emotions *as a result of* their difficulties.

In contrast to other approaches (Predatu et al., 2020a, 2020b), our design involved participants self-reporting their emotion beliefs and the extent to which they experienced secondary emotions; we did not manipulate or evoke these in situ. This is particularly relevant given findings that emotion beliefs are only moderately stable, and that the extent of this stability differs across individuals, being notably lower in those with features of emotional disorders like borderline personality disorder (Veilleux, Pollert, et al., 2021; Veilleux, Warner, et al., 2021). In that this emotion belief instability is itself associated with psychopathology, a related limitation lies in the extent that we can statistically disentangle unique effects of beliefs about emotion uselessness and secondary emotions from those of other, highly related emotion processes. For instance, while we focused on emotion uselessness beliefs given the relative scarcity of empirical work in this area, these are strongly related to beliefs about emotion controllability; efforts to separate the distinct effects of these types of belief suggest that both may be important, but possibly arise from different developmental experiences (Berglund et al., 2023; Rogier et al., 2023). There are also fine-grained distinctions *within* the concept of emotion usefulness beliefs which may have clinical relevance. Approaches often conflate the concept of usefulness (e.g. the extent to which emotions are adaptive and functional, vs. pointless) with harmfulness (e.g. the extent that emotions are harmful or “bad” (Veilleux, Pollert, et al., 2021)), as indeed is the case for our measure (EBQ). Further investigation is required to tease out the developmental

trajectory of different distinct types of emotion belief, their relationships with other facets of emotional functioning and the mechanisms through which they might contribute to psychopathology.

Our study was also limited by its focus on a university student population with a White-British ethnicity majority, which limits the generalisability of our findings. While university students represent an important group for studying emotional difficulties given their elevated rates of mental health problems (*Student mental health in England: Statistics, policy and guidance*, 2025), the developmental and contextual factors unique to this population may influence the relationships between emotion beliefs, secondary emotions, and psychopathology. While we set out to study the relevance of these emotional processes to dimensional distributions of depressive, anxious and eating psychopathology in the general population, our student cohort demonstrated higher degrees of depressive, anxious and eating disorder psychopathology than might be expected given typical prevalence of these conditions. Moreover, many more participants reported symptoms above cut-offs than reported formal diagnoses of these conditions. While this may be indicative of underdiagnosis of clinically significant cases, the particular time context of 2022-2024 is relevant here, given the substantial impacts of the pandemic on students' lifestyles and their mental health.

## **Conclusion**

This study provides important evidence for the relationships between emotion beliefs, secondary emotions, and psychopathology in university students. Our findings demonstrate that individuals with high levels of psychopathology are characterized by maladaptive beliefs about the usefulness of emotions and elevated secondary emotional responses. These results contribute to our understanding of the shared emotional mechanisms underlying different forms of

psychopathology and suggest that addressing emotion beliefs and secondary emotions may represent promising avenues for transdiagnostic intervention approaches. As mental health difficulties continue to rise, developing effective treatments that target these fundamental emotional processes may be crucial for improving psychological wellbeing and increasing resilience across multiple domains of functioning.

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