


## RESEARCH ARTICLE

# Habitual behavioural control moderates the relation between daily perceived stress and purging

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## Abstract

**Objective:** Evidence suggests that interpersonal stress plays a role in maintaining binge eating and purging (e.g., self-induced vomiting, misuse of laxatives). Stress is especially likely to promote engagement in maladaptive behaviour if the behaviour is habitual; therefore, individuals whose binge eating and/or purging are habitual may be particularly likely to engage in these behaviours in the context of interpersonal stress. We aimed to investigate this hypothesis in a sample of women with binge eating and/or purging using ecological momentary assessment (EMA).

**Method:** Women ( $N = 81$ ) with binge-eating and/or purging symptoms completed a self-report measure assessing habit strength of binge eating and purging followed by a 14-day EMA protocol assessing daily perceived interpersonal stress and binge-eating and purging episodes.

**Results:** Habit strength of purging moderated the within-person effect of interpersonal stress on purging frequency, such that higher daily stress was associated with greater same-day purging frequency when purging was more habitual. Contrary to expectations, the interactive effect of habit strength of binge eating and daily interpersonal stress on same-day binge-eating frequency was non-significant.

**Conclusions:** Findings suggest that individuals with habitual purging may be vulnerable to engaging in purging when they are experiencing high levels of interpersonal stress.

## KEYWORDS

binge eating, habit, interpersonal stress, purging

## Highlights

- Habit strength of purging moderated the relation between daily perceived interpersonal stress and daily purging frequency.

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- Habit strength of binge eating did not moderate the relation between daily perceived interpersonal stress and daily binge-eating frequency.
- The results suggest that acute elevations in interpersonal stress may be especially likely to trigger engagement in purging if this behaviour is more habitual.

## 1 | INTRODUCTION

Binge eating (i.e., eating an objectively or subjectively large amount of food while experiencing a subjective sense of loss of control) and purging (i.e., self-induced vomiting, laxative misuse, diuretic misuse) are characteristic of multiple eating disorders including bulimia nervosa, binge-eating disorder, and purging disorder (American Psychiatric Association [APA], 2022; World Health Organization, 2019). A considerable portion of individuals with these symptoms do not achieve full symptom remission after receiving empirically supported treatments (Linardon & Wade, 2018) or experience a recurrence of symptoms following remission (Keel et al., 2005; Keller et al., 1992). A better understanding of mechanistic processes that contribute to binge eating and purging may guide the development of more effective clinical interventions.

A large body of work suggests that interpersonal stress (i.e., stress that arises from social interactions) plays a role in maintaining eating disorder symptoms (Ansell et al., 2012; Mason et al., 2021; Monteleone et al., 2018). Individuals with eating disorders report increased levels of interpersonal difficulties (Arcelus et al., 2013) and greater negative affect following interpersonal stressors, relative to controls (Monteleone et al., 2018). Interpersonal stress is associated with more severe binge-eating and purging symptoms in clinical and community samples (Ansell et al., 2012; Luo et al., 2018; Mason et al., 2021; Ranzenhofer et al., 2014). Further, interpersonal stress prospectively predicts the recurrence of eating disorder symptoms following remission from bulimia nervosa (Grilo et al., 2012). Given the relevance of interpersonal stress to binge-eating and purging symptoms, investigating moderators of these associations may provide valuable information to inform enhanced therapeutic interventions. In particular, the interactive effect of interpersonal stress and habit strength on binge eating and purging is important to understanding continued engagement in these eating disorder behaviours.

Evidence suggests that habit strength (i.e., the degree to which a behaviour is habitual) of eating disorder behaviours is relevant to the persistence of eating disorder symptoms, including binge eating and purging (Coniglio

et al., 2017; Davis et al., 2020; Dougherty et al., 2024; Voon et al., 2015; Westwater et al., 2022). Habitual behaviour is automatic and triggered by contextual stimuli; thus, it is initiated with minimal conscious effort (Dickinson & Balleine, 1994; Wood & R unger, 2016). In contrast to goal-directed behaviour, habitual behaviour occurs irrespective of its outcome; therefore, it may persist, despite aversive consequences (Dickinson & Balleine, 1994; Wood & R unger, 2016). A shift from goal-directed to habitual behavioural control over eating disorder behaviours has been hypothesised to explain the persistence of eating disorder symptoms (Uniack et al., 2018; Walsh, 2013). Binge eating may start out as an impulsive action that over time, becomes a compulsive automatic response to binge eating-related contextual stimuli (e.g., the presence of palatable foods) that is insensitive to negative consequences (e.g., metabolic syndrome; Mitchell, 2016; Pearson et al., 2015; Voon et al., 2015). Indeed, evidence suggests that high impulsivity may predict the development of compulsive behaviours in other psychiatric disorders (e.g., substance use disorders; Belin et al., 2008; Everitt et al., 2008). Moreover, research suggests that impulsivity and compulsivity both contribute (albeit in varying degrees) to the maintenance of binge-eating behaviour (Carr et al., 2021; Waltmann et al., 2021). Similar to binge eating, purging may initially be driven by a goal to compensate for eating, but over time, it may become a compulsive automatic response to purging-related contextual stimuli (e.g., being in a bathroom) that persists despite negative consequences (e.g., oesophagus damage, dental complications; Forney et al., 2016). Research has shown that habit strength of eating disorder symptoms is associated with a greater severity of eating disorder psychopathology and a more chronic course of symptoms in anorexia nervosa (Coniglio et al., 2017; Davis et al., 2020; Dougherty et al., 2024). Overall, evidence suggests that habit strength may play a role in maintaining binge eating and purging in multiple eating disorders.

Stress is especially likely to facilitate engagement in maladaptive behavior if the behavior is habitual; therefore, the impact of interpersonal stress on binge eating and purging may differ depending on the habit strength of these behaviors (Braun & Hauber, 2013; Wirz et al.,

2018). Stress (including stress that arises from social interactions) has been shown to impede goal-directed behavioral control but leave habitual behavioral control intact (Schwabe & Wolf, 2009; Schwabe et al., 2012; Yu, 2016). Further, individuals are more prone to engaging in habitual behaviors when stressed than when not stressed (Schwabe & Wolf, 2009; Schwabe & Wolf, 2010). Habitual behavior requires less cognitive effort than goal-directed behavior, which can be adaptive in situations where decisions need to be made quickly, without much consideration for potential consequences. However, habitual behavior can be maladaptive when the outcome is no longer desirable or is harmful, as the capacity to change behavior requires conscious effort (Wood & R unger, 2016). Given evidence that interpersonal stress maintains eating disorder symptoms, and that stress promotes habitual performance, acute elevations in interpersonal stress may be particularly likely to predict engagement in binge eating and purging if these behaviours are more habitual. However, no research has investigated whether habit strength and interpersonal stress interactively predict engagement in eating disorder behaviours.

Importantly, research investigating stress and habit strength of non-eating disorder behaviours has primarily employed experimental designs (Schwabe & Wolf, 2011), which have limited external validity given that the stressors in experimental paradigms are less diverse than stressors encountered in daily life. Further, stressors used in experimental paradigms (e.g., a physical stressor) may not hold the same salience as real-life interpersonal stressors (e.g., an argument with a friend). Ecological momentary assessment (EMA) is a real-time method of data collection that involves repeatedly assessing participants' behaviour and emotions in their natural environment (Stone & Shiffman, 1994). EMA allows for the examination of dynamic processes (e.g., stress level), while enhancing ecological validity (Engel et al., 2016). Thus, it is particularly well-suited to investigate whether habitual control over binge eating and purging and daily interpersonal stress interactively predict engagement in binge eating and purging.

While previous research has demonstrated associations among habit strength, stress, and binge eating and purging (e.g., Ansell et al., 2012; Dougherty et al., 2024; Schwabe & Wolf, 2010), the extent to which habit strength may moderate relations between stress and binge-eating and purging behaviours remains unclear. Thus, this study investigated whether habit strength of binge eating and purging would interact with daily perceived interpersonal stress to predict daily binge eating and purging in the natural environment using EMA. Based on previous literature, we hypothesised that

habit strength of binge eating and purging would moderate positive relations between daily perceived interpersonal stress and daily binge-eating and purging frequencies, such that these relations would be stronger for individuals whose binge eating and/or purging was more habitual.

## 2 | METHOD

### 2.1 | Participants and procedures

The sample comprised 81 women ( $M_{\text{age}} = 28.30 \pm 9.35$ ) with binge eating and/or purging symptoms (Table 1). Participants self-identified as Non-Hispanic White (63.7%,  $n = 51$ ), Asian (16.3%,  $n = 13$ ), Hispanic (13.8%,  $n = 11$ ), Black (10.0%,  $n = 8$ ), Other (7.5%,  $n = 6$ ), Native Hawaiian/Other Pacific Islander (2.5%,  $n = 2$ ) and American Indian/Alaska Native (2.5%,  $n = 2$ ). Participants had a mean body mass index of 25.32 kg/m<sup>2</sup> ( $SD = 8.5$ , range = 11.51–52.78). To participate, participants had to self-identify as female, be aged 18 or older, be able to read English, and experience at least one episode of binge eating or purging per week for the past three months.

All study procedures were approved by an Institutional Review Board. Details of this study have been previously published (Dougherty et al., 2024). Interested participants completed an eligibility screen via telephone. Eligible participants completed a baseline questionnaire and a 14-day EMA protocol. During the telephone screen, the principal investigator trained eligible participants on how to complete the EMA ratings on their personal mobile devices (e.g., a phone or tablet) and provided definitions for binge eating and purging (i.e., self-induced vomiting, laxative misuse, diuretic misuse). Given that loss of control over eating is a core feature of binge eating, participants were instructed to identify both objective binge eating (i.e., eating an objectively large amount of food while experiencing a subjective sense of loss of control) and subjective binge eating (i.e., eating a quantity others might consider to be a typical meal or snack while experiencing a subjective sense of loss of control) episodes as binge eating (Goldschmidt et al., 2012).

The EMA protocol included three types of EMA ratings: (a) signal-contingent, (b) event-contingent, and (c) interval-contingent (Wheeler & Reis, 1991). For signal-contingent ratings, participants were prompted at five semi-random times throughout the day between 8:30 AM and 8:30 PM. For interval-contingent ratings, participants were prompted once per day at 9:30 PM. For event-contingent ratings, participants were instructed to self-

**TABLE 1** Sociodemographic characteristics of the sample and descriptive statistics for baseline study variables.

	Mean (SD)/%
Age (years)	28.30 (9.4)
BMI	25.32 (8.5)
Race/ethnicity	
Non-hispanic white	63.7%
Asian	16.3%
Hispanic	13.8%
Black	10.0%
Other	7.5%
Native Hawaiian/Other pacific islander	2.5%
American indian/Alaska native	2.5%
Geographic location	
United States	83.8%
Canada	7.5%
United Kingdom	5.0%
Germany	1.3%
Romania	1.3%
France	1.3%
Education	
College	65.0%
High school	27.5%
Other	6.3%
Some high school	1.3%
Habit strength of binge eating	15.7 (3.5)
Habit strength of purging	14.1 (4.5)

Abbreviation: BMI, Body Mass Index.

initiate EMA assessments immediately after a binge-eating or purging episode occurred. Participants were also asked about their engagement in binge eating and purging during interval- and signal-contingent ratings. Perceived interpersonal stress was assessed during interval-contingent ratings. Participants provided informed consent prior to participating. Participants received \$25 for participating in the study.

## 2.2 | Measures

### 2.2.1 | Demographic variables

Participants self-reported height, weight, age, race/ethnicity, educational history, and geographic location.

### 2.2.2 | Habit strength

Habit strength of binge eating and purging was assessed at baseline using the automaticity subscale (SBAI; Gardner et al., 2012) of the Self-Report Habit Index (Verplanken & Orbell, 2003). The SBAI includes four items (e.g., *Behaviour X is something that I do without thinking*) that evaluate the extent to which a given behaviour is performed automatically, with minimal conscious intention. Items are rated on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants completed separate SBAI subscales for binge eating and purging relative to the behaviour(s) they reported engaging in during the past 3 months (e.g., those who endorsed binge eating but denied purging only completed the SBAI relative to binge eating). Previous research has used the SBAI to assess habit strength of behaviours (e.g., Diefenbacher et al., 2023). This subscale has shown good internal consistency reliability and good convergent validity in previous research (Gardner et al., 2012). In the current sample, internal consistencies of the SBAI subscales were good ( $\alpha$  SBAI binge eating = 0.89;  $\alpha$  SBAI purging = 0.80).

### 2.2.3 | Interpersonal stress

A subset of items from the Daily Stress Inventory (DSI; Brantley et al., 1987) were used to assess perceived interpersonal stress once a day. The DSI contains 60 items that assess a variety of stressors. For the purpose of this study, only items that assessed interpersonal stressors (e.g., argued with another person; 20 items) were used. In line with previous EMA research (Smyth et al., 2009), stressors were presented in the form of a checklist and participants indicated which events they had experienced during the previous 24 h. For each stressful event endorsed, participants indicated how stressful they perceived the event to be on a seven-point scale ranging from 1 (*not at all*) to seven (*exceptionally*). Ratings for perceived stress were averaged across interpersonal stressors and then aggregated within-day for each person. The DSI has been shown to have good convergent validity and good internal consistency in previous studies (Brantley et al., 1987, 1988).

### 2.2.4 | Binge-eating and purging behaviours

Participants were asked if they experienced a binge-eating or purging episode since their previous assessment. An answer of “yes” for binge eating was followed by two items assessing loss of control over eating (*While*

you were eating, how much did you feel a sense of loss of control? While you were eating, how much did you feel like you could not resist eating?) that were rated on five-point Likert scale ranging from 1 (*not at all*) to 5 (*a lot*). An eating episode was categorised as a binge-eating episode if participants responded “yes” to binge eating and rated at least one of the follow-up items a two or higher. An answer of “yes” for purging was followed by items assessing the method of purging used (i.e., self-induced vomiting, laxative abuse, or diuretic abuse). Frequency values for self-induced vomiting, laxative abuse, and diuretic abuse at each rating period were summed to create a composite purging frequency variable. Purging frequencies were then summed within-day for each person. This same process was used to calculate total daily binge-eating frequencies.

### 2.3 | Planned statistical analysis

Statistical analyses were performed using IBM SPSS 24.0 (SPSS Inc, Armonk, NY) and R (R Core Team, 2023). Generalised mixed modelling was used to examine associations among daily perceived interpersonal stress, baseline habit strength, and daily binge-eating (subjective and objective) and purging episode frequency. Models were estimated with a log link function and a Poisson distribution, as this provided the best fit to the data. The model examining binge eating included random intercepts and slopes. The model examining purging included random intercepts and fixed slopes. Outcome variables were daily frequencies of binge eating and purging. Predictor variables were daily level of interpersonal stress, baseline habit strength variables, and interactions between interpersonal stress and habit strength variables. Perceived interpersonal stress was person-mean centred and habit strength of binge eating and habit strength of purging were grand-mean centred. To account for individual differences in EMA compliance, models controlled for the total number of completed EMA ratings during the EMA period.

## 3 | RESULTS

All participants reported a history of binge eating and 58% ( $n = 47$ ) also reported a history of purging. Overall compliance with signal and interval-contingent ratings was 53%. Participants reported a total of 553 binge-eating episodes, 354 purging episodes, and 1110 interpersonal stressors during the EMA rating period. The average level of perceived stress across interpersonal stressors was 4.57 ( $SD = 1.37$ ), indicative of moderate-severe levels of

perceived interpersonal stress. Participants reported an average of 4.37 purging episodes ( $SD = 7.05$ ) and 6.83 binge-eating episodes ( $SD = 6.71$ ) during the EMA period.

The results of the main analyses are presented in Table 2. Consistent with our hypothesis, habit strength of purging moderated the within-person relation between daily perceived interpersonal stress and daily purging frequency (Figure 1). Follow-up simple slopes analysis indicated that a higher daily level of perceived stress (relative to the participant's own average) was associated with a greater same-day frequency of purging when habit strength of purging was high (1  $SD$  above the mean;  $p = 0.02$ ). In contrast, higher daily level of perceived stress (relative to the participant's own average) was associated with a lower same-day frequency of purging when habit strength of purging was low (1  $SD$  below the mean;  $p < 0.01$ ). Contrary to our hypothesis, habit strength of binge eating did not moderate the relation between daily perceived interpersonal stress and daily binge-eating frequency, and there were no main effects of habit strength or perceived interpersonal stress on binge eating.

## 4 | DISCUSSION

This study investigated whether habit strength of binge eating and purging moderated associations between daily interpersonal stress and daily binge eating and purging in everyday life. The results partially supported the hypothesised moderating role of habit strength on associations among daily perceived interpersonal stress and daily binge eating and purging in a sample of women with binge eating and/or purging symptoms. As expected, habit strength of purging moderated the association between higher daily perceived interpersonal stress and higher same-day purging frequency. Specifically, a higher daily level of perceived interpersonal stress was associated with a greater daily frequency of purging when purging was more habitual. In contrast, a higher daily level of perceived interpersonal stress was associated with a lower daily frequency of purging when purging was less habitual. Contrary to expectations, habit strength was not a significant moderator of the relation between daily perceived interpersonal stress and same-day binge-eating frequency. To our knowledge, this study is the first to examine whether habit strength moderates the association between daily stress and engagement in eating disorder behaviours. These findings make an important contribution to the literature by highlighting the potential relevance of stress-related habitual responding to the maintenance of purging.

TABLE 2 Generalised mixed models predicting the daily frequency of binge eating and purging during the EMA period.

	DV: Binge-eating frequency						DV: Purging frequency					
	B	SE	95% confidence interval		z	p	B	SE	95% confidence interval		z	p
			Lower	Upper					Lower	Upper		
Intercept	-1.77	0.50	-2.826	-0.834	-3.57	<0.001	-1.66	0.60	-3.028	-0.508	-2.75	0.006
Stress	-0.14	0.10	-0.336	0.073	-1.39	0.166	-0.05	0.03	-0.105	0.014	-1.51	0.132
Habit strength	0.04	0.05	-0.064	0.144	0.76	0.448	0.08	0.05	-0.014	0.187	1.73	0.084
Stress × habit strength	0.02	0.02	-0.012	0.058	1.30	0.194	<b>0.04</b>	<b>0.01</b>	<b>0.018</b>	<b>0.052</b>	<b>4.07</b>	<b>&lt;0.001</b>

Note: Bold font indicates significant ( $p < 0.05$ ) effects. Models controlled for total number of completed ratings. These effects are not depicted.

Abbreviation: DV, dependent variable.

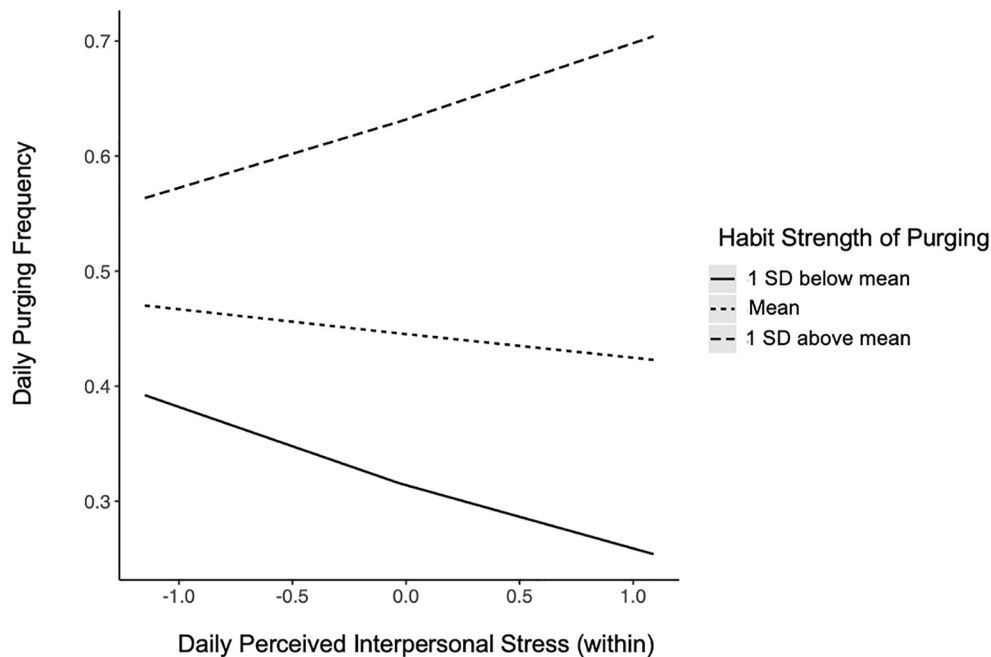


FIGURE 1 Interaction of daily perceived interpersonal stress and habit strength predicting same-day frequency of purging.

With regard to the moderating role of habit strength on the association between daily perceived interpersonal stress and daily frequency of purging, results indicated that higher daily perceived interpersonal stress (relative to one's own average) was related to a higher same-day purging frequency when purging was more habitual. This finding is consistent with prior laboratory research (Schwabe & Wolf, 2009; Schwabe & Wolf, 2010), and supports the possibility that individuals with habitual purging may be especially vulnerable to purging when they are experiencing unusually high levels of interpersonal stress. Based on this finding, individuals whose purging is more habitual may benefit from habit-based interventions to help them refrain from purging during periods of acute stress (Gardner et al., 2020; Steinglass et al., 2018). For example, individuals could be instructed to stand outside after eating, rather than going to the

bathroom to prevent habitual purging. While purging is common among individuals with bulimia nervosa and anorexia nervosa, binge-eating/purging type, recurrent purging behaviours are only required for the diagnosis of purging disorder (APA, 2022). Researchers have called for the investigation of the functional role played by purging in individuals with purging disorder, suggesting that addressing recurrent purging may require unique interventions (Smith et al., 2017). Given evidence that habit may play a role in maintaining purging, it could be useful for future research to investigate the interactive effect of habit strength and stress on the maintenance of purging, specifically, among individuals with purging disorder. Future research should also investigate whether habit strength of purging could be used to identify individuals at heightened risk for a stress-related recurrence of eating disorder symptoms. Interestingly, higher

daily perceived interpersonal stress (relative to one's own average) was related to a lower same-day frequency of purging when purging was less habitual (i.e., less automatic, and more intentional). When habit strength is low, higher stress may be negatively associated with purging because individuals are better able to utilise other coping strategies. Future research should utilise EMA to investigate this possibility.

Contrary to expectations, habit strength did not moderate the relation between daily perceived interpersonal stress and same-day binge-eating frequency. Since habitual behaviour is stimulus-dependent (i.e., triggered by associated contextual stimuli), engagement in habitual binge eating during the EMA period required exposure to binge eating-related contextual stimuli (Wood & Rün-ger, 2016). One possibility is that individuals with habitual binge eating did not encounter relevant binge eating-related contextual stimuli on days when they experienced higher perceived interpersonal stress and therefore, did not engage in binge-eating behaviour. It would be useful for future research to assess contextual stimuli that prompt binge-eating behaviour. These findings may also relate to the heterogeneity of eating disorder symptoms in individuals who endorsed binge eating. Objective and subjective binge eating characterise a wider range of eating disorders than purging; therefore, individuals with binge eating may have had more diverse diagnostic presentations than individuals with purging (APA, 2022). It is possible that habit strength and perceived interpersonal stress only play a role in maintaining binge eating in certain eating disorders; future research should investigate whether associations among habit strength, daily perceived interpersonal stress, and daily binge eating differ across disorders. Lastly, it is possible that habit strength plays a less prominent role in maintaining binge eating compared to other mechanisms. For example, empirical and theoretical work suggests that reward-related mechanisms (e.g., cravings, hyper-responsivity to anticipatory food cues) play a critical role in perpetuating binge eating, particularly in later phases of illness (i.e., when symptoms become compulsive; Bodell & Racine, 2023; Chao et al., 2016; Forester et al., 2024; Meule et al., 2018). Interestingly, some of these mechanisms have also been linked to habit performance (Michaelsen & Esch, 2021; Sinha, 2013); therefore, future studies could also consider how other factors may interact with habit strength to maintain binge eating.

The findings of this study should be interpreted in the context of several limitations. This study only focused on interpersonal stress. While interpersonal stress has been shown to be particularly relevant for individuals with eating disorders, research is needed to determine whether

similar findings would emerge with other types of stressors (e.g., occupational stressors; Mason et al., 2021; Monteleone et al., 2018). It may be especially useful to investigate appearance-related stressors (e.g., weight-based teasing, exposure to thin-ideal images; Hawkins et al., 2004; Rubin et al., 2021). Overall compliance with EMA procedures in this study was lower (53%) than compliance in other EMA studies with eating disorder samples (e.g., Mason et al., 2021). The lower-than-expected compliance may have been due to a lack of compliance-based incentives, which have been shown to enhance participant compliance (Wrzus & Neubauer, 2023). Another possibility is that participants perceived the frequent EMA prompts to be overly burdensome, reducing their level of compliance. Missing data from EMA non-compliance may have reduced statistical power, limiting our ability to detect significant effects (Galbraith et al., 2017). Therefore, future research that investigates associations among stress, habit strength, and eating disorder symptoms should consider utilising strategies to achieve higher EMA compliance. Study eligibility was assessed using a non-diagnostic eating disorder measure as opposed to a diagnostic interview; therefore, we were not able to establish clinical diagnoses. Additionally, this study examined concurrent relations between stress and binge eating and purging; therefore, it is not possible to draw causal conclusions about the direction of effects. We assessed stress on a daily level rather than a momentary level to minimise participant burden. Given that stress fluctuates throughout the day, future research that investigates momentary stress could provide a more fine-grained understanding of the interactive effect of habit strength and acute stress on binge eating and purging (Smyth et al., 2009). We assessed habit strength using a retrospective self-report measure (Gardner et al., 2012), which increased the possibility of recall bias and did not allow for examination of contextual stimuli that may prompt habitual behaviour (e.g., binge eating-related contextual stimuli). Theoretically, behaviour that is habitual is performed repeatedly in a similar context (Wood & Rün-ger, 2016). Future research should utilise EMA to measure habit strength, as this methodology would allow for examination of temporal changes in context (e.g., location, time of day, preceding actions) and is less susceptible to recall bias (Smyth et al., 2001). Lastly, we recruited an all-female sample, the majority of whom self-identified as non-Hispanic White, thereby limiting the generalisability of the findings to other populations including other racial/ethnic groups and men. Marginalised populations experience more severe and chronic stressors than majority populations, including unique minority stressors characterised by stigma and discrimination (Forrester et al., 2019; Mongelli et al., 2019). These

elevated and unique stressors have been linked to maladaptive and disordered eating behaviours in populations such as Black and Hispanic/Latinx individuals (Kazmierski et al., 2021), sexual minority men (Panza et al., 2021; Wang & Borders, 2017), and transgender and nonbinary individuals (Cusack et al., 2021). Future research should attempt to replicate the findings in a more diverse and representative sample.

## 4.1 | Conclusion

Our findings suggest that individuals with habitual purging may be especially vulnerable to purging when they are experiencing unusually high levels of interpersonal stress. Thus, habit strength may be one mechanism that explains vulnerability to a stress-related exacerbation of symptoms. Further research is needed to replicate the findings with more heterogeneous samples and a broader range of stressors to better understand the role of stress and habit strength in maintaining binge eating and purging.

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## CONFLICT OF INTEREST STATEMENT

The authors declare that there are no competing interests.

## DATA AVAILABILITY STATEMENT

Data are available from the first author upon reasonable request.

## PATIENT CONSENT

Written consent was obtained from all participants.

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