Current Psychology
https://doi.org/10.1007/s12144-025-08235-7

Seeing stress on the horizon: the role of stressor forecasting and affect regulation on daily well-being

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Accepted: 10 July 2025

Abstract

Stressor forecasting (which entails predicting future stressful events) can influence everyday well-being; however, less is understood about how people manage their affect in response to anticipated stress. The current work addresses this gap by examining commonly studied affect regulation strategies and their role in shaping daily affective experiences. The present study explored how negative affect (an index of daily well-being) is shaped by affect regulation strategies among people who do versus do not forecast stressors in the upcoming day. Using ecological momentary assessments, 146 college students in the study reported their affect regulation strategies and negative affect at three time points: morning (one hour after forecasting stressors), mid-day (five hours after forecasting), and end of the day (10 h after forecasting). Results indicated that among individuals who forecasted stress, using engagement-based strategies, including acceptance and cognitive reappraisal in the morning, was associated with lower negative affect. In contrast, avoidance-based strategies, including distraction, experiential avoidance, and expressive suppression, were associated with increased negative affect later in the day, suggesting their ineffectiveness over time. These findings underscore the importance of timing in affect regulation efforts and highlight how different strategies may influence daily emotional well-being. Future research should explore how these dynamics unfold across diverse populations and stressor contexts to inform interventions that promote adaptive affect regulation in daily life.

Keywords Stressor forecasting · Affect regulation · Negative affect · Future-oriented coping

Stress is ubiquitous in contemporary life, making regulating stress effectively crucial for maintaining mental health and overall well-being (Neupert et al., 2019). At the same time, it is well-documented that individuals differ in how they respond to stressful situations (Almeida et al., 2020). However, most existing research has focused on how individuals manage *stress reactivity* and negative affect (for example, sadness, anger, irritability, helplessness) *after* a stressor or adverse experience has occurred (Bellingtier & Neupert, 2016; Hyun et al., 2018; Scott et al., 2019). Even *before* stressors occur, recent research suggests that anticipating stress can also shape affective experiences throughout the day, with consequences for well-being (Neubauer et al., 2018; Scott et al., 2019).

Stressor forecasting involves individuals making predictions about the occurrence of a stressor within a specific timeframe (Neubauer et al., 2018; Neupert & Bellingtier, 2019). The stress experienced due to stressor forecasting has been found to be comparable to stress reactivity, and they are expected to exacerbate each other over time (Neupert & Bellingtier, 2019). Research shows that predicting stress, particularly in the morning, can impact working memory performance and affect throughout the day (Hyun et al., 2018), suggesting that making predictions about stress at the beginning of the day can set the tone for how individuals experience affect and cognition. Furthermore, when people anticipate a stressful event, they also report high levels of concurrent negative affect that can last a few hours (Kramer et al., 2022; Neubauer et al., 2018; Scott et al., 2019; Wang et al., 2021). These findings suggest that stressor forecasting can impact everyday well-being. However, people differ in how they regulate their affect in response to anticipated and actual stressors. As forecasting stress may increase negative affect (Kramer et al., 2022), people may engage in

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Published online: 04 August 2025

affect regulation strategies to mitigate these effects. Thus, the effectiveness of affect regulation approaches may determine whether forecasting stress leads to heightened distress or more adaptive coping responses. Below, we provide an overview of affect regulation literature on how individuals regulate stressors, followed by a discussion of the knowledge gap in managing anticipated stressors.

Integrating affect regulation into stressor forecasting

Affect regulation is the ability to manage an emotion (including stress) to achieve personally meaningful goals (Aldao et al., 2015). While affect regulation involves numerous regulation approaches (or strategies) to modulate one's affect, one frequent way of categorizing them is whether efforts are adaptive (or helpful) versus maladaptive (or unhelpful) toward well-being (Aldao et al., 2010; Naragon-Gainey et al., 2017). Some common adaptive strategies include *acceptance* (that entails acknowledging and allowing one's emotions to be present without trying to change or avoid them), *cognitive reappraisal* (which is reinterpreting a situation to change its emotional impact), and *problem-solving* (that involves identifying, analyzing, and addressing the source of distress to reduce negative emotions). Such adaptive strategies are associated with better well-being (Aldao et al., 2010; Gross, 2015). In contrast, frequently studied maladaptive strategies are *experiential avoidance* (which includes attempting to escape, avoid, or suppress thoughts or feelings that are distressing or uncomfortable) and *expressive suppression* (that entails inhibiting the outward expression of emotions). These maladaptive strategies are known to be associated with worsened well-being (Aldao et al., 2010; Gross, 2015). Engaging in preemptive and adaptive regulatory efforts before a stressor occurs, such as when individuals forecast stress, can buffer individuals from intense negative affect when stressors arise (Diachina & Neupert, 2022; Neupert et al., 2019). Preparing for anticipated stress allows for emotional preparedness and cognitive processing that may reduce the intensity of future stress reactions (Kramer et al., 2022; Neubauer et al., 2018).

However, there remains a limited understanding of effective affect regulation approaches when managing stressor forecasting, as most of the literature thus far has used cognitive strategies (such as, analyzing the problem) to understand a problem at hand (Neupert & Bellingtier, 2019). Furthermore, research has been conducted with a single maladaptive affect regulation strategy that restricts our understanding of effective affect regulation strategies. For instance, when anticipating a stressful event, depressed individuals tend to ruminate, which is a maladaptive strategy (De Raedt & Hooley, 2016). Despite limited research on affect regulation strategies in the context of stressor forecasting, insights from the broader affect regulation literature can inform our understanding of these processes. The current study fills this gap by examining how adaptive and maladaptive affect regulation strategies may shape well-being in the context of stressor forecasting.

The current study

The present study examined how forecasting stress at the beginning of the day influences the selection of affect regulation strategies and their relationship to negative affect throughout the day. Specifically, we were interested in understanding how negative affect (an individual-level daily well-being outcome) is linked to the implementation of various affect regulation strategies for individuals who do (versus do not) forecast stress. We were specifically interested in studying common adaptive and maladaptive strategies to regulate affect in response to forecasting stress (Brans et al., 2013; Naragon-Gainey et al., 2017). We examined eight affect regulation strategies that are relevant for understanding stressor forecasting (see Table 1 for descriptive information).

Table 1 Means, standard deviations, and intraclass correlation coefficients for emotion-regulation strategies

Strategy	Item description	M	SD	ICC
Acceptance	I allowed space for whatever is going on, rather than trying to create some other state.	1.29	1.18	0.372
Cognitive Reappraisal	I changed the way I think about what causes my feelings.	0.78	1.00	0.488
Lack of clarity	I had difficulty making sense out of my feelings.	0.83	1.07	0.551
Distraction	I engaged in activities to distract myself from my feelings.	1.55	1.32	0.371
Experiential avoidance	I pushed down my feelings or put them out of my mind.	1.20	1.27	0.471
Difficulty problem solving	I had trouble following through with things once I had made up my mind to do something.	0.82	1.04	0.439
Expressive Suppression	I avoided expressing my emotions.	1.13	1.29	0.540
Planning to problem-solve	I looked for possible solutions to fix my problem.	1.46	1.20	0.303

Furthermore, affect regulation strategies can vary between individuals and within individuals over time (Diachina & Neupert, 2022; Neupert et al., 2016). Examining between-person and within-person differences provides a more comprehensive understanding of these processes. Thus, to comprehensively understand affect regulation efforts throughout a day, we examined differences at between and within-person levels. To study between and within-person level fluctuations in affect regulation and stressor forecasting, recent research has used ecological momentary assessments (EMAs), which enable data collection in naturalistic settings in near real-time (Kramer et al., 2022). Therefore, we adopted EMAs to examine the links between stressor forecasting and affect regulatory efforts over the course of a day.

Furthermore, affective experiences can change about every hour on average (Koval et al., 2020), highlighting the need for frequent sampling to understand everyday well-being and its links to stressor forecasting accurately. The current study examined negative affect, a common metric of daily well-being, because it encompasses a range of negative emotional states being experienced by participants (such as hopelessness and irritability; Watson & Clark, 1984). Focusing on negative affect as an outcome is especially relevant because it serves as a central indicator of daily well-being and has well-documented links to mental health, work performance, and interpersonal relationships (Mazure, 2018). Negative affect has been identified as a key variable in understanding the emotional impacts of stressor forecasting (Neupert et al., 2019), further highlighting the importance of assessing it in our study.

To summarize, the present study used EMAs to explore the associations between regulatory strategies and negative affect and how these relationships may be influenced by stressor forecasting over the course of the day. Specifically, we were interested in understanding these links at the beginning of the day (an hour after forecasting stressors), mid-day (about five hours from forecasting), and end-of-day (10 h from forecasting). There were temporally meaningful distances from when stressor forecasting predictions were made, and they were theoretically interesting to examine. Based on prior work (Aldao et al., 2010; Naragon-Gainey et al., 2017), we hypothesized that adaptive strategies, including acceptance, cognitive reappraisal, and planning to problem-solve, would be more helpful ways of managing stressor forecasting and regulating negative affect and associated with lower negative affect. In contrast, we hypothesized that maladaptive strategies, including difficulty in self-regulation (such as, difficulty in executing problem-solving, lack of clarity), experiential avoidance, and expressive suppression, would be unhelpful in regulatory efforts managing stressor forecasting and associated with higher negative affect.

Method

Participants

One hundred forty-six college students participated in this study (M_{age} = 22 years old, SD=5.51). The Institutional Review Board approved the study protocol at the [MASKED]. Participants were recruited from the university's research subject pool, which is open to all majors (including nursing, psychology, physics, and education) across the university, and received research credit for participating. The only eligibility criterion was to be 18 years old. The demographic information for the sample examined in this study is reported in Table 2. The participants were not screened based on any other psychological or mood disorders. In terms of sample size estimates, we did not have an a priori effect size available for the research question being examined in the current study. Therefore, we aimed to get a large enough sample (above 100) as well as multiple assessments at the within-subjects level.

Measures

We used a web-based application called SurveySignal (Hofmann & Patel, 2015) to gather.

EMA data, which used a signal-contingent design (entailed delivering text messages to complete surveys semi-randomly throughout the day). The following EMA measures were used.

Stressor forecasting

We utilized an existing measure to assess stressor forecasting (Elsey et al., 2025). At the start of the study

Table 2 Demographic information for the participants in the study

Demographic variable	Percentage reported
Gender: Female	87.70%
Male	10.3%
Genderqueer	0.3%
Other	0.7%
Race: White	78.76%
Asian or Asian American	10.27%
Black or African American	3.4%
American Indian or Alaskan	2.0%
Native Hawaiian	0.98%
Biracial or a mixture of backgrounds	4.7%.
Hispanic or Latino	10.86%
Education: High-school diploma	13.7%
College freshman	14.4%
College sophomore	17.1%
College junior	44.5%
Bachelor's degree	7.5%
Master's degree	2.7%

(before beginning daily surveys), participants were asked to estimate their expected stress levels for the day: "How frequently do you expect stressful events to occur today?" Answer options ranged from *not at all* (0) to *a great deal* (4). To create low versus high-stressor forecasting groups, we categorized responses of '*Not at all*' (0) and '*A little*' (1) as low-stressor forecasting, and '*A lot*' (3) and '*A great deal*' (4) as high-stressor forecasting. The 'Moderate' (2) response was excluded to ensure distinct categorization.

Affect regulation strategies

Participants were presented with eight items describing affect regulation strategies that were adapted from previous studies (Brans et al., 2013; Gruber et al., 2013; Heiy & Cheavens, 2014; Lohani et al., 2020; McMahon & Naragon-Gainey, 2019). Participants reported how much they used each affect regulation strategy to regulate their responses to stressors. Specifically, they were asked, "How much were you doing each of the following?" on a 5-point Likert scale, 0 (*not at all*) to 4 (*a great deal*). See Table 2 for the description of these strategies, their means, standard deviations, and intraclass correlation coefficients.

Negative affect

Negative affect was assessed using a modified differential emotion scale (Watson & Clark, 1984). The scale included five negative emotions (irritable, angry, lonely, helpless, hopeless). Participants were asked at each experience sampling survey, "Since you last indicated, how much of the following do you feel." They rated each item on a scale of 0 (*not at all*) to 4 (*a great deal*). A negative affect score was created by summing the five negative emotions for each sampling event. The sample had good reliability, as the within-person Cronbach's alpha for negative affect was 0.85 and 0.89 for between-person.

Procedure

Data were collected on weekdays between Fall 2020 and Spring 2022. Participants signed the consent form approved by the Institutional Review Board. All participants were from the same university, recruited through the university research pool, and compensated with credit. Participants only completed one day of study participation. Participants received 10 text messages on their study day between 10 a.m. and 8 p.m. to complete the surveys. The first survey included the item on stressor forecasting. Although participants completed 10 assessments per day, we focused on three key time points — morning (one hour after stressor forecasting), mid-day (five hours later), and end-of-day (ten hours later) — to capture meaningful fluctuations in affect regulation across time. These time points align with prior research examining the temporal dynamics of stressor forecasting (Neubauer et al., 2018) and provide insight into how regulatory efforts unfold over the day. The morning assessment allowed us to examine the immediate effects of stressor forecasting on negative affect; the mid-day assessment provided insight into the persistence of these effects, and the end-of-day assessment captured accumulated affective experiences. Analyzing all 10-time points would have introduced excessive statistical noise while not necessarily offering additional theoretical insight. Thus, the selected time points balance analytical feasibility and capture key daily regulatory patterns. A semi-random signal-contingent design was used to avoid anticipatory behaviors (Brans et al., 2013) and set up to send one text message to complete a survey randomly within each hour. This text message included a Qualtrics survey link to report momentary affect levels and affect regulation efforts. Each experience sampling event took less than 5 min to complete.

Data analytics approach

All analyses were conducted in R Version 4.3.2 (R Core Team, 2021) using *lme4* and *lmerTest*. Multilevel models (MLMs) were used due to the nested data structure, in which assessments (within-person; Level 1) were nested within individuals (between-person; Level 2). Missing data were handled using full-information maximum likelihood (FIML) estimation, which provides unbiased parameter estimates assuming data are missing at random (Baraldi & Enders, 2010). The relatively high compliance rates reduced concerns about systematic bias due to missing data.

Participants were treated as a random intercept in all models. Affect regulation strategies were analyzed at the within-person (intra-individual) and between-person (inter-individual) levels. Affect regulation strategies were person-mean centered to assess within-person deviations from the individual's mean and grand-mean centered to assess between-person differences. Each model included the within-person variation of an affect regulation strategy (to assess variability within the same individual over the three time points) and between-person variation (across participants). We examined affect regulation strategies at the within-person and between-person levels to distinguish situational fluctuations in strategy use from stable individual differences. Within-person effects capture how individuals deviate from their average affect regulation strategy use in response to forecasting stress on a given day, reflecting dynamic, momentary changes in regulatory

efforts. Between-person effects, in contrast, reflect stable tendencies in affect regulation strategy use, allowing us to identify how individuals who generally engage in certain strategies experience negative affect on average. This dual-level approach provides a more comprehensive understanding of how stressor forecasting interacts with transient and dispositional aspects of affect regulation.

Negative affect was the dependent variable in all multilevel models. The predictors were affect regulation strategy (within-person level), affect regulation strategy (between-person level), stressor forecasting grouping (low vs. high), time of day (morning, mid-day, and end of the day), and their interactions. We examined each affect regulation strategy separately to examine a strategy's association with stressor forecasting and affect. Accordingly, a stressor forecasting grouping X strategy X time of day three-way interactions were included to examine whether anticipating stress (versus not) at the beginning of the day influenced the extent to which an affect regulation strategy was employed and its impact on negative affect and whether this relationship changed throughout the day (that includes, morning, mid-day, and end-of-day). We plotted significant interactions (see Fig. 1) and conducted simple slope analyses to examine how affect regulation strategy effects varied by stressor forecasting groups and time of day. Planned pairwise contrasts were used to compare differences between time points.

Results

Participant compliance

Overall, compliance was high. On average, participants completed 84.2% of the morning survey, 86.9% of the mid-day survey, and 86.9% of the end-of-day survey.

Descriptive statistics

The total sample was 146 college students. Seventy-two participants (49.3%) endorsed low-stressor forecasting (*not at all* to *a little*), and 74 participants (50.6%) reported high-stressor forecasting (*a lot* to *a great deal*). The participants who reported moderate forecasting were not included in this study from the outset. The variable negative affect was created by summing the EMA items for loneliness, helplessness, hopelessness, anger, and irritability. The average negative affect score was 3.45 ($SD = 4.11$). The intraclass correlation for negative affect was 62.6%, suggesting that 37.4% of the variance in negative affect was attributed to between-person differences. See Table 2 for means, standard deviations, and ICCs for each strategy.

Overview of findings

We examined how affect regulation strategies were associated with negative affect and whether these associations were moderated by the stressor forecasting group (low vs. high) and time of day (morning, mid-day, and end-of-day). Linear mixed-effects models were used to test three-way interactions between stressor forecasting, time of day, and each affect regulation strategy. Significant three-way interactions emerged for six affect regulation strategies: experiential avoidance, difficulty in problem-solving, distraction, acceptance, lack of clarity, and expressive suppression. A significant two-way interaction was observed for cognitive reappraisal and stressor forecasting group ($p = .003$). Lack of clarity was the only strategy that showed significant effects at the within-person and between-person levels. Planning to problem-solve was the only affect regulation strategy that did not show any significant interactions ($p \geq .90$).

Overall, the findings suggest that affect regulation strategies play different roles depending on whether stress is anticipated. Strategies like acceptance and cognitive reappraisal were beneficial only when stress was forecasted, whereas avoidance-based strategies (distraction, experiential avoidance, expressive suppression) were associated with higher negative affect later in the day, particularly for those anticipating stressors. Moreover, lack of clarity and difficulty in problem-solving consistently contributed to greater negative affect, regardless of the stressor forecasting group, highlighting their role as unhelpful strategies for regulating negative affect.

Below, we first present simple slope analyses to analyze the significant interactions with affect regulation strategies at the within-person level, followed by those significant at the between-person level. See Fig. 1 for visual depictions of these interactions. Tables 3, 4 and 5 present the results from the linear mixed-effects models.

Acceptance (at the within-person level)

Analysis Simple slope analyses revealed that the interaction between acceptance and the stressor forecasting grouping significantly influenced negative affect *only* in the morning, one hour after forecasting stressors (see Fig. 1a, Table 3a). Specifically, in the morning (one hour after forecasting stressors), greater use of acceptance was associated with lower negative affect for individuals who forecasted stress ($b = -1.56$, $p = .01$). However, for individuals who did not forecast stress, greater acceptance was linked to higher negative affect ($b = 1.63$, $p = .01$).

Interpretation These analyses suggest that when stress is anticipated, using acceptance shortly after may serve as

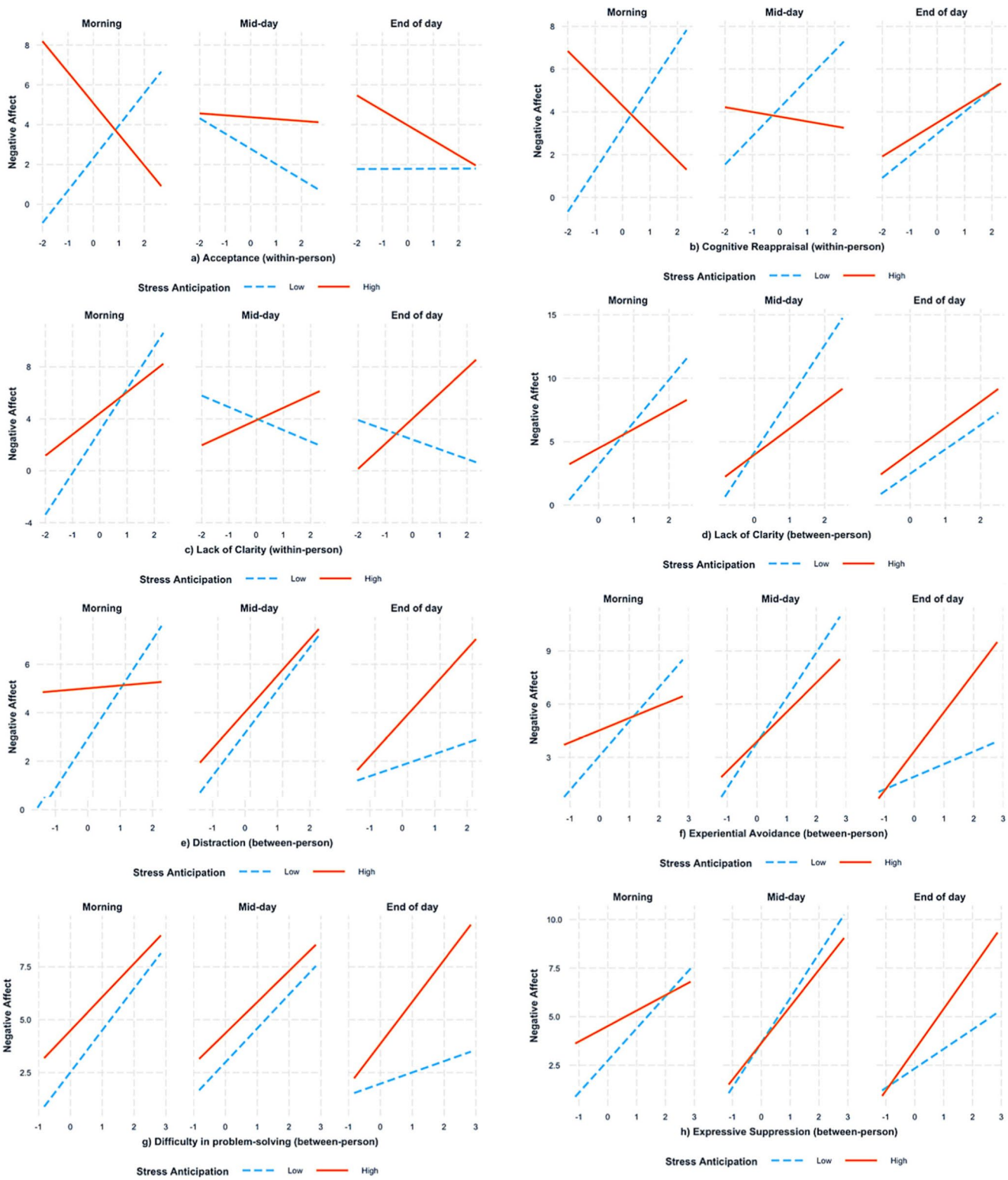

Fig. 1 Three-way interactions among affect regulation strategy use, stressor forecasting grouping, time of day, and negative affect

Table 3 Linear mixed models of acceptance (a), cognitive reappraisal (b), and lack of clarity (c)

	Negative Affect				Negative Affect				Negative Affect		
Predictors	*b*	*CI*	*p*	*Predictors*	*b*	*CI*	*p*	*Predictors*	*b*	*CI*	*p*
Acceptance (W)	1.63	0.34, 2.92	0.014*	Reappraisal (W)	1.96	0.14, 3.79	0.035*	Lack of Clarity (W)	3.23	1.43, 5.04	<0.001***
Stress Group	2.76	1.28, 4.25	<0.001***	Stress Group	1.01	−0.52, 2.53	0.194	Stress Group	1.29	−0.02, 2.61	0.054
Time [Mid-day]	0.47	−0.68, 1.62	0.425	Time [Mid-day]	0.98	−0.34, 2.30	0.146	Time [Mid-day]	0.97	−0.07, 2.01	0.067
Time [End of day]	−0.56	−1.63, 0.51	0.306	Time [End of day]	−0.27	−1.57, 1.04	0.686	Time [End of day]	−0.72	−1.73, 0.28	0.159
Acceptance (B)	0.51	−0.74, 1.76	0.422	Reappraisal (B)	2.84	1.13, 4.55	0.001**	Lack of Clarity (B)	3.34	2.14, 4.54	<0.001***
Acceptance (W) × Stress Group × Time [Mid-day]	3.86	1.54, 6.19	0.001**	Reappraisal (W) × Stress Group × Time [Mid-day]	1.69	−1.57, 4.95	0.308	Lack of Clarity (W) × Stress Group × Time [Mid-day]	3.45	0.15, 6.75	0.040*
Acceptance (W) × Stress Group × Time [End of day]	2.43	0.08, 4.78	0.043*	Reappraisal (W) × Stress Group × Time [End of day]	3.00	−0.26, 6.25	0.071	Lack of Clarity (W) × Stress Group × Time [End of day]	4.29	1.02, 7.57	0.010*
Stress Group × Time [Mid-day] × Acceptance (B)	0.27	−1.41, 1.94	0.754	Stress Group × Time [Mid-day] × Reappraisal (B)	−0.68	−2.91, 1.56	0.552	Stress Group × Time [Mid-day] × Lack of Clarity (B)	−0.32	−1.82, 1.18	0.672
Stress Group × Time [End of day] × Acceptance (B)	0.44	−1.15, 2.04	0.585	Stress Group × Time [End of day] × Reappraisal (B)	0.09	−2.15, 2.34	0.934	Stress Group × Time [End of day] × Lack of Clarity (B)	1.92	0.41, 3.43	0.013*
Observations	372			Observations	372			Observations	372		
Marginal R^2/ Conditional R^2	0.132/0.626			Marginal R^2/ Conditional R^2	0.286/0.631			Marginal R^2/ Conditional R^2	0.358/0.690		

W = within-person; B = between-person; Time Mid-day = mid-day assessment; Time End of day = end-of-day assessment

* indicates $p<.05$, ** indicates $p<.01$, *** indicates $p<.001$

an effective strategy for managing negative affect before it escalates. However, in the absence of anticipated stress, acceptance may be less relevant in the short term. The within-person significance of acceptance suggests that using acceptance as a coping strategy may be particularly beneficial in reducing negative affect on a situational basis, especially when anticipating stressors.

Cognitive reappraisal (at the within-person level)

Analysis Cognitive reappraisal had a similar pattern to acceptance. Simple slope analysis suggested that the interaction between cognitive reappraisal (within-person level) and stressor forecasting grouping significantly influenced negative affect *only* in the morning, one hour after forecasting stressors (see Fig. 1b, Table 3b). Specifically, for individuals who forecasted stressors, greater use of cognitive reappraisal was associated with lower negative affect ($b = -1.28$, $p=.03$). In contrast, for individuals who did not forecast stress, greater cognitive reappraisal was linked to higher negative affect ($b=1.96$, $p=.04$) in the morning.

Interpretation Similar to acceptance, this pattern suggests that cognitive reappraisal may be most beneficial when used immediately after stressor forecasting, helping to regulate negative affect early in the day. However, when stressors are not anticipated, engaging in cognitive reappraisal in the morning may not be as effective and could even heighten negative affect. The within-person significance of this effect suggests cognitive reappraisal's situational flexibility - it can help regulate emotions when stressors are expected, but its role may be less clear in the absence of anticipated stress.

Lack of clarity (at the within-person and between-person level)

Analysis Simple slope analysis revealed that lack of clarity at the within-person level significantly predicted negative

Table 4 Linear mixed models of experiential avoidance (a), distraction (b), and difficulty problem solving (c)

	Negative Affect				Negative Affect				Negative Affect		
Predictors	*b*	*CI*	*p*	*Predictors*	*b*	*CI*	*p*	*Predictors*	*b*	*CI*	*p*
Exp. Avoidance (W)	−0.12	−1.58, 1.34	0.873	Distraction (W)	−0.79	−2.11, 0.53	0.238	Diff. problem-solving (W)	0.12	−1.18, 1.41	0.860
Stress Group	1.44	−0.07, 2.95	0.062	Stress Group	1.78	0.25, 3.31	0.023*	Stress Group	1.97	0.58, 3.36	0.005**
Time [Mid-day]	0.73	−0.44, 1.90	0.223	Time [Mid-day]	0.19	−1.06, 1.44	0.763	Time [Mid-day]	0.47	−0.54, 1.47	0.361
Time [End of day]	−1.18	−2.32, −0.04	0.042*	Time [End of day]	−1.34	−2.48, −0.20	0.022*	Time [End of day]	−0.55	−1.55, 0.46	0.284
Exp. Avoidance (B)	1.93	0.96, 2.91	<0.001***	Distraction (B)	2.05	0.99, 3.10	<0.001***	Diff. problem-solving (B)	1.98	0.83, 3.13	0.001***
Exp. Avoidance (W) ×Stress Group × Time [Mid-day]	−1.14	−3.88, 1.59	0.412	Distraction (W) × Stress Group × Time [Mid-day]	−1.14	−3.49, 1.22	0.344	Diff. problem-solving (W) × Stress Group × Time [Mid-day]	−2.00	−4.64, 0.63	0.136
Exp. Avoidance (W) ×Stress Group × Time [End of day]	0.64	−2.00, 3.28	0.633	Distraction (W) × Stress Group × Time [End of day]	−0.39	−2.66, 1.87	0.732	Diff. problem-solving (W) × Stress Group × Time [End of day]	−1.42	−4.10, 1.26	0.300
Stress Group × Time [Mid-day] × Exp. Avoidance (B)	0.37	−1.01, 1.76	0.598	Stress Group × Time [Mid-day] × Distraction (B)	1.67	0.20, 3.13	0.026*	Stress Group × Time [Mid-day] × Diff. problem-solving (B)	0.27	−1.32, 1.85	0.742
Stress Group × Time [End of day] × Exp. Avoidance (B)	2.74	1.35, 4.14	<0.001***	Stress Group × Time [End of day] × Distraction (B)	2.95	1.50, 4.40	<0.001***	Stress Group × Time [End of day] × Diff. problem-solving (B)	1.84	0.24, 3.45	0.024*
Observations	372			Observations	372			Observations	372		
Marginal R^2/ Conditional R^2	0.251/0.631			Marginal R^2/ Conditional R^2	0.176/0.630			Marginal R^2/ Conditional R^2	0.209/0.659		

W = within-person; B = between-person; Time Mid-day = mid-day assessment; Time End of day = end-of-day assessment

* indicates $p<.05$, ** indicates $p<.01$, *** indicates $p<.001$

affect at two time points: shortly after forecasting stress and at the end of the day (see Fig. 1c, Table 3c). One hour after forecasting stressors, individuals who reported a greater lack of clarity, relative to their own average, experienced higher negative affect, regardless of stressor forecasting group (low: $b=3.23$, $p<.001$; high: $b=1.63$, $p<.001$). At the end of the day, ten hours after forecasting, a higher lack of clarity was linked to greater negative affect, but only for individuals who forecasted stressors ($b=1.94$, $p<.001$).

In contrast, those individuals who are high in lack of clarity at the between-person level were significantly associated with higher negative affect at all three time points, regardless of the stressor forecasting group (see Fig. 1, Table 3c). One hour after forecasting stressors, individuals with a higher lack of clarity reported greater negative affect (low: $b=3.34$, $p<.001$; high: $b=1.52$, $p<.001$). Five hours after forecasting stressors, this association remained significant (low: $b=4.23$, $p<.001$; high: $b=2.08$, $p<.001$). By the end of the day, a higher lack of clarity continued to predict greater negative affect (low: $b=1.93$, $p<.001$; high: $b=2.02$, $p<.001$).

Interpretation The three-way interaction suggests that lack of clarity is linked to increased negative affect throughout the day, with a particularly strong effect in the morning for those forecasting stress. This highlights the importance of having clarity in coping strategies early in the day to prevent negative affect from escalating. Additionally, the significance of lack of clarity at both the within-person and between-person levels suggests that while temporary confusion in coping may intensify negative affect in specific moments, individuals who chronically struggle with clarity

Table 5 Linear mixed models of expressive suppression (a) and planning to problem-solve (b)

	Negative Affect				Negative Affect		
Predictors	*b*	*CI*	*p*	*Predictors*	*b*	*CI*	*p*
Exp. Suppression (W)	1.72	0.10, 3.35	0.038*	Planning Problem-solve (W)	−0.71	−1.83, 0.40	0.210
Stress Grouping	1.77	0.28, 3.27	0.020*	Stress Grouping	2.30	0.74, 3.87	0.004**
Time [Mid-day]	0.91	−0.23, 2.06	0.117	Time [Mid-day]	0.37	−0.85, 1.59	0.549
Time [End of day]	−0.41	−1.60, 0.78	0.502	Time [End of day]	−0.83	−2.00, 0.33	0.161
Exp. Suppression (B)	1.65	0.62, 2.68	0.002**	Planning Problem-solve (B)	−0.19	−1.34, 0.96	0.743
Exp. Suppression (W) × Stress Grouping × Time [Mid-day]	0.79	−2.25, 3.83	0.609	Planning Problem-solve (W) × Stress Grouping × Time [Mid-day]	−0.99	−3.21, 1.23	0.382
Exp. Suppression (W) × Stress Grouping × Time [End of day]	1.64	−1.28, 4.56	0.270	Planning Problem-solve (W) × Stress Grouping × Time [End of day]	0.06	−2.24, 2.36	0.958
Stress Grouping × Time [Mid-day] × Exp. Suppression (B)	0.45	−0.90, 1.79	0.516	Stress Grouping × Time [Mid-day] × Planning Problem-solve (B)	−0.10	−1.74, 1.53	0.900
Stress Grouping × Time [End of day] × Exp. Suppression (B)	1.96	0.55, 3.37	0.007**	Stress Grouping× Time [End of day] × Planning Problem-solve (B)	−0.02	−1.59, 1.55	0.981
Observations	370			Observations	371		
Marginal R^2/Conditional R^2	0.264/0.643			Marginal R^2/Conditional R^2	0.141/0.613		

W = within-person; B = between-person; Time Mid-day = mid-day assessment; Time End of day = end-of-day assessment

* indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

in regulation may be more vulnerable to consistently higher levels of negative affect across contexts.

Distraction (at the between-person level)

Analysis Simple slope analysis indicated that distraction at the between-person level significantly predicted negative affect, but its effects varied based on stressor forecasting group and time of day (see Table 4b). One hour after forecasting stressors, greater use of distraction was associated with higher negative affect for individuals who did not forecast stressors ($b = 2.05$, $p < .001$), whereas distraction had no significant impact on those who forecasted stressors ($p = .82$; see Fig. 1e). By mid-day, five hours after forecasting, distraction was associated with higher negative affect regardless of the stressor forecasting group (low: $b = 1.77$, $p < .001$; high: $b = 1.50$, $p < .001$). At the end of the day, ten hours after forecasting, greater distraction remained significantly related to higher negative affect, but *only* for individuals who forecasted stressors ($b = 1.48$, $p < .001$).

Interpretation The three-way interaction suggests that distraction contributes to higher negative affect throughout the day, with its impact intensifying later in the day for those forecasting stressors. This pattern indicates that while distraction may provide short-term relief, it may not be a long-term effective coping strategy for managing stressor forecasting. Additionally, the between-person significance of distraction suggests that individuals who habitually rely on distraction as a coping strategy may experience consistently higher levels of negative affect, suggesting that this strategy may not support long-term emotional well-being.

Experiential avoidance (at the between-person level)

Analysis Simple slope analysis indicated that experiential avoidance at the between-person level significantly predicted negative affect, but its effects varied based on the stressor forecasting group and time of day (see Fig. 1f, Table 4a). One hour after forecasting stressors, higher experiential avoidance was associated with greater negative affect for individuals who did not forecast stressors ($b = 1.93$, $p < .001$), whereas avoidance had no significant impact on those who forecasted stressors ($p = .15$). By mid-day, five hours after forecasting, greater experiential avoidance was associated with higher negative affect regardless of the stressor forecasting group (low: $b = 2.54$, $p < .001$; high: $b = 1.66$, $p < .001$). However, at the end of the day, ten hours after forecasting, only individuals who forecasted stressors continued to experience significantly higher negative affect if they were high in experiential avoidance ($b = 2.20$, $p < .001$).

Interpretation The three-way interaction suggests that experiential avoidance contributes to higher negative affect throughout the day, with its impact becoming stronger later in the day for those forecasting stressors. This pattern

indicates that avoidance may be particularly unhelpful for those who anticipate stress, as it does not mitigate negative affect and may even exacerbate it over time. Additionally, the between-person significance of experiential avoidance suggests that people who habitually rely on avoidance may experience higher levels of negative affect across contexts, reinforcing the idea that avoidance-based strategies may contribute to poorer emotional outcomes in the long term.

Difficulty in Problem-solving (at the between-person level)

Analysis Simple slope analysis indicated that difficulty in problem-solving at the between-person level significantly predicted negative affect, with its effects varying based on stressor forecasting group and time of day (see Fig. 1g, Table 4c). One hour after forecasting stressors, greater difficulty in problem-solving was associated with higher negative affect for both those who did not forecast stressors ($b=1.98$, $p<.001$) and those who did ($b=1.58$, $p<.001$). By mid-day, five hours after forecasting, difficulty in problem-solving remained associated with higher negative affect across both groups (low: $b=1.60$, $p=.01$; high: $b=1.47$, $p=.01$). However, at the end of the day, ten hours after forecasting, only individuals who forecasted stressors and had difficulty problem-solving continued to experience significantly higher negative affect ($b=1.98$, $p<.001$).

Interpretation The three-way interaction suggests that difficulty in problem-solving contributes to increased negative affect throughout the day, with its effects being most pronounced throughout the day for those forecasting stressors. This pattern indicates that struggling with problem-solving early in the day may set the stage for heightened distress, while difficulties later in the day may prolong the emotional impact of stress. Further, the between-person significance of difficulty in problem-solving suggests that individuals who habitually struggle with problem-solving tend to experience consistently higher levels of negative affect, highlighting a potential pattern that could undermine long-term stress coping.

Expressive suppression (at the between-person level)

Analysis Simple slope analysis indicated that expressive suppression at the between-person level significantly predicted negative affect, with its effects varying by stressor forecasting group and time of day (see Fig. 1h, Table 5a). One hour after forecasting stressors, greater use of suppression was associated with higher negative affect only for individuals who did not forecast stressors ($b=1.65$, $p<.001$), whereas suppression had no significant impact on those who forecasted stressors ($p=.06$). By mid-day, five hours after forecasting, suppressors in both stressor forecasting groups reported significantly higher negative affect (low: $b=2.30$, $p<.001$; high: $b=1.89$, $p<.001$). However, by the end of the day, ten hours after forecasting, only individuals who forecasted stressors and relied on suppression continued to experience significantly higher negative affect ($b=2.10$, $p<.001$).

Interpretation The three-way interaction indicates that expressive suppression contributes to higher negative affect across the day, with a particularly strong impact in the morning for those anticipating stress. This finding suggests that suppression may be helpful in managing the emotional build-up associated with forecasting stressors. The between-person significance of expressive suppression suggests that individuals who habitually suppress emotions may experience higher levels of negative affect, suggesting this strategy may have a consistent negative impact on well-being.

Discussion

The way individuals regulate their emotions in response to anticipated stress can influence their affective experiences throughout the day, thereby playing a critical role in shaping daily well-being. The current study examined how different affect regulation strategies interact with stressor forecasting over time to predict negative affect. A clear pattern emerged across the different affect regulation strategies: strategies that involved adaptive emotional engagement (including acceptance and cognitive reappraisal) were helpful in mitigating the impact of negative affect, particularly earlier in the day after forecasting stress. In contrast, avoidance-based strategies (including lack of clarity, experiential avoidance, distraction, difficulty in problem-solving, and expressive suppression) were consistently linked to greater negative affect, particularly later in the day. These findings highlight that not only does the type of affect regulation strategy matter, but also the timing of its use. Overall, these findings suggest that the type of affect regulation approaches individuals adopt in the context of stressor forecasting has implications for their everyday well-being, with engagement-based strategies diminishing negative affect an hour after stressor forecasting and avoidance-based strategies elevating negative affect throughout the day.

The role of engagement-based affect regulation strategies in stressor forecasting

Adaptive regulatory strategies (Aldao et al., 2010; Naragon-Gainey et al., 2017) were associated with lower negative affect for individuals who forecasted stress relative to those

who did not. Participants reported lower negative affect, particularly when they forecasted stressors, and *an hour after forecasting stressors*, they used more acceptance or cognitive reappraisal than their average. However, when participants did not forecast stressors and used acceptance or cognitive reappraisal *in the morning*, they reported higher negative affect. These findings highlight the importance of expectations that may help one to prepare for upcoming stressors. Perhaps, this knowledge may even be helpful in selecting which affect regulation strategies to employ, although this remains to be tested explicitly. When stressors are expected, employing strategies that may assist with managing or preparing for the stressor (for instance, accepting that stress is about to occur or reappraising the situation because stress is expected) was linked with lower negative affect. This finding aligns with affect regulation theory (Gross, 2015; Naragon-Gainey et al., 2017; Vanderhasselt et al., 2014), where reframing or accepting a potentially unpleasant situation in a way that minimizes its impact is beneficial for some individuals. The finding also underscores the importance of early-day affect regulation efforts in shaping affect later in the day. Therefore, when used early in the morning, acceptance and cognitive reappraisal helped individuals regulate their affect before stressors escalated, potentially preventing worsening negative affect.

The role of avoidance-based affect regulation strategies in stressor forecasting

Whereas adaptive strategies such as acceptance and cognitive reappraisal were effective when used immediately after forecasting stress, strategies focused on disengaging from stressors showed the opposite pattern (Aldao et al., 2010; Naragon-Gainey et al., 2017). A critical distinction was found: strategies that engage with emotions may be beneficial in the short term, while those that avoid emotions may accumulate distress over time. Avoidance-based strategies included distraction, experiential avoidance, and expressive suppression. Instead of helping to regulate affect, avoidance-based strategies appeared to contribute to worsening negative affect, particularly later in the day. The effects of these strategies depended on both stressor forecasting and time of day. When individuals expected stressors, these strategies were linked to higher negative affect later in the day, suggesting that avoidance-based regulation does not effectively mitigate negative affect over time. In contrast, for individuals who did not forecast stressors, using these strategies early in the morning was associated with a greater negative affect, suggesting that avoidance may still be unhelpful when stress is not anticipated. Taken together, these findings suggest that avoidance-based strategies were unhelpful and failed to prevent the accumulation of negative affect over time. In other words, while individuals may attempt to disengage from stress, doing so may lead to prolonged distress, particularly for those already anticipating stressful experiences.

The role of difficulties in Self-regulation in stressor forecasting

A final pattern emerged for strategies that reflect difficulty in self-regulation, such as a lack of clarity and difficulty in problem-solving. Regardless of whether individuals forecasted stress, experiencing higher levels of lack of clarity or difficulty in problem-solving in the morning was associated with greater negative affect. This suggests that when individuals struggled with knowing how to regulate their emotions, they experienced more distress, regardless of stressor forecasting. However, for those who did forecast stressors, lack of clarity was particularly problematic, as it was linked to higher negative affect at both the beginning and end of the day. This suggests that difficulty in regulating affect exacerbates stressor forecasting effects over time. Notably, lack of clarity emerged as significant at the within-person and between-person levels. This suggests that both temporary and chronic difficulty in self-regulation is associated with persistently higher negative affect across contexts. Conversely, difficulty in problem-solving was significant only at the between-person level, suggesting that individuals with habitual struggles in problem-solving experience consistently greater negative affect, particularly when stressors are anticipated.

Study implications

The current findings highlight the importance of examining the construct of stressor forecasting as it helps understand the processes that may occur before the actual occurrence of a stressor. Furthermore, it may provide opportunities to some individuals to select which affect regulation efforts would be most meaningful to adopt. Therefore, it is valuable to investigate the temporal dynamics of regulatory efforts when forecasting stressors at the beginning of the day, as previous research shows that negative affect continues to be higher (for those forecasting a stressor) even about eight hours later (Scott et al., 2017). In line with previous work (Kramer et al., 2022; Scott et al., 2019), we found that participants who forecasted stressors also generally reported elevated negative affect in the morning (an hour after forecasting stressors) and throughout the day (about five hours and 10 h after forecasting). Similar to prior work (Neubauer et al., 2018), we found that not all individuals who forecasted upcoming stressors necessarily benefited from "seeing it coming," as they still could experience negativity.

Although, in our findings, the regulatory efforts (including, acceptance, cognitive reappraisal, distraction, experiential avoidance, expressive suppression) were helpful for individuals forecasting stressors in the morning (an hour after forecasting stressors), these effects seemed to dissipate by the end of the day (ten hours after forecasting).

A key contribution of this study is that it shows that the timing and strategy-type matter when regulating emotions in response to stressor forecasting. Early engagement with stress through acceptance or cognitive reappraisal appeared beneficial, helping to regulate negative affect before it escalated. However, avoidance-based strategies like distraction, suppression, and experiential avoidance became increasingly linked to negative affect over time, particularly among those forecasting stressors. Therefore, the present study contributes to the theoretical understanding of affect regulation by highlighting the importance of situation-strategy fit and the temporal dynamics of regulation strategies (Aldao et al., 2015; Gross, 2015). These findings underscore that affect regulation is not a static process, but rather one that unfolds dynamically over time.

Additionally, our findings emphasize the importance of examining within-person and between-person variations in affect regulation strategy use. Three strategies (acceptance, cognitive reappraisal, and lack of clarity) were significant at the within-person level, suggesting that individuals who use these strategies more than their average experience corresponding shifts in their well-being. In contrast, five strategies (lack of clarity, distraction, experiential avoidance, expressive suppression, and difficulty in problem-solving) were significant at the between-person level, indicating that individuals who on average tend to use these strategies more frequently than others tend to report overall lower well-being. Future research should continue to investigate how regulatory strategies vary across time and context to develop a more nuanced understanding of their role in emotional well-being.

The findings of this study also have clinical implications, particularly for tailoring affect regulation in treatment. First, they highlight the need to help individuals not only select effective strategies but also use them at the right time. For instance, teaching clients to engage in acceptance or cognitive reappraisal early in the day may help prevent negative affect from escalating. On the other hand, clinicians may need to help clients recognize that avoidance-based strategies (such as distraction and suppression) may provide short-term relief but could contribute to prolonged distress if used repeatedly throughout the day. Moreover, psychoeducation on self-regulation difficulties may be crucial for individuals who struggle with a lack of clarity or difficulty in problem-solving, as these difficulties were associated with higher negative affect across the day, particularly for those who anticipated stress. Cognitive-behavioral interventions could focus on enhancing clarity in regulatory efforts by helping individuals identify which strategies work best for them and under what conditions. This aligns with broader efforts in therapy to increase regulatory flexibility, allowing individuals to adapt their coping strategies based on situational demands (Aldao et al., 2015). Finally, given that emotion regulation is a process that unfolds across the day, therapeutic interventions may benefit from integrating real-time monitoring techniques, such as ecological momentary interventions (EMIs). EMIs, which provide real-time prompts to encourage adaptive coping behaviors (for instance, reminders to use acceptance when anticipating stress), could help individuals implement strategies at optimal moments, improving their effectiveness in daily life.

Limitations and future research directions

The present findings should be considered in light of some limitations. First, the study's sample is college students and given past findings on age differences in forecasting stressors (Neupert & Bellingtier, 2019) and in implementing affect regulation (Benson et al., 2019), the generalizability of findings across the lifespan is limited. Hence, future research should examine these regulatory strategies in a wider age group. Second, we did not assess the type of forecasted stressor (such as home, academic, and interpersonal), and our phrasing of the item (asking participants how frequently they expect stressful events to occur) may not have fully captured the likelihood of stressor forecasting, which limits our findings. Considering previous work has found that the type of forecasted stress influences regulatory efforts (Neupert et al., 2016, 2019), future research should evaluate how the type of forecasted stressor influences which regulatory strategies are implemented (and if there are differences in types of strategies employed). Third, we only assessed stressor anticipation once at the beginning of the day, as it has been typically assessed in the literature. However, it is possible that the predictions around upcoming stressors may themselves change over the course of the day and would be important to account for in future work.

Fourth, future research is also needed to investigate the mechanisms underlying effectiveness in forecasting stressors and successfully implanting relevant affect regulation strategies. Although our study only assessed these constructs within one day, longitudinal studies could provide deeper insights into how these strategies evolve across the lifespan and in response to varying levels of forecasted stressors. Moreover, exploring the role of individual differences, such as personality traits, baseline

mental health symptoms and negative affect, and cognitive capacities, could elucidate why specific regulatory strategies are more effective for some individuals than others. Examining these factors could help tailor interventions to individual needs, enhancing their effectiveness in managing forecasted stressors and reducing negative affect. Further, integrating physiological measures, such as heart rate variability or cortisol levels, could enrich our understanding of the biobehavioral aspects of affect regulation in the context of forecasted stressors. Lastly, asking participants to forecast stressors may, inadvertently, prime some to expect stress, which may impact their negative affect throughout the day. Future studies should consider how to control for this potential bias.

Conclusion

The present study underscores the importance of considering the timing and strategy selection in affect regulation, as well as how these factors can shape everyday well-being. We examined eight affect regulation strategies and found that engagement-based strategies, such as acceptance and cognitive reappraisal, were most adaptive when used early in the day, particularly after forecasting stressors. In contrast, avoidance-based strategies, such as distraction, expressive suppression, and experiential avoidance, were associated with increased negative affect over time, particularly later in the day. These findings have important implications for theoretical models of affect regulation and clinical practice. They suggest that the effectiveness of regulatory strategies is not fixed but depends on when they are used, emphasizing the need for personalized and context-sensitive interventions. By helping individuals identify when and how to use different regulation strategies effectively, clinicians and researchers can better support daily emotional well-being and promote resilience in high-stress environments such as academic and professional settings. Overall, this study highlights that affect regulation is a dynamic process that unfolds across the day, and understanding when strategies are most effective may be key to improving emotional well-being in daily life.

Authors' contribution Conceptualization: [Kiran Kaur, Monika Lohani], Methodology: [Monika Lohani], Data Collection: [Monika Lohani, Jamie Elsey, Sam Dutton], Formal analysis [Kiran Kaur], Writing - original draft preparation: [Kiran Kaur, Monika Lohani]; Writing - review and editing: [Kiran Kaur, Monika Lohani].

Funding There is no funding to report.

Data availability The data that support the findings of this study are available from the authors upon reasonable request.

Declarations

Conflict of interest The authors declare that they have no conflict of interest to report.

Informed consent statement Informed consent was obtained in accordance with the approved protocol from the Institutional Review Board at the University of Utah.

Ethical approval Ethical approval for this project was received by the Institutional Review Board at the University of Utah.

References

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Aldao, A., Sheppes, G., & Gross, J. J. (2015). Emotion regulation flexibility. *Cognitive Therapy and Research*, *39*(3), 263–278. https://doi.org/10.1007/s10608-014-9662-4

Almeida, D. M., Charles, S. T., Mogle, J., Drewelies, J., Aldwin, C. M., Spiro, I. I. I., A., & Gerstorf, D. (2020). Charting adult development through (historically changing) daily stress processes. *American Psychologist*, *75*(4), 511–524. https://doi.org/10.1037/amp0000597

Aspinwall, L. G. (2011). Future-oriented thinking, proactive coping, and the management of potential threats to health and well-being. In S. Folkman (Ed.), *Oxford library of psychology. The Oxford handbook of stress, health, and coping* (pp. 334–365). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195375343.013.0017

Baraldi, A. N., & Enders, C. K. (2010). An introduction tomodern missing data analyses. *Journal of School Psychology, 48*(1), 5–37. https://doi.org/10.1016/j.jsp.2009.10.001

Bellingtier, J. A., & Neupert, S. D. (2016). Negative aging attitudes predict greater reactivity to daily stressors in older adults. *Journal of Gerontology: Psychological Sciences*, *73*(7), 1155–1159. https://doi.org/10.1093/geronb/gbw086

Benson, L., English, T., Conroy, D. E., Pincus, A. L., Gerstorf, D., & Ram, N. (2019). Age differences in emotion regulation strategy use, variability, and flexibility: An experience sampling approach. *Developmental Psychology*, *55*(9), 1951–1964. https://doi.org/10.1037/dev0000727

Brans, K., Koval, P., Verduyn, P., Lim, Y. L., & Kuppens, P. (2013). The regulation of negative and positive affect in daily life. *Emotion*, *13*(5), 926–939. https://doi.org/10.1037/a0032400

De Raedt, R., & Hooley, J. M. (2016). The role of expectancy and proactive control in stress regulation: A neurocognitive framework for regulation expectation. *Clinical Psychology Review*, *45*, 45–55. https://doi.org/10.1016/j.cpr.2016.03.005

Diachina, A. K., & Neupert, S. D. (2022). Daily stressor forecasting and anticipatory coping: Within-person processes in age differences in positive emotional reactivity. *Aging & Mental Health*, *26*(12), 2407–2415. https://doi.org/10.1080/13607863.2021.1998353

Elsey, J. S., Dutton, S., & Lohani, M. (2025). *It's Gonna Be a Stressful Day! How Stressor Forecasting Moderates Stress and Wellbeing in Real-World Contexts*. PsyCh Journal.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, *26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781

Gruber, J., Kogan, A., Mennin, D., & Murray, G. (2013). Real-world emotion? An experience-sampling approach to emotion experience and regulation in bipolar I disorder. *Journal of Abnormal Psychology*, *122*(4), 971–983. https://doi.org/10.1037/a0034425

Heiy, J. E., & Cheavens, J. S. (2014). Back to basics: A naturalistic assessment of the experience and regulation of emotion. *Emotion*, *14*, 878–891. https://doi.org/10.1037/a0037231

Hofmann, W., & Patel, P. V. (2015). SurveySignal: A convenient solution for experience sampling research using participant' own smartphones. *Social Science Computer Review*, *33*(2), 235–253. https://doi.org/10.1177/0894439314525117

Hyun, J., Sliwinski, M. J., & Smyth, J. M. (2018). Waking up on the wrong side of the bed: The effects of stress anticipation on working memory in daily life. *Journal of Gerontology: Psychological Sciences*, *74*(1), 38–46. https://doi.org/10.1093/geronb/gby042

Koval, P., Kalokerinos, E. K., Verduyn, P., & Greiff, S. (2020). Capturing the dynamics of emotion and emotion regulation in daily life with ambulatory assessment. *European Journal of Psychological Assessment*, *36*(3), 433–436. https://doi.org/10.1027/1015-5759/a000599

Kramer, A. C., Neubauer, A. B., Scott, S. B., Schmiedek, F., Sliwinski, M. J., & Smyth, J. M. (2022). Stressor anticipation and subsequent affective well-being: A link potentially explained by perseverative cognitions. *Emotion*, *22*(8), 1787–1800. https://doi.org/10.1037/emo0000954

Loewenstein, G. (2007). Affect regulation and affective forecasting. *Handbook of Emotion Regulation*, 180–203.

Lohani, M., McElvaine, K., Payne, B., Mitcheom, K., & Britton, W. (2020). A longitudinal training study to delineate the specific causal effects of open monitoring versus focused attention techniques on emotional health. *Complementary Therapies in Medicine*, *53*, 102525. https://doi.org/10.1016/j.ctim.2020.102525

Mazure, C. M. (2018). Life stressors as risk factors in depression. *Clinical Psychology: Science and Practice*, *5*(3), 291–313. https://doi.org/10.1111/j.1468-2850.1998.tb00151.x

McMahon, T. P., & Naragon-Gainey, K. (2019). The multilevel structure of daily emotion-regulation-strategy use: An examination of within-and between-person associations in naturalistic settings. *Clinical Psychological Science*, *7*(2), 321–339. https://doi.org/10.1177/2167702618807408

Naragon-Gainey, K., McMahon, T. P., & Chacko, T. P. (2017). The structure of common emotion regulation strategies: A meta-analytic examination. *Psychological Bulletin*, *143*(4), 384–427. https://doi.org/10.1037/bul0000093

Neubauer, A. B., Smyth, J. M., & Sliwinski, M. J. (2018). When you see it coming: Stressor anticipation modulates stress effects on negative affect. *Emotion*, *18*(3), 342–354. https://doi.org/10.1037/emo0000381

Neupert, S. D., & Bellingtier, J. A. (2019). Daily stressor forecasts and anticipatory coping: Age differences in dynamic, domain-specific processes. *Journal of Gerontology: Psychological Sciences*, *74*(1), 17–28. https://doi.org/10.1093/geronb/gby043

Neupert, S. D., Ennis, G. E., Ramsey, J. L., & Gall, A. A. (2016). Solving tomorrow's problems today? Daily anticipatory coping and reactivity to daily stressors. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(4), 650–660. https://doi.org/10.1093/geronb/gbv003

Neupert, S. D., Neubauer, A. B., Scott, S. B., Hyun, J., & Sliwinski, M. J. (2019). Back to the future: Examining age differences in processes before stressor exposure. *The Journals of Gerontology: Series B*, *74*(1), 1–6. https://doi.org/10.1093/geronb/gby074

R Core Team (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/

Scott, S. B., Kim, J., Smyth, J. M., Almeida, D. M., & Sliwinski, M. J. (2019). Additive effects of forecasted and reported stressors on negative affect. *Journal of Gerontology: Psychological Sciences*, *74*(1), 29–37. https://doi.org/10.1093/geronb/gby068

Scott, S. B., Ram, N., Smyth, J. M., Almeida, D. M., & Sliwinski, M. J. (2017). Age differences in negative emotional responses to daily stressors depend on time since event. *Developmental Psychology*, *53*(1), 177–190. https://doi.org/10.1037/dev0000257

Vanderhasselt, M. A., Remue, J., Ng, K. K., & De Raedt, R. (2014). The interplay between the anticipation and subsequent online processing of emotional stimuli as measured by pupillary dilatation: The role of cognitive reappraisal. *Frontiers in Psychology*, *5*. https://doi.org/10.3389/fpsyg.2014.00207

Wang, Y., Black, K. J., & Martin, A. (2021). Antecedents and outcomes of daily anticipated stress and stress forecasting errors. *Stress and Health*, *37*(5), 898–913. https://doi.org/10.1002/smi.3044

Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional States. *Psychological Bulletin*, *96*(3), 465–490. https://doi.org/10.1037/0033-2909.96.3.465

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