

When is experiential avoidance harmful in the moment? Examining global experiential avoidance as a moderator

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## Abstract

**Background and Objectives:** Although experiential avoidance has been shown to predict a wide range of mental health problems, there has been minimal research to-date on the more immediate effects of engaging in experiential avoidance in the moment or the moderators that predict when it is more or less harmful. **Methods:** An ecological momentary assessment (EMA) study was conducted with 70 undergraduate students who completed assessments three times a day, over seven days as well as a baseline assessment of global questionnaires. **Results:** Both greater global experiential avoidance and momentary experiential avoidance independently predicted greater momentary negative affect, lower positive affect, and lower valued action. Global experiential avoidance was also a significant moderator of momentary experiential avoidance such that experiential avoidance in the moment was more strongly related to negative effects among those high in global experiential avoidance. **Limitations:** Study limitations include a non-clinical student sample and use of unvalidated EMA items. **Conclusions:** Overall, these results suggest engaging in experiential avoidance in the moment has more negative, immediate effects particularly among those who engage in global, inflexible patterns of experiential avoidance.

*Keywords:* experience sampling method; college students; acceptance and commitment therapy; mindfulness.

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There is a substantial literature demonstrating the negative effects of experiential avoidance on mental health, in which people engage in rigid patterns of behavior seeking to escape, avoid, or otherwise change unwanted internal states. Experiential avoidance has been found to predict a wide range of problems including depression, anxiety, obsessive compulsive symptoms, posttraumatic stress symptoms, addiction, and eating disorders, among many other psychological and behavioral challenges (Aldao et al., 2010; Bluett et al., 2014; Chawla & Ostafin, 2007). For example, experiential avoidance has been found to predict a range of anxiety disorders up to two years later (Spinhoven et al., 2014) and above and beyond related variables such as general distress (Levin et al., 2014) and anxiety sensitivity (Gloster et al., 2011).

However, the vast majority of research on experiential avoidance has used global self-report questionnaires, examining cross-sectional or longitudinal relations between a self-reported general tendency or trait-like pattern of experiential avoidance and overall mental health. Such research provides an estimate of overall relations between constructs, but leaves out nuances that have practical implications such as what are the immediate effects of engaging in experiential avoidance in the moment and what are the contexts and person-level predictors of when momentary instances of experiential avoidance are more or less harmful. Among other implications, this can inform treatment tailoring such as the relevant client characteristics and contexts in which acceptance oriented versus change oriented therapeutic strategies are indicated for difficult internal experiences.

Recently, a series of studies have examined the immediate effects of momentary experiential avoidance (i.e., specific instances or time periods of engaging in experiential avoidance) on

mental health in the moment using ecological momentary assessment (EMA). This method provides intensive longitudinal data, with multiple observations often taken each day through prompted assessments. EMA studies demonstrate that greater momentary experiential avoidance predicts greater social anxiety (Kashdan et al., 2014), greater negative affect and lower positive affect (Hershenberg et al., 2017), lower self-esteem (Udachina et al., 2009), and greater paranoia (Udachina et al., 2014). These studies provide more direct evidence for the immediate, negative effects of engaging in experiential avoidance in the moment on mental health outcomes (e.g., positive and negative affect, maladaptive cognitive patterns, engagement in effective, meaningful activities). This provides a more fine-grained unit of analysis focused on the immediate, proximal effects of engaging in experientially avoidant behaviors, in contrast to previous survey research identifying broad, global relations between patterns of experiential avoidance and mental health.

In addition to providing more detailed data regarding the immediate effects of momentary experiential avoidance, EMA is an ideal method for identifying moderating variables for when and whom experiential avoidance is more or less harmful. Although global patterns of experiential avoidance are often conceptualized as a pathological process relevant to modern cognitive behavioral therapies such as acceptance and commitment therapy (ACT; Hayes Strosahl & Wilson., 2011), these treatment models do not assume momentary experiential avoidance is always harmful in all contexts for all individuals. There are almost certainly situations in which employing strategies to reduce or change unwanted inner experiences is more or less adaptive, and person-level characteristics for whom experiential avoidance is more or less harmful. However, we are aware of only one study to-date that directly examined this, finding

that momentary experiential avoidance was more strongly related to anxiety in social interactions among individuals with social anxiety disorder (Kashdan et al., 2014).

Global experiential avoidance may be another person-level moderator of the immediate effects of engaging in experiential avoidance in the moment. Theoretically momentary instances of experiential avoidance may be more harmful to mental health for individuals with a pervasive, global history of responding inflexibly to internal experiences as harmful and to be avoided at all costs (i.e., global experiential avoidance). Such individuals are more likely to engage in experiential avoidance rigidly despite harmful consequences or at a higher frequency that has cumulative negative effects (Levin, Hayes & Vilardaga, 2012). In other words, experiential avoidance might not be problematic when it is intermittently used as one of many ways of responding to internal experiences, but might become harmful when it is employed rigidly in the context of a chronic, global pattern of inflexibly responding to unwanted thoughts and feelings as harmful and necessary to avoid. However, there have been no previous studies of which we are aware that have examined whether global experiential avoidance moderates the in the moment effects of experiential avoidance on proximal mental health variables such as affect and engagement in valued actions (i.e., meaningful activities linked to personal values).

The current study aimed to test whether momentary experiential avoidance is more strongly related to momentary mental health variables (i.e., higher negative affect, lower positive affect, lower valued action) among individuals higher in global experiential avoidance. An EMA method was used with a sample of 70 undergraduate students completing multiple daily measures of momentary experiential avoidance, affect, and valued action over a seven-day period. We predicted that greater momentary experiential avoidance would relate to greater momentary negative affect, lower positive affect, and lower valued action. Furthermore, we

predicted global experiential avoidance would moderate the relation between momentary experiential avoidance and affect/valued action such that participants who were more globally avoidant would demonstrate a stronger relation between greater momentary experiential avoidance and lower affect/valued action.

## **Methods**

### **Participants**

A sample of 70 adult undergraduate students participated in the study. Participants were recruited through an online research participation platform and received research credit in their courses for participating. The mean age of participants was 21.79 ( $SD=7.13$ ) and the majority of the sample was female (64.8%). The sample was relatively homogeneous in race (90.1% White, 1.4% Black, 5.6% Asian, 1.4% Native Hawaiian/Pacific Islander, and 1% Other), with only 4.2% of the sample identifying as Hispanic/Latino. There were no inclusion criteria related to level of distress. Overall, 33% of the sample reported moderate or greater symptoms of distress based on cutoff scores for the Depression, Anxiety, and Stress Scale (Lovibond & Lovibond, 1995), which are similar to rates found in other undergraduate student samples (e.g., Beiter et al., 2015). In the current sample, the mean DASS depression score was 7.64 ( $SD = 7.68$ ), anxiety was 6.08 ( $SD = 6.13$ ), and stress was 10.55 ( $SD = 6.12$ ).

### **Procedures**

Participants attended an in-person appointment to complete informed consent, baseline assessment, and orientation to the EMA procedure. After providing informed consent, the baseline assessment was completed through an online Qualtrics survey on a desktop computer in the laboratory. Participants were then oriented to the EMA procedures by a research assistant.

This included downloading the EMA survey, showing participants how to complete assessments on their phone, and reinforcing the importance of adherence to all prompted assessments.

Participants proceeded to complete EMA procedures over the following seven days. EMAs were prompted and completed using the MetricWire mobile platform, which provides a native app to deliver customized push notifications and assessments through a downloaded mobile app. Notifications to complete an assessment were randomly provided three times a day between 9am and 9pm, with a minimum of 1 hour between triggers. A reminder prompt was sent 10 minutes after an assessment prompt if no response was provided. Notifications were scheduled for random times in order to minimize any time-specific or potentially confounding effects that may be present through random sampling of times. Each EMA included 24 items assessing affect, experiential avoidance, and valued action, with each item rated on a 5-point scale. Two days after the baseline appointment a research assistant made a check-in call to answer any questions about completing assessments and troubleshoot any barriers participants might encounter. The final step of the study was to complete an online post assessment seven days after the baseline appointment. Participants received course credit for participating and the study was approved by the authors' institutional review board.

### **Baseline Global Measures**

**Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011).** The 7-item AAQ-II was used as a self-report measure of global experiential avoidance. Each item is rated from 1 (“Never true”) to 7 (“Always true”). Example items include “Emotions cause problems in my life” and “I’m afraid of my feelings.” The AAQ-II has been shown to have acceptable internal consistency and convergent and divergent validity (Bond et al., 2011). Internal consistency in the current study sample was excellent ( $\alpha = 0.91$ ).

**Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995).** The 21-item DASS was used as a measure of psychological distress to examine the preliminary convergent/divergent validity of the EMA items. The DASS includes subscales assessing anxiety, depression, and stress symptoms, with a total score used for validity analyses. Internal consistency for the DASS in the current sample was ( $\alpha = 0.89$ ).

**Satisfaction with Social Roles (SSR; Hahn et al., 2010).** The 11-item SSR was used as a measure of social functioning to examine the validity of the EMA items. The SSR was selected from the patient-reported outcomes measurement information system (PROMIS), which have been found to be reliable and valid in previous research (Hahn et al., 2016). The SSR had adequate internal consistency in the current sample ( $\alpha = .92$ ).

**Valuing Questionnaire – Progress (VQ-Pro; Smout et al., 2014).** The 5-item VQ progress subscale was used as a measure of valued action to examine validity of the EMA items. The VQ progress scale assesses progress in taking actions consistent with one's values (e.g., "I made progress in the areas of my life I care most about"). The VQ progress subscale has been found to be reliable and valid in previous research (Smout et al., 2014). Internal consistency for the VQ-Pro in the current sample was ( $\alpha = 0.73$ ).

### **EMA Measures**

**Affect.** Four items assessed positive emotions (happy, excited, joyful, confident) and six items assessed negative emotions (nervous, ashamed, sad, angry, guilty, irritable) based on the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988). Each emotion question was phrased as "Right now, how \_\_\_\_\_ do you feel?" All EMA items, including affect, were rated on the same 5-point scale, from "Not at all" to "Very much so". The PANAS includes a validated version for emotions in the moment (Watson & Clarke, 1994) and



previous studies have used similar PANAS items in EMA research (e.g., Moore et al., 2014). In order to minimize assessment burden, a set of 10 items were selected to include a variety of emotional experiences, particularly in terms of types of negative emotions spanning primary emotions (e.g., sadness, fear, anger) and both high (e.g., nervous, angry) and low arousal (e.g., guilty, sad). In the current study, negative affect inter-item correlation coefficients ranged between .28 and .66 with a Cronbach's alpha of .81. Positive affect inter-item correlations ranged between .60 and .81 with  $\alpha = 0.91$ .

**Valued action.** Three novel items were used to assess valued action, the degree to which one was successful in acting consistently with personal values. These items included "Since the last prompt, were you able to do what matters to you?", "Since the last prompt, how content were you with the amount and types of things you did?", and "Since the last prompt, were your actions in line with the kind of person you want to be?" Items were rated on the same 5-point scale from "Not at all" to "Very much so." In the current study, inter-item correlations ranged between .62 and .72 with a Cronbach's alpha of .86.

**Experiential avoidance.** Momentary experiential avoidance was assessed with seven items. Four items assessed engagement in specific experientially avoidant strategies "since the last prompt" including distraction ("...how much did you do things to distract from negative thoughts and feelings?"), rumination ("...how much did you think over and over your problems?"), thought suppression ("...how much did you try not to think about certain things?") and reappraisal ("...how much did you try to change the way you thought about situations?"). Three items assessed broader experiential avoidance "since the last prompt" ("Since the last prompt, how much effort did you put into making negative feelings or thoughts go away?", "Since the last prompt, how much did you struggle to control negative feelings or thoughts?",

“Since the last prompt, how much did you give up saying or doing what mattered to you in order to manage negative feelings?”). These EMA items were based on existing measures (e.g., Kashdan et al., 2014), but were adapted to reference the broad range of inner experiences that might be avoided in this general sample (e.g., Kashdan et al., 2014 focused on anxiety) and to include additional items focused on specific coping behaviors that typically function as momentary experiential avoidance (e.g., adding items to assess distraction, rumination, thought suppression, and reappraisal). This helped ensure a momentary measure of experiential avoidance that would be relevant to the range of distressing experiences students might encounter and that would focus specifically on instances of experientially avoidant behaviors that might occur in the moment. Items were rated on the same 5-point scale, from “Not at all” to “Very much so.” The experiential avoidance items demonstrated strong internal consistency with inter-item correlations ranging between .44 and .62 and a Cronbach’s alpha of .89.

### **Data analysis plan**

Multilevel modeling (MLM) was used for analyses given multiple EMA observations were nested within each participant. Linear mixed models were conducted with restricted maximum likelihood. Prior to testing study predictions, a series of MLM tested the potential convergent/divergent validity for each EMA scale. Previously validated, global scales for experiential avoidance (AAQ-II), valued action (VQ-Pro), social functioning (SSR), and psychological distress (DASS) were all included as fixed effects predicting each EMA scale, and with participant entered as a random effect. A hierarchical, step-wise approach was used to clarify the independent and incremental effects of each variable in predicting relevant EMA scales, with an intercept-only model used in step 1, the SSR added in step 2, VQ-Pro in step 3, AAQ-II in step 4, and DASS in step 5. It was expected that EMA valued action would be most

strongly related to global valued action (VQ-Pro) and social functioning (SSR), EMA experiential avoidance would be most strongly related to global experiential avoidance (AAQ-II) and distress (DASS), EMA negative affect would be most strongly related to psychological distress (DASS), and EMA positive affect would be most strongly related to valued action (VQ-Pro), social functioning (SSR), and distress (DASS).

To test the primary study predictions a hierarchical, step-wise approach was used with MLM for each momentary outcome (i.e., negative affect, positive affect, and valued action). An intercept-only model was first tested with individual participants specified as a random effect. The second step added the AAQ-II as a fixed effect to test whether global experiential avoidance predicted the momentary outcome. The third step added momentary experiential avoidance as a fixed effect to test whether momentary experiential avoidance predicted momentary outcomes while controlling for global experiential avoidance. In the last step, the interaction between the AAQ-II and momentary experiential avoidance was tested. The significance of fixed effects was examined with *t*-tests using Satterthwaite approximations for degrees of freedom. Improvements in model fit from each step adding a fixed effect were tested using Chi square. Significant interaction effects were decomposed through post hoc MLMs in which the relation between momentary experiential avoidance and the relevant outcome was tested at three levels of global experiential avoidance: low avoidance defined as participants at 1 *SD* or lower from the *M* AAQ-II score (7-11), medium avoidance within 1 *SD* from the *M* AAQ-II score (12-25), and high avoidance at 1 *SD* or higher from *M* AAQ-II score (26 or higher). Momentary experiential avoidance, affect, and valued action were all used from the same time point for MLMs, rather than lagged analyses, given the item wording in which momentary experiential avoidance was assessed “since the last prompt” while affect was assessed “right now.” This approach was also

deemed most appropriate given the aims of the study were to examine in the moment effects from experiential avoidance, rather than the more variable and extended effects over an hour or day that might occur between EMA time points. There was no missing baseline data for the AAQ-II, but missing EMA observations were excluded from analyses.

## Results

**Preliminary analyses.** On average, participants completed 19.10 assessments ( $SD = 4.02$ , range = 3-24), which was just slightly below the expected number for full participation (21 assessments based on completing 3 each day for 7 days). A total of 80% of the sample ( $n = 56$ ) completed at least 80% of the prompted assessments. Overall there were 1,337 assessments completed across 70 participants. All analyses were conducted with available data, excluding approximately 170 missing momentary assessment data points (11% of observations). This approach of including all data (including for participants who completed as few as 3 assessments) was used in order to adequately represent the available data and reduce potential biases that may occur when including only participants with a high degree of adherence to assessments.

Skewness and kurtosis were checked for each variable. All variables fit a normal distribution besides negative affect. A log transformation was used with negative affect to approximate a normal distribution.

**MLM EMA validity analyses.** Convergent/divergent validity was examined for each EMA scale in a series of stepwise MLM (see Table 1). For both EMA valued action and EMA positive affect the SSR (social functioning) was a significant predictor in step 2, and both the SSR and VQ-Pro (valued action) were significant predictors in step 3. Adding the AAQ-II (experiential avoidance) and DASS (distress) did not improve predictive models, and the SSR

and VQ-Pro continued to be significant predictors of EMA valued action and EMA positive affect in the final models. This provides preliminary support for the validity of the EMA valued action and positive affect scales, which are more strongly related to validated global measures of valued action and social functioning than experiential avoidance or distress.

The EMA negative affect scale was significantly related to the SSR (social functioning) in steps 2 and 3, but the AAQ-II (experiential avoidance) was the only significant predictor in step 4. Adding the DASS (distress) in step 5 further improved the predictive model, and with all predictors in the same model, only the DASS was a significant predictor of EMA negative affect. This provides preliminary support for the EMA negative affect scale, suggesting this measure is more strongly related to distress than other psychological variables.

For the EMA experiential avoidance scale, the SSR was a significant predictor in step 2, but adding the VQ-Pro did not improve the predictive model in step 3. Adding the AAQ-II in step 4 improved the predictive model, and only the AAQ-II remained a significant predictor of EMA experiential avoidance. Adding the DASS in the final step did not improve the predictive model, but none of the predictor variables remained significant in this step. This appears to be due to multicollinearity given the DASS and AAQ-II were highly correlated ( $r = .77, p < .001$ ), consistent with some literature indicating measures of distress and experiential avoidance are sometimes highly overlapping (Wolgast, 2014). Step 4 provides a clear indicator that the AAQ-II is the strongest predictor of EMA experiential avoidance items when the highly correlated DASS is not included. When the AAQ-II was removed from the model, EMA experiential avoidance was significantly predicted by the DASS ( $b = .10, t[68.68] = 3.01, p < .01$ ), but not the VQ ( $p = .92$ ) or SSR ( $p = .74$ ). Overall, these results indicate that EMA experiential avoidance items are more strongly related to global experiential avoidance and distress, than measures of positive

social functioning and valued action. This is consistent with the expected convergent/divergent validity patterns, although due the high correlation between the AAQ-II and the DASS it is difficult to further distinguish differential relations between these two constructs.

To further assess the validity of the state EA measure, the level-1 intercepts for this variable were regressed onto the AAQ-II and the regression coefficients were standardized. There was a significant standardized association (equivalent to correlation) between the level-1 intercept for EA and the AAQ-II of  $b = .411$ ,  $p < .001$ , and 16.9% of the variance explained in the EA intercepts by the AAQ-II.

**Primary MLM analyses.** A series of MLMs tested global experiential avoidance (AAQ-II), momentary experiential avoidance, and the interaction between the AAQ-II and momentary experiential avoidance as predictors of momentary negative affect, positive affect, and valued action, nested within participants (see Table 2). The AAQ-II significantly predicted each momentary outcome and improved model fit relative to an intercept-only model. Momentary experiential avoidance significantly predicted each momentary outcome when it was added to a model including the AAQ-II, and this model had significantly better fit relative to the AAQ-II-only model. Of note, the AAQ-II continued to significantly predict negative and positive affect when momentary experiential avoidance was added as a predictor, although the relation with valued action was now only a trend. In each case, greater global experiential avoidance and momentary experiential avoidance were related to greater negative affect, lower positive affect, and lower valued action.

In the final models, significant interactions were found between the AAQ-II and momentary experiential avoidance in predicting each outcome. This model had significantly better fit than the model that did not include an interaction term.

To further examine these interaction effects, the sample was divided into three groups based on AAQ-II scores (1 *SD* below, *M*, and 1 *SD* above). For valued action, MLM results indicated a significant relation between greater momentary experiential avoidance and lower valued action at high global experiential avoidance (1 *SD* above *M*),  $b = -.26$ ,  $t(242.40) = 3.48$ ,  $p < .001$ , and medium global experiential avoidance (within 1 *SD* of *M*),  $b = -.16$ ,  $t(793.40) = 3.60$ ,  $p < .001$ . However, there was no relation between momentary experiential avoidance and valued action among those low in global experiential avoidance (1 *SD* below *M*),  $b = -.07$ ,  $t(229.02) = .69$ ,  $p = .45$ .

For negative affect, MLM results indicated a similar significant relation between greater momentary experiential avoidance and greater negative affect at high global experiential avoidance,  $b = .21$ ,  $t(224.34) = 8.90$ ,  $p < .001$ , and medium global experiential avoidance,  $b = .21$ ,  $t(15.32) = 15.23$ ,  $p < .001$ . A significant relation was also found between momentary experiential avoidance and negative affect at lower global experiential avoidance, although the beta coefficient was approximately half the size as it was for higher global experiential avoidance,  $b = .11$ ,  $t(229.30) = 4.31$ ,  $p < .001$ .

For positive affect, there was a significant relation between greater momentary experiential avoidance and lower positive affect at high global experiential avoidance,  $b = -.42$ ,  $t(241.24) = 5.56$ ,  $p < .001$ , and medium global experiential avoidance,  $b = -.33$ ,  $t(800.20) = 6.67$ ,  $p < .001$ . There was no significant relation between momentary experiential avoidance and positive affect among those low in global experiential avoidance,  $b = -.12$ ,  $t(227.98) = 1.19$ ,  $p = .24$ .

## Discussion

This study examined whether global experiential avoidance moderated relations between momentary experiential avoidance, affect, and valued action assessed through EMA. Consistent with previous research, greater global experiential avoidance and greater momentary experiential avoidance were both found to independently predict greater momentary negative affect, lower positive affect, and lower valued action. Significant moderation effects were found in predicting each momentary outcome such that momentary experiential avoidance was more strongly related to affect and valued action among participants who were higher in global experiential avoidance. These results highlight a key individual factor in determining when engagement in experiential avoidance in the moment is more or less harmful.

These findings are consistent with the psychological inflexibility theoretical model underlying ACT (Hayes et al., 2012). Engaging in behavior that functions to reduce an aversive internal state is not problematic in and of itself, but rather it is the pervasive pattern of rigidly engaging in such actions out of a strong unwillingness to have these experiences, even when it goes against personal values or direct contingencies. In other words, global experiential avoidance defines the broader intrapersonal context, currently and historically defined, in which momentary instances of experiential avoidance are particularly problematic.

Although this has not been examined in past EMA research, these findings are consistent with research on experiential avoidance using more global assessment methods. For example, global experiential avoidance, as measured by the AAQ-II, similarly moderates the relation of other maladaptive ways of responding to internal states, such as cognitive fusion and emotion regulation problems, with mental health (e.g., Bardeen & Fergus, 2016; Fergus et al, 2013). Global experiential avoidance also mediates relations between change-focused emotion regulation strategies (e.g., reappraisal, thought suppression) and mental health (Kashdan et al.,



2006), suggesting these experientially avoidant ways of responding might lead to problems due to a broader, inflexible pattern of avoidance. Thus, engaging in experiential avoidance in the moment may be particularly harmful for individuals who are globally experientially avoidant, and thus, likely to engage in avoidance rigidly, even when it is ineffective to do so.

One area for future research is to further clarify the mechanisms through which momentary experiential avoidance is more problematic for more globally avoidant individuals. It may be that such individuals engage in more pervasive, intense, or frequent patterns of experiential avoidance, some combination of which lead to more negative outcomes. It may also be the rigidity and context insensitivity in which avoidance is used (e.g., using avoidance in all contexts even those where more approach-oriented strategies are needed), which is consistent with the theory of emotion regulation flexibility (Aldao, Sheppes & Gross, 2015). A third hypothesis is that globally avoidant individuals use more ineffective experientially avoidant strategies such as thought suppression rather than cognitive reappraisal (Aldao et al., 2010). In addition to future EMA research, these hypotheses could be tested experimentally. For example, participants could be randomly assigned to versions of a mobile app that test hypothesized factors contributing to harmful effects of experiential avoidance such as type of coping strategy (e.g., emotional suppression vs. relaxation), frequency of coping strategy (e.g., practicing experiential avoidance once a day vs. multiple times a day), and flexibility with coping strategies used (e.g., only practicing experiential avoidance vs. practicing experiential avoidance and acceptance-based strategies). Such research could help identify patterns of momentary experiential avoidance that are more or less harmful for mental health.

The current study is too limited to have direct applied implications, but exploring potential extensions into clinical practice may clarify the benefits of such detailed theory testing.

Some coping strategies commonly used in treatment approaches (e.g., cognitive reappraisal, relaxation) may function as experiential avoidance due to seeking to alter unwanted internal experiences. ACT theory suggests such methods that aim to change internal experiences might be counterproductive at times for clients who are highly avoidant of and inflexible in responding to unwanted internal experiences (Hayes et al., 2012; Levin et al., 2012). The current findings supported this theory with individuals high in global experiential avoidance, but with a measure combining more maladaptive (e.g., suppression) and adaptive (e.g., reappraisal) forms of momentary experiential avoidance. Ultimately, this could be examined experimentally by testing whether global experiential avoidance moderates the effects of training on more adaptive forms of experiential avoidance (e.g., relaxation, cognitive reappraisal) relative to training on maladaptive forms of experiential avoidance and control conditions. Such experimental research could lead to important clinical decision making guidelines for when to use acceptance-based approaches or how to tailor change-focused coping strategies to maximize their utility for clients.

One notable limitation with this study was the use of a relatively homogeneous college student sample and lack of a sample defined by clinically significant distress or a specific disorder cluster. This may have limited the generalizability of these findings and estimates of effects due to lower levels of distress. Further research should be conducted with more diverse and clinically distressed samples to determine if similar patterns are found.

The study also used some new EMA items to assess constructs including experiential avoidance and valued action, which have not been previously examined for psychometric properties. Thus, it is possible that these items did not have adequate validity or reliability, though analyses in this dataset provide preliminary support. This is a common limitation in EMA

research due to the current state of the literature and focus on more specific contexts and questions that benefit from ideographically tailored assessment questions.

The most notable validity concern might be with the momentary experiential avoidance measure, which had a moderate correlation with the AAQ-II as a global measure of experiential avoidance. A previous study found a larger correlation between a momentary measure of experiential avoidance with anxiety and the AAQ-II ( $r = .75$ ; Kashdan et al., 2014). That said, this study differed in important ways that might have reduced correlations with the AAQ-II, including the use of a general sample, momentary items framed in relation to any distressing experience rather than anxiety specifically, and the inclusion of items assessing more specific behaviors that function as experiential avoidance, all of which may have increased variability in momentary assessment points that would attenuate associations with a global measure. In addition, the measure combined a range of different experientially avoidant behaviors, but did not provide adequate assessment to explore differential effects of specific forms of experiential avoidance, which research indicates have unique functions and contexts that moderate their efficacy (Shafir, Schwartz, Blechert & Sheppes, 2015). Future research might replicate these results with a further validated measure of experiential avoidance that provides more precise measurement of specific avoidant coping strategies.

In summary, this study adds to the literature by identifying global experiential avoidance as a key individual characteristic that could moderate the degree to which engaging in experiential avoidance in the moment leads to negative outcomes. Further research is needed to continue to examine more fine-grained, momentary relations between such psychological variables and mental health, particularly with attention to the contexts and individual characteristics that govern these relations. This research will serve to continue to test and refine

theoretical models at a deeper level, providing new insights to guide understanding of psychopathology and its amelioration.

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Table 1. MLM results testing EMA scale validity.

Momentary Variable	Step	Intercept $\beta$	SSR $\beta$	VQ-Pro $\beta$	AAQ-II $\beta$	DASS $\beta$	$\chi^2$
Experiential Avoidance	1	1.93***					
	2	2.88***	-.02**				6.71**
	3	2.98***	-.02†	-.01			.39
	4	1.62*	-.01	.01	.03**		7.55**
	5	1.32*	-.004	.01	.02	.06	2.51
Negative Affect	1	.32***					
	2	.80***	-.01***				15.28***
	3	.87***	-.01*	-.01			1.81
	4	.33†	-.01	-.001	.01***		12.09***
	5	.15	-.002	.00	.004	.04**	10.08**
Positive Affect	1	3.11***					
	2	1.23***	.05***				26.85***
	3	.81*	.03**	.04**			7.38**
	4	.86	.03**	.04*	-.001		.01
	5	.93	.03**	.04*	.002	-.02	.17
Valued Action	1	3.26***					
	2	1.71***	.04***				22.40***
	3	1.24***	.02*	.05***			11.52***
	4	.85†	.02*	.06***	.01		.94
	5	.94†	.02*	.05***	.01	-.02	.31

† $p < .10$ , \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .  $\chi^2$  tests comparing the previous MLM model to the current model. SSR = social functioning; VQ-Pro = valued action; AAQ-II = global experiential avoidance; DASS = psychological distress.

Table 2. MLM results in predicting momentary negative affect, positive affect, and valued action.

Momentary Variable	Step	Intercept $\beta$	AAQ-II $\beta$	EA $\beta$	AAQ-II * EA $\beta$	$\chi^2$
Negative Affect	1	.32***				
	2	.02	.02***			25.63***
	3	-.23***	.01***	.19***		286.40***
	4	-.12†	.004	.14***	.003*	4.24*
Positive Affect	1	3.11***				
	2	3.74***	-.03**			10.49**
	3	4.15***	-.02*	-.33***		70.99***
	4	3.79***	-.004	-0.13	-.01*	3.90*
Valued Action	1	3.26***				
	2	3.71***	-.02*			6.24*
	3	3.93***	-.02†	-.18***		21.69***
	4	3.43***	.001	.08	-.01**	7.45**

† $p < .10$ , \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .  $\chi^2$  tests comparing the previous MLM model to the current model. AAQ-II = global experiential avoidance; EA = momentary experiential avoidance.