The Wear-and-Tear of Daily Stressors on Mental Health

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Abstract

Researchers assert that affective responses to seemingly minor daily events have long-term implications for mental health, yet this phenomenon has rarely been investigated. In the current study, we examined how levels of daily negative affect and affective reactivity in response to daily stressors predicted general affective distress and self-reported anxiety and depressive disorders 10 years after they were first assessed. Across eight consecutive evenings, participants ($N = 711$; age = 25 to 74 years) reported their daily stressors and their daily negative affect. Increased levels of negative affect on nonstressor days were related to general affective distress and symptoms of an affective disorder 10 years later. Heightened affective reactivity to daily stressors predicted greater general affective distress and increased likelihood of reporting an affective disorder. These findings suggest that the average levels of negative affect that people experience and how they respond to seemingly minor events in their daily lives have long-term implications for their mental health.

Cognitive theories of depression posit that emotional well-being is largely determined by how people respond to aversive events in their lives (e.g., Wright, Beck, & Thase, 2002). These theories, echoing the ideas of the ancient Stoics, maintain that negative reactions to an event are more important in predicting emotional well-being than the event itself (Beck, Rush, Shaw, & Emery, 1979). The emotional response, referred to as affective reactivity or stress sensitivity, has been the focus of a growing number of momentary-sampling and daily diary studies (e.g., Almeida, 2005). In addition, researchers have hypothesized that heightened affective reactivity is one possible mechanism through which genetic vulnerability to psychological distress is expressed (Caspi, Hariri, Holmes, Uher, & Moffitt, 2010; Robert & Kendler, 1999).

The proposition that affective reactivity predicts future mental-health outcomes is consistent with current theories, yet it remains largely untested. Laboratory studies document that people with higher levels of trait negative affect respond to emotional stimuli with greater increases in negative affect (e.g., Gross, Sutton, & Ketelaar, 1998). Only a handful of studies, however, have examined whether affective reactivity to naturally occurring daily events predicts future affective distress (O'Neill, Cohen, Tolpin, & Gunthert, 2004; Parrish, Cohen, & Laurenceau, 2011). In one study, undergraduates completed a depressive-symptoms questionnaire and then recorded both their daily stressors and their daily positive and negative affect across seven consecutive evenings (Parrish et al., 2011). Two months

later, they repeated the protocol. Heightened affective reactivity in response to daily stressors at Time 1 predicted increased depressive symptoms two months later.

These results corroborate other findings showing that affective reactivity is related to elevated depression levels 2 months later among college students---even after models were adjusted for affective reactivity at this later time point (O'Neill et al., 2004). This 2-month time period was expanded in a later study, which documented that increased reactivity to stressors was related to symptoms of anxiety, depression, and diagnoses of major depression 1 year later among women 18 to 46 years old (Wichers et al., 2009). Together, these studies indicate that affective reactivity predicts depressive symptoms and depression 2 months later (O'Neill et al., Parrish et al., 2011) and 1 year later (Wichers et al., 2009) among people in age groups where rates of affective disorders are highest (Piazza & Charles, 2006). Yet the question remains as to whether both higher levels of negative affect and affective reactivity to daily stressors each represent a unique vulnerability to mental-health outcomes years later.

Researchers who have examined long-term associations between levels of negative affect and subsequent affective distress often use neuroticism as a predictor. Neuroticism has been conceptualized as both an indicator of higher overall levels of negative affect (the affect-level view; Howell & Rodzon, 2011), as well as an indicator of increased reactivity to aversive events (e.g., Mroczek & Almeida, 2004). Researchers have linked higher neuroticism levels to greater affective reactivity to stressors (Koerner & Kenyon, 2007; Suls, Green, & Hillis, 1998), increased depressive symptoms years later (Dunkley, Sanislow, Grilo, & McGlashan, 2009), and recurrence of a depressive disorder among people with a history of that disorder (Steunenberg, Beekman, Deeg, & Kerkhof, 2010). Building on studies using neuroticism to capture both high levels of negative affect and affective reactivity, we examined how each of these emotional experiences predicted mental-health outcomes years later.

In the current study, we investigated whether both higher levels of negative affect on nonstressor days and affective reactivity in response to daily stressors predicted mental-health outcomes 10 years after they were first assessed. We built on previous work by including a large sample of men and women spanning much of the adult life span (age = 25–74 years at Wave 1) and by examining whether affective reactivity to daily stressors and level of negative affect on nonstressor days at Wave 1 each independently predicted mental-health outcomes a decade later (Wave 2). The 10-year period provided a long temporal window in which to examine these relationships. We hypothesized that greater affective reactivity to stressors and higher daily nonstressor negative affect predict three self-reported indicators of mental health–general levels of affective distress experienced across 1 month, self-reports of having been diagnosed or treated for an affective disorder, and reports of symptoms that warrant an affective-disorder diagnosis.

Method

Participants and Procedure

Participants completed the first wave of the Midlife Development in the United States Survey (MIDUS) survey and the National Study of Daily Experiences (NSDE) between 1995 and 1996 (Wave 1), and they completed the MIDUS II questionnaire 10 years later (Wave 2). The MIDUS survey assessed participants' physical and psychological well-being. The NSDE assessed participants' affective state and daily stressors over 8 consecutive days. Of the 1,483 original NSDE participants, 793 (53%) completed the Wave 2 interview. Reasons for nonparticipation in Wave 2 consisted of refusal (53%), loss of contact (30%), death (13%), and lack of continued eligibility (4%).

Analyses were conducted on the 711 participants who had complete data on all measures. Of these 711 participants, 408 were women and 303 were men; the majority were European American (94%). Education was assessed using an ordinal rating scale, in which participants were categorized as having less than a high school degree (4.8% of the sample), a high school degree or a general equivalency diploma (27.2% of the sample), some college (30% of the sample), a 4-year degree (20.6% of the sample), or at least some graduate school (17.8% of the sample). Compared with the general population within the same age range, this sample had a greater percentage of European Americans (94% vs. 79.6%; Hobbs & Stoops, 2002) and a higher education level (in our sample, 95.2% had a high school degree or higher, compared with 83% in 1995 in the general population, as reported by the U.S. Census Bureau; Day & Curry, 1996).

Measures assessed in MIDUS I (Wave 1) and MIDUS II (Wave 2)

General affective distress—General affective distress was assessed using the Non-Specific Psychological Distress scale (Kessler et al., 2002). Participants used scales from 1 (*none of the time*) to 5 (*all of the time*) to report how often during the previous 30 days they experienced each of four emotions (worthless, hopeless, nervous, restless or fidgety) and two emotional states (how much of the time everything was an effort and how often they were so sad that nothing could cheer them up); $\alpha = .86$ (Wave 1) and $\alpha = .83$ (Wave 2).

Self-reported affective disorder—Affective disorder was assessed with a single item that asked whether, in the past twelve months, participants had experienced or been treated for "anxiety, depression, or some other emotional disorder."

Affective diagnosis based on self-report—Participants were classified as having had an affective disorder within the past twelve months if they met the criteria for a depressive episode, dysthymia, or generalized anxiety disorder based on questions from the Composite International Diagnostic Interview Short Form(CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998). This measure was developed by the World Health Organization using criteria established in the revised third edition of the *Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition (DSM-IIIR;* American Psychiatric Association, 1987)..

For a diagnosis of major depressive disorder, participants had to endorse that during the past 12 months they had felt sad, blue, or depressed for two weeks or more in a row; that during these two weeks the feelings had lasted all or most of the day, and that they felt this way every day or almost every day during the 2 weeks in question. After meeting these requirements, participants had to endorse experiencing at least four additional symptoms during those 2 weeks (e.g., lost interest in most things, increased trouble falling asleep, trouble concentrating). Participants had to meet both criteria to be classified as having experienced a depressive disorder.

Participants were also assessed for dysthymia, a chronic type of depression characterized by low levels of mood state, using established criteria in the DSM-III-R. Dysthymia is less severe than major depression, but it interferes with quality of life and overall well-being. Using a measure based on the DSM-III-R diagnosis criteria, participants had to endorse that they had lost interest in most things, that this loss of interest lasted "all day long" or "most of the day" and that they had felt this way "every day" or "almost every day" during a period of 2 or more weeks in the past 12 months. They also had to endorse having experienced at least four of the following symptoms during these 2 weeks: feeling more tired or having less energy than usual; losing their appetite; having more trouble falling

asleep than usual; having more trouble concentrating than usual; feeling down, no good, or worthless; and thinking a lot about death.

Diagnosis of generalized anxiety disorder also followed the CIDI-SF questions based on DSM-III-R criteria. Participants had to endorse that they worry "a lot more" than most people; that they worried every day, just about every day, or most days over the past 12 months; and that they experienced at least 3 of 10 symptoms on most days (e.g., restless because of worry, keyed up, irritable because of worry).

People with a diagnosis of any of these affective disorders using the CIDI-SF were scored with a 1, and people who did not meet the criteria for major depressive disorder, dysthymia, or anxiety were given a 0.

Measures assessed in Wave 1 during NSDE I

Daily stressors—Daily stressors were assessed each evening using the Daily Inventory of Stressful Events (Almeida, Wethington, & Kessler, 2002). Questions asked whether each of six types of stressors occurred in the past 24 hours: an argument, a situation in which the participant could have argued but decided to let the situation pass, a problem at work, a problem at home (e.g., a broken appliance), a network stressor (i.e., someone in the participant's social network experiencing a problem that upset the participant), and any other experience that had occurred that most people would consider stressful but was not defined by the existing categories.

Research assistants transcribed and coded each stressor. These coders ensured that each stressor constituted a specific event (e.g., an argument) as opposed to an affective state (e.g., feeling sad). They also identified overlapping stressors so that each stressor was counted only once. About 5% of reported stressors were discarded because they were either solely affective responses (e.g., the respondent said that he or she was emotionally upset or felt confused and thought this may have prevented him or her from getting work done) or identical to previously identified stressors on that day. Respondents reported experiencing at least one stressor on 41% of the study days. For the people who reported at least one stressor and were included in the current analyses, the average total number of stressors reported across the week was 3.26 (SD = 1.76). This variable was included in all analyses to adjust for differences in stressor exposure across participants.

Daily negative affect on nonstressor days

During NSDE I, participants reported how much of the time they experienced a series of negative emotions (0 = *none of the time*, 1 = *a little of the time*, 2 = *some of the time*, 3 = *most of the time*, 4 = *all of the time*). Emotion states included restless or fidgety, nervous, worthless, so sad that nothing could cheer you up, everything was an effort, and hopeless. Items were taken from the Non-Specific Psychological Distress Scale (Kessler et al., 2002) but modified to ask about the day of the assessment as opposed to the prior 30 days. Scores for these emotions were averaged together for each day. Level of daily negative affect on nonstressor days was calculated as the mean level of negative affect reported on days when no stressors occurred. Between- and within-persons reliability were estimated by the method outlined by Cranford et al. (2006) as determined using the PROC VARCOMP procedure (SAS Institute, 2001). Between-subjects reliability was .68. A second coefficient (calculated as .55) quantified the extent to which there was reliable interindividual variability in intraindividual change across days.

Affective reactivity was defined as a slope representing the difference in levels of negative affect on days when a stressor occurred compared with days when no stressors occurred

(Bolger & Zuckerman, 1995). Individual slopes were calculated using the SAS PROC MIXED procedure. This technique estimates both between- and within-persons variability through a two-level hierarchical model, in which Level 1 represents within-person change (such as the reactivity slope) and Level 2 represents between-persons differences (Raudenbusch & Bryk, 2002; for its application to daily-diary paradigms, see Vansteelandt, Van Mechelen, and Nezlek, 2005). We included the group-centered mean for average number of stressors but kept the stressor frequency variable dichotomous, as this approach provides more interpretable results (see description in Sliwinski, Almeida, Smyth, & Stawski, 2009). One slope score was obtained for each individual.

Results

People had to report at least one stressor during the diary (NSDE 1) portion of the Wave 1 data collection in order for an affective-reactivity score to be calculated. Of the entire sample (N = 793), 711 participants had affective-reactivity scores. Of these 711 participants, 647 participants had nonmissing values for the measure of general affective distress at Wave 1 (MIDUS 1) and Wave 2 (MIDUS 2), 650 had nonmissing values for self-reported disorder at both waves of data collection, and 711 participants had symptom-based reported disorder at both waves. Descriptive statistics for the mental-health variables are displayed in Table 1.

For the entire sample that had nonmissing data for affective reactivity, 18% at Wave 1 and 18.5% at Wave 2 reported having had experienced or been treated for an emotional disorder in the prior year. These rates are similar to 1-year prevalence rates from the National Comorbidity Survey (NCS), which found that 12.1% of their national sample met the criteria for any anxiety disorder, and 7.5% met the criteria for any mood disorder (depression, bipolar disorder, dysthymia; Narrow, Rae, Robins, & Regier, 2002). Rates are also similar to 1-year prevalence rates from the Epidemiological Catchment Area (ECA) program, in which 12.7% of the sample met the criteria for any anxiety disorder, and 5.1% of the sample met the criteria for any mood disorder (Narrow et al., 2002).

For the current study, 12.2% of the sample reported symptoms that classified them as having had a major depressive disorder, dysthymia, or generalized anxiety disorder within the past year at Wave 1, and 10.3% met the same criteria at Wave 2. At Wave 2, the specific disorders included were major depressive disorder (8.3% of the sample), dysthymia (1.9% of the sample), and generalized anxiety disorder (1.5% of the sample). For comparison, the NCS 1-year prevalence rates for major depressive episode, unipolar major depression, dysthymia, and generalized anxiety disorder were 6.4%, 5.4%, 1.8%, and 2.8%, respectively. The ECA 1-year estimates for major depressive episode, unipolar major depression, and dysthymia were 4.5%, 4.0%, and 1.7%, respectively (Narrow et al., 2002).

Predicting Mental Health at Wave 2

To predict mental health at Wave 2, we used regression for the continuous measure of general affective distress and logistic regression for the dichotomous outcomes of self-reported affective disorder and symptom-based affective disorder diagnosis. Order of entry for the predictor variables was identical for all analyses. In Model 1, negative affect on nonstressor days (affect level) at Wave 1 was used to predict the mental-health variable at Wave 2 while adjusting for demographic variables (gender, education, and age) and average number of stressors. Model 2 was used to examine the predictive ability of affective reactivity at Wave 1, while including all other variables except for negative affect on nonstressor days. Model 3 included both predictors together (i.e., affective reactivity and negative affect on nonstressor days) and all covariates. Table 2 displays the zero-order correlations among the variables included in the analyses.

General affective distress—Regression models (created with the SAS PROC REG procedure) were used to examine whether levels of daily negative affect on nonstressor days and affective reactivity to daily stressors at Wave 1 independently predicted general affective distress at Wave 2. Wave 1 general affective distress was included as a covariate in all of the models. As Table 3 shows, results revealed that increased levels of daily negative affect on nonstressor days and affective reactivity to daily stressors at Wave 1 each significantly predicted levels of general affective distress a decade later. Each predictor was significant when they were entered separately (Models 1 and 2) and when they were entered together (Model 3).

Self-reported disorder—Logistic regression was used to test whether levels of daily negative affect on nonstressor days and affective reactivity to daily stressors at Wave 1 predicted the report of a disorder at Wave 2. Wave 1 self-reported disorder was entered into the model to adjust for this earlier diagnosis[1].Odds ratios and confidence intervals based on Wald tests are presented in Table 4. In separate models, levels of negative affect (Model 1) and affective reactivity (Model 2) each significantly predicted later self-reported emotional disorder after we adjusted for the covariates. When they were entered together in the final model (Model 3), only affective reactivity remained significant. This final model revealed that for every 1 standard-deviation increase above the mean level of reactivity, the odds were 56% higher that someone would report an affective disorder 10 years later.

We also explored whether greater affective reactivity at Wave 1 predicted better recovery from a self-reported disorder. Interactions between Wave 1 affective reactivity and Wave 1 self-reported disorder were not significant.

Symptom-based affective disorder—Negative-affect level (Model 1) and affective reactivity (Model 2) significantly predicted symptom-based diagnosis of a disorder at Wave 2 when examined in separate models (see Table 4). When entered together (Model 3), only the level of negative affect on nonstressor days significantly predicted symptoms of an affective disorder. The final model revealed that for every 1 standard-deviation increase above the mean level of daily negative affect, the odds of meeting the criteria for an affective disorder based on self-reported symptoms 10 years later increased by 31%.

Discussion

The levels of negative affect that people experience in their daily lives, and how people react to daily stressors,have been emphasized in cognitive theories of depression, used to explain genetic susceptibility to anxiety and depression, and studied by a growing number of scientists interested in daily, naturalistic experiences. The current study supports these claims by being the first to focus on how daily negative affect and affective reactivity predict changes in mental-health outcomes across 10 years in a large sample of adults. Levels of negative affect predicted general affective distress and symptom-based diagnosis of affective disorder 10 years after they were first measured. Furthermore, affective reactivity a decade prior predicted the likelihood of reporting increased levels of general affective distress and self-reported affective disorder.

Health psychologists discuss the wear and tear of stressors, describing how constant short-term adaption leads to long-term damage to multiple physiological processes (e.g., McEwen, 2006). Similarly, long-term exposure to both frequent negative affect and the emotional

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[1]Analyses were also conducted excluding all people who self-reported an affective disorder at Wave 1. This approach was repeated for symptoms of disorder. Because the pattern of results was identical for both outcomes, analyses including all people and adjusting for a Wave 1 diagnosis are reported for easlier comparisons for the general-distress findings.

consequences of stress may lead to decreased emotional well-being. The current findings support this view. Instead of paralleling Nietzsche's maxim, "that which does not kill him makes him stronger" (1911/2007, p. 175), findings more accurately reflect the view of long-term damage to individuals' mental health.

A great deal can happen in a decade, and a number of predictors have been tied to levels of emotional well-being (see Diener, Suh, Lucas, & Smith, 1999). The current study suggests that seemingly minor affective experiences also play a significant role in later mental-health outcomes. Researchers often focus on the effects of major life events (e.g., Mancini, Bonanno, & Clark, 2011), but the chronicity of constantly experiencing frequent negative affect and adjusting to minor problems also appears to take its toll on one's mental health.

Both levels of negative affect and affective reactivity predicted symptom-based affective disorder and self-reported disorder when they were entered separately into a model. Only when both variables were entered into a model together did a pattern emerge suggesting that negative-affect level was a stronger predictor of symptom-based disorder, and affective reactivity was a more robust finding for self-reported disorder. One possible interpretation of this pattern of findings is that the symptom-based affective disorder required participants to remember a time when their symptoms were most severe and to report a level of symptomatology necessary to meet the *DSM-III-R* criteria for a major depressive disorder, dysthymia, or an anxiety disorder. Far fewer participants endorsed symptoms sufficient for this diagnosis compared with those who reported having been diagnosed or treated for an emotional disorder in the past year. Perhaps these emotions are more easily remembered by people who generally experience higher levels of affective distress in their lives. Alternatively, people who have very high levels of negative affect may be more likely to experience severer forms of affective disorders that are more easily remembered. Higher initial baseline levels may also lead to a smaller detectable increase in reactivity in response to stressors. Finally, perhaps affective disorders among people who normally experience high levels of negative affect are less related to precipitating events than they are among people who report having been treated or diagnosed with a disorder in the previous year. People who reported having been diagnosed or treated in the year prior to the assessment may have sought treatment in response to a major life event; this response may have been foretold in their higher reactivity to the minor stressors in their lives but not by their levels of negative affect on nonstressor days.

The current results differ from those found in studies of affective reactivity among people with a depressive disorder (e.g., see review by Bylsma, Morris, & Rottenberg, 2008). In those studies, people who showed the highest reactivity paradoxically were those most likely to recover from a depressive episode (Peeters, Berkhof, Rottenberg, & Nicolson, 2010). Exploratory analyses did not show that people who were highly reactive at Wave 1, and who also reported a disorder during this earlier time, had a lower likelihood of a subsequent emotional disorder. The lack of findings may stem partly from the small number of people who self-reported a disorder at Wave 1 but did not report the same disorder at Wave 2. Another reason may be that the self-reported disorder covered a 1-year period and may not have been occurring during the time of the weekly interviews. Once an individual becomes depressed, it is entirely possible—as prior research suggests—that greater blunting of affect to minor daily hassles signals a poorer recovery.

A key strength of the current study was the use of a large, national community sample spanning a wide age range. At the same time, however, the study had several limitations. Although most clinical psychologists base their diagnoses almost exclusively on self-report data for anxiety and depressive disorders, no corroborating information is available to validate the self-reported symptoms. Self-report measures also raise questions of common

method bias. Some of these measures asked participants to recall experiences over the past year, which raises concerns about memory bias. Although the measures in the present study were collected 10 years apart, and the rates of disorder were similar to those gathered from clinical interviews in other studies (e.g., Narrow et al., 2002), the findings must nonetheless be interpreted with consideration of these limitations. Self-reports are not perfectly reliable, and error in measurement—particularly in the reactivity measure—will lead to underestimation of the effects. In addition, no information was included about the intervening years between the two waves of data collection, nor did the study include information about daily positive affect or the occurrence of positive events. It is unclear whether potentiation of positive affect in response to pleasant events, observed among people with depression (Bylsma et al., 2008), would predispose someone to affective distress. Finally, the current study relied on reports about events that occurred within 24 hr prior to assessment. Future investigations comparing results from reconstructive-day, daily-diary, and momentary-sampling studies are needed to examine possible memory biases on emotional experiences.

In this study, we examined a longstanding question: Do daily emotional experiences represent the straw that breaks the proverbial camel's back, or do they instead make people stronger and provide an inoculation against later distress? Results suggest that daily stressors cause wear and tear on emotional well-being and are consistent with cognitive theories of depression: How people experience daily negative affect and respond to the negative events in their lives is important to future well-being.

Acknowledgments

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Table 1

Levels of and Change in Mental-Health Variables at Waves 1 and 2

Variable	Level		Change from Wave 1 to Wave 2		
	Wave 1	Wave 2	Participants reporting an increase or new incidence	Participants reporting a decrease or no longer present	Participants reporting stability over time
General affective distress	$M = 1.50$, $SD = 0.58$	$M = 1.48$, $SD = 0.52$	$n = 300$ (42%)	$n = 299$ (42%)	No change: $n = 118$ (16%)
Self-reported disorder	$n = 121$ (17.3%)	$n = 120$ (17.5%)	$n = 59$	$n = 60$	Stable presence, $n = 61$ Stable absence, $n = 470$
CIDI-SF affective diagnosis based on self-report	$n = 87$ (12.24%)	$n = 73$ (10.27%)	$n = 43$	$n = 57$	Stable presence, $n = 30$ Stable absence, $n = 581$

Note: For self-reported disorder, the ns at each wave represent the number of people who reported that they had been diagnosed or treated for an emotional disorder. The ns for Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998) affective diagnosis based on self-report represent the number of people at each wave who met the criteria for major depressive disorder, generalized anxiety disorder, or dysthymia. The numbers in parentheses represent the percentage of the total sample who met the criteria in each category.

Table 2

Zero-Order Correlations Between All Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Wave 1 negative-affect level on nonstressor days	—										
2. Wave 1 affective reactivity to daily stressors	.53	—									
3. Wave 1 average number of stressors per week	.16	.34	—								
4. Wave 1 general affective distress	.38	.51	.18	—							
5. Wave 2 general affective distress	.41	.42	.13	.52	—						
6. Wave 1 self-reported affective diagnosis	.23	.29	.15	.48	.28	—					
7. Wave 2 self-reported affective diagnosis	.22	.28	.16	.34	.43	.38	—				
8. Wave 1 symptom diagnosis (CIDI-SF)	.23	.29	.16	.37	.24	.35	.22	—			
9. Wave 2 symptom diagnosis (CIDI-SF)	.26	.21	.08	.26	.48	.17	.37	.30	—		
10. Wave 2 education	-.08	.08	.21	-.10	-.13	.00	-.06	-.07	-.10	—	
11. Wave 2 gender	.13	.10	.10	.12	.09	.13	.13	.09	.10	-.11	—
12. Wave 2 age	-.10	-.14	-.24	-.14	-.14	.02	-.08	-.11	-.14	-.04	-.05

Note: Given the sample size, any correlation above .10 is significant at $p < .01$. Symptom diagnoses were obtained using the Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998).

Table 3

Results of Regression Analyses Predicting General Affective Distress at Wave 2 From Negative-Affect Level and Affective Reactivity at Wave 1

Predictor	Model 1			Model 2			Model 3		
	b	*SE b*	β	*b*	*SE b*	β	*b*	*SE b*	β
Intercept	1.09 ***	0.12	0.0	1.08 ***	0.12	0.0	1.07 ***	0.12	0.0
Wave 1 affective distress over prior 30 days	0.38	0.03	0.41 ***	0.36	0.03	0.40 ***	0.34	0.03	0.38 ***
Wave 1 negative-affective level on nonstressor days	0.66	0.10	0.23 ***	—	—	—	0.50	0.11	0.18 ***
Wave 1 affective reactivity to daily stressors	—	—	—	0.20	0.04	0.20 **	0.13	0.04	0.13 **
Wave 1 average number of stressors per week	0.06	0.05	0.04	−0.01	0.05	−0.01	0.02	0.06	0.02
Wave 2 gender (reference = women)	−0.01	0.03	−0.01	0.002	0.04	0.002	−0.008	0.04	−0.008
Wave 2 education	−0.02	0.01	−0.08 *	−0.04	0.02	−0.08 *	−0.04	0.001	−0.09 *
Wave 2 age	−0.002	0.001	−0.06	−0.003	0.001	−0.07	−0.002	0.001	−0.06

Note: The adjusted R^2 for Models 1, 2, and 3 was .33, .31, and .34, respectively.

*
p < .05.

**
p < .01.

***
p < .001.

Table 4

Odds Ratios for Predicting Self-Reported Affective Disorder and Symptom-Based Disorder Diagnoses at Wave 2

Variable	Self-reported affective disorder			Self-reported affective diagnosis (CIDI-SF)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Wave 1 self-reported affective disorder	6.58*** [4.09, 10.60]	5.83*** [3.62, 9.37]	6.21*** [3.77, 10.24]	—	—	—
Wave 1 self-reported affective diagnosis (CIDI-SF)	—	—	—	4.48*** [2.32, 8.64]	3.78*** [1.98, 7.21]	3.98*** [2.03, 7.81]
Wave 1 negative-affect level on nonstressor days	1.26* [1.04, 1.53]	—	1.06 [0.86, 1.31]	1.40*** [1.15, 1.70]	—	1.31* [1.05, 1.63]
Wave 1 affective reactivity	—	1.52*** [1.22, 1.89]	1.56*** [1.21, 2.01]	—	1.46** [1.11, 1.90]	1.25 [0.92, 1.70]
Wave 1 number of stressors	1.30* [1.02, 1.66]	1.11 [0.86, 1.43]	1.10 [0.83, 1.45]	1.06 [0.77, 1.44]	0.87 [0.64, 1.19]	0.91 [0.65, 1.28]
Wave 2 gender (reference = women)	1.54 [0.94, 2.50]	1.81* [1.11, 2.93]	1.69* [1.02, 2.81]	1.60 [0.86, 2.00]	1.97* [1.07, 3.63]	1.72 [0.91, 3.26]
Wave 2 education	0.87 [0.69, 1.10]	0.93 [.74, 1.17]	0.96 [0.75, 1.23]	0.72* [0.53, 0.98]	0.77 [0.58, 1.03]	0.76 [0.56, 1.03]
Wave 2 age	0.84 [0.67, 1.07]	0.88 [0.69, 1.11]	0.86 [0.67, 1.11]	0.64** [0.47, 0.87]	0.64** [0.47, 0.86]	0.65* [0.48, 0.89]

Note: The numbers in brackets represent 95% Wald confidence intervals. Self-reported affective diagnosis was obtained using the Composite International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998).

*
$p < .05$.

**
$p < .01$.

***
$p < .001$.