

RUMINATION ABOUT STRESSFUL LIFE EVENTS:

MEASURING POST-EVENT RUMINATION

By

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Abstract

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The present paper explores several prominent theories of rumination that have been linked to depressive outcomes. The measures associated with these theories are also examined. A new construct called rumination about stressful life events (RASLE) is proposed to describe post-event rumination. While studies have examined rumination about depression and depressogenic attributions, previous research has not examined the influence of ruminating about stressful events themselves. As such, the present paper outlines the developmental process of a new measure, the Rumination About Stressful Life Events Scale (RASLES), which assesses the degree to which one engages in post-event rumination. A three-phase study that refined the measure from a 17-item to a 7-item scale is described. During the three phases, the RASLES was found to display strong reliability and validity. Implications of the new measure are explored and directions for future research are suggested.

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## CHAPTER ONE

### INTRODUCTION

In attempting to understand the deleterious effects of rumination, researchers have devoted considerable effort toward defining (e.g., Martin & Tesser, 1996; Nolen-Hoeksema, 1987; Robinson & Alloy, 2003) and measuring (e.g., Nolen-Hoeksema & Morrow, 1991; Robinson, 1997; Trapnell & Campbell, 1999) rumination. Rumination is generally considered to be a type of thinking that is repetitive and cyclical and focused on a single thought or group of related thoughts. While the initial thought or focus is considered to be spurred by an individual event or mood, the thoughts are maintained without further environmental cues (Martin & Tesser).

The following paper briefly reviews current definitions and theories of rumination and offers a new definition of rumination about stressful life events. Additionally, a new instrument for measuring rumination is described and developed.

#### *Definition and Theory of Rumination*

Early research on rumination was conducted in order to explain the apparent sex differences in rates of depression (Nolen-Hoeksema, 1987). In her response styles theory of depression, Nolen-Hoeksema proposed that women were more depressed than men because of their tendency to ruminate about negative mood. Later studies, however, suggested that an individual's sex is not the more important factor in predicting depressed mood; rather, it is the individual's tendency to ruminate about depressed mood that better predicts onset and duration of depressed mood (Morrow & Nolen-Hoeksema, 1990; Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema, Morrow, & Fredrickson, 1993). In an experimental study manipulating level of rumination, Needles and Abramson (1992)

found that those who experienced a rumination induction were more likely to experience greater levels of depressed mood than those who experienced a distraction induction, regardless of sex.

While earlier research suggests a strong link between rumination and depression, more recent research has attempted to delineate the causal mechanism between rumination and depression. Nolen-Hoeksema, Morrow, and Fredrickson (1993) further articulated the response styles theory and provided experimental evidence to suggest that this model of rumination is most important in predicting duration and severity of depressed mood. Moreover, response style rumination was further described as a self-perpetuating process whereby individuals believe that by engaging in rumination they are able to better understand themselves, which would presumably make a negative response seem more positive (Lyubomirsky & Nolen-Hoeksema, 1993). Similarly, Papageorgiou and Wells (1999) propose that metacognition about rumination serves to perpetuate the ruminative process. As such, ruminators tend to think that rumination is an adaptive process following the experience of problems. This view of rumination leads the individual to engage in future rumination, thereby increasing the experience of depressed mood. While these theories provide elegant explanations for the maintenance of depressed mood, they are less able to account for the initial onset of depressed mood.

A self-focus theory of depression developed by Pyszczynski and Greenberg (1987) suggests a causal link between rumination and the onset of depressed mood. They suggest that following an event that signals the loss of an object of self-worth (e.g., discontinuation of a desired romantic relationship), one attempts to reconcile a desired state (e.g., continuing the relationship) with an actual state (e.g., the relationship has

ended). The process results in a cycle centering on self-focus, akin to rumination. In this cycle, the individual tends to focus on his/her emotional or cognitive state and not on effective methods to resolve the discrepancy. The outcome of this cycle is manifested as an increase in negative affect and helpless thinking. The authors ultimately suggest that this process leads to a negative self view that is used to explain the individual's current difficulties. This view serves to maintain the depressive outcome.

Using a different approach, Martin & Tesser (1996) discuss rumination as a result of goal blockage. Following the disruption of goal attainment, an individual may repeat the same behavior that initially led to the goal blockage. This stage is followed by attempts at problem solving. If problem solving is unsuccessful, the individual may begin to engage in end-state thinking. At this stage, the individual is no longer trying to solve the problem; instead, the individual is ruminating about the problem and the negative impact of the problem. They theorize that this type of thinking can ultimately lead to negative affect if the goal is never attained.

More recently, Robinson and Alloy (2003) have proposed the theory of stress-reactive rumination (SRR). They posit that, following a negative life event, those who ruminate about the event and the negative inferences about the event are more likely to experience the onset of depression than those who do not ruminate about the event. While they acknowledge that depressogenic inferences made about the event may be a sufficient cause of depressed mood, they assert that ruminating about these inferences should strengthen this effect. Interestingly, the results of their study actually suggest that this type of rumination better predicts onset *and* duration of episodes of depression than response style rumination.

### *Measuring Rumination*

As with definitions and theories of rumination, many different measures of rumination exist. Evidence suggests that if taken as a whole, existing measures of rumination indeed represent one central construct; however, individually, each measure construes a specific aspect of rumination that relates differently to depression and general negative mental health (Siegle, Moore, & Thase, 2004). In the following section, I will outline several measures of rumination and discuss their overall validity and applicability to measuring rumination in the context of theories of depression. Specifically, I will address the Response Style Questionnaire, the most commonly used measure of rumination, and the Stress-Reactive Rumination Scale, the measure of rumination most closely related to the measure outlined in the present paper. Additionally, the utility of the measures will be discussed.

*Response Styles Questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991).* The RSQ is a 71-item measure of response styles to depression. It includes a 22-item rumination subscale (RSQ-R). Participants are asked to indicate to what extent they engage in certain activities when they feel depressed. The rumination items reflect one's focus on his/herself, symptoms of depression, and the consequences of the depression. Items are rated on a 0 ("Almost Never") to 3 ("Almost Always") scale. The RSQ-R is scored by summing the 22 rumination items. Internal consistency has been reported as strong (e.g.,  $\alpha = .89$ ; Nolen-Hoeksema & Morrow).

The RSQ-R has shown strong validity in terms of predicting depression (e.g., Just & Alloy, 1997; Nolen-Hoeksema & Morrow, 1991), and in mediating the relationship

between risk factors and depression (Spasojevic & Alloy, 2001). The RSQ-R may be problematic, however, because when it is used to predict future depressed mood, it makes broad generalizations regarding the nature of rumination. First, the questionnaire asks participants to, “Please read each of the items below and indicate whether you never, sometimes, often, or always think or do each one when you feel down, sad, or depressed” (Nolen-Hoeksema & Morrow). Although the instrument directs participants to consider the items through the perspective of being in a depressed state, this questionnaire appears to only be capable of assessing rumination after the initial onset of depressed mood. Second, although this scale can only measure post-depression rumination, it becomes difficult to interpret prospective studies that assess rumination with the RSQ-R with a predicted negative affect variable. If one hypothesizes that rumination will lead to depression, yet measures it with an instrument that seems capable of validly measuring only post-depression rumination, how should findings from such a study be interpreted? It would be difficult to understand if the rumination causes the depression or the depression leads to rumination. Finally, this scale assumes that rumination is a stable trait when used in research that suggests that rumination leads to depression. Since the RSQ-R only seems appropriate for measuring post-depression rumination, studies assessing pre-depression rumination assume that rumination is stable across situations. In fact, at least one study has suggested that the stability of rumination as measured by the RSQ-R is different for depressed and non-depressed individuals (Bagby, Rector, Bacchioni & McBride, 2004). Given such information, the results of a prospective study utilizing the RSQ-R may be difficult to interpret.

*Stress-Reactive Rumination Scale (SRRS; Robinson, 1997)*. The 25-item SRRS is a scale that measures rumination about negative life events, inferences about those negative life events, hopeless cognitions, and coping strategies. Each item represents a possible reactive thought to an event. Participants are asked to rate, on a 0 (“never think or do this”) to 100 (“always think or do this”) scale, how likely they are to react in the manner described. The scale is scored by summing all of the rumination items. The SRRS has been reported to have adequate reliability,  $\alpha = .71$  (Robinson & Alloy, 2003). Additionally, tests correlating the SRRS with negative inferential style, depressive rumination (the RSQ-R) and private self-consciousness suggest that the scale represents a unique and valid construct (Robinson & Alloy).

The SRRS serves an excellent purpose in terms of examining hypotheses involving a causal pathway from negative life events to depression, which incorporates associated effects of negative inferences and/or hopelessness. This scale, however, seems inadequate in experimental designs that do not incorporate either negative inferences or hopelessness. For this type of rumination to successfully be integrated into a theory, it first needs to assume that individuals are making negative inferences or experiencing hopelessness and subsequently ruminating about these cognitions. Without such prerequisite inferences or hopeless cognitions, SRR should not be assessed in the model.

Assuming that a researcher integrates negative inferences and hopeless cognitions into an experimental design, the SRRS does not specify exactly what the ruminator is ruminating about. The scale combines both ruminations about negative inferences with ruminations about hopeless cognitions. Treating negative inferences and hopeless cognitions as the same phenomenon may lead the researcher to overlook important

unique aspects of either type of thought. The hopelessness theory of depression (Abramson, Metalsky, & Alloy, 1989) suggests that negative inferences actually precede hopeless cognitions in a causal chain from negative life events to depression. This suggests that negative inferences and hopeless cognitions have very different properties and characteristics and should not be treated as one in the same in the SRRS. Breaking the SRRS into two separate subscales would have provided researchers with the ability to more precisely hypothesize how this type of rumination would factor into specific theories.

#### *Rumination About Stressful Life Events*

Given the complex nature of the definitions and theories of rumination, it is essential to develop a definition of rumination that is free of unnecessary entanglements with other contributing factors. While it may be important to consider an interaction between rumination and another factor in some situations, this interaction should not be built into the definition or measure of rumination. Such a definition limits the power of the definition to a small number of cases. It can only explain rumination when it is working in concert with these other integrated factors. In this section, I will propose a new definition of rumination that will attempt to define rumination as a reaction to a negative life event. This definition will not integrate other factors in order to define a more “pure” form of rumination that is not contaminated by other variables.

Rumination about stressful life events (RASLE) occurs following a negative life event. The focus of the rumination is on the event itself and *not* on conclusions or thoughts that result from the event. Specifically, this type of rumination is defined by the frequency of thoughts about the negative life event. Although other definitions of

rumination include thoughts generated as a result of the negative life event (e.g., “Because I failed the test, I will never succeed in life.”), these thoughts will not be considered in the present definition. Considering these thoughts as rumination requires the assumption that one makes negative inferences or experiences hopelessness as a result of the event. If these thoughts were incorporated into the model, it would be necessary to assume that the individual not only thought about the event, but also drew conclusions about the event and ruminated about those conclusions. In contrast, RASLE consists only of thoughts about the negative life event itself and does not incorporate thoughts about inferences. As such, a purer measure of rumination can be developed, allowing researchers to see a clearer picture of the causal pathway between rumination and depression that is not unnecessarily confounded by other variables.

Stated more concisely, following a specific life event, RASLE is the tendency to focus attention and engage in thinking about the specific life event. RASLE is characterized by an inability to disengage from thinking about the specific life event. Although the event occurs only once, the thoughts about the event keep the event in an individual’s consciousness and serves to exacerbate the stress caused by the temporal event.

#### *The Rumination About Stressful Life Events Scale*

In order to successfully measure RASLE, it is necessary to develop a new scale that can account for the issues in other measures of rumination that were previously discussed. Consequently, the development of the Rumination About Stressful Life Events Scale (RASLES) is needed in order to examine rumination following a negative life event. The RASLES is also essential to be able to better understand the complex

relationship between stress, rumination and depression. While there have been significant findings regarding the relationship between these variables, information about the causality of the variables is still unclear. This scale can be instrumental in determining how and if rumination is involved in the development of depression, as opposed to simply being associated with depression. Additionally, this measure will enable the study of a true stress x rumination interaction. Finally, by parsing out the intensity of ruminative thoughts from the frequency of the thoughts, we can better understand if it is the frequency or intensity of ruminative thought that is most important in the development of depressed mood.

The present study documents the development of the RASLES. Development of the scale involved the construction and refinement of an item pool, as well as testing of the reliability and the validity of the scale. The development cycle included three distinct phases. Between each phase, the data culled from the questionnaire was analyzed and the questionnaire was altered.

## **CHAPTER TWO**

### **METHOD**

#### *Participants*

Participants were students from psychology courses at a large university in the Pacific Northwest. Across all three phases, 958 participants (595 female, 354 male, 9 unidentified) completed the study. Ten participants from the third phase were excluded because they completed the second part of the study outside of the 14-21 day window of participation. Participants ranged in age from 18 – 45 ( $M = 21.05$ ;  $Mdn = 19.86$ ,  $SD = 3.64$ ). See Table 1 for more participant demographics.

### *Procedure*

The study was broken into three phases: Phase I (PI), Phase II (PII), and Phase III (PIII). The procedure used in PI and PII was identical. When participants arrived at the experiment, they were informed that the present study is part of a series of studies intended to develop a new measure of rumination. Participants were asked to read an informed consent form and indicate their consent to participate by signing the form. Participants completed a questionnaire packet containing the RASLES, the RSQ, the SRRS, the Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002) and the Beck Depression Inventory-II (BDI-II; Beck, Steer, Ball & Ranieri, 1996). Participants were instructed to complete the questionnaire in order. Following the completion of the study, participants were debriefed.

PIII of the study included two separate assessment periods, TI and TII. At TI, participants completed the five questionnaires listed above. At TII, participants completed the RASLES and BDI-II. The purpose of TII in PIII was to gain information about the test-retest reliability of the RASLES. Participants completed TII 14-21 days after completing TI. Consent forms were signed for TI and TII and a debriefing form was given at the end of TII.

At the end of each phase, data analyses were conducted to determine if changes in the RASLES were needed. During both PI and PII, the primary goal was to collect initial data in order to examine item distributions, reliability and validity. Items that showed significant skewness were considered for removal from the questionnaire. Reliability analyses were conducted in order to understand how reliable the current form of the questionnaire was. Comparisons between the scale as administered and the proposed

altered scale were made to determine the impact that such alterations would have on the scale. Correlations between the RASLES and the other measures were computed to test the validity of the measure. At the conclusion of PIII, final tests of item distributions, reliability and validity analyses were conducted. The instrument presented in PIII of the study represents the RASLES in its final form. The second assessment period in PIII was used to ascertain information about test-retest reliability of the RASLES.

### *Measures*

*Rumination About Negative Life Events Scale (RASLES)*. Initially, the RASLES was a 30-item questionnaire assessing the frequency and intensity of rumination following a negative life event. Through the development process, the number of items was reduced from 30 to 10. The original RASLES included 17 rumination and 13 filler items. The final RASLES contains 7 rumination and 3 filler items.

Participants complete the RASLES by responding to the same items for three different time periods: 24 hours, 7 days and 6 months. Participants are asked to think of a stressful life event that they experienced within each time frame specified. They are then asked how many times the event occurred within the timeframe. Participants indicate that the event happened either “1 Time,” “2-4 Times,” “5-8 Times,” or “9 or More Times.” Next, participants are asked to indicate to what extent the event was stressful. They respond on a 1 (Not Stressful) to 5 (Extremely Stressful) scale. These previous two questions are useful in determining factors that may influence a participant’s responses on the subsequent items.

Finally, the participants are presented with a number of items that represent thoughts that they may have following the stressful life event that they indicated.

Participants rate the frequency of each item on a 1 (almost never) to 5 (almost always) scale. Similarly, participants rate the intensity of each item on a 1 (not intense) to 5 (extremely) scale. These items are used to score the measure.

Upon the completion of the RASLES, three subscales and one total scale are available to the researcher: 24-hour scale, 7-day scale, 6-month scale and RASLES Total scale. The subscales are derived by averaging the rumination item scores within each time interval. The RASLES Total scale is derived by averaging the three subscale scores. These scales can be obtained for either frequency or intensity scores. Only frequency scores were analyzed in the present paper.

*Response Styles Questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991).* The RSQ is a 71-item self-response scale gauging the extent to which individuals ruminate about symptoms of depression and the consequences of those symptoms. Participants are presented with a series of potential thoughts and are instructed to indicate how often they engage in each thought when they have feelings of sadness or depression. They indicate the frequency of thought on a 0 (Almost Always) to 3 (Almost Never) scale. The RSQ consists of a 22-item rumination subscale, the RSQ-R. The total rumination score is derived by adding all 22 items. Internal consistency has been reported as strong (e.g.,  $\alpha = .89$ ; Nolen-Hoeksema & Morrow).

*Stress-Reactive Rumination Scale (SRRS; Robinson, 1997).* The 25-item SRRS measures rumination about negative life events, inferences about those negative life events, hopeless cognitions, and coping strategies. Each item represents a possible reactive thought to the event. Participants are asked to rate, on a 0 (“never think or do this”) to 100 (“always think or do this”) scale, how likely they are to react in the manner

described. The scale is scored by adding all of the rumination items. The SRRS has adequate reliability,  $\alpha = .71$  (Robinson & Alloy, 2003). Additionally, tests correlating the SRRS with negative inferential style, depressive rumination (the RSQ-R), and private self-consciousness suggest that the scale represents a unique and valid construct (Robinson & Alloy).

*The Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002).* The OCI-R is an 18-item scale that assesses obsessions and compulsions. The scale is broken into six subscales: washing, checking, ordering, obsessing, hoarding, and neutralizing. For the present study, only the obsessing subscale was of interest. This subscale consists of the following three items: “I find it difficult to control my own thoughts,” “I am upset by unpleasant thoughts that come into my mind against my will,” and “I frequently get nasty thoughts and have difficulty in getting rid of them.” The items are rated on a 0 (Not at all) to 4 (Extremely) scale, which describes how much distress the item has caused over the past month. The total and subscale scores are determined by adding all of the items that compose the respective scales, resulting in a total score range of 0 to 72 and a subscale score range of 0 to 12. The OCI-R has shown strong internal reliability for both the total scale ( $\alpha = .90$ ) and for the individual subscales ( $\alpha$ 's from .83 to .90; obsessing subscale  $\alpha = .88$ ; Foa et al.). Additionally, strong validity evidence has been presented, suggesting that the measure is an efficient and effective measure of obsessions and compulsions (Foa et al.; Hajcak, Huppert, Simons & Foa, 2004).

*Beck Depression Inventory-II (BDI-II; Beck et al. 1996).* The BDI is a 21-item instrument that measures an individual's depressive symptoms. Each item asks the participants about a different symptom of depression. The items include four levels of

any given symptom ranging from an absence of the symptom to a severe form of the symptom. For instance, one item asks the participant to choose between the following four statements: “(0) I do not feel like a failure,” “(1) I have failed more than the average person,” “(2) As I look back, I see a lot of failures,” “(3) I feel I am a total failure as a person.” The item responses are arranged such that higher numbers represent more severe symptoms. The scale is scored by adding all 21 items. The higher the total score, the more depressive symptoms the individual is experiencing. Scores range from 0 (no symptoms of depression) to 63 (severe symptoms of depression). The BDI has shown strong reliability in previous studies,  $\alpha = .91$  (Beck et al.) and has been well validated (Steer, Ball, Ranieri, & Beck, 1997).

## CHAPTER THREE

### RESULTS

#### *Phase I*

During PI, the initial 30-item RASLES was administered to participants. This version of the RASLES included 17 rumination and 13 filler items (see Appendix A). Means and standard deviations for measures used in this phase are reported in Table 2.

*Item Data.* To reduce the number of items in the questionnaire from the original 17 items, the skewness of each item in the RASLES was examined. Items that had a highly negative or positive skew suggest that the item provides little information for the researcher because the majority of participants are responding to the item in a similar fashion. In other words, the highly skewed items do little to differentiate one participant from any other participant. Consequently, items that were highly skewed ( $|z| > 2$ ) were

considered for deletion from the item pool. Each item's performance was examined on the 24 hour, 7 day, and 6 month scales. Items were considered for deletion if they were skewed on two of the three scales.

Using this strategy, nine items were suggested for deletion from the initial item pool (see Table 3). As is indicated, each of these items had two skewness z-scores, in which the absolute values were above 2. At this point, I examined the impact that removing these items would have on the scale's reliability and validity.

*Reliability.* Reliability analyses were conducted on the original 17-item scale, as well as the 8-item scale that was suggested after doing analyses on the individual items. For this analysis, a Cronbach's alpha was derived in order to determine the internal consistency of the scale. The data revealed a highly reliable 17-item version of the RASLES for the 24-hour scale ( $\alpha = .93$ ), the 7-day scale ( $\alpha = .93$ ), the 6-month scale ( $\alpha = .93$ ), and the RASLES Total scale ( $\alpha = .96$ ). Additionally, the 8-item version of the RASLES was highly reliable for the 24-hour scale ( $\alpha = .87$ ), the 7-day scale ( $\alpha = .88$ ), the 6-month scale ( $\alpha = .89$ ), and the RASLES Total scale ( $\alpha = .92$ ). These results show that the deletion of the nine items lowers the reliability of the scale, but the reliability of the 8-item remained high.

*Validity.* Construct validity was examined by evaluating the convergent and divergent validity of the scale. Convergent validity was examined by computing the correlation between the 17-item RASLES subscales and the RSQ, SRRS, and BDI-II (see Table 4). The moderate correlations (range = .35 - .58) between the 17-item RASLES subscales and the RSQ and SRRS suggest that the RASLES is measuring rumination, but it is not measuring the same type of rumination that is captured by either the RSQ or

SRRS. It captures features of rumination that are not assessed in the other scales.

Additionally, the 17-item RASLES subscales moderately correlated with the BDI-II (range = .28 - .40). The strongest of these correlations (i.e., the correlation between RASLES Total and BDI-II) was weaker than the correlation between the RSQ and the BDI-II ( $r = .60$ ;  $z = -3.41$ ,  $p < .001$ ) and the correlation between the SRRS and BDI-II ( $r = .54$ ;  $z = -2.30$ ,  $p = .02$ ); however, these moderate correlations were still strong enough to suggest that the 17-item RASLES sufficiently varies with the BDI-II.

These validity analyses were completed with the 8-item RASLES subscales to determine the effect that the deletion of the nine items would have on validity (see Table 4). Overall, the correlations between the RASLES and the other measures were reduced. None of these reductions were significantly different. This information suggests that the deletion of the nine items does not significantly affect scale validity.

Divergent validity was explored by examining the correlation between the RASLES and the OCI-R, which measures obsessive thinking. Evidence from these analyses was mixed. As can be seen in Table 4, the correlations between the RASLES subscales and OCI-R were weaker than the correlations between the RASLES subscales and the other measures. In order to understand if these differences were significant, the RASLES/OCI-R correlations were compared to the RASLES/BDI-II correlations using Cohen and Cohen's (1983) test of the significance between dependent correlations (see Table 5 and Table 6). For the 17-item scale, this difference was significant only for the 7-day subscale,  $t(310) = -2.40$ ,  $p = 0.02$ . For the 8-item subscale, this difference was significant for the 7-day,  $t(310) = -2.99$ ,  $p = .003$ , and RASLES Total scales,  $t(310) = -1.93$ ,  $p = .05$ . This data suggests that the correlation between the RASLES and OCI-R is

divergent in some cases, but not in others. Overall, the divergent validity data was inconclusive in this phase of the study. Interestingly, the 8-item RASLES subscales improved the divergent validity of the scale, further supporting the removal of the previously discussed nine items.

*Partial Correlations.* All of the validity analyses were repeated using partial correlations to control for the effect of the RASLES stress variable on the correlation between the RASLES subscales and the other measures administered (Table 7). These partial correlations were computed for both the 17-item and 8-item RASLES scales. For each partial correlation, the RASLES subscale's stress variable was partialled out of the correlation. For the RASLES Total, a composite stress variable was computed by averaging the stress levels for all three events that the participants reported. As can be seen by comparing Table 4 and Table 7, the correlations between the RASLES subscales and all other measures was reduced when stress was controlled for, but none of these differences were statistically significant. Even though the reductions were not statistically different, this data suggests that the strength of the relationship between RASLE and the other constructs measured is affected by the level of the stress that each event causes.

*Time Interval Analysis.* Exploratory analyses were conducted to test the differences among the four different scales within the RASLES. T-tests were conducted on data using both the 17-item and the 8-item RASLES. For both versions, there were significant differences among all of the subscales, except for when contrasting the 24-hour and 7-day scales (see Table 8). These two scales showed only a marginally significant difference (17-item version,  $t[326] = 1.80, p = .07$ ; 8-item version,  $t[329] = 1.92, p = .06$ ). Interestingly, these results suggest that each time period is capturing a

unique feature of the overall rumination construct that the RASLES is attempting to measure.

*Scale Changes.* Using the analysis of item skewness as a guide, nine items were initially suggested for deletion from the scale. After exploring the effect that the deletion of these items would have on the scale, it is clear that they have a negligible effect on the reliability and the validity of the scale. While there was a slight change in both reliability and validity, this reduction can be explained by the fact that the inclusion of extra items in a scale will artificially increase the scale reliability and its correlation with other measures (Nunnally, 1967). As such, the nine items were deleted from the scale at the end of this phase. Additionally, since the exploratory analyses of the different time periods suggested that participants were responding differently to the same items depending on the time period involved, it was important that the three different times periods remain in the scale.

## *Phase II*

During PII, the 12-item RASLES derived from PI was administered to participants. This version of the RASLES included 8 rumination and 4 filler items (see Appendix B). Means and standard deviations are for measures used in this phase are reported in Table 9.

*Item Analysis.* To determine how well the 8-items on the RASLES were performing, the skewness for each item was examined. As with Phase I, each item's performance was examined on the 24-hour, 7-day, and 6-month scales. Items were considered for deletion if they were skewed on two of the three scales and were ultimately considered for deletion if the absolute value of  $z$  was greater than 3. Using this

criterion, only one item was considered for deletion (“thought about the circumstances surrounding the event”; 24-hours skewness  $z$ -score = -3.05; 7-days skewness  $z$ -score = -3.95; 6-months skewness  $z$ -score = -4.77). Consistent with the first phase, final judgment regarding the deletion of this item was reserved until further analyses were conducted.

*Reliability.* Reliability analyses were conducted on both the 8-item and 7-item RASLES. A Cronbach’s alpha was derived for all of the scales in each version to allow for exploration of the proposed change to the scale. The internal consistency of the 8-item RASLES mirrored the results derived in Phase I: 24-hour scale  $\alpha = .85$ , 7-hour scale  $\alpha = .86$ , 6-month scale  $\alpha = .86$ , RASLES Total scale  $\alpha = .89$ . Also similar to the previous phase, there was a slight decline in the reliability for the newly suggested scale: 24-hour scale  $\alpha = .83$ , 7-day scale  $\alpha = .84$ , 6-month scale  $\alpha = .86$ , RASLES Total scale  $\alpha = .87$ . These analyses suggest that there was negligible change in the reliability after removing one item.

*Validity.* Construct validity was assessed again in this phase. The purpose of this analysis was to determine the validity of the RASLES and to determine how such deletion would affect the scale validity. As such, validity analyses were conducted on both the 8-item and 7-item RASLES. The 8-item version of the RASLES displayed weak to moderate correlations with the RSQ, SRRS and BDI-II than in Phase I (range = .24 - .43; see Table 10).

When conducting these same analyses on the 7-item RASLES (see Table 5), correlations with the RSQ and BDI-II were reduced; however, there was an increase in the correlation between the SRRS and both the 6-month scale (change in  $r = +.013$ ) and the Total scale (change in  $r = +.002$ ). None of the changes in validity were statistically

significant. This analysis suggests that the proposed alteration of the RASLES does not adversely affect validity.

In examining divergent validity, the correlations between the RASLES subscales and the OCI-R were weaker than the correlations between the RASLES subscales and the other measures for both the 8-item and 7-item RASLES (see Table 10). While these correlations were weaker, they were not significantly different from the correlations between the RASLES subscales and the BDI-II (see Table 11 and Table 12). With this information, it is hard to claim that the RASLES appropriately diverges from the OCI-R. That is, to say that the RASLES diverges from the OCI-R would also be claiming that it diverges from the BDI-II. As with the previous phase, the correlations between the RASLES and the OCI-R became weaker when removing the one item suggested for deletion.

*Partial Correlations.* Similar to the previous phase, validity analyses were repeated using partial correlations to control for the effect of the RASLES stress variable on the correlation between the RASLES subscales and the other measures administered (Table 13). These partial correlations were computed for both the 8-item and 7-item RASLES scales. Partial correlations were computed using the same method reported above. As with the previous phase, controlling for stress reduced the strength of the relationships between the RASLES subscales and all other measures, although these differences were not statistically significant.

*Time Interval Analysis.* Analyses were conducted to determine if there were any significant differences among the RASLES subscales. Consistent with other analyses in this phase, these analyses were conducted with both the 8-item and 7-item RASLES. T-

tests were used to explore the differences between each pair of subscales. These analyses revealed a trend similar to that found in the previous phase. Each t-test revealed significant differences, except for the 24-hour and 7-day scale pairing (see Table 14). Whereas in PI the difference between these two scales was marginally significant, results in this phase were non-significant (8-item version,  $t[317] = -1.02, p = .31$ ; 7-item version,  $t[317] = -0.87, p = .38$ ). Although there was no significant difference between the 24-hour and 7-day scales, these results suggest that the scales are continuing to capture unique features of rumination.

*Scale Changes.* Initial analyses of the 8-item RASLES suggested that one item be deleted from the scale. Exploration of the shortened, 7-item RASLES suggested that deleting the one item did not have a strong impact on the reliability or validity of the scale. As seen in the PI analyses, there was a slight reduction in both reliability and validity after removing the one item; however, this reduction was negligible. One possible explanation for this reduction is that reliability and validity tends to be higher when more items are included in a scale. Perhaps, the 8-item version is no more reliable or valid than the 7-item version; rather there are more items and it therefore produces higher reliability and validity scores. As in PI, this phase also suggested that there are important differences among each of the time scales. Consequently, the individual time scales were maintained in PIII.

### *Phase III*

The purpose of PIII was to test the RASLES in its proposed final state. While the previous phases were intended to refine the measure, this stage was meant to provide the final reliability and validity data. Additionally, this phase included two time periods in

which participants were assessed in order to evaluate the test-retest validity of the RASLES.

During PIII, the 10-item RASLES derived from PII was administered to participants. This version of the RASLES included 7 rumination and 3 filler items (see Appendix C). Means and standard deviations are for measures used in this phase are reported in Table 15.

In total, 292 participants began this phase of the study. Of these 292 participants, 223 participants returned and completed T2. Analyses comparing participants who completed both parts of the study to participants who completed only the first part of the study revealed significant differences only for their OCI-R scores,  $t(290) = -2.52, p = .003$ , such that those who completed only the first part of the study had higher OCI-R scores ( $M = 3.65, SD = 3.28$ ) than those who completed both parts of the study ( $M = 2.68, SD = 2.63$ ). They are considered similar on all other measures administered at T1. Finally, data from 10 participants was excluded from T2 analyses as these 10 participants completed the second phase of the study either less than 14 days after T1 or more than 21 days after T1. Their data was used in T1 analyses.

*Item Data.* Item distributions were once again examined. None of the items were skewed badly enough to suggest deletion. All items were retained in the final phase of the study.

*Reliability.* The final reliability analyses were conducted, using Cronbach's alpha. All subscales of the RASLES again proved to be reliable for both T1 and T2 (see Table 16). Notably, the reliability for the Total RASLES scale reached .90 for the first time since the 17-item and 8-item versions of the scale tested in PI. With fewer items used in

the current version of the scale, the reliability score of .90 is much more impressive and suggests that the previous phases have successfully generated a parsimonious scale that has retained acceptable reliability.

The implementation of two assessment periods in PIII allowed for the examination of the test-retest reliability of the RASLES. The RASLES appears to have acceptable test-retest reliability, (see Table 17) such that greater time intervals indicated better test-retest reliability. Additionally, the T1 RASLES Total scale correlated highly with the TII RASLES Total scale ( $r = .65$ ).

*Validity.* Convergent validity in the final RASLES was better than the 8-item and 7-item versions tested in the previous phase for most time periods. The RASLES moderately correlated with the RSQ, SRRS, T1 BDI-II and T2 BDI-II (range = .19 - .45; see Table 18). None of the correlations were significantly different from T1 to T2. These results suggest that the RASLES is a valid measure of rumination. Regarding divergent validity, the RASLES/OCI-R correlations followed the same trend as reported in the previous phase: these correlations were weaker than any other measures correlating with the RASLES, although they were not significantly different from the RASLES/BDI-II correlations, which were the next weakest correlations (see Table 19).

*Partial Correlations.* Validity analyses were repeated using partial correlations to control for the amount of stress caused by each event (see Table 20). These partial correlations were computed for both the T1 and T2. The same method as reported above was used to derive the partial correlations. All of the correlations, except two, were reduced when controlling for stress, but these changes were not statistically significant. The correlation between the 24-hour scale and both T1 and T2 BDI-II increased when

controlling for stress (.295 to .297,  $z = -0.02$ ,  $p = .49$ , and .364 to .369,  $z = -0.06$ ,  $p = .48$ , respectively).

*Time Interval Analysis.* T-tests were conducted to explore the differences between the RASLES subscales. These tests were conducted for the RASLES administered for both T1 and T2. These analyses largely conformed to the pattern seen in the previous two phases, with one new finding. For the first time, there was a significant difference between the 24-hour and 7-day scales. On the T2 questionnaire, the 6-month scale revealed significantly higher scores than the 24-hour scale,  $t(219) = -2.12$ ,  $p = .04$ . Prior to this analysis, there was only a marginally significant difference between these two scales. All other comparisons were significantly different (see Table 22). These results again suggest that the subscales are assessing slightly different aspects of rumination and should remain part of the RASLES.

*Scale Changes.* No changes were suggested by any of the analyses conducted in this phase of the study. As such, no changes were made. The version of the RASLES used in PIII is considered the final version of the scale.

## **CHAPTER FOUR**

### **DISCUSSION**

The present study developed a valid and reliable scale to assess rumination about stressful life events. Throughout the study, the measure was refined in order to create a parsimonious questionnaire that maintained adequate validity and reliability. The resulting measure is a 7-item scale that assesses rumination at three different time periods.

The reliability of the scale was initially strong and remained strong throughout the study. Interestingly, refining the scale after PI created a slight decrease in internal consistency, but refining the scale after PII ultimately increased scale internal consistency ( $\alpha = .90$ ). From PI to PII, Cronbach's alpha was reduced by only .06 (from .96 to .90), which suggests that the scale maintained adequate and strong reliability, which was not artificially increased through the inclusion of extra or redundant items. Overall, the final scale is parsimonious and performs adequately.

The final scale appears to successfully assess a type of rumination that is related to commonly used measures of rumination (Nolen-Hoeksema & Morrow, 1991; Robinson, 1997), yet still captures unique features of rumination. In further exploring the relationship between the RASLES and both the RSQ and the SRRS, evidence has emerged to suggest that the RASLES is assessing the theoretically proposed type of rumination. In all three phases of the study, the RASLES correlated more strongly with the SRRS than the RSQ. Theoretically, the RASLES is more closely related to the SRRS because both forms of rumination are proposed to occur before an increase in depressed mood. The RSQ, on the other hand, assesses rumination that occurs during or after the onset of depressed mood. Therefore, the RASLES should correlate less strongly with the RSQ than with the SRRS. These results indicate such a pattern and provide support for the notion that the RASLES measures a type of rumination that *precedes* an increase in depressed mood. Previous research has shown that the SRRS, in interaction with risk status, can predict the number and duration of major depressive episodes (Robinson & Alloy, 2003). With this relationship between the RASLES and the SRRS, it is possible that the RASLES can be a valuable tool in identifying those who are at risk for

developing depressive episodes. Regarding divergent validity, the RASLES consistently showed the weakest correlations with the OCI-R. Ideally, the RASLES/OCI-R correlations would have been significantly different from other correlations, especially the next weakest correlation, the RASLES/BDI-II correlation. This lack of difference, however, can perhaps be explained by similarities between the rumination and obsessing constructs.

Partiallying out event stress from the correlations used to determine the scale validity yielded interesting results. These analyses consistently suggested that the strength of the relationship between RASLE and other constructs assessed was strongly influenced by the stress of the events that participants reported on the RASLES. These conclusions are not surprising as the stress of an event is likely to influence the amount of rumination that an individual engages in following the experience of a stressful life event. Likewise, rumination may influence the stressfulness of an event. Future research that examines the diathesis-stress relationships involving rumination and stress is warranted.

Further study of the influence of the stress variable on other psychometric properties is also needed. It was observed that the stressfulness of an event that one ruminates about may play an important role on the amount of rumination that the event generates; however, this was only tested in the validity analyses in the present study. Given this possibility, other psychometric properties may be influenced by the stressfulness of an event. For instance, test-retest reliability may be affected by the stressfulness of the events an individual is ruminating about. If an individual picks less stressful events when initially completing the RASLES and picks more stressful events when completing the RASLES the second time, the resulting RASLES scores may be

different due only to the difference in stressfulness of each of the events. Without understanding the influence of the stress variable in such a situation, it is hard to interpret the test-retest reliability of the scale. Overall, it is likely that the more stressful an event is, the more likely one is to respond in a negative, ruminative manner. As such, responses to more stressful events could artificially increase the amount of rumination detected by the RASLES. If this effect is seen in the data, it will likely have an impact on the psychometric properties of the scale.

One of the most surprising results in the present study were the differences in rumination for the different subscales of the RASLES. Other than the comparison of the 24-hour and 7-day scales, all other scales were significantly different from one another<sup>1</sup>. The meaning of these differences presents some interpretative difficulty. It is clear that participants are responding to the different scales in distinct ways. What each individual scale means, however, is harder to discern. One explanation is that the events chosen for each scale are different in nature and can account for the differences observed. When asked to choose an event in the past 24 hours, participants are constrained to pick a more recent event, perhaps one that is not very stressful. While the advantage of the 24-hour time period is that the event will be more salient to the participant, the disadvantage is that the participant may pick an insignificant event that by nature does not elicit much rumination, thereby artificially deflating the rumination score. On the other hand, when a participant is asked to pick an event in the past 6 months, the pool of events from which to choose is significantly greater. Additionally, the possibility of picking a more stressful event is increased. Therefore, it is more likely in the 6-month than the 24-hour period that the participant will chose an event that elicits more rumination. Perhaps participants

chose more stressful events for the longer time periods than for the shorter time periods, thereby causing the differences in the amount they ruminated about those events. Another explanation for these differences involves the participants' memories of the events. It is possible that the participants chose the events that were most accessible in their memories at the time of their participation. Research suggests that the more an individual thinks about an event, the more available the event becomes in memory (Teasdale & Green, 2004). Following the event, the participant would have ruminated about the event, causing it to be more concretely encoded into memory, which would make it more easy to recall at a future date. The participant would therefore be recalling events that they have historically ruminated about, which suggests that the recalled events are ones that are likely to ruminated about. The 6-month scale would likely pick up on events that are more likely to have been ruminated about than the 24-hour scale. Again, this theory can help account for the discrepancy in rumination between the scales.

It is important to note that this study utilized multiple comparisons, which inflates the overall risk of committing a Type 1 error. One approach to minimize Type 1 error is to reduce the alpha level, using the Bonferroni correction, for instance; however, Cohen (1998), in a well-known edited volume published by the American Psychological Association on methodological issues in clinical research, has noted that the use of the Bonferroni correction inflates the likelihood of a Type 2 error; lowering alpha based on such a correction renders only the findings with a high amount of power as statistically significant. He further noted that such corrections are especially unwarranted in exploratory investigations, such as the current study.

Simply understanding these differences between the subscales does not help explain the utility of the format of the RASLES. Rather than viewing the RASLES as a measure that assesses the tendency of an individual to ruminate during three separate time periods, it best to view it as a measure that samples ruminative habits at three separate time periods, all of which appear to evoke different ruminative responses to stress. In other words, the questionnaire samples light, medium and heavy rumination. As such, it would be misleading to look at only one of the three scales to determine a person's ruminative habits. By examining the total rumination score, which takes into account all three subscales, the average tendency of an individual toward rumination across situation is brought to light. Following this logic, it is recommended that the RASLES, in its current state, be administered using all three scales and be scored by taking the average of the three scales. This RASLES Total score represents an individual's overall tendency to ruminate about stressful events. This recommendation is supported by the reliability and validity data from the present study, which suggests that the total RASLES score is more reliable and valid than the any of the three subscales alone.

It is important to note that this is only a preliminary assessment of the RASLES scale. While the data obtained in this study was collected using a large sample, the sample was from undergraduates at the same university. Future research should aim to collect data on the RASLES from more diverse populations. Furthermore, data should be collected from a clinical population to evaluate its utility in a clinical setting. Because the RASLES was proposed to be a single factor scale measuring the amount that one ruminates about stressful events, a study that evaluates the factor structure of the scale

would allow for the confirmation of the proposed single factor structure of the measure should be conducted. As with every scale constructed, research can only provide evidence for or against the validity of a scale, but can never fully prove that the scale is measuring what it intends to measure. Further research exploring the construct validity of the scale would help to determine more concrete validity of the RASLES. Even with these suggested improvements, initial studies using the RASLES should aim to evaluate the relationship between rumination, stress and depression. The RASLES may be an important tool in determining how those who ruminate prior to being depressed may be more likely to become depressed in the future.

Overall, the present study developed a new measure of rumination that may be able to further illuminate the role of rumination in the development of depression. This tool can be instrumental in understanding how pre-depressive rumination factors into current and future depressive episodes.

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## FOOTNOTES

<sup>1</sup> There were a few occasions in which there was a significant difference between the 24-hour and 7-day scales, but the majority of analyses suggested that there were no significant differences between these two scales.

Table 1

*Participant Demographics by Phase*

	Phase I	Phase II	Phase III
Participants	338	328	292
Female	220 (65.1%)	178 (54.3%)	197 (67.5%)
Male	113 (33.4%)	146 (44.5%)	95 (32.5%)
Year in School			
Freshmen	90 (26.6%)	171 (52.1%)	139 (47.6%)
Sophomore	50 (14.8%)	59 (18.0%)	48 (16.4%)
Junior	76 (22.5%)	61 (18.1%)	44 (15.1%)
Senior	97 (28.7%)	31 (9.5%)	50 (17.1%)
5 <sup>th</sup> Year or Greater	25 (7.4%)	5 (1.5%)	11 (3.8%)
Ethnicity			
Caucasian	249 (73.9%)	258 (79.1%)	222 (76.6%)
African American	6 (1.8%)	7 (2.1%)	6 (2.1%)
Asian American/ Pacific Islander	34 (10.1%)	32 (9.8%)	18 (6.2%)
Latino(a)	11 (3.3%)	12 (3.7%)	13 (4.5%)
Native American	2 (0.6%)	2 (.9%)	5 (1.7%)
Biracial/ Multicultural	15 (4.4%)	9 (2.8%)	11 (3.8%)
Other	20 (5.9%)	5 (1.5%)	15 (5.2%)

Table 2

*Phase I Questionnaire Means and Standard Deviations*

Measure	Mean	Standard Deviation
RSQ	21.68	12.14
SRRS	423.76	182.68
24-hour	2.75	.95
7-day	2.65	1.00
6-month	3.05	1.00
RASLES Total	2.82	.80
OCI-R	2.32	2.59
BDI-II	10.36	8.68

*Note.* RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 3

*Phase I Deleted Items and Skewness Z-Scores*

Item	Skewness Z-Scores		
	24-hour	7-day	6-month
analyzed the event	-2.56	-1.24	-4.33
visualized the event	2.68	4.07	0.06
recounted facts about the event	2.08	2.89	-0.49
thought about the feelings you had during the event	2.13	2.44	-1.95
recalled sounds from the event	12.29	15.19	10.51
relived the event in your mind	3.66	5.00	1.51
wondered about the event	3.31	3.60	1.07
questioned yourself about the event	2.82	2.34	1.00
contemplated why the event was problematic	3.50	3.86	3.30

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale.

Table 4

*Phase I RASLES, RSQ, SRRS, BDI-II, and OCI-R Correlation Matrix*

	24-hour	7-day	6-month	RASLES Total
RSQ	.422*   .365*	.475*   .435*	.347*   .315*	.498*   .458*
SRRS	.493*   .444*	.491*   .471*	.446*   .414*	.576*   .546*
BDI-II	.350*   .275*	.396*   .377*	.277*   .238*	.403*   .358*
OCI-R	.285*   .217*	.255*   .199*	.241*   .201*	.307*   .248*

*Note.* The first correlation presented in each cell is for the 17-item Rumination About Stressful Life Events Scale. The second correlation presented in each cell is for the 8-item Rumination About Stressful Life Events Scale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .001$

Table 5

*Phase I Significance Tests of Differences Between RASLES/OCI-R and RASLES/BDI-II Correlations Using the 17-item RASLES*

24-hour	7-day	6-month	RASLES Total
$t(310) = -1.09,$ $p = 0.28$	$t(310) = -2.40,$ $p = 0.02$	$t(310) = -0.45,$ $p = 0.66$	$t(310) = -1.68,$ $p = 0.09$

*Note.* Each cell represents the t-test comparing the RASLES/OCI correlation to the RASLES/BDI-II correlation using the specified RASLES subscale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 6

*Phase I Significance Tests of Differences Between RASLES/OCI-R and RASLES/BDI-II Correlations Using the 8-item RASLES*

24-hour	7-day	6-month	RASLES Total
$t(310) = -0.99,$ $p = 0.32$	$t(310) = -2.99,$ $p = 0.003$	$t(310) = -0.46,$ $p = 0.64$	$t(310) = -1.93,$ $p = 0.05$

*Note.* Each cell represents the t-test comparing the RASLES/OCI correlation to the RASLES/BDI-II correlation using the specified RASLES subscale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 7

*Phase I RASLES, RSQ, SRRS, BDI-II, and OCI-R with Each Subscale's Stress Variable Partialled Out*

	24-hour	7-day	6-month	RASLES Total
RSQ	.392***   .329***	.384***   .338***	.281***   .242***	.399***   .349***
SRRS	.440***   .386***	.388***   .365***	.390***   .354***	.473***   .434***
BDI-II	.277***   .192**	.275***   .255***	.227***   .183**	.285***   .234***
OCI-R	.268***   .187**	.198***   .134*	.212***   .174**	.237***   .176**

*Note.* The first correlation presented in each cell is for the 17-item Rumination About Stressful Life Events Scale. The second correlation presented in each cell is for the 8-item Rumination About Stressful Life Events Scale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .05$

\*\* =  $p < .01$

\*\*\* =  $p < .001$

Table 8

*Phase I T-tests Comparing Differences Between RASLES Subscales*

	17-item RASLES		
	24-hour	7-day	6-month
7-day	$t(326) = 1.79,$ $p = .07$		
6-month	$t(326) = -5.67,$ $p < .001$	$t(323) = -7.39,$ $p < .001$	
RASLES Total	$t(321) = -2.18,$ $p = .03$	$t(321) = -5.29,$ $p < .001$	$t(321) = 7.42,$ $p < .001$

  

	8-item RASLES		
	24-hour	7-day	6-month
7-day	$t(329) = 1.92,$ $p = .06$		
6-month	$t(329) = -6.05,$ $p < .001$	$t(325) = -7.54,$ $p < .001$	
RASLES Total	$t(325) = -2.25,$ $p = .03$	$t(325) = -5.45,$ $p < .001$	$t(325) = 7.83,$ $p < .001$

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score.

Table 9

*Phase II Questionnaire Means and Standard Deviations*

Measure	Mean	Standard Deviation
RSQ	21.47	11.53
SRRS	435.98	162.16
24-hour	3.08	.91
7-day	3.13	.97
6-month	3.47	.98
RASLES Total	3.23	.71
OCI-R	2.99	2.80
BDI-II	10.39	8.22

*Note.* RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 10

*Phase II RASLES, RSQ, SRRS, BDI-II, and OCI Correlation Matrix*

	24-hour	7-day	6-month	RASLES Total
RSQ	.242**   .226**	.235**   .226**	.305**   .306**	.344**   .337**
SRRS	.371**   .351**	.288**   .287**	.343**   .356**	.426**   .428**
BDI-II	.275**   .254**	.243**   .231**	.270**   .271**	.340**   .331**
OCI-R	.229**   .220**	.187*   .180**	.248**   .248**	.286**   .282**

*Note.* The first correlation presented in each cell is for the 8-item Rumination About Stressful Life Events Scale. The second correlation presented in each cell is for the 7-item Rumination About Stressful Life Events Scale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .01$

\*\* =  $p < .001$

Table 11

*Phase II Significance Tests of Differences Between RASLES/OCI-R and RASLES/BDI-II Correlations Using the 8-item RASLES*

24-hour	7-day	6-month	RASLES Total
$t(300) = -0.44,$ $p = 0.66$	$t(300) = -0.90,$ $p = 0.37$	$t(300) = -0.50,$ $p = 0.62$	$t(300) = -0.85,$ $p = 0.40$

*Note.* Each cell represents the t-test comparing the RASLES/OCI correlation to the RASLES/BDI-II correlation using the specified RASLES subscale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 12

*Phase II Significance Tests of Differences Between RASLES/OCI-R and RASLES/BDI-II Correlations Using the 7-item RASLES*

24-hour	7-day	6-month	RASLES Total
$t(300) = -0.28,$ $p = 0.78$	$t(300) = -0.81,$ $p = 0.42$	$t(300) = -0.50,$ $p = 0.62$	$t(300) = -0.77,$ $p = 0.44$

*Note.* Each cell represents the t-test comparing the RASLES/OCI correlation to the RASLES/BDI-II correlation using the specified RASLES subscale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 13

*Phase II RASLES, RSQ, SRRS, BDI-II, and OCI-R with Each Subscale's Stress Variable Partialled Out*

	24-hour	7-day	6-month	RASLES Total
RSQ	.202***   .185**	.192**   .181**	.223***   .223***	.250***   .241***
SRRS	.318***   .295***	.253***   .250***	.300***   .314***	.351***   .352***
BDI-II	.171*   .155**	.150**   .140*	.205***   .201***	.195**   .186**
OCI-R	.205**   .196**	.089   .086	.227***   .224***	.203***   .199**

*Note.* The first correlation presented in each cell is for the 8-item Rumination About Stressful Life Events Scale. The second correlation presented in each cell is for the 7-item Rumination About Stressful Life Events Scale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .05$

\*\* =  $p < .01$

\*\*\* =  $p < .001$

Table 14

*Phase II T-tests Comparing Differences Between RASLES Scales*

	8-item RASLES		
	24-hour	7-day	6-month
7-day	$t(317) = -1.02,$ $p = .31$		
6-month	$t(316) = -6.71,$ $p < .001$	$t(314) = -5.14,$ $p < .001$	
RASLES Total	$t(312) = -4.69,$ $p < .001$	$t(312) = -2.41,$ $p = .02$	$t(312) = 6.82,$ $p < .001$

  

	7-item RASLES		
	24-hour	7-day	6-month
7-day	$t(317) = -0.87,$ $p = .38$		
6-month	$t(316) = -6.67,$ $p < .001$	$t(314) = -5.40,$ $p < .001$	
RASLES Total	$t(312) = -4.59,$ $p < .001$	$t(312) = -2.65,$ $p < .01$	$t(312) = 6.98,$ $p < .001$

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score.

Table 15

*Phase III Questionnaire Means and Standard Deviations*

Measure	Mean	Standard Deviation
RSQ	23.75	12.58
SRRS	453.83	12.02
T1 24-hour	3.07	1.00
T1 7-day	3.11	.99
T1 6-month	3.52	1.02
T1 RASLES Total	3.23	.78
OCI-R	2.91	2.81
T1 BDI-II	11.34	8.77
T2 24-hour	2.73	.99
T2 7-day	2.89	1.00
T2 6-month	3.32	.97
T2 RASLES Total	2.98	.75
T2 BDI-II	10.25	9.24

*Note.* RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; BDI-II = Beck Depression Inventory-II; 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale. T1 = Time 1; T2 = Time 2.

Table 16

*Phase III RASLES Internal Consistency Reliability*

	24-hour	7-day	6-month	RASLES Total
T1	.849	.849	.882	.899
T2	.878	.870	.880	.902

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; T1 = Phase III, Time 1; T2 = Phase III, Time 2.

Table 17

*Test-rest Reliability Correlations*

24-hour	7-day	6-month	RASLES Total
.333	.402	.551	.650

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score.

Table 18

*Phase III RASLES, RSQ, SRRS, T1 BDI-II, T2 BDI-II, and OCI Correlation Matrix*

	24-hour	7-day	6-month	RASLES Total
RSQ	.332***   .282***	.287***   .243***	.340***   .322***	.411***   .375***
SRRS	.414***   .333***	.312***   .289***	.338***   .309***	.449***   .407***
T1 BDI-II	.296***   .295***	.237***   .302***	.294***   .264***	.348***   .374***
T2 BDI-II	.280***   .364***	.189**   .236***	.309***   .328***	.328***   .400***
OCI-R	.170**   .228**	.128*   .240***	.235***   .241***	.231***   .310***

*Note.* The first correlation presented in each cell is for the T1 Rumination About Stressful Life Events Subscales. The second correlation presented in each cell is for the T2 Rumination About Stressful Life Events Subscales. 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; T1 BDI-II = Time 1 Beck Depression Inventory-II; T2 BDI-II = Time 2 Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .05$

\*\* =  $p < .01$

\*\*\* =  $p < .001$

Table 19

*Phase III Significance Tests of Differences Between RASLES/OCI-R and RASLES/BDI-II Correlations*

24-hour	7-day	6-month	RASLES Total
$t(285) = -1.70,$ $p = 0.09$	$t(285) = -1.19,$ $p = 0.24$	$t(285) = -0.89,$ $p = 0.37$	$t(285) = -1.70,$ $p = 0.09$

*Note.* Each cell represents the t-test comparing the RASLES/OCI correlation to the RASLES/BDI-II correlation using the specified RASLES subscale. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; BDI-II = Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

Table 20

*Phase III RASLES, RSQ, SRRS, T1 BDI-II, T2 BDI-II, and OCI-R with Each Subscale's Stress Variable Partialled Out*

	24-hour	7-day	6-month	RASLES Total
RSQ	.336***   .255***	.212**   .193**	.229**   .242***	.305***   .297***
SRRS	.396***   .290***	.200**   .211**	.257***   .215**	.333***   .310***
T1 BDI-II	.287***   .297***	.084   .244***	.208**   .204**	.226**   .272***
T2 BDI-II	.240***   .369***	.026   .180**	.185**   .275***	.164**   .265***
OCI-R	.170**   .219**	.102   .209**	.126   .172*	.136*   .215**

*Note.* The first correlation presented in each cell is for the T1 Rumination About Stressful Life Events Subscales. The second correlation presented in each cell is for the T2 Rumination About Stressful Life Events Subscales. 24-hour = 24-hour Rumination About Stressful Life Events Scale Scale; 7-day = 7-day Rumination About Stressful Life Events Scale Scale; 6-month = 6-month Rumination About Stressful Life Events Scale Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; RSQ = Response Style Questionnaire; SRRS = Stress-reactive Rumination Scale; T1 BDI-II = Time 1 Beck Depression Inventory-II; T2 BDI-II = Time 2 Beck Depression Inventory-II; OCI-R = Obsessive-Compulsive Inventory-Revised Obsessing Subscale.

\* =  $p < .05$

\*\* =  $p < .01$

\*\*\* =  $p < .001$

Table 21

*Phase III T-tests Comparing Differences Between RASLES Scales for T1 and T2*

	T1		
	24-hour	7-day	6-month
7-day	$t(281) = -0.52,$ $p = .61$		
6-month	$t(285) = -6.85,$ $p < .001$	$t(284) = -6.30,$ $p < .001$	
RASLES Total	$t(281) = -4.44,$ $p < .001$	$t(281) = -3.57,$ $p < .001$	$t(281) = 7.38,$ $p < .001$
	T2		
	24-hour	7-day	6-month
7-day	$t(219) = -2.12,$ $p = .035$		
6-month	$t(220) = -8.03,$ $p < .001$	$t(220) = -6.21,$ $p < .001$	
RASLES Total	$t(219) = -5.58,$ $p < .001$	$t(219) = -2.09,$ $p = .04$	$t(219) = 8.42,$ $p < .001$

*Note.* 24-hour = 24-hour Rumination About Stressful Life Events Scale; 7-day = 7-day Rumination About Stressful Life Events Scale; 6-month = 6-month Rumination About Stressful Life Events Scale; RASLES Total = Rumination About Stressful Life Events Scale Total Score; T1 = Phase III, Time 1; T2 = Phase III, Time 2.

## **APPENDIX**

**APPENDIX A**

**PHASE I RASLES**

Event #1

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **24 hours**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

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---

How often have you experienced the stressful event, or something similar in the last 24 hours? PLEASE CIRCLE ONLY **ONE** ANSWER.

- 1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

- Not Stressful              Somewhat Stressful              Moderately Stressful              Very Stressful              Extremely Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #1.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

- FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

- INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. thought about your feelings that resulted from the event	_____	_____
5. analyzed the event	_____	_____

FREQUENCY

- 1 = almost never
- 2 = sometimes
- 3 = moderately often
- 4 = often
- 5 = almost always

INTENSITY

- 1 = not intense
- 2 = somewhat
- 3 = moderately
- 4 = very
- 5 = extremely

	Frequency	Intensity
6. thought about the situation that caused the event	_____	_____
7. remembered the peculiarities of the event	_____	_____
8. thought about the repercussions of the event	_____	_____
9. thought how to fix the situation	_____	_____
10. recalled information about the event	_____	_____
11. thought about how the event impacts your future	_____	_____
12. replayed the event in your mind	_____	_____
13. visualized the event	_____	_____
14. thought about how sad you were	_____	_____
15. recounted facts about the event	_____	_____
16. thought "I should not be stressed by this"	_____	_____
17. thought about details of the event	_____	_____
18. thought about causes of the event	_____	_____
19. thought about the feelings you had during the event	_____	_____
20. recalled sounds from the event	_____	_____
21. thought how to prevent the event from happening again	_____	_____
22. relived the event in your mind	_____	_____
23. thought about the circumstances surrounding the event	_____	_____
24. considered the consequences of the event	_____	_____
25. dreamed about the event	_____	_____
26. wondered about the event	_____	_____
27. reflected on the event	_____	_____
28. thought "Why is this happening to me?"	_____	_____
29. questioned yourself about the event	_____	_____
30. contemplated why the event was problematic	_____	_____

Event #2

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **7 days**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the 7 days?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not Stressful              Somewhat Stressful              Moderately Stressful              Very Stressful              Extremely Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #2.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. thought about your feelings that resulted from the event	_____	_____
5. analyzed the event	_____	_____
6. thought about the situation that caused the event	_____	_____
7. remembered the peculiarities of the event	_____	_____
8. thought about the repercussions of the event	_____	_____
9. thought how to fix the situation	_____	_____

FREQUENCY

- 1 = almost never
- 2 = sometimes
- 3 = moderately often
- 4 = often
- 5 = almost always

INTENSITY

- 1 = not intense
- 2 = somewhat
- 3 = moderately
- 4 = very
- 5 = extremely

	Frequency	Intensity
10. recalled information about the event	_____	_____
11. thought about how the event impacts your future	_____	_____
12. replayed the event in your mind	_____	_____
13. visualized the event	_____	_____
14. thought about how sad you were	_____	_____
15. recounted facts about the event	_____	_____
16. thought "I should not be stressed by this"	_____	_____
17. thought about details of the event	_____	_____
18. thought about causes of the event	_____	_____
19. thought about the feelings you had during the event	_____	_____
20. recalled sounds from the event	_____	_____
21. thought how to prevent the event from happening again	_____	_____
22. relived the event in your mind	_____	_____
23. thought about the circumstances surrounding the event	_____	_____
24. considered the consequences of the event	_____	_____
25. dreamed about the event	_____	_____
26. wondered about the event	_____	_____
27. reflected on the event	_____	_____
28. thought "Why is this happening to me?"	_____	_____
29. questioned yourself about the event	_____	_____
30. contemplated why the event was problematic	_____	_____

Event #3

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **6 months**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the last 6 months? PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not Stressful              Somewhat Stressful              Moderately Stressful              Very Stressful              Extremely Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #3.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY

- 1 = almost never
- 2 = sometimes
- 3 = moderately often
- 4 = often
- 5 = almost always

INTENSITY

- 1 = not intense
- 2 = somewhat
- 3 = moderately
- 4 = very
- 5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. thought about your feelings that resulted from the event	_____	_____
5. analyzed the event	_____	_____
6. thought about the situation that caused the event	_____	_____
7. remembered the peculiarities of the event	_____	_____
8. thought about the repercussions of the event	_____	_____
9. thought how to fix the situation	_____	_____

FREQUENCY

- 1 = almost never
- 2 = sometimes
- 3 = moderately often
- 4 = often
- 5 = almost always

INTENSITY

- 1 = not intense
- 2 = somewhat
- 3 = moderately
- 4 = very
- 5 = extremely

	Frequency	Intensity
10. recalled information about the event	_____	_____
11. thought about how the event impacts your future	_____	_____
12. replayed the event in your mind	_____	_____
13. visualized the event	_____	_____
14. thought about how sad you were	_____	_____
15. recounted facts about the event	_____	_____
16. thought "I should not be stressed by this"	_____	_____
17. thought about details of the event	_____	_____
18. thought about causes of the event	_____	_____
19. thought about the feelings you had during the event	_____	_____
20. recalled sounds from the event	_____	_____
21. thought how to prevent the event from happening again	_____	_____
22. relived the event in your mind	_____	_____
23. thought about the circumstances surrounding the event	_____	_____
24. considered the consequences of the event	_____	_____
25. dreamed about the event	_____	_____
26. wondered about the event	_____	_____
27. reflected on the event	_____	_____
28. thought "Why is this happening to me?"	_____	_____
29. questioned yourself about the event	_____	_____
30. contemplated why the event was problematic	_____	_____

## APPENDIX B

### PHASE II RASLES

Event #1

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **24 hours**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

How often have you experienced the stressful event, or something similar in the last 24 hours?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not              Somewhat              Moderately              Very              Extremely  
Stressful              Stressful              Stressful              Stressful              Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #1.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

**FREQUENCY**  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

**INTENSITY**  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought “I should not be stressed by this”	_____	_____
8. thought about details of the event	_____	_____
9. thought about causes of the event	_____	_____
10. thought about the circumstances surrounding the event	_____	_____
11. considered the consequences of the event	_____	_____
12. reflected on the event	_____	_____

Event #2

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **7 days**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the 7 days?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not Stressful              Somewhat Stressful              Moderately Stressful              Very Stressful              Extremely Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #2.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought “I should not be stressed by this”	_____	_____
8. thought about details of the event	_____	_____
9. thought about causes of the event	_____	_____
10. thought about the circumstances surrounding the event	_____	_____
11. considered the consequences of the event	_____	_____
12. reflected on the event	_____	_____

Event #3

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **6 months**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the last 6 months?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not              Somewhat              Moderately              Very              Extremely  
Stressful              Stressful              Stressful              Stressful              Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #3.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought “I should not be stressed by this”	_____	_____
8. thought about details of the event	_____	_____
9. thought about causes of the event	_____	_____
10. thought about the circumstances surrounding the event	_____	_____
11. considered the consequences of the event	_____	_____
12. reflected on the event	_____	_____

## APPENDIX C

### PHASE III RASLES

Event #1

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **24 hours**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

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---

How often have you experienced the stressful event, or something similar in the last 24 hours?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not              Somewhat              Moderately              Very              Extremely  
Stressful              Stressful              Stressful              Stressful              Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #1.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

**FREQUENCY**  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

**INTENSITY**  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought about details of the event	_____	_____
8. thought about causes of the event	_____	_____
9. considered the consequences of the event	_____	_____
10. reflected on the event	_____	_____

Event #2

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **7 days**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the 7 days?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not              Somewhat              Moderately              Very              Extremely  
Stressful              Stressful              Stressful              Stressful              Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #2.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought about details of the event	_____	_____
8. thought about causes of the event	_____	_____
9. considered the consequences of the event	_____	_____
10. reflected on the event	_____	_____

Event #3

In the following blank space, please write down *one* stressful life *event* that you experienced in the last **6 months**. If you have not experienced a particularly stressful life event in the timeframe specified, please write down an event that was relatively more stressful than other events you have experienced in the indicated timeframe.

---

---

How often have you experienced the stressful event, or something similar in the last 6 months?  
PLEASE CIRCLE ONLY **ONE** ANSWER.

1 Time                      2-4 Times                      5-8 Times                      9 or More Times

How stressful was the event? PLEASE CIRCLE ONLY **ONE** ANSWER

Not              Somewhat              Moderately              Very              Extremely  
Stressful              Stressful              Stressful              Stressful              Stressful

For items 1 - 30, please indicate how often you had each thought *after* experiencing the event specified above as “Event #3.” Use the “FREQUENCY” key to determine your response. Write the number of your response in the column labeled “Frequency” located to the right of the item. Then, please indicate the intensity of this thought. Use the “INTENSITY” key to determine your response. Write the number that corresponds to your response in the column labeled “Intensity” located to the right of the current thought.

FREQUENCY  
1 = almost never  
2 = sometimes  
3 = moderately often  
4 = often  
5 = almost always

INTENSITY  
1 = not intense  
2 = somewhat  
3 = moderately  
4 = very  
5 = extremely

	Frequency	Intensity
1. thought about other people involved in the event	_____	_____
2. considered things related to the event	_____	_____
3. focused on your emotions	_____	_____
4. remembered the peculiarities of the event	_____	_____
5. recalled information about the event	_____	_____
6. replayed the event in your mind	_____	_____
7. thought about details of the event	_____	_____
8. thought about causes of the event	_____	_____
9. considered the consequences of the event	_____	_____
10. reflected on the event	_____	_____