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Perceptions of Romantic Partners’ Responsiveness during a Period of Stressful Uncertainty

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Abstract

Whether awaiting biopsy results, a grade on a midterm, or a decision from a journal editor, people feel distressed as they wait for uncertain news. In the present study, we investigated how people’s perceptions of their romantic partner, specifically their partner’s responsiveness to their support needs, corresponds with key aspects of the waiting experience. In a longitudinal study of 184 law students awaiting their result on the California bar exam, we examined changes in perceived responsiveness over time and associations between perceived responsiveness and expectation management strategies, health, and well-being. Results revealed temporal patterns in perceived responsiveness, with the greatest responsiveness perceived at the start and end of the wait. Perceived responsiveness was also intertwined with efforts to manage one’s expectations while awaiting uncertain news and was associated with more positive emotions, better subjective coping, and greater self-reported sleep quality during the wait.

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Perceptions of Romantic Partners’ Responsiveness during a Period of Stressful Uncertainty

In the modern era, seemingly infinite information is available instantly—yet people often must wait for important information like medical tests, the outcome of job applications, and professional evaluations. Waiting for uncertain news is a common and typically anxiety-provoking experience (Sweeny & Cavanaugh, 2012). Research demonstrates that whether awaiting biopsy results, a grade on a midterm, or a decision from a journal editor, people report high levels of distress as they wait (Poole, 1997; Dooley & Sweeny, 2017; Sweeny et al., 2016). Although a growing literature has examined the intrapsychic experience of waiting (e.g., Boivin & Lancastle, 2010; Howell & Sweeny, 2016; Sweeny & Andrews, 2014; Sweeny & Falkenstein, 2015; Sweeny et al., 2016), most studies have ignored the role of social factors, including perceived responsiveness—the perception that one is understood, cared for, and valued by one’s partner. In the present study, we take a first step in addressing this void and examine whether perceiving responsiveness from romantic partners can help people await uncertain news.

Waiting for Uncertain News

Many stressful moments in life are the result of unpleasant experiences like studying for an exam, buying a house, or losing one’s job or a loved one (Bolger & Eckenrode, 1991; Iida et al., 2017; Lazarus & Folkman, 1984). Although events like these are undoubtedly stressful, they differ from the types of waiting periods of interest in our investigation—namely, they confer either certainty, control, or both. In some stressful situations, like losing one’s job or a loved one, people are able to take action with (relatively) full knowledge of the situation at hand. That is, they have a degree of certainty but little control over their immediate circumstances. In other situations, like studying for an important exam or buying a house, the future is uncertain but people have considerable control over what it brings. In contrast, when people are awaiting uncertain news (e.g.,
waiting for news of lay-offs or the outcome of an offer on a house), people lack both certainty and control, thus rendering most courses of action premature and useless for reducing stress. Is it worth taking the time to update one’s resume or continue to house-hunt, or is it better to simply hope for the best and proceed as if all is well?

In fact, research reveals that awaiting uncertain news is anxiety-provoking, even more so than receiving bad news (Boivin & Lancastle, 2010; Sweeny & Falkenstein, 2015). Furthermore, waiting periods are marked by high levels of perseverative thinking as people attempt to manage their emotions, thoughts, and expectations about the uncertain outcome (Sweeny & Andrews, 2014), and recent research suggests that even physical health and sleep quality take a hit during these periods of uncertainty (Howell & Sweeny, 2016).

A growing body of research identifies cognitive and behavioral strategies that people attempt to utilize to navigate these stressful waiting periods (Sweeny & Cavanaugh, 2012; Sweeny et al., 2016), yet people have difficulty effectively maintaining psychological and even physical well-being as they wait, particularly as the moment of feedback approaches (Boivin & Lancastle, 2010; Howell & Sweeny, 2016; Sweeny et al., 2016). Although research has identified few successful strategies for easing the distress associated with waiting (cf. Sweeny & Howell, 2017), studies to date have only examined intrapersonal approaches to emotion regulation. People do not function in isolation; instead, they often share their thoughts and emotions with friends and loved ones while undergoing stressful experiences. Perhaps other people can provide social resources or guide and promote the use of specific coping strategies to alleviate some of this turmoil—or maybe simply feeling that others understand and care may assuage distress during a stressful waiting period.

**Perceived Responsiveness**
Having (or at least perceiving that one has) a supportive network is a critical resource for managing stressful life events and plays a considerable role in both mental and physical health (Taylor, 2011). Research on social support consistently finds that perceived support, people’s belief that support is available to them, is beneficial for health and well-being (Uchino, 2009; Wethington & Kessler, 1986; Haber et al., 2007). However, actually receiving support from others, known as received support, can have null or even detrimental effects, leading to what researchers describe as the “paradox of received social support” (Maisel & Gable, 2009). This paradox has led social support researchers to focus less on whether close others engage in specific support behaviors and more on people’s perception that close others understand, validate, and care for them, termed perceived responsiveness (Reis et al., 2004; Reis & Gable, 2015).

Many modern relationship theories consider perceived responsiveness to be a hallmark of satisfying relationships (Lemay, Clark, & Feeney, 2007), and research has linked greater perceived responsiveness to lower distress, increased trust, and greater intimacy and relationship satisfaction (Laurenceau et al., 1998; Maisel, Gable, & Strachman, 2008; Maisel & Gable, 2009; Reis et al., 2004; Shallcross & Simpson, 2012). For instance, in one study of couples reporting daily perceptions of partner responsiveness over the course of two weeks, participants reported less sadness and anxiety, greater relationship connectedness, and greater relationship security on days when they also perceived greater responsiveness from their partner (Maisel & Gable, 2009). Greater perceived responsiveness is also associated with health benefits such as greater longevity, faster post-surgical recovery, better sleep quality, and other positive physiological markers even after controlling for demographic factors (Selcuk & Ong, 2013; Selcuk, Stanton, Slatcher, & Ong, 2016; Slatcher, Selcuk, & Ong, 2015; Khan et al., 2009).
Although responsiveness from friends, family, and coworkers is clearly important for well-being, for people in a romantic relationship, perceiving one’s partner as responsive may be particularly crucial (Cobb, 1976; Collins & Feeney, 2000; Feeney, 2004). Still, conveying responsiveness may be challenging when one or both partners are under stress (Collins & Ford, 2010; Gosnell & Gable, 2015; Reis, Clark, & Holmes, 2004), and periods of uncertainty may present unique challenges to romantic relationships. Thus, the current study examines how people’s perceptions of their romantic partner’s responsiveness corresponds with health, well-being, and use of coping strategies during a period of acute uncertainty: the wait for personally significant news.

Overview and Hypotheses

In light of the benefits associated with greater perceptions of partner responsiveness, the goal of this paper is to expand the literature by investigating perceived responsiveness in the context of the ubiquitous and uniquely stressful experience of awaiting uncertain news. Specifically, we examine changes in perceived responsiveness over the course of a waiting period and associations with the health, well-being, and expectation management strategies of people awaiting uncertain news.

We examined the dynamics of perceived responsiveness in a longitudinal study of law graduates awaiting and receiving their results on the California bar exam. The period of time following the bar exam is an ideal context in which to study uncertainty navigation processes because the outcome is important and consequential and the waiting period itself has a set beginning and end that is consistent across everyone who takes the exam on a particular date (approximately 4 months; Sweeny & Andrews, 2014). Furthermore, the time between the exam and availability of exam results is short enough to reasonably study but also long enough to initiate complex processes that unfold
over a waiting period and after the news arrives. We examined three primary questions: (a) Does perceived responsiveness vary in predictable ways across the waiting period? (b) Is perceived responsiveness related to health and well-being during the wait? and (c) Is the use of expectation management strategies related to perceived responsiveness?

**Temporal variability (Question a).** Regarding the first question, recent work has established that waiting is not a static experience but instead one that is typically most difficult at the beginning when uncertainty is fresh in one’s mind and at the end when news is impending (Howell & Sweeny, 2016; Sweeny & Andrews, 2014; Sweeny et al., 2016). Given that the internal experience of the person waiting is shifting and changing over time, we suspect that the nature and quality of interactions with one’s romantic partner, and thus perceived responsiveness, also fluctuate over the course of a waiting period. It may be that people most clearly communicate their support needs when they are most acutely distressed during a waiting period, which would lead to a U-shaped pattern of responsiveness (highest at the start and end, lowest in the middle). On the other hand, the distress people experience during those acute moments of uncertainty can be quite intractable (Sweeny et al., 2016), and thus partners may be unable to identify and effectively respond to the needs of the person waiting during these moments or their support may seem ineffective because it does not change their partner’s distress—thus producing an inverse-U shape for responsiveness. We tested these competing hypotheses; that is, that people might perceive the greatest (*Competing Hypothesis 1a*) or the least responsiveness during the most difficult parts of the wait (i.e., at the start and end; *Competing Hypothesis 1b*).

**Health and well-being (Question b).** Regarding the relationship between perceived responsiveness and people’s health and well-being while they await uncertain news,
accumulating evidence supports the benefits of perceived responsiveness for lowering distress and improving physical health and sleep quality (Selcuk & Ong, 2013; Selcuk et al., 2016). Therefore, we anticipated that the well-established benefits of perceived responsiveness would extend to waiting periods as well. We examined an array of well-being markers, including worry and state anxiety (key emotional responses to uncertainty; Sweeny & Dooley, 2017; Sweeny & Falkenstein, 2015), general positive and negative emotions, and subjective coping (the sense that one is coping well, all things considered; see Sweeny & Howell, 2017). We also explored the possibility that the benefits of perceived responsiveness would extend to health and sleep, both of which fluctuate in sync with the well-being markers examined here (Howell & Sweeny, 2016). We hypothesized that law graduates who perceived greater responsiveness from their partners would also report greater well-being (i.e., less worry, anxiety, and negative emotion, greater positive emotion, and better subjective coping) and better health and sleep (Hypothesis 2a).

In addition to testing the intuitive path from perceived responsiveness to health and well-being, we also explored the possibility that people may perceive their partner as more responsive when they are feeling good. Perceptions of responsiveness are quite subjective, influenced more by one’s attitudes, emotions, and beliefs than by the specific number or types of support behaviors in which a partner engages (Lemay & Neal, 2014; Reis et al., 2004; Simpson, Rholes, & Nelligan, 1992; Collins & Feeney, 2000). Thus, people may be better able to see their partner’s efforts in a positive light when they are relatively unworried, upbeat, and feeling healthy and well-rested. Therefore, we did not have a firm hypothesis about how health and well-being might predict perceptions of responsiveness (Open Question 1).

**Expectation management strategies (Question c).** Regarding the third question, we investigated links between perceived responsiveness and people’s efforts to manage their
expectations while they await uncertain news. People have two options for managing their expectations about the uncertain future: embrace hope and optimism (termed positive expectation management) or brace for the worst (Sweeny & Cavanaugh, 2012). We examined associations between use of these strategies and perceived responsiveness in both “directions”—that is, people may shift their strategies when they perceive their partner as being responsive, and the strategies they choose may sway their perceptions (or even experiences) of responsiveness. Both expecting the best and bracing for the worst can be beneficial, with positive expectation management strategies conferring benefit early in a waiting period and bracing serving a key function at the moment of truth (i.e., preparing people for the blow of bad news; Sweeny, Carroll, & Shepperd, 2006). Thus, we did not have clear hypotheses about how perceived responsiveness might shape one’s expectation management strategies (Open Question 2).

In contrast, we suspected that people would have an easier time perceiving their partner as responsive when they are personally feeling upbeat and optimistic about their likely outcomes rather than glum and pessimistic. Furthermore, partners may have an easier time communicating with and relating to an optimistic partner in ways that display responsiveness, given that people tend to be positively biased towards optimistic individuals (Armor, Massey, & Sackett, 2008). On the other hand, people may require very little from their partners in the way of support if they are confident about their chances of success, whereas they may more clearly communicate their needs when they fear the worst. In fact, research suggests that pessimistic individuals are no less likely to receive support than optimistic individuals (Vollman & Renner, 2010; Vollman, Renner, & Weber, 2007). Thus, we tentatively hypothesized that law graduates who embrace a hopeful, optimistic outlook would report greater perceived responsiveness, whereas those who brace for the worst would report lower perceived responsiveness (Hypotheses 3a and 3b).
For our second and third questions (Question b and c), we tested associations between perceived responsiveness and waiting experiences at two levels (see below for a detailed description of our analytical approach). In essence, we examined associations between overall levels of responsiveness and well-being, health, and use of expectation management strategies across the wait (between-person effects), and we also examined whether these variables tend to rise and fall together within a given person’s waiting experience (within-person effects).

Method

Participants

Participants for this study were part of a larger study of 230 law school graduates (139 female; $M_{age} = 27.60, SD_{age} = 4.59$; 67% White/Caucasian, 25% Asian, 7% Hispanic, 1% Black) taking the July 2013 California bar exam, representing 27 law schools in the United States (12 states and Washington, DC). Participants were recruited via emails to student bar associations, law school deans, and law school alumni associations and participated in exchange for an Amazon.com gift card at the completion of the study. Of the 230 enrolled in the study, 184 (80%) participants completed all ten questionnaires (see below for details) and 213 (93%) completed at least eight surveys. The majority of participants in the larger study (85%) reported passing the exam.

The subsample relevant to the present investigation consisted of 168 participants who at some point in the study indicated that they were in a romantic relationship. A number of participants changed their relationship status during the study. In total, 11 participants entered into a relationship during the study, 10 participants exited a relationship, and 17 participants changed their relationship status multiple times.

Procedure
The larger study of law students awaiting bar exam results from which the relevant data are drawn consisted of ten surveys over the course of a 4-month waiting period, beginning just before taking the bar exam at the end of July 2013 and ending just after results were released at the end of November 2013. All participants took the bar exam on the same three days and received their results on the same day. The first survey was completed an average of 14 days ($SD = 3$ days) prior to the start of the exam (no measures pertinent to this paper appeared in the baseline survey), and the final survey was completed an average of 45 hours ($SD = 21$ hours) after the results became available online. Participants completed the remaining eight surveys at regular two-week intervals during the 4-month waiting period, with the eighth survey completed 24 hours before results became available. The data we report here are part of a larger dataset aimed at understanding waiting periods. All data and measures—including those not analyzed or discussed here—are publicly available on the Open Science Framework (https://osf.io/d35ap/).

In each questionnaire during the waiting period, participants completed measures of well-being, health, and use of expectation management strategies. Additionally, participants indicated whether they were currently in a romantic relationship, and if so, whether they had discussed the bar exam with their romantic partner during the previous week. If they had discussed the bar exam with their romantic partner, they reported their perception of their partner’s responsiveness during those conversations. Thus, perceived responsiveness data is available only from participants who both were in a relationship and talked to their partner about the bar exam shortly prior to completing a given survey (see Table 1).

**Measures**

Unless otherwise indicated, all measures were adapted from a previous study of law graduates awaiting their bar exam results (see Sweeny & Andrews, 2014).
Worry. Worry about the bar exam was assessed with three items: one assessing thought intrusiveness (“I cannot seem to stop thinking about the bar exam”; 1 = strongly disagree, 5 = strongly agree), and two assessing bar-specific anxiety (“I feel anxious every time I think about the bar exam,” “I am worried about my bar exam results”; 1 = not at all, 5 = extremely). All three items were averaged to form a composite worry item (M = 2.86, SD = 0.89; all Cronbach’s αs > .81).

State anxiety. Participants indicated the extent to which they felt anxious during the past 3 days on an 8-item measure of anxiety (“In the past 3 days I have felt [anxious/worried / calm (reverse-coded) / nervous / relaxed (reverse-coded) / distressed / at ease (reverse-coded) / scared”); 1 = not at all, 5 = extremely; M = 2.84, SD = 0.68, as > .89).

Positive and negative emotions. We assessed positive and negative emotions during the waiting period using items adapted from the Positive and Negative Affect Schedule (PANAS; Watson & Clark, 1994), including six positive emotion items (e.g., happy, grateful, content; M = 2.91, SD = .64; as > .85) and nine negative emotion items (e.g., upset, angry, discouraged; M = 1.96, SD = .66; as > .90). In each survey, participants indicated the degree to which they experienced each emotion during the past two weeks (1 = very slightly or not at all, 5 = extremely).

Subjective coping. We assessed subjective coping with a single, face-valid item that has been validated in studies of waiting period coping (see Sweeny & Howell, 2017; “How well do you feel like you’re coping with the wait for your bar exam results?”; 1 = not well at all, 5 = very well; M = 3.58, SD = .82).

Subjective health. Participants indicated their subjective perception of their health over the past 2 weeks using a single item from the SF-36 (Ware & Sherbourne, 1992; “How would
you say your health has been?”; 1 = excellent, 5 = poor; M = 2.86, SD = .76).

Sleep quality. Sleep quality was assessed with eight items: three items from the Sleep Hygiene Index (Mastin, Bryson, & Corwyn, 2006; “I stay in bed longer than I should two or three times a week,” “I go to bed feeling stressed, angry, upset, or nervous,” and “I think, plan, or worry when I am in bed”; 1 = never, 5 = always), four items assessing difficulty falling asleep from the Pittsburgh Sleep Quality Index (PSQI; Buysse, Reynolds, Monk, Berman, & Kupfer, 1989; “During the past two weeks, I how often have you had trouble sleeping because you…” “…cannot get to sleep within 30 minutes?” “…wake up in the middle of the night or early morning?” “…had bad dreams?” “…other reasons?”), and one item assessing overall subjective sleep quality during the past two weeks (1 = very good, 4 = very bad). These eight items were standardized (z-scored), reverse-scored, and averaged to form a composite indicator of sleep quality, where higher numbers indicated better quality (M = .01, SD = .53, αs > .73).

Expectation management. We assessed the extent to which participants were bracing for the possibility of failure with two items: “I’m bracing for the worst when it comes to my bar exam results,” and “I want to make sure I keep my expectations low when it comes to my bar exam results” (1 = strongly disagree, 5 = strongly agree; M = 3.21, SD = 0.92, all αs > .67). Participants also indicated the extent to which they were trying to maintain a positive outlook with two items: “I’m hoping for the best when it comes to my bar exam results,” and “I’m trying to be optimistic about my bar exam results” (hereafter referred to as positive expectation management; 1 = strongly disagree, 5 = strongly agree; M = 4.11, SD = 0.58, all αs > .57).

Perceived partner responsiveness. Prior to completing the measure of perceived responsiveness, participants indicated whether responsiveness was relevant during the measurement period. That is, participants first indicated whether they were currently in a
romantic relationship. If they were in a relationship, participants then indicated whether they had talked to their partner about the bar exam during the past week. If they had, we assessed perceived partner responsiveness with a validated three-item measure adapted from the three core elements of Reis’ (2003) Responsiveness Measure (Maisel & Gable, 2009; Gable, Gonzaga, & Strachman, 2006; Gable, Gosnell, Maisel, & Strachman, 2012). Participants responded to the prompt, “When I talked to my partner about the bar exam…” (“My partner understood me,” “My partner made me feel like he/she valued my abilities and opinions,” “My partner made me feel cared for”; 1 = strongly disagree, 5 = strongly agree; M = 4.11, SD = 0.64, all \( \alpha \)s > .83).

Participants who were not in a romantic relationship or did not talk to their partner about the bar exam did not complete these items.

**Results**

**Analytic Approach**

As a reminder, we examined three primary questions: (a) Does perceived responsiveness vary in predictable ways across the waiting period? (b) Is perceived partner responsiveness related to health and well-being during the wait? and (c) Is the use of expectation management strategies related to perceived responsiveness? We analyzed the data using multilevel modeling with the *Mixed* package in IBM SPSS Statistics 23, nesting measurement time points (Level 1) within participants (Level 2). We estimated both fixed effects (i.e., between-person differences) and random effects (i.e., the within-person variability of these effects) allowing the intercept and slopes (linear and quadratic time) to vary randomly across participants. We used a model-comparison approach, first estimating an unconditional-means model (i.e., fixed and random intercepts) and then comparing subsequent growth models to the original model (see Raudenbush & Bryk, 2002; Singer & Willett, 2003).
Temporal Patterns in Responsiveness

We examined whether perceived responsiveness followed a pattern similar to other psychological variables over the waiting period (i.e., most intense at the beginning and end, when psychological distress is worst). Specifically, we examined linear (waiting time point, centered) and quadratic (centered time point squared) trends in a multilevel model. Adding these trends significantly improved model fit over an intercept-only model ($\Delta\text{-}2\text{LL} = 25.8, \Delta\text{AIC} = \Delta23.8, \Delta\text{BIC} = 20.3, ps < .001$).

Figure 1 presents a “spaghetti plot” of individual trajectories of perceived partner responsiveness. Included in Figure 1 is a dashed line with 95% confidence intervals around each point representing average perceived partner responsiveness at each time point. Figure 1 also includes a solid line representing the model-predicted trajectory of perceived partner responsiveness. As this trend line shows, and consistent with Competing Hypothesis 1a, there was a marginally significant negative linear trend ($b = -0.02, \ SE = .01, t = -1.89, p = .06$) and a significant positive quadratic trend ($b = 0.02, \ SE = .004, t = 4.00, p < .001$) in perceived responsiveness, such that participants who talked to a romantic partner perceived the most responsiveness from their partners at the beginning and the end of the waiting period—a time when psychological distress and poor health are at their peak (Howell & Sweeny, 2016; Sweeny & Andrews, 2014; Sweeny et al., 2016).

Perceived Responsiveness, Health, and Well-Being

Using multilevel modeling, we examined perceived responsiveness predicting health and well-being, and vice versa. Specifically, we first created multilevel models predicting each health and well-being variable (i.e., subjective health, sleep quality, worry, state anxiety, negative emotion, positive emotion, and subjective coping) that, in addition to main effects of linear and
quadratic time, included main effects of (1) person- and (2) grand-mean centered 
responsiveness, interactions between person-mean centered responsiveness and (3) linear and 
(4) quadratic time, and interactions between grand-mean centered responsiveness and (5) linear 
and (6) quadratic time. We focus our attention on parameters 1 and 2. A significant positive main 
effect of person-mean centered responsiveness (parameter 1) would indicate that people feel 
better at times when they also perceived greater responsiveness—a within-subjects effect. A 
significant positive main effect of grand-mean centered responsiveness (parameter 2) would 
indicate that those who tended to perceive greater responsiveness than others also felt better than 
others—a between-subjects effect.

We then reversed the models, such that health and well-being variables predicted 
perceived responsiveness. All other model parameters were equivalent to the models described 
above.  

State anxiety and worry. As Table 2 shows, neither the between- or within-person main 
effect for responsiveness predicting state anxiety or worry was significant. Thus, Hypothesis 2a 
(predicting a negative relationship between perceived responsiveness and distress) was not 
supported for these measures. Additionally, participants’ reports of state anxiety and worry did 
not significantly predict perceptions of responsiveness—addressing Open Question 1.

Positive and negative emotion. Consistent with Hypothesis 2a, significant between-
person and within-person effects of perceived responsiveness on positive emotion emerged, such 
that participants who reported greater perceived responsiveness in general also reported greater

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1 For person-mean centering, we calculated the individual’s score at each time point minus the individual’s average 
score for that variable. For grand-mean centering, we calculated the individual’s score at each time point minus the 
average score across all participants across all time points.
2 Based on a reviewer suggestion, we also ran all models controlling for the personality trait of neuroticism, which 
did not change any of our findings.
positive emotion in general, and participants reported particularly high levels of positive emotion during times when they perceived particularly high levels of responsiveness (see Table 2). We also found between-person effect for negative emotion, such that participants who reported greater perceived responsiveness in general also reported less negative emotion in general. However, the within-person effect of negative emotion was not significant.

Addressing Open Question 1, negative emotion did not predict perceived responsiveness at either the between- or within-person level. However, within-person positive emotion significantly predicted perceived responsiveness, such that participants perceived particularly high levels of responsiveness during times when they reported particularly high levels of positive emotion.

Subjective coping. Further supporting Hypothesis 2a, we found significant between- and within-person effects of perceived responsiveness predicting subjective coping (see Table 2). That is, participants who reported greater perceived responsiveness in general also reported coping better in general with the wait for bar exam results, and participants reported particularly good coping at moments they perceived particularly high levels of responsiveness.

Within-person subjective coping also predicted perceived responsiveness, such that participants perceived particularly high levels of responsiveness at times when they felt that they were coping particularly well with the wait for bar exam results—further addressing Open Question 1.

Subjective health and sleep quality. Consistent with Hypothesis 2a, we found a positive within-person effect of perceived responsiveness on sleep quality, indicating that participants experienced better sleep during times when they perceived their partners as most responsive (see Table 2). Although only marginally significant, we found that within-person effects of
responsiveness predicting subjective health trended in a positive direction, suggesting that participants experienced somewhat better health when they felt that their partner was being more responsive. The between-person effect of responsiveness predicting both sleep quality and subjective health was not significant.

We also found within-person effects of both sleep quality and subjective health predicting perceived responsiveness, albeit marginally for subjective health, addressing *Open Question 1*. That is, participants perceived particularly high levels of responsiveness at times when they felt healthiest and had the best sleep quality. The between-person effects of sleep and health on responsiveness were not significant.

**Perceived Responsiveness and Expectation Management**

Using multilevel modeling, we next examined whether both general levels of and personal fluctuations in perceived partner responsiveness predicted use of expectation management strategies (i.e., positive expectation management and bracing for the worst). To answer these questions, we used an analytic strategy similar to the approach described in the previous section but predicting expectation management from perceived responsiveness rather than predicting health and well-being. We also reversed the models, as we did for health and well-being, such that expectation management strategies predicted perceived responsiveness. Tables 2 and 3 show the key results from the multilevel models, and full results from these models are available in supplemental materials online.

**Positive expectation management.** Examining *Open Question 2*, we found a positive between-person effect of perceived responsiveness predicting positive expectation management, such that participants who perceived their partner as most responsive overall also reported the greatest efforts to be hopeful and optimistic. We also found a significant between-person effect
of positive expectation management on perceived responsiveness, such that participants who engaged in more positive expectation management also tended to perceive their partner as more responsive, consistent with Hypothesis 3a. The within-subject effect of positive expectation management was not significant.

**Bracing for the worst.** Neither the between- nor within-person effect of perceived responsiveness significantly predicted bracing, addressing *Open Question* 2. However, we found a negative between-person effect of bracing predicting perceived responsiveness, consistent with Hypothesis 3b. That is, participants who braced most overall were the least likely to perceive their partners as responsive when talking to them about the bar exam. The within-person effect was not significant.

**Discussion**

In the present study, we examined how people’s perceptions of their romantic partner’s responsiveness to their support needs corresponded with key aspects of a stressful waiting experience. Results revealed temporal patterns in perceived responsiveness, with the greatest responsiveness perceived at the start and end of the wait, but also variability in these temporal patterns. Furthermore, perceived responsiveness was intertwined with efforts to manage one’s expectations while awaiting uncertain news and was associated with more positive emotion, less negative emotion, better self-reported sleep, and better subjective coping during the wait.

**Changes in Perceived Responsiveness Across the Wait**

Law graduates perceived their partner as most responsive when the stressor was likely most salient to both members of the relationship: immediately after the bar exam and just before learning whether one passed or failed. During a long wait like the one for bar exam results, life must go on as other demands vie for one’s attention. Consistent with this reasoning, exam-takers
in our study were less distressed during the middle of the waiting period, relative to the beginning and end, presumably because the stressor was less salient. During this period of relative calm, people may still talk about the bar exam with their romantic partners (albeit far less frequently than at the beginning and end; see Table 1), but our findings suggest that people perceive a relative lack of responsiveness during these conversations—perhaps because partners find it difficult to provide effective support when the stressor is far from their mind, or perhaps because the kind of fruitless worry that occurs in such moments is particularly resistant to any effort to quell it.

In contrast, at the edges of a waiting period when worry and anxiety typically peak, most exam-takers reported that their partners were quite responsive to their support needs. Here again, our data cannot speak to whether partners are particularly adept in their support efforts during these times, or if exam-takers were particularly open to those efforts. Studies that attempt to disentangle these dynamics are underway, but in the meantime, our findings make clear that social support dynamics are uniquely fraught in the middle of a lengthy waiting period.

**The Benefits of a Responsive Partner**

Consistent with the large and growing literature on the benefits of perceived responsiveness (Laurenceau et al., 1998; Maisel & Gable, 2009; Selcuk & Ong, 2013; Selcuk et al., 2016), we found evidence suggesting benefits of perceived responsiveness for sleep (and marginally for subjective health), positive and negative emotions, and subjective coping. Although our data also suggest that better rested, healthier, and happier people elicit or perceive more responsive behaviors from their partner, the associations were generally stronger and somewhat more consistent when treating responsiveness as the predictor and well-being as the
outcome. Interestingly, this beneficial partner responsiveness did not extend to worry or state anxiety in our study.

Researchers often conceptualize social support as a tool to buffer stress and reduce anxiety (Cohen & Wills, 1985; Thoits, 1982); however, a growing literature suggests that high-quality support bolsters relationship satisfaction but has little effect on personal anxiety (e.g., Afifi et al., 2013). Similarly, responsiveness may bolster the perception of interpersonal resources and ability to handle a stressor, even if the inherent stress of the situation remains unresolved. In the context of uncertain waiting periods, worry and anxiety flourish because valuable information is unavailable and one’s future remains unknown. Unless one’s partner can provide information that reduces uncertainty or provides greater control (impossible in many cases), anxieties may be immune to support efforts, thus disrupting the connection between perceived responsiveness and uncertainty-relevant manifestations of distress. Of course, although responsiveness did not reduce worry or anxiety in our study, its strong association with subjective coping might suggest that participants with responsive partners felt better able to cope with their distress, however immutable that distress may have been.

Regarding the link between perceived responsiveness and sleep, previous work has revealed considerable variability in sleep quality during the wait for bar exam results, and these fluctuations are tied to temporal variability in other key waiting experiences (e.g., worry, coping strategies; Sweeny & Howell, 2017). Thus, even in this relatively young population, sleep seems to be disrupted by the stress of awaiting uncertain news. Our findings suggest that perceived responsiveness may buffer against these ill effects of waiting, consistent with recent work linking responsiveness to sleep quality in daily life (Selcuk et al., 2016). Interestingly, that study found that reductions in anxiety (as well as depression) seemed to be responsible for the benefits of
responsiveness on sleep, whereas our findings suggest that responsiveness might buffer against sleep problems even without reducing the high levels of anxiety that are endemic to waiting periods. Furthermore, our findings point to the possibility of a bidirectional relationship, such that better sleep might promote better interactions with one’s partner, lending greater opportunities for responsiveness, and in turn greater responsiveness may promote better sleep. Future research can disentangle the various mechanisms by which having a responsive partner promotes or results from good sleep, whether in the context of mundane daily life or acute moments of stress and uncertainty.

The Benefits of Positive Outlook

Our findings further reveal that exam-takers’ general outlook during the wait for their exam result intertwined with their perceptions of their partners’ responsiveness. Specifically, participants who generally maintained a positive mindset, reporting more positive emotions and better coping, embracing hope and optimism, and eschewing the temptation to brace for the worst, tended to view their partners as more responsive. Perhaps individuals with a more positive mindset were more likely to perceive supportive behaviors positively as well, regardless of the true responsiveness of support provided. Given the uncertainty inherent to waiting periods like the one examined in this paper, maintaining a cheery disposition and a belief that things will turn out well may require people to grab hold of any and all positive information and ignore negative information (Afifi & Weiner, 2004). This positive mindset may have translated to exam-takers’ interpretation of their partner’s supportive behaviors, zeroing in on responsive behaviors and brushing over less responsive ones. It may also be that feeling good makes everything look rosier, including any efforts by one’s partner to be responsiveness (see Buck & Neff, 2012; Heller & Watson, 2005; Raila, Scholl, & Gruber, 2015). As evidence for this interpretation, the
law graduates in our study also reported greater perceived responsiveness during weeks when they were sleeping particularly well and feeling particularly healthy. Perhaps a good night’s sleep helped people to see their partners in a more positive light.

Another possibility is that exam-takers with a positive mindset made it easier for their partners to be truly responsive—not merely responsive in their mind’s eye. Previous work confirms that people tend to be optimistic about others’ likely outcomes, only bracing for the worst when personal outcomes are at stake (Sweeny, Shepperd, & Carroll, 2009). Although we can only speculate about the expectations of partners in our study, these earlier findings suggest that partners may have naturally matched the mindset of exam-takers who approached the waiting period positively and optimistically, thus easing the process of conveying a sense of understanding and caring. Partners of pessimistic exam-takers may have found the process of perspective-taking to be particularly challenging, which would likely interfere with efforts to be responsive to exam-takers’ needs.

In addition, people may be more inclined to support cheerful optimists in a multitude of contexts. Research shows that people generally like optimists more than pessimists (Carver, Kus, & Schierer, 1994; Dooley, Sweeny, & Tehrani, under review; Helweg-Larsen et al., 2002), and people report greater difficulty supporting others who are relatively pessimistic (Marigold et al., 2014; Vollman et al., 2007). Similarly, positive people tend to have more positive social interactions (Barbee, Rowatt, & Cunningham, 1998; Berry & Hansen, 1996), and people may shy away from providing support to others who exhibit negativity in an effort to avoid “catching” their bad mood (Neumann & Strack, 2000). In sum, partners of positive, optimistic exam-takers may have benefited from the exam-taker’s generous mindset, or they may have
found it easier to be responsive to someone who shared their own optimistic mindset or who was simply more pleasant to be around.

**Implications and Directions for Future Research**

The definition of responsiveness in romantic relationships is a partner’s ability to convey understanding, validation, and caring. Thus, any situation that deters partners’ ability to understand the support recipient’s experience inherently interferes with responsiveness. In our study, this interference was evident in the middle of the waiting period, when the bar exam was likely a distant thought to partners (and perhaps less so to exam-takers), and with partners of pessimistic, disheartened exam-takers, who likely felt more upbeat and optimistic than the exam-takers did. Despite these challenges, when exam-takers perceived their partners as more responsive, they found themselves in a better emotional state, better able to sleep soundly, and better able to cope with the stressful waiting period, even in the face of persistent worry and anxiety.

Of course, a notable limitation of our study was the absence of direct reports from partners, which relegates any interpretation of partners’ thoughts and experiences to the realm of mindreading. For instance, do people find it easier to be responsive when their partner is upbeat and optimistic? Do people find it difficult to support their partner effectively when the exam is far in the past and news of their results is far in the future? By only examining the exam-taker’s experience, we cannot know whether the perceptions of exam-takers and partners match up, nor what partners were thinking and feeling as they attempted to be responsive to the exam-taker’s support needs. Furthermore, the exam-taker’s stress was the focus of our study, yet partners may have also been facing significant personal stressors during the exam-taker’s wait for results. In fact, a small number of participants in our study even had a partner who was concurrently
awaiting bar exam results. Future studies can extend our findings by investigating partners’ reports of the nature and effectiveness of their attempts to be responsive across the waiting period.

Additionally, a growing body of research demonstrates greater benefits of support provision than support receipt (Brown & Brown, 2015; Brown, Nesse, Vinokur, & Smith, 2003; Gosnell & Gable, 2015). Perhaps perceiving oneself as responsive to one’s partner may have similar benefits. That is, partners may experience direct benefits to their health and well-being when they are successful in their efforts to be responsive. In short, although our study provides valuable and novel insights into the role of perceived responsiveness during acute moments of uncertainty, future research should take a dyadic approach to exploring responsiveness during these stressful waiting periods.

Another key question for future studies is the mechanisms by which perceived responsiveness confers benefits for sleep and well-being and shapes efforts to manage one’s expectations. Perhaps having confidence that one is cared for and valued by one’s partner frees up psychological resources to cope with stressful uncertainty (see Feeney & Collins, 2014; Reis et al., 2004), or perhaps responsiveness serves a type of self-affirmation that mitigates defensiveness and provides a healthy perspective (Sherman, Bunyan, Creswell, & Jaremka, 2009). Similarly, future research should consider the broader relationship context rather than only responsiveness. For example, level of relational commitment (e.g., dating, married), degree of interdependence (e.g., shared financial situation), relationship duration, cohabitation status, frequency of interaction, or general relationship satisfaction are all important aspects of romantic relationships that might moderate the effects we observed here. Studies that examine the full picture of romantic relationships, and even social support beyond the focal relationship, can
provide interpretive context for our findings and enrich our understanding of the unique role of responsiveness in promoting well-being during stressful periods of uncertainty.

Social support researchers have also become increasingly interested in support provided outside of the recipient’s awareness, termed invisible support. Invisible support can even have greater benefit to the individual than support that is obvious to both parties (Bolger & Aramel, 2007; Gleason, Iida, Shrout, & Bolger, 2014). Although some research suggests that visible support behaviors are problematic to receiver well-being in ways that perceived responsiveness is not (e.g. Maisel & Gable, 2009), further research is necessary to distinguish the benefits (and perhaps costs) of responsiveness from those of both visible and invisible support behaviors. In the context of our findings, perhaps partners can provide effective support even during periods when perceptions of responsiveness are lowest (e.g., the middle of the waiting period) by engaging in invisible support behaviors. That is, people may feel their partner is unresponsive despite the partner behaving in ways that might result in better outcomes or adjustment following news receipt.

Finally, our approach was fundamentally correlational in nature, and causal conclusions about the relationship between responsiveness, expectation management strategies, and health and well-being are tentative at best. Although we attempted to highlight explanations for our findings from multiple angles and explored relationships between these variables in both directions, the possibility of unaccounted “third variable” explanations remain. Nonetheless, our findings reveal important nuances to responsiveness in the common and stressful experience of awaiting uncertain news and reveal possible interpersonal benefits for those who wait. Our study adds to a growing and evolving literature on perceived responsiveness by examining dynamics of responsiveness during moments when control and certainty are at their lowest.
References


responsiveness predicts better sleep quality through lower anxiety. *Social Psychological and Personality Science, 8*(1), 83–92.


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http://doi.org/10.1080/17439760701409660


Table 1

*Frequencies Across Time for Relationship Status and Conversations about the Bar Exam*

<table>
<thead>
<tr>
<th>Time</th>
<th>Talked to partner</th>
<th>Did not talk to partner</th>
<th>Single</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td>135 (93%)</td>
<td>10 (7%)</td>
<td>82 (36%)</td>
<td>227</td>
</tr>
<tr>
<td>Time 2</td>
<td>72 (53%)</td>
<td>65 (47%)</td>
<td>80 (37%)</td>
<td>218</td>
</tr>
<tr>
<td>Time 3</td>
<td>48 (35%)</td>
<td>88 (65%)</td>
<td>82 (37%)</td>
<td>219</td>
</tr>
<tr>
<td>Time 4</td>
<td>47 (36%)</td>
<td>84 (64%)</td>
<td>79 (38%)</td>
<td>209</td>
</tr>
<tr>
<td>Time 5</td>
<td>50 (40%)</td>
<td>75 (60%)</td>
<td>80 (38%)</td>
<td>209</td>
</tr>
<tr>
<td>Time 6</td>
<td>63 (45%)</td>
<td>77 (55%)</td>
<td>74 (34%)</td>
<td>216</td>
</tr>
<tr>
<td>Time 7</td>
<td>92 (67%)</td>
<td>46 (33%)</td>
<td>74 (35%)</td>
<td>213</td>
</tr>
<tr>
<td>Time 8</td>
<td>132 (96%)</td>
<td>5 (4%)</td>
<td>71 (34%)</td>
<td>210</td>
</tr>
</tbody>
</table>

*Note:* Percentages for “single” category represent the portion of the total sample that was single at the relevant time point. Percentages for “in relationship” categories represent the portion of those in a relationship who did vs. did not talk to their partner about the bar exam at the relevant time point.
Table 2

Results from Multilevel Models of Bidirectional Predictions between Perceived Partner Responsiveness with Well-Being, Health, and Expectation Management Strategies

<table>
<thead>
<tr>
<th>Well-Being</th>
<th>Responsiveness Predicts…</th>
<th></th>
<th></th>
<th></th>
<th>Responsiveness is Predicted by…</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
<td>b(se)</td>
<td>t</td>
<td>R²_pseudo</td>
<td></td>
<td>b(se)</td>
<td>t</td>
<td>R²_pseudo</td>
<td></td>
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<tr>
<td><strong>Worry</strong></td>
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<td></td>
</tr>
<tr>
<td>Within-person</td>
<td>-.01 (.08)</td>
<td>-0.12</td>
<td>0.44</td>
<td>.04 (.06)</td>
<td>0.57</td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between-persons</td>
<td>-.09 (.13)</td>
<td>-0.72</td>
<td>-0.04</td>
<td>.02 (.06)</td>
<td>0.24</td>
<td>-0.04</td>
<td></td>
<td></td>
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<tr>
<td><strong>State anxiety</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Within-person</td>
<td>-.10 (.08)</td>
<td>-1.23</td>
<td>0.42</td>
<td>-.05 (.07)</td>
<td>-0.75</td>
<td>0.20</td>
<td></td>
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</tr>
<tr>
<td>Between-persons</td>
<td>-.16 (.10)</td>
<td>-1.62</td>
<td>-0.05</td>
<td>.07 (.09)</td>
<td>0.75</td>
<td>-0.02</td>
<td></td>
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<tr>
<td><strong>Negative emotion</strong></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Within-person</td>
<td>-.12 (.08)</td>
<td>-1.50</td>
<td>0.18</td>
<td>-.10 (.07)</td>
<td>-1.43</td>
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<td></td>
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<tr>
<td>Between-persons</td>
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<td>-2.45*</td>
<td>0.13</td>
<td>-.07 (.09)</td>
<td>-0.76</td>
<td>-0.01</td>
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<tr>
<td><strong>Positive emotion</strong></td>
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<td></td>
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</tr>
<tr>
<td>Within-person</td>
<td>.23 (.08)</td>
<td>2.96**</td>
<td>0.26</td>
<td>.15 (.06)</td>
<td>2.37*</td>
<td>0.24</td>
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<td>Between-persons</td>
<td>.26 (.10)</td>
<td>2.74**</td>
<td>-0.07</td>
<td>.16 (.10)</td>
<td>1.66†</td>
<td>-0.02</td>
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<tr>
<td><strong>Subjective coping</strong></td>
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<tr>
<td>Within-person</td>
<td>.23 (.08)</td>
<td>2.71**</td>
<td>0.25</td>
<td>.14 (.06)</td>
<td>2.38*</td>
<td>0.20</td>
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<tr>
<td>Between-persons</td>
<td>.30 (.12)</td>
<td>2.46*</td>
<td>0.03</td>
<td>.06 (.07)</td>
<td>0.85</td>
<td>-0.02</td>
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<tr>
<td><strong>Health</strong></td>
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<td></td>
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<tr>
<td>Within-person</td>
<td>.13 (.06)</td>
<td>2.26*</td>
<td>0.30</td>
<td>.20 (.10)</td>
<td>1.98*</td>
<td>0.20</td>
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<tr>
<td>Between-persons</td>
<td>.09 (.08)</td>
<td>1.12</td>
<td>0.05</td>
<td>-.04 (.11)</td>
<td>-0.36</td>
<td>-0.02</td>
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<td>Subjective health</td>
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<tr>
<td>Within-person</td>
<td>-.17 (.10)</td>
<td>-1.70†</td>
<td>0.17</td>
<td>-.10 (.05)</td>
<td>-1.80†</td>
<td>0.20</td>
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<td>Between-persons</td>
<td>-.15 (.11)</td>
<td>-1.39</td>
<td>0.27</td>
<td>.00 (.09)</td>
<td>0.00</td>
<td>-0.01</td>
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<tr>
<td><strong>Strategy use</strong></td>
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<td>Bracing</td>
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<tr>
<td>Within-person</td>
<td>-.04 (.08)</td>
<td>-0.55</td>
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<td>-.02 (.07)</td>
<td>-0.29</td>
<td>0.21</td>
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<tr>
<td>Between-persons</td>
<td>-.16 (.13)</td>
<td>-1.22</td>
<td>0.03</td>
<td>-.14 (.06)</td>
<td>-2.30*</td>
<td>-0.01</td>
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<td>Positive expectation management</td>
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<td></td>
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<tr>
<td>Within-person</td>
<td>.07 (.06)</td>
<td>1.08</td>
<td>0.18</td>
<td>.09 (.09)</td>
<td>1.06</td>
<td>0.19</td>
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<tr>
<td>Between-persons</td>
<td>.30 (.09)</td>
<td>3.49**</td>
<td>&lt;0.01</td>
<td>.20 (.10)</td>
<td>2.04*</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: †p < .10, *p < .05, **p < .01. $R^2_{pseudo}$ reflects an estimate of the additional within- (top estimate) and between-person (bottom estimate) variance explained by the model that was not explained by the initial model including fixed and random effects of linear and quadratic time.
Figure 1. Trajectory of perceived partner responsiveness across the waiting period.