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MODELING DAILY POSTTRAUMATIC STRESS SYMPTOMS AND MENTAL CONTAMINATION EXPERIENCES AMONG SURVIVORS OF SEXUAL TRAUMA

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MODELING DAILY POSTTRAUMATIC STRESS SYMPTOMS AND MENTAL CONTAMINATION EXPERIENCES AMONG SURVIVORS OF SEXUAL TRAUMA

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts & Sciences
at the University of Kentucky

By

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ABSTRACT OF DISSERTATION

MODELING DAILY POSTTRAUMATIC STRESS SYMPTOMS AND MENTAL CONTAMINATION EXPERIENCES AMONG SURVIVORS OF SEXUAL TRAUMA

Mental contamination (i.e., feelings of dirtiness in the absence of contact with a contaminant) is a potentially important yet understudied factor in posttraumatic psychopathology, particularly for survivors of sexual trauma. Mental contamination has been linked to PTSD symptom severity, negative affect, and coping cross-sectionally and in lab-based paradigms, but research has yet to assess these relationships in ecological contexts. The present study extends previous cross-sectional findings by modelling relationships between mental contamination and posttraumatic psychopathology, emotions, and coping both within-day and from one day to the next. Forty-two female sexual trauma survivors completed twice-daily assessments of mental contamination, PTSD symptoms, negative emotions, and avoidant/approach coping via a smartphone app. Daily averages and intraindividual changes in mental contamination scores were linked with PTSD symptoms at the same timepoint. Mental contamination also significantly predicted several specific avoidant coping strategies at later timepoints in addition to concurrent links. Unexpectedly, several negative emotions exhibited positive links with concurrent mental contamination but were negatively linked to later mental contamination. Exploratory analyses identified a significant interaction whereby elevated morning negative affect predicted evening reductions in mental contamination, but only for individuals also high in morning PTSD symptoms. Lastly, prevalence of reported baseline mental contamination was much higher in the present study compared to prior research. Clinical relevance and future recommendations for ecological research in trauma-related mental contamination is discussed.

KEYWORDS: Mental Contamination, Sexual Trauma, Posttraumatic Stress Disorder, Negative Affect, Coping, Ecological Assessment

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October 8, 2019

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CHAPTER 1. INTRODUCTION

Background

A growing body of research has identified mental contamination—defined as feelings of dirtiness, infection, or impurity in the absence of physical contact with an external source—as a prevalent and important factor in multiple forms of mental illness (Rachman, Coughtrey, Radomsky, & Shafran, 2015). In contrast with contact contamination, which arises in response to physical contact with an external contaminant or pollutant (Rachman, 2004), mental contamination has been shown to emerge in response to a variety of internal sources including memories, thoughts, mental images, bodily sensations, urges, and non-tactile sensory input (e.g., seeing or smelling a perceived contaminant without physical contact; Rachman et al., 2015). Researchers have posited that such internal (rather than external) sources may explain why mental contamination is described as pervasive, difficult to manage, and resistant to alleviation via washing/cleaning behaviors (Coughtrey, Shafran, & Rachman, 2014a; Rachman, 2004; Waller & Boschen, 2015).

Although mental contamination research originated in the obsessive-compulsive disorder (OCD) literature, a growing subset of research studies have linked mental contamination to the experience of sexual trauma. Fairbrother and Rachman (2004) first noted that 70% of female sexual assault survivors reported engaging in washing behaviors immediately following their assault. Of these, over 25% endorsed ongoing feelings of contamination and excessive washing behaviors that persisted for months or years. Consistent with this finding, case reports have noted frequent contamination concerns and washing/cleaning behaviors following experiences of sexual trauma (de

Silva & Marks, 1999; Gershuny, Baer, Radomsky, Wilson, & Jenike, 2003). More recent studies have consistently documented a positive correlation between mental contamination and severity of posttraumatic stress disorder (PTSD) total symptoms (Adams, Badour, Cisler, & Feldner, 2014; Badour, Feldner, Blumenthal, & Bujarski, 2013; Badour, Ojserkis, McKay, & Feldner, 2014) and specific symptom clusters (Fergus & Bardeen, 2016; Olatunji, Elwood, Williams, & Lohr, 2008) among women with a history of sexual trauma.

Researchers have posited that sexual trauma may lead to posttraumatic mental contamination because "sexual assaults are extremely intrusive and among the most severe instances of a breach of one's personal boundaries," leading individuals to feel "violated and polluted" (Rachman et al., 2015, p. 57, 59). Others have suggested that posttraumatic reminders (e.g., sexual trauma-related thoughts, memories) may serve as conditioned cues to trigger feelings of violation and pollution experienced during the assault, thus leading to persistent experiences of posttraumatic mental contamination (Jung & Steil, 2012, 2013; Steil, Jung, & Stangier, 2011). Laboratory paradigms with sexual trauma-exposed participants have provided preliminary support for this model, with participants reporting significant increases in feelings of dirtiness and urges to wash (i.e., mental contamination indices) following recollections of their worst sexually traumatic experiences (Badour, Feldner, Babson, Blumenthal, & Dutton, 2013; Fairbrother & Rachman, 2004; Ishikawa, Kobori, & Shimizu, 2015). Ishikawa and colleagues (2015) additionally demonstrated that post-recollection mental contamination indices were positively associated with the intensity of negative post-recollection appraisals including the degree of perceived violation experienced, immorality of the

perpetrator, and personal responsibility for the experience. These findings have led researchers to speculate that mental contamination in the wake of sexual trauma may exacerbate posttraumatic appraisals of self-blame and worthlessness (Jung & Steil, 2012; Olatunji et al., 2008).

Models have also consistently emphasized the important role of negative emotions, and particularly self-directed emotions such as self-disgust or shame (Badour et al., 2014; Rachman, 1994) in understanding the harmful psychological impact of this phenomenon. Preliminary evidence has found that disgust evoked following recollection of past sexual assault (but not past physical assault) significantly predicts increased feelings of dirtiness post-recall (Badour, Feldner, Babson, et al., 2013). Related cross-sectional surveys of female sexual assault survivors have noted that one's frequency or ease of experiencing disgust (i.e., disgust propensity; Olatunji & McKay, 2009) and feelings of self-focused disgust at the time of the assault are both associated with mental contamination severity, controlling for a range of other negative emotions and clinical symptoms (Badour et al., 2014). In addition to disgust, significant cross-sectional links have been shown between mental contamination and both depression and general negative affect in samples exposed to sexual trauma (Badour et al., 2014; Fergus & Bardeen, 2016; Ishikawa et al., 2015), though links with both state and trait anxiety in this population have been mixed (Badour, Feldner, Babson, et al., 2013; Badour et al., 2014; Olatunji et al., 2008). Interestingly, other emotions such as shame, guilt, and hopelessness have received little attention in empirical studies, despite their presence in both the theoretical literature and mental contamination case studies (Jung & Steil, 2012; Rachman et al., 2015; Steil et al., 2011).

In addition to the limited research examining links between mental contamination and specific negative emotions following sexual trauma, few investigations have explored how individuals cope with mental contamination experiences. The extant literature in this area has focused primarily on washing and cleaning behavior, based on case observations and theories proposing that urges to wash/clean are a natural response to feelings of dirtiness or pollution, regardless of the source (e.g., de Silva & Marks, 1999; Warnock-Parkes, Salkovskis, & Rachman, 2012). After asking participants to recall memories of their sexual trauma, Fairbrother and Rachman (2004) reported significant positive associations between the severity of elicited mental contamination and actual washing behaviors during a post-task break, with approximately 20% of female participants reportedly washing their hands and/or face. Other lab studies involving sexual trauma recall have typically found significant increases in washing urges following sexual trauma recall but have not tested effects on actual washing behaviors (Badour, Feldner, Babson, et al., 2013; Ishikawa et al., 2015).

Alternative research has provided limited evidence suggesting that other methods of avoidant coping—defined as attempts to distance oneself (behaviorally or cognitively) from sources of distress—may be relevant for individuals experiencing sexual trauma-related mental contamination. In their evaluation of mental contamination linked to childhood sexual abuse, Jung and Steil (2012) suggested that avoidance methods such as distraction or substance use may be used to manage mental contamination experiences. These observations align with cross-sectional findings linking elevated mental contamination and increased risky behaviors (including substance use) in trauma-exposed individuals (Brake, Jones, Wakefield, & Badour, 2017). Related research has noted that

nearly 80% of individuals with contamination-based OCD engage in other avoidant practices to alleviate mental contamination and associated distress, such as thought suppression/replacement and distraction strategies (Coughtrey, Shafran, Lee, & Rachman, 2012). Additional evidence has highlighted the difficulties of controlling mental contamination experiences and common perceptions that one's contamination is threatening to one's self-image (e.g., "I am losing control of my mind", "These repugnant thoughts and urges, and the associated pollution, are personally significant, and reveal that I have a nasty hidden flaw…"; Rachman et al., 2015, p. 62), leading some researchers to speculate that mental contamination may exacerbate posttraumatic avoidance symptoms following sexual trauma (Badour, Feldner, Blumenthal, et al., 2013; Olatunji et al., 2008). Given that positive links between avoidant coping and PTSD symptom severity are well-established (Gutner, Rizvi, Monson, & Resick, 2006; Krause, Kaltman, Goodman, & Dutton, 2008; Pineles et al., 2011), further research is needed to determine if mental contamination following sexual trauma may play a role in increased avoidant coping as well.

Current Study

The present study aimed to expand on the existing literature by providing the first daily diary investigation of sexual trauma-related mental contamination and its functional connections to PTSD symptoms, specific negative emotions, and coping. Day-to-day experiences of mental contamination and associated coping among individuals with a history of sexual trauma have yet to be examined, limiting what is known about development or maintenance of mental contamination or its interaction with PTSD symptoms over time. Adults with a history of sexual trauma and current sexual trauma-

related mental contamination completed baseline measures of PTSD symptoms, negative affect, mental contamination, and coping. Participants then completed twice-daily assessments of PTSD symptoms, emotional states, sexual trauma-related mental contamination, and methods of coping over the course of two weeks using a mobile app. In addition to avoidant coping, approach (i.e., engagement) coping was assessed, as approach coping is typically conceptualized as antithetical to avoidant coping and negatively associated with PTSD severity and maladaptive outcomes (Cantón-Cortés & Cantón, 2010; Straight, Harper, & Arias, 2003; Wolfsdorf & Zlotnick, 2001). Between- and within-person hypotheses included:

1) Both baseline and daily diary average PTSD symptoms would positively correlate with mental contamination across the two-week period (Hypothesis 1a). At the intra-individual level, higher than average PTSD symptoms at a given assessment would be associated with higher concurrently assessed mental contamination (Hypothesis 1b). Higher than average PTSD symptoms at a given morning assessment would also prospectively predict higher mental contamination that evening (Hypotheses 1c) after accounting for morning mental contamination and average PTSD symptoms across the daily diary period. Illustrations of Hypotheses 1b and 1c are shown in Figure 1.1.

2) Both baseline and daily diary average mental contamination would be positively associated with overall negative affect across the two-week period (Hypothesis 2a). At the intra-individual level, higher than average mental contamination at a given assessment would be associated with higher concurrently assessed overall negative affect (Hypothesis 2b-overall) and specific negative emotions (Hypothesis 2b-specific). Higher than average mental contamination at a given morning assessment would also

prospectively predict higher overall negative affect (Hypothesis 2c-overall) and specific negative emotions (Hypothesis 2c-specific) that evening after controlling for respective morning negative affect/emotion ratings and average mental contamination ratings across the daily diary period. Illustrations of Hypotheses 2b and 2c are shown in Figure 1.2.

3) Baseline and daily diary average mental contamination levels would be positively associated with overall avoidant coping across the two-week period (Hypothesis 3a). At the intra-individual level, higher than average mental contamination at a given assessment would be associated with higher concurrently measured overall avoidant coping (Hypothesis 3b-overall) and individual avoidant coping strategies (Hypothesis 3b-specific). Higher than average mental contamination at a given morning assessment would also prospectively predict higher overall avoidant coping (Hypothesis 3c-overall) and specific avoidant coping strategies (Hypothesis 3c-specific) that evening after controlling for respective ratings of morning avoidant coping and average mental contamination across the daily diary period. Illustrations of Hypotheses 3b and 3c are shown in Figure 1.3.

4) Lastly, baseline and daily diary average mental contamination levels would be negatively linked to overall approach coping across the daily diary period (Hypothesis 4a). At the intra-individual level, higher than average mental contamination at a given assessment would be associated with lower concurrently measured ratings of approach coping (Hypothesis 4b). Higher than average mental contamination at a given morning assessment would also prospectively predict lower levels of approach coping that evening (Hypotheses 4c) after accounting for morning approach coping and average mental contamination across the daily diary period. Because prior evidence linking mental

contamination with approach coping is limited, hypotheses of the relationships between mental contamination and specific approach strategies were withheld. Illustrations of Hypotheses 4b and 4c are shown in Figure 1.4.

Prospective hypotheses all focused on within-day (morning to evening) relationships given limited evidence to inform whether associations would persist across multiple days. However, these across-day relationships (evening to subsequent morning) were also examined in exploratory models.

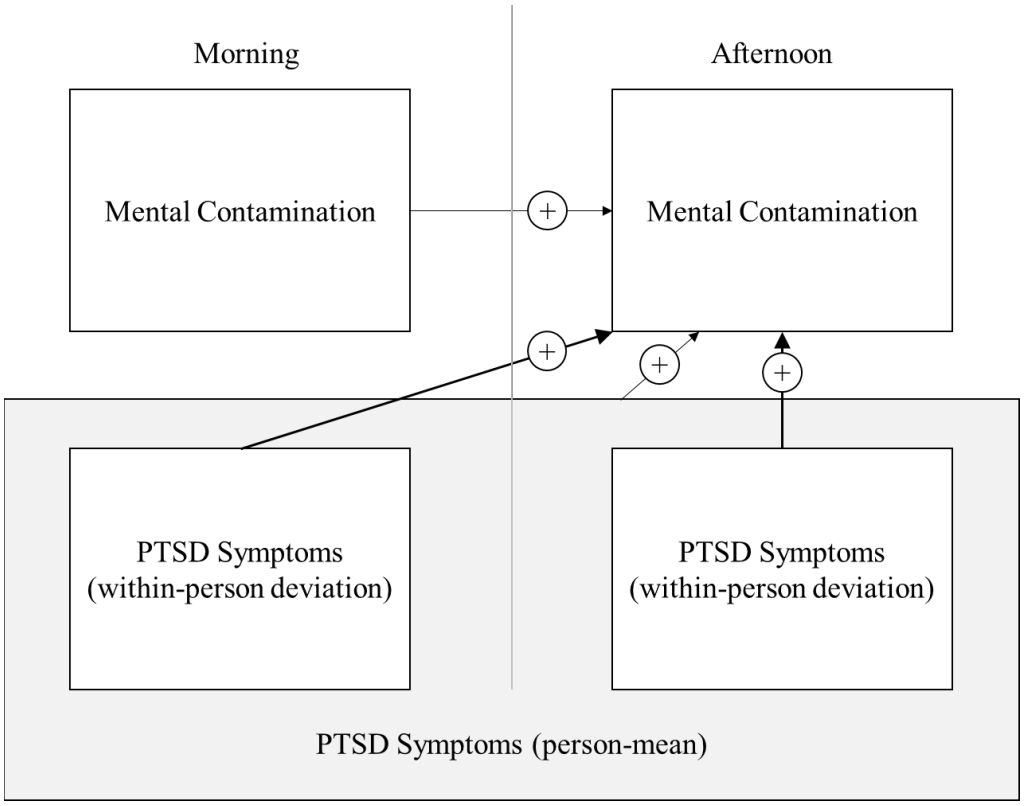

Figure 1.1. Illustration of hypotheses 1b and 1c. White boxes with PTSD symptoms depict Level 1 within-person variables, whereas the grey box depicts person-mean PTSD symptom severity across the daily diary period. Bolded pathways indicate hypothesized effects of primary interest (controlling for non-bolded pathways). All pathways are marked with expected directions of effects.

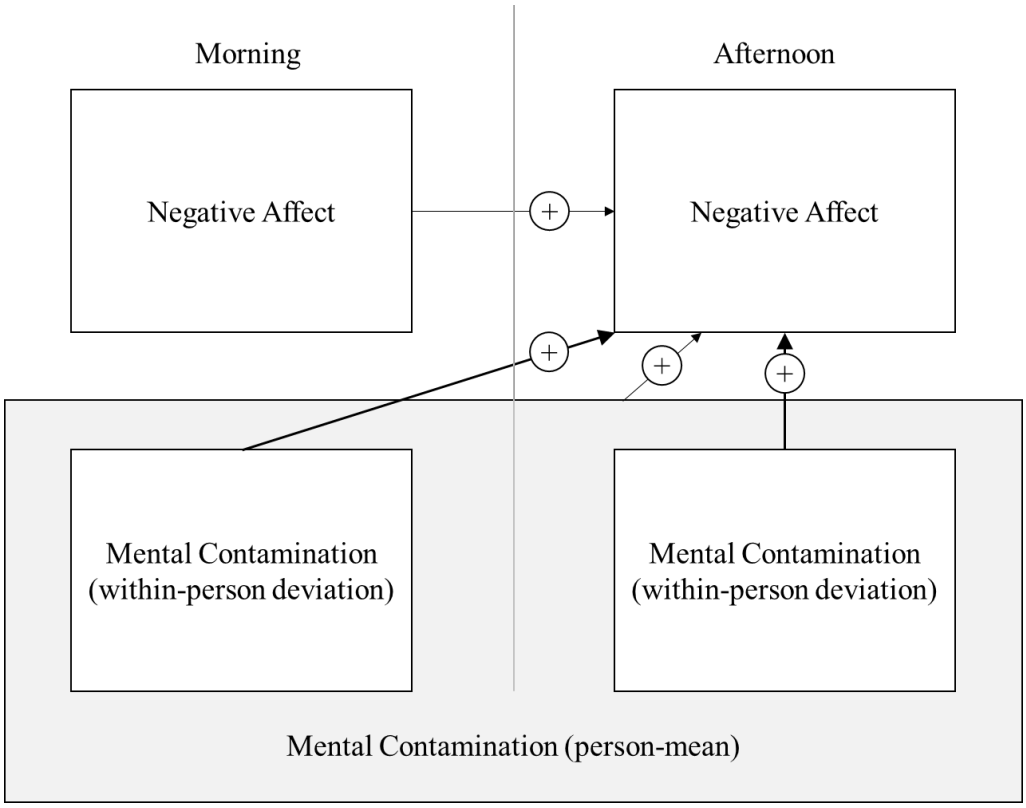

Figure 1.2. Illustration of hypotheses 2b- and 2c-overall. White boxes with mental contamination depict Level 1 within-person variables, whereas the grey box depicts person-mean mental contamination across the daily diary period. Bolded pathways indicate hypothesized effects of primary interest (controlling for non-bolded pathways). All pathways are marked with expected directions of effects. Note that identical models examining specific negative emotions (hypotheses 2b- and 2c-specific) are not depicted.

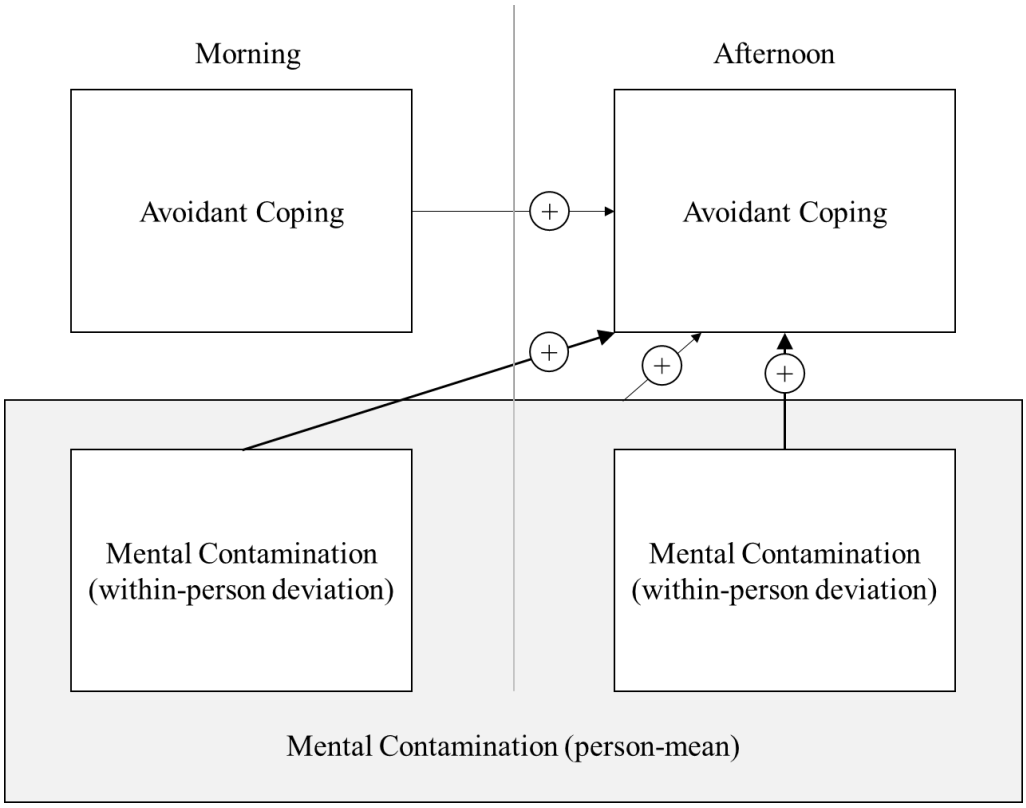

Figure 1.3. Illustration of hypotheses 3b- and 3c-overall. White boxes with mental contamination depict Level 1 within-person variables, whereas the grey box depicts person-mean mental contamination across the daily diary period. Bolded pathways indicate hypothesized effects of primary interest (controlling for non-bolded pathways). All pathways are marked with expected directions of effects. Note that identical models examining specific avoidant coping strategies (hypotheses 3b- and 3c-specific) are not depicted.

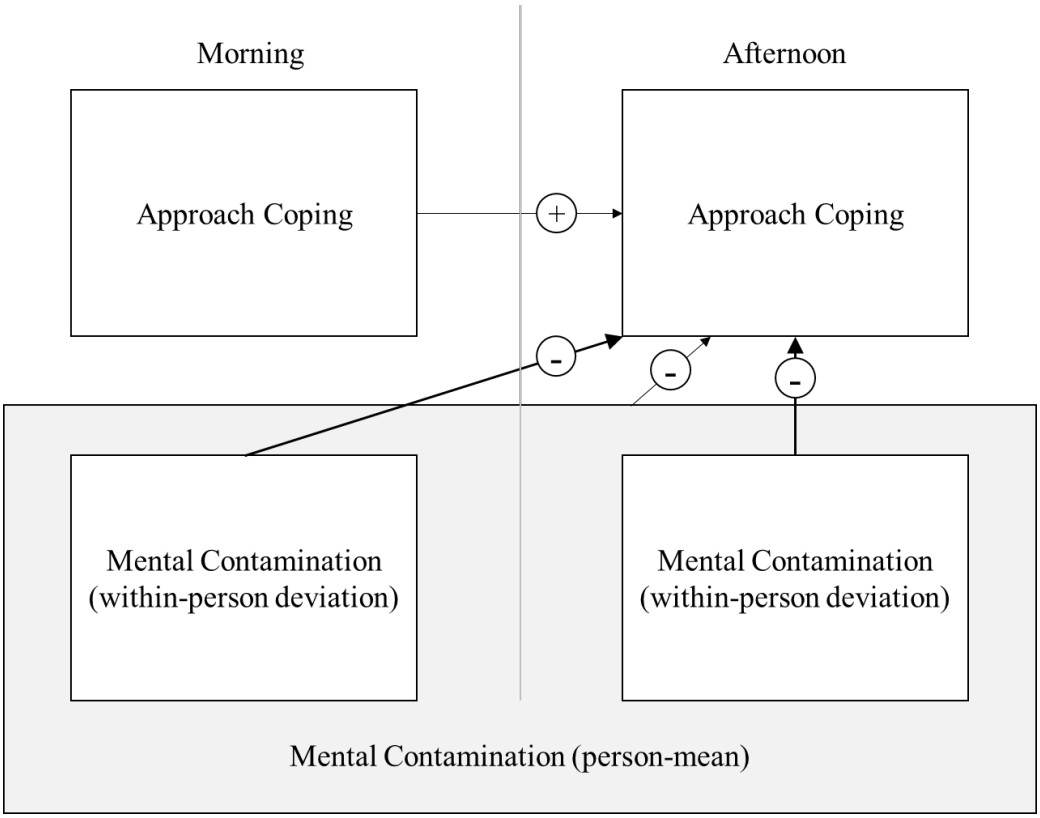

Figure 1.4. Illustration of hypotheses 4b and 4c. White boxes with mental contamination depict Level 1 within-person variables, whereas the grey box depicts person-mean mental contamination across the daily diary period. Bolded pathways indicate hypothesized effects of primary interest (controlling for non-bolded pathways). All pathways are marked with expected directions of effects.

CHAPTER 2. METHOD

Recruitment

The present study aimed to enroll 50 adults from the Lexington area with a self-reported history of sexual trauma and current sexual trauma-related mental contamination (defined below). For the present study, sexual trauma was defined as: 1) being physically forced, coerced, or threatened into engaging in vaginal, anal, or oral penetration by one or more individuals, or by a foreign object; or 2) forced or coerced touching, grabbing, or fondling of any part of one's body by one or more people, or being forced/coerced to touch any part of another person's body; or 3) experiencing contact with one's sexual parts, or experiencing vaginal, anal, or oral penetration by one or more legal adults (i.e., 18 years or older) as a child (defined as age 13 or younger). Additionally, the definition of sexual trauma encompassed sexual contact as defined in points 1 or 2 in which an individual was unable to provide consent due to intoxication that involved voluntary consumption of alcohol or drugs (i.e., incapacitated sexual trauma) or involved consumption of alcohol or drugs that was provided to the participant by the perpetrator (i.e., drug/alcohol-facilitated sexual trauma). Lastly, individuals who experienced sexual trauma within the last 30 days at the time of contact were delayed for pre-enrollment screening until at least 30 days had elapsed since their last sexually traumatic event, in order to better assess posttraumatic experiences rather than acute traumatic distress.

A total of 146 individuals initiated phone screens for participation in the present study. Of these, 14 were deemed ineligible during screening, 22 declined participation, and an additional 56 were unreachable after initial contact. Of the 54 remaining who were enrolled and attended initial lab visits, ten individuals reported no mental contamination

symptoms during in-person interviews (see Sexual Trauma-Related Mental Contamination section of Measures below) despite initially endorsing mental contamination at phone screen and were thus removed from the study (n = 10). Additionally, data from two male participants were ultimately removed from the present study due to low male recruitment rates. The final sample thus consisted of 42 women with a history of sexual trauma and current sexual trauma-related mental contamination.

Participants

Participant ages ranged from 18 to 57 (M = 33.4 years, SD = 12.7 years). The majority of the sample identified as Caucasian (73.8%), with the remaining participants identifying as African American (19.0%), Multi-Racial (4.8%), or other (2.4%). Hispanic ethnicity was endorsed by 11.9% of the sample. Participants also identified as predominantly heterosexual (71.4%), with the remaining participants identifying as bisexual (21.4%), homosexual (4.8%), or other (2.4%).

Procedures

All procedures were approved by the University of Kentucky Nonmedical Institutional Review Board. Recruitment from the surrounding community included a combination of public flyers, brochures, and online listings placed across local businesses, public spaces, community hospitals, medical centers, and both mental health and substance use treatment facilities. Individuals who had previously contacted our lab and expressed interest in future research participation were also contacted. Interested individuals completed a pre-enrollment screening over the phone. Following screening, eligible and interested individuals were enrolled and completed the study across three consecutive stages: 1) a pre-visit online questionnaire battery, 2) one lab visit for

diagnostic interview, an additional self-report battery, and training in how to complete daily diary assessments, and 3) a two-week daily diary period querying participants twice daily.

Self-report questionnaires were completed via the online survey platform Qualtrics. Daily diary ratings were completed using the LifeData app that was downloaded to participants' smartphones or to a device loaned to participants for the daily diary period. The 14-day daily diary period began on the day immediately following the laboratory visit. During this period, participants received push notifications twice daily (morning and evening) to complete the daily diary assessments (see Measures section below). Participants were prompted via timed auto-reminders starting at 9:00AM EST and 5:00PM EST to complete their morning and evening assessments, respectively (Possemato et al., 2012, 2015). Assessments could be completed anytime within a 4-hour window, with reminders every 30 minutes. If participants did not complete a response by 1:00PM EST (for mornings) or 9:00PM EST (for evenings), this assessment was skipped. Study staff contacted participants to encourage improved adherence and/or troubleshoot technical difficulties if participants failed to complete both assessments (morning, evening) for at least 50% of the days during their first week or if they missed four consecutive assessment prompts any time during the daily diary period.

Participants were compensated $30 at the end of their laboratory visit and were additionally provided with a brochure containing referral information for community mental health services, as well as related online resources and emergency/crisis phone numbers. Following the daily diary period, participants then received $1 for each completed response of the 28 possible daily diary assessments, plus $5 bonuses for each

set of four consecutive assessments completed. Participants were given the option of receiving daily diary compensation and debriefing materials remotely in the mail or in person at the lab.

Measures

Baseline measures.

Sexual trauma history. History of sexual trauma was assessed during the phone screen using a subset of items from the National Stressful Events Survey (NSES; Kilpatrick, Resnick, Baber, Guille, & Gros, 2011). The NSES was designed to assess past trauma exposure and PTSD symptoms in line with criteria defined in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). The survey uses a highly structured format with conditional branching and follow-up questions to endorsed responses, as well as descriptive behavioral information about specific types of traumatic events. As such, the NSES is thought to capture greater disclosure and accuracy of traumatic event occurrences, and the measure has been utilized in national samples to estimate population prevalence of traumatic events including sexual trauma (Kilpatrick et al., 2013; Wolf et al., 2015).

The sexual trauma subsection of the NSES consists of four yes/no items assessing the presence and nature of any sexual trauma history. Items use specific behavioral descriptions of sexual experiences in order to minimize misinterpretation and underreporting. The first three items were used for screening purposes and assess (1) childhood sexual contact (including penetration and/or touching of sexual parts), (2) unwanted sexual contact (including penetration and/or touching of sexual parts) under

force or threat of force, and (3) unwanted sexual contact (including penetration and/or touching of sexual parts) while under the influence of alcohol or drugs. Endorsement of at least one of these items indicated experience of sexual trauma in line with study eligibility criteria. The fourth item was used for descriptive purposes only and clarified whether any events endorsed in items 1-3 involved oral, anal, or vaginal penetration (versus unwanted sexual touching). One additional item assessed whether the respondent had experienced any sexual trauma events in the last 30 days (see delayed screening criteria above).

Sexual trauma-related mental contamination. Mental contamination related to past sexual trauma was measured during the phone screen with the Posttraumatic Experience of Mental Contamination scale (PEMC; Brake, Adams, Hood, & Badour, 2019). The PEMC is a 20-item self-report scale modified from the standard 20-item Vancouver Obsessional Compulsive Inventory-Mental Contamination scale (VOCI-MC; Radomsky, Rachman, Shafran, Coughtrey, & Barber, 2014). As opposed to the VOCI-MC, which assesses general trait mental contamination (e.g., "I often feel dirty under my skin"), the PEMC specifically references mental contamination experiences since the occurrence of a traumatic event (e.g., "Since the traumatic event, I often feel dirty under my skin"). For the present study, PEMC items were indexed on participants' most distressing sexual trauma experience. Participants rated the extent to which each item was true on a five-point Likert-type scale (*0 = Not at all* to *4 = Very much*), with higher total scores indicating greater posttraumatic mental contamination difficulties. The original VOCI-MC has strong psychometrics, including high internal consistency and good convergent, divergent, and discriminative validity in clinical and nonclinical groups (Lee

et al., 2013; Radomsky et al., 2014). Additionally, the newly developed PEMC evidences a single factor structure, strong internal consistency and convergent validity with the VOCI-MC, as well as incremental utility over the VOCI-MC in predicting PTSD and OCD symptoms in a community sample (Brake et al., 2019). Internal consistency for the PEMC in the present study was excellent (α = .92). A score of 10 or greater on the PEMC was used as the cutoff for determining the presence of trauma-related mental contamination for inclusion in the study. This cutoff is consistent with previous research using a cut score of 10 points on the VOCI-MC to indicate moderate mental contamination in non-clinical laboratory samples (Coughtrey et al., 2014a; Coughtrey, Shafran, & Rachman, 2014b).

Current trauma-related mental contamination was also confirmed via in-lab administration of a two-item excerpt from Fairbrother and Rachman's (2004) original sexual assault-related mental contamination interview schedule ("What, if anything brings back that feeling of dirtiness now?"; "What about memories of the unwanted sexual experience, do they bring back that feeling of dirtiness?"). Clear negative responses to both items resulted in removal from the study immediately after the lab visit.

PTSD symptoms and diagnostic status. The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5; Weathers, Blake, et al., 2013) is a well-validated semi-structured diagnostic interview for DSM-5-defined PTSD that has demonstrated good convergence with past-month self-reported PTSD symptoms and good discriminant validity from measures of other pathology and distress (Weathers et al., 2018). The CAPS-5 assesses frequency and intensity of 20 PTSD symptoms, as well as dissociative symptoms and global ratings of distress and impairment. The CAPS-5 was administered during the in-

person lab visit in order to determine participants' past-month PTSD diagnostic status and serve as a baseline measure of PTSD symptom severity.

Negative affect. The Negative Affect scale of the Positive and Negative Affect Schedule (PANAS-NA; Watson, Clark, & Tellegen, 1988) was used to assess general trait negative affect. On this 10-item scale, respondents rate the degree to which they typically experience various mood states via single-word descriptors (e.g., ashamed, irritable), using a five-point scale (*1 = very slightly or not at all* to *5 = extremely*), producing total scores ranging from 10-50. The PANAS-NA is widely used and well validated across diverse samples, evidencing good psychometric properties (Watson et al., 1988).

Daily assessments.

Sexual trauma-related mental contamination. Daily mental contamination was assessed using an adapted version of the State Mental Contamination Scale (SMCS; Lorona, Rowatt, & Fergus, 2017). The SMCS is a 15-item scale assessing state mental contamination in response to a precipitating trigger. The SMCS has been validated for administration following lab-based mental contamination induction tasks, and it is well-suited for research on transient mental contamination in ecological contexts (Lorona et al., 2017). The SMCS was developed via modification of VOCI-MC items to frame questions in the present moment (e.g., VOCI-MC: "I often feel dirty under my skin"; SMCS: "I feel dirty under my skin"). Participants rate items on a five-point Likert-type scale (*0 = Not at all* to *4 = Very much*), producing total scores ranging from 0-60. In the present study, SMCS instructions were adjusted to ask about mental contamination experiences specific to participants' worst sexual trauma (as indexed during the in-person

CAPS-5 interview) since their last daily assessment prompt. Initial research utilizing the SMCS has demonstrated excellent internal consistency and good convergent and discriminant validity (Lorona et al., 2017).

PTSD symptoms. An adapted daily version of the PCL-5 was used to assess PTSD symptoms during the daily diary period. This measure included modified instructions to reference posttraumatic stress symptoms related to participants' sexual trauma experiences (as discussed during their CAPS-5 interview) since their last daily diary prompt. Other studies have adapted the PCL-5 for within-day assessment of PTSD symptoms in daily diary formats, demonstrating its utility and reliability for this purpose (Dworkin, Ullman, Stappenbeck, Brill, & Kaysen, 2017), as well as correspondence with past-month PCL scores (Naragon-Gainey, Simpson, Moore, Varra, & Kaysen, 2012).

Negative affect. Participants rated the degree to which they had experienced specific negative emotions since their last completed daily diary response using a series of seven visual analog scales (VAS; Freyd, 1923). Each item presented the participant with a single-word descriptor of each of seven separate emotions: anxiety, anger, sadness, disgust, shame, guilt, and hopelessness. Participants used a digital slider to rate the degree to which they had experienced each emotion, on average, since their last daily diary response. Scales were anchored with emotion-specific descriptors (e.g., *no [emotion]/extreme [emotion]*). Distance between participants' slider response and the *no [emotion]* anchor was recorded as a single rating between 0 and 100. Mean scores using all seven emotion items served as a measure of overall negative affect during the daily diary period. Prior research has successfully utilized VAS ratings to assess emotional states in similar contexts (Badour, Feldner, Babson, et al., 2013; Millar, Salkovskis, &

Brown, 2016), including in daily diary formats (Boh et al., 2016; Bruehl, Liu, Burns, Chont, & Jamison, 2012).

Avoidant coping. Avoidant coping was assessed using four items from the Brief COPE (Carver, 1997) plus two additional items developed for the purpose of the present study. The Brief COPE is a 28-item measure designed to assess a variety of distinct coping strategies, and previous research has established a higher order factor of emotional avoidant coping from a combined 10 of the 28 items assessing self-distraction, denial, behavioral disengagement, self-blame, and substance use domains (Schnider, Elhai, & Gray, 2007). The emotional avoidant subscale of the Brief COPE has evidenced adequate internal consistency and predictive validity in prior research (Badour, Blonigen, Boden, Feldner, & Bonn-Miller, 2012; Schnider et al., 2007). Pilot data from an ongoing data collection in our laboratory found that 5 of these 10 avoidant coping items were significantly correlated with mental contamination severity (as assessed via the VOCI-MC) among a sample of 43 community-recruited women with history of interpersonal violence. VOCI-MC scores significantly correlated with single items from the self-distraction ("I've been turning to work or other activities to take my mind off things", r = .37), denial ("I've been saying to myself 'this isn't real'"; r = .49), and behavioral disengagement ("I've been giving up trying to deal with it"; r = .35) domains, as well as both items from the self-blame domain ("I've been criticizing myself", r = .40; "I've been blaming myself for things that happened", r = .44). The weaker of these two self-blame items was removed to reduce participant burden on daily diary length and establish single-item equivalence across all assessed domains. Previous daily diary research has utilized similar data-driven methods for selecting subsets of Brief COPE items for

assessment of specific daily stressors (Park, Armeli, & Tennen, 2004), as length of full scales is often a concern in daily diary contexts. Additionally, Carver (1997) recommended hypothesis-driven selection of item subsets and adaptation of time scale in measure instructions to assess context-specific questions across studies.

Two additional items assessing washing/cleaning behaviors and thought suppression were developed for the purpose of this study, as items assessing such behaviors have not been previously developed for daily diary contexts. Development of these two items was based on extant research implicating these strategies as particularly relevant to mental contamination coping (Coughtrey et al., 2012; Jung & Steil, 2012; Rachman et al., 2015). The washing/cleaning item ("I've been spending time washing or cleaning") was adapted from a single item of the Vancouver Obsessional Compulsive Inventory contamination subscale (Thordarson et al., 2004). The thought suppression item ("I've been trying to avoid certain thoughts") was adapted from an existing item of the Thought Suppression Inventory (TSI; Rassin, 2003) that has demonstrated one of the highest factor loadings on the TSI suppression subscale ("I try to avoid certain thoughts").

Instructions asked participants to rate their use of strategies to cope with their sexual trauma since the previous daily diary response. Participants responded on a four-point Likert-type scale (*1 = I haven't been doing this at all* to *4 = I've been doing this a lot*), in line with ratings for the Brief COPE.

Approach coping. Approach coping was assessed using six items that have previously been utilized to assess approach-style coping in response to stressors in a daily diary format (Park et al., 2004). Four items from this measure were drawn from the Brief

COPE to assess coping domains of emotional support and acceptance. One item was drawn from each subscale of the 8-item Emotional Approach Coping measure (EAC; Stanton, Kirk, Cameron, & Danoff-Burg, 2000), which assesses both emotional expression (EAC-EE; 4 items) and emotional processing (EAC-EP; 4 items). Whereas EAC-EE assesses the open expression of emotions, EAC-EP measures efforts to contemplate and understand one's emotions. This 6-item daily approach coping scale has demonstrated excellent internal consistency in daily assessments (alphas ranging from .85-.93 across a four-week period), with all items demonstrating single-factor loadings above .40 (Park et al., 2004). Participants rated their use of each approach strategy to cope with their sexual trauma since the previous daily diary response. Participants responded on a four-point Likert-type scale (*1 = I haven't been doing this at all* to *4 = I've been doing this a lot*), mirroring avoidant coping ratings.

Statistical Analysis

All analyses were conducted using SPSS, version 25.0. In addition to demographic information, current PTSD diagnostic status and sexual trauma characteristics were examined for descriptive purposes. Binary variables were coded to indicate PTSD diagnostic status (no = 0, yes = 1), whether or not participants' index sexual trauma occurred during childhood (no = 0, yes = 1), whether or not participants' index sexual trauma involved penetration (vaginal, anal, and/or oral; no = 0, yes = 1), and whether or not participants had experienced repeated sexual trauma during their lifetime (no = 0, yes = 1). Time (in years) since participants' index trauma was also derived. Lastly, dichotomous variables of race (white = 0, non-white = 1) and sexual orientation

(heterosexual = 0, non-heterosexual = 1) were created for covariate consideration (see below).

Descriptive analyses included examining frequencies or means and standard deviations of demographic variables, sexual trauma characteristics, PTSD symptom severity (PCL-5), sexual trauma-related mental contamination (PEMC, SMCS), overall negative affect (PANAS-NA, mean of VAS ratings), and overall avoidant (mean of Brief COPE items) and overall approach (mean of Brief COPE and EAC items) coping. A series of independent sample *t*-tests and chi-square difference tests were also conducted to examine differences on these variables as a function of PTSD diagnostic status. Baseline and average scores across the daily diary period (i.e., person-mean scores) of all variables evidenced acceptable levels of skewness (-0.14 – 1.95) and kurtosis (-1.34 – 1.05), with the exception of person-mean VAS ratings of denial (skewness = 1.95, kurtosis = 3.44). A natural log transformation resulted in acceptable skewness (1.50) and kurtosis (1.37), and this transformed denial variable was utilized for all further analyses. Bivariate correlations were used to examine associations among baseline and person-mean scores during the daily diary period for primary study variables. Additionally, participants were divided into quartiles based on person-mean SMCS scores, and scatterplots of overlaid datapoints for both daily PCL-5 and SMCS responses were randomly selected from one participant in each quartile to aid in visualization of the data.

Subsequent primary analyses involved a series of multilevel linear models with restricted maximum likelihood estimation to account for the nested structure of daily assessments within participants. This approach allows for simultaneous between- and within-individual effect estimates and accounts for autocorrelation of non-independent

data points within individuals, as well as varying intervals due to potential missing data points (Krull & MacKinnon, 2001; Snijders & Bosker, 2012). First, intercepts and slopes of change in PTSD symptoms, mental contamination, negative affect, avoidant coping, and approach coping from the first to the last day of the daily assessments were examined using a series of conditional random intercept and slope linear mixed models (day coded as -6.5 [day 1] to 6.5[day 14]) controlling for time of the day (morning = 0, evening = 1), and day of the week (Monday through Friday = 0, Saturday/Sunday = 1) to determine if a) average scores on any of the primary variables differed in the morning versus evening, b) average scores on any of the primary variables differed during the week versus during the weekend, and c) average scores on any of the primary variables changed systematically (i.e., increased or decreased) across the 14-day daily diary period.

Next, another series of conditional multilevel linear models were used to identify concurrent and prospective relationships between a) PTSD symptoms and mental contamination, b) mental contamination and negative affect, and c) mental contamination and avoidance/approach coping. Daily diary scores for mental contamination, negative affect, and approach/avoidant coping were not found to differ between morning and evening assessments. Thus, when these variables were used as level 1 predictors, they were grand-mean centered and then split into two orthogonal components for each participant: a between-subjects component (one person-mean for all 28 daily diary assessments), and a within-subjects component (series of 28 (14 – morning, 14 – evening) assessment-specific deviations from the person-mean). As daily PTSD symptom severity was found to be higher in the mornings on average compared to in the evenings, PTSD symptom severity was grand-mean centered and then split into two separate

between-subjects components (one person-mean for the 14 morning assessments; one person-mean for the 14 evening assessments) and within-subject components were deviated from the respective person-means (i.e., series of 14 assessment-specific deviations from the morning person-mean; series of 14 assessment-specific deviations from the evening person-mean) when used as a level 1 predictor. Daily overall negative affect was found to be higher during weekdays on average compared to weekends. As a result, level 1 models controlled for day of the week where overall negative affect was included as the dependent variable. Concurrent and lagged within-subjects deviations for all level 1 predictors were calculated to allow for concurrent, same day (morning to evening), and next day (evening to subsequent morning) predictions. All models controlled for the fixed effect of time. The random effect of time was only included when indicated based on log-likelihood tests of model fit comparing the random intercept only to the random intercept and slope alternative model.

Secondary to primary analyses, the following demographic and descriptive variables were evaluated as possible covariates: age, ethnicity, race, sexual orientation, PTSD diagnosis, index sexual trauma during childhood, index sexual trauma involving penetration, history of repeated sexual trauma, and years since the index trauma. Similarly, baseline CAPS-5, PEMC, and PANAS-NA scores were tested as possible covariates in all primary models. Patterns of effect for all correlational and multilevel model results were largely unchanged after inclusion of covariates, and these variables were thus not retained in final models.

Lastly, two participants within the 42-participant sample reported no mental contamination during the daily diary period, despite endorsing recent mental

contamination during screening and in-lab interviews. As such, all analyses were rerun without these participants' data included in order to detect any meaningful changes in effects after exclusion. Once again, all results were largely unchanged, and data from these participants were ultimately included in reported results.

CHAPTER 3. RESULTS

Descriptive Statistics

Participants completed a total of 989 out of 1176 possible daily diary surveys, resulting in an 84.1% response rate for the sample overall. The mean number of responses per participant was 23.55 (*SD* = 5.35, range 7-28), with over 90% of participants completing 15 or more of the 28 daily diaries. Average number of responses did not significantly differ by PTSD diagnosis.

Descriptive statistics are presented in Table 3.1. Of the total sample, 66.7% met criteria for PTSD. Compared to those without PTSD, participants with PTSD endorsed significantly higher levels of mental contamination at baseline, $t(40) = 3.09$, $p = .004$, and over the daily diary period, $t(40) = 2.38$, $p = .02$. Participants with PTSD also reported more avoidant coping across the daily diary period, $t(40) = 2.17$, $p = .04$, compared to individuals without PTSD. There were no significant differences in negative affect (baseline, $t(40) = 1.92$, $p = .06$; daily diary period, $t(40) = 1.52$, $p = .14$) or approach coping during the daily diary period, $t(40) = 0.88$, $p = .38$, as a function of PTSD diagnostic status.

Mean differences based on individuals' trauma history were also explored for descriptive purposes. Participants who had experienced repeated sexual trauma (i.e., two or more lifetime events of sexual violence or violation) exhibited significantly greater PTSD symptom severity at baseline (based on CAPS-5 scores; $t(39) = 2.16$, $p = .04$), and across both morning, $t(39.92) = 4.32$, $p < .001$, and evening, $t(36.27) = 4.16$, $p < .001$, daily diary periods. Repeated sexual trauma was also associated with greater mental contamination levels across the daily diary period, $t(40) = 3.47$, $p = .001$, though not at

baseline, $t(40) = 0.91$, $p = .37$. Individuals whose index trauma involved sexual penetration (i.e., vaginal, oral, and/or anal penetration) also reported significantly higher PTSD symptom severity at baseline, $t(39) = 2.19$, $p = .04$; however, differences in daily diary PTSD severity across both morning, $t(40) = 1.76$, $p = .09$, and evening, $t(40) = 1.94$, $p = .06$, were non-significant. Associations between index trauma penetration and mental contamination at baseline, $t(40) = 1.12$, $p = .27$, and across the daily diary period, $t(40) = 1.34$, $p = .19$, were non-significant.

Primary Analyses

PTSD symptoms and mental contamination.

Selected participant scatterplots of PTSD symptom and mental contamination scores are displayed in Figure 3.1. First, examination of slopes over the two-week period found no significant systematic changes in morning PTSD symptoms, $B = -0.13$, $SE = 0.08$, $t = -1.75$, $p = .09$, evening PTSD symptoms, $B = 0.04$, $SE = 0.09$, $t = 0.43$, $p = .67$, or mental contamination, $B = -0.02$, $SE = 0.05$, $t = -0.39$, $p = .70$, over time, suggesting no significant reactivity in PTSD symptoms or mental contamination to the daily diary procedures. As noted in Table 3.2, baseline PTSD symptoms and both morning and evening averages of daily PTSD symptoms were positively correlated with average mental contamination across the two-week daily diary period, supporting Hypothesis 1a.

Within-person model results for PTSD symptoms and mental contamination are reported in Table 3.3. Consistent with Hypothesis 1b, participants who reported higher than average PTSD symptoms at a given timepoint over the two-week period also showed concurrent elevations in mental contamination. Additionally, participants who reported higher than average PTSD symptoms in the morning subsequently reported

higher mental contamination in the evening. However, this association was no longer significant when accounting for morning mental contamination (Hypothesis 1c). Exploratory models predicting morning mental contamination from prior evening PTSD symptoms showed this same pattern of results.

In evaluating the reverse models, participants who reported higher than average mental contamination in the morning also subsequently reported higher PTSD symptoms in the evening. However, this association was reduced to non-significance when accounting for morning PTSD symptoms. Exploratory next-day models predicting morning PTSD symptoms from prior evening mental contamination followed this same pattern.

Mental contamination and negative affect.

Overall negative affect. Examination of slopes found no systematic changes in negative affect over the two-week period, B = -0.10, SE = 0.10, t = -0.98, p = .33, suggesting participants did not experience significant reactivity in overall negative affect to the daily diary procedures. Bivariate correlations for mental contamination and negative affect are reported in Table 3.2. Supporting Hypothesis 2a, average negative affect across the daily diary period was positively correlated with mental contamination at baseline and across the daily diary period.

Within-person results for mental contamination and overall negative affect are presented in Table 3.4. Consistent with Hypothesis 2b-overall, higher than average mental contamination at a given timepoint was associated with higher negative affect at the same timepoint. However, contrary to Hypothesis 2c-overall, morning mental contamination did not predict later evening negative affect (regardless of morning levels

of negative affect). Although evening mental contamination was shown to initially predict next-morning negative affect in exploratory models, this association also dropped to non-significance after accounting for prior-evening negative affect.

By contrast, reverse models revealed a unique pattern of results. Though the effect of morning negative affect on evening mental contamination was initially nonsignificant, a significant *negative* effect emerged after accounting for variance associated with morning mental contamination. Models of evening negative affect on next-day morning mental contamination revealed a similar negative effect after controlling for prior mental contamination levels. Given this unexpected pattern of results, additional exploratory analyses were conducted to examine whether daily variability in PTSD symptoms might qualify the negative relationship between negative affect and subsequent mental contamination. Morning negative affect and morning PTSD symptoms on a given day were found to significantly interact in predicting mental contamination later that evening, $B = -0.005$, $SE = 0.002$, $t = -2.32$, $p = .02$. Simple effect tests revealed that negative affect on a given morning was *negatively* associated with mental contamination ratings that evening, but only among individuals who had also reported experiencing more severe PTSD symptoms than typical that morning (+1 *SD*: $B = -0.14$, $SE = 0.04$, $t = -3.79$, $p < .001$). If PTSD symptoms were less severe than average that morning, negative affect was unrelated to evening mental contamination (-1 *SD*: $B = -0.04$, $SE = 0.04$, $t = -1.10$, $p = .27$). A similar model also tested for the interactive effect of evening negative affect and PTSD symptoms on next-morning mental contamination levels; however, this interaction effect was nonsignificant.

Specific negative emotions. Within-person primary model results for individual negative emotions are reported in Table 3.5. Higher than average levels of all negative emotions at a given timepoint were significantly linked to mental contamination at the same timepoint, supporting Hypothesis 2b-specific. However, counter to Hypothesis 2c-specific, only evening hopelessness was positively predicted by morning mental contamination, and this effect became nonsignificant after controlling for morning hopelessness. All other predictive effects of morning mental contamination on evening emotions were nonsignificant. Interestingly, when exploring next-day models, higher than average evening mental contamination prospectively predicted higher next-morning levels of anger, anxiety, disgust, guilt, and shame. Significant effects for anger and shame remained after accounting for each prior evening emotion. Models predicting next-morning hopelessness and sadness were not significant.

Reverse models for individual emotions are displayed in Table 3.6. Initially, higher than average ratings of guilt on a given morning were associated with *lower* ratings of mental contamination that evening. After accounting for morning mental contamination, morning levels of anxiety, guilt, hopelessness, sadness, and shame were all *negatively* associated with evening mental contamination. All models predicting next-morning mental contamination from prior evening emotions were nonsignificant before accounting for prior-evening emotions. After including this covariate, evening anger, anxiety, disgust, sadness, and shame all *negatively* predicted morning mental contamination the next day.

As with exploratory analyses on overall negative affect, further analyses were conducted to determine if daily PTSD symptom variability might also qualify negative

relationships between specific negative emotions and later mental contamination. Morning PTSD symptoms significantly interacted with morning variability in guilt (B = -0.004, SE = 0.002, t = -2.16, p = .03), disgust (B = -0.004, SE = 0.002, t = -2.32, p = .02), anxiety (B = -0.003, SE = 0.001, t = -2.18, p = .03), and hopelessness (B = -0.004, SE = 0.002, t = -2.35, p = .02) in predicting evening mental contamination. Simple effect tests found that all four emotions in the morning were negatively associated with later evening mental contamination ratings, but only for individuals who also reported more severe PTSD symptoms than usual that same morning (+1 *SD* with guilt: B = -0.11, SE = 0.03, t = -4.24, p < .001; with disgust: B = -0.06, SE = 0.03, t = -2.42, p = .02; with anxiety: B = -0.07, SE = 0.02, t = -3.05, p = .002; with hopelessness: B = -0.07, SE = 0.03, t = -2.86, p = .004). If morning PTSD symptoms were less severe than usual, negative emotions were unrelated to evening mental contamination (-1 *SD* with guilt: B = -0.04, SE = 0.03, t = -1.38, p = .17; with disgust: B = 0.02, SE = 0.03, t = 0.59, p = .56; with anxiety: B = -0.01, SE = 0.02, t = -0.27, p = .79; with hopelessness: B = 0.01, SE = 0.03, t = 0.17, p = .86). Similar models were also tested for the interactive effects of evening negative emotions and PTSD symptoms on next-morning mental contamination levels; however, these interaction effects were nonsignificant.

Mental contamination and coping.

Overall avoidant coping. Examination of slopes found no systematic changes in overall avoidant coping over the two-week period, B = 0.001, SE = 0.003, t = 0.44, p = .66, suggesting participants did not experience significant reactivity in overall avoidant coping to the daily diary procedures. Mental contamination at baseline and over the daily

diary period were positively associated with avoidant coping over the daily diary period, in line with Hypothesis 3a (Table 3.2).

Within-person results for overall avoidant coping are displayed in Table 3.7. Higher than average mental contamination at a given assessment was associated with higher avoidant coping at the same timepoint, supporting Hypothesis 3b-overall. In line with Hypothesis 3c-overall, higher than average morning mental contamination also significantly predicted greater use of avoidant coping that evening. However, though this link was non-significant after controlling for morning avoidant coping. Next-day (i.e., evening mental contamination predicting next-morning avoidant coping) and reverse models (i.e., morning avoidant coping predicting evening mental contamination; evening avoidant coping predicting next morning mental contamination) followed similar patterns.

Specific avoidance strategies. Within-individual primary model results for specific avoidance strategies are displayed in Table 3.8. Supporting Hypothesis 3b-specific, higher than average mental contamination at a given assessment was positively linked to concurrent use of all seven avoidance strategies. Above-average mental contamination on a given morning also predicted increased use of denial, disengagement, self-blame, substance use, and thought suppression that same evening. After accounting for morning ratings of the respective avoidant coping strategies, prospective associations between morning mental contamination and evening disengagement, self-blame, and substance use remained significant (Hypothesis 3c-specific). In next-day exploratory models, higher than average evening mental contamination positively predicted next-morning denial, disengagement, distraction, thought suppression, and washing. However,

only the positive association between evening mental contamination and next morning denial remained significant after controlling for prior evening coping.

Reverse models are presented in Table 3.9. Higher than average use of denial, disengagement, distraction, and thought suppression on a given morning positively predicted mental contamination that evening, though none of these effects remained significant after accounting for morning mental contamination levels. In exploratory next-day models, higher than average use of denial, disengagement, self-blame, substance use, and washing on a given evening predicted increased mental contamination the next morning, with only the effect of denial persisting above and beyond prior-evening mental contamination.

Overall approach coping. Examination of slopes found no systematic changes in overall approach coping over the two-week period, B = -0.002, SE = 0.003, t = -0.70, p = .49, suggesting participants did not experience significant reactivity in overall approach coping to the daily diary procedures. Contrary to the negative associations proposed by Hypothesis 4a, overall approach coping use was positively associated with both baseline and daily mental contamination levels (Table 3.2).

Within-person models for overall approach coping are displayed in Table 3.10. In line with correlational findings and counter to Hypothesis 4b, higher than average mental contamination at a given assessment was positively linked to approach coping use at the same timepoint. However, both within-day (Hypothesis 4c) and next-day effects of mental contamination on approach coping at the next timepoint were nonsignificant. Reverse models testing approach coping effects on later mental contamination were similarly nonsignificant.

Specific approach strategies. As displayed in Table 3.11, higher than average mental contamination at a given assessment was positively linked to concurrent use of acceptance, emotion expression, and emotion processing. However, morning mental contamination did not predict evening use of any approach strategies. In exploratory next day models, higher than average evening mental contamination predicted increased use of emotional support the next morning (both with and without accounting for prior evening strategy use) but not other approach strategies.

Reverse models (presented in Table 3.12) found no evidence of within-day approach strategy effects on later mental contamination. Among next-day models, higher than average evening emotion processing significantly predicted increased mental contamination the next morning, but only when not accounting for mental contamination the prior evening.

Table 3.1

Variable Comparisons for Participants with versus without PTSD

	M (SD) or *n* (%)	*M* (SD) or *n* (%)		*t* or X^2
	Overall	PTSD Diagnosis		
		Yes	No	
	n = 42	*n* = 28	*n* = 14	
Demographic				
Age	33.38 (12.74)	33.57 (11.85)	33.00 (14.83)	0.14
Race (nonwhite)	11 (26.2)	8 (28.6)	3 (21.4)	0.25
Ethnicity (Hispanic)	5 (11.9)	1 (3.6)	4 (28.6)	5.56*
Sexual orientation (nonhetero)	12 (28.6)	9 (32.1)	3 (21.4)	0.53
Descriptive				
History of repeated sexual trauma	31 (73.8)	22 (78.6)	9 (64.3)	0.99
Years since index trauma	16.67 (15.14)	17.68 (14.25)	14.64 (17.17)	0.61
Index trauma during childhood	17 (40.5)	13 (46.4)	4 (28.6)	1.24
Index trauma involving penetration	33 (78.6)	23 (82.1)	10 (71.4)	0.64
Primary				
Baseline mental contamination	49.71 (15.01)	54.32 (12.83)	40.50 (15.21)	3.09**
Daily mental contamination	14.02 (15.49)	17.82 (15.75)	6.41 (12.16)	2.38*
Baseline PTSD symptoms	32.17 (10.57)	36.57 (8.16)	22.69 (8.96)	4.91***
Daily PTSD symptoms (mornings)	24.62 (17.81)	28.79 (18.26)	16.35 (14.05)	2.23*
Daily PTSD symptoms (evenings)	22.61 (16.60)	26.96 (16.69)	13.91 (12.94)	2.56*
Baseline negative affect	31.52 (8.51)	33.25 (8.53)	28.07 (7.62)	1.92
Daily negative affect	35.45 (23.42)	39.28 (21.64)	27.79 (25.73)	1.52
Daily avoidant coping	1.92 (0.61)	2.06 (0.58)	1.65 (0.58)	2.17*
Daily approach coping	2.19 (0.75)	2.26 (0.73)	2.05 (0.78)	0.88

Note. For ease of interpretation, only non-grand-mean centered statistics are reported. Categorical demographics and descriptives are represented by dichotomized variables. Daily variables represent Level 2 person-means across the daily diary period. PTSD = posttraumatic stress disorder.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table 3.2

Overall Variable Correlations

	1	2	3	4	5	6	7	8
1. Baseline mental contamination	-							
2. Daily mental contamination	.52***	-						
3. Baseline PTSD symptoms	.45**	.59***	-					
4. Daily PTSD symptoms (mornings)	.50**	.90***	.61***	-				
5. Daily PTSD symptoms (evenings)	.58***	.91***	.63***	.97***	-			
6. Baseline negative affect	.58***	.58***	.26	.52***	.54***	-		
7. Daily negative affect	.40**	.70***	.31	.70***	.71***	.63***	-	
8. Daily avoidant coping	.60***	.76***	.60***	.87***	.87***	.40**	.61***	-
9. Daily approach coping	.46**	.44**	.28	.44**	.47**	.31*	.18	.50**

Note. Daily variables represent Level 2 person-means across the daily diary period. PTSD = posttraumatic stress disorder.

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

Table 3.3

PTSD Primary and Reverse Models

	Primary Model PTSD → Mental Contamination		
	B	*SE*	*t*
Concurrent			
Intercept	0.02	0.99	0.02
Timepoint	0.01	0.08	0.13
Evening	0.72	0.37	1.94
PTSD symptoms (between)	0.84	0.06	15.16***
PTSD symptoms (within)	0.52	0.02	26.82***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.71	1.19	-0.60
Day	0.05	0.09	0.58
Morning PTSD symptoms (between)	0.74	0.07	11.03***
Morning PTSD symptoms (within)	0.11	0.04	2.93**
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.70	0.90	-0.78
Day	0.06	0.09	0.64
Morning PTSD symptoms (between)	0.47	0.07	6.63***
Morning PTSD symptoms (within)	-0.04	0.05	-0.89
Morning mental contamination	0.33	0.06	5.63***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.59	1.07	0.56
Day	-0.04	0.09	-0.45
Evening PTSD symptoms (between)	0.85	0.07	12.84***
Evening PTSD symptoms (within)	0.20	0.04	5.23***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.20	0.79	0.25
Day	0.00	0.09	0.05
Evening PTSD symptoms (between)	0.55	0.07	8.29***
Evening PTSD symptoms (within)	0.03	0.05	0.69
Evening mental contamination	0.36	0.05	6.71***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means. PTSD = posttraumatic stress disorder.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.3 (continued)

PTSD Primary and Reverse Models

	Reverse Model Mental Contamination → PTSD		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-1.35	1.12	-1.21
Day	0.10	0.16	0.67
Mental contamination (between)	0.94	0.06	14.90***
Morning mental contamination (within)	0.17	0.06	2.88**
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-1.41	0.83	-1.70
Day	0.17	0.15	1.14
Mental contamination (between)	0.66	0.07	9.09***
Morning mental contamination (within)	-0.09	0.08	-1.20
Morning PTSD symptoms	0.30	0.05	5.79***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.07	1.28	0.06
Day	-0.07	0.13	-0.58
Mental contamination (between)	1.07	0.09	12.35***
Evening mental contamination (within)	0.26	0.06	4.02***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.64	0.87	0.74
Day	-0.11	0.12	-0.91
Mental contamination (between)	0.57	0.08	6.89***
Evening mental contamination (within)	-0.11	0.07	-1.46
Evening PTSD symptoms	0.49	0.06	8.68***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.4

Overall Negative Affect Primary and Reverse Models

	Primary Model		
	Mental Contamination → Negative Affect		
	B	*SE*	*t*
Concurrent			
Intercept	0.55	2.65	0.21
Timepoint	-0.18	0.19	-0.97
Weekend	-2.24	0.87	-2.57*
Mental contamination (between)	1.07	0.16	6.62***
Mental contamination (within)	0.75	0.05	14.23***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.91	2.89	0.31
Day	-0.19	0.25	-0.74
Weekend	-1.51	1.30	-1.16
Mental contamination (between)	1.11	0.19	5.94***
Morning mental contamination (within)	0.09	0.09	1.11
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.82	2.23	0.37
Day	-0.12	0.24	-0.52
Weekend	-0.41	1.31	-0.32
Mental contamination (between)	0.81	0.15	5.30***
Morning mental contamination (within)	-0.12	0.09	-1.28
Morning negative affect	0.29	0.05	6.16***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.50	2.72	-0.18
Day	-0.13	0.18	-0.71
Weekend	-3.92	1.45	-2.70**
Mental contamination (between)	1.09	0.18	6.11***
Evening mental contamination (within)	0.30	0.09	3.31**
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.76	2.09	-0.36
Day	-0.10	0.18	-0.54
Weekend	-3.50	1.46	-2.39*
Mental contamination (between)	0.82	0.15	5.55***
Evening mental contamination (within)	0.16	0.10	1.69
Evening negative affect	0.25	0.05	4.98***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.4 (continued)

Overall Negative Affect Primary and Reverse Models

	Reverse Model		
	Negative Affect → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.34	1.72	0.20
Day	0.02	0.09	0.18
Negative affect (between)	0.46	0.07	6.20***
Morning negative affect (within)	-0.02	0.03	-0.57
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.23	0.96	-0.24
Day	0.06	0.09	0.64
Negative affect (between)	0.24	0.05	5.17***
Morning negative affect (within)	-0.10	0.03	-3.58***
Morning mental contamination	0.45	0.05	9.62***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.08	1.86	0.04
Day	-0.05	0.10	-0.48
Negative affect (between)	0.45	0.08	5.52***
Evening negative affect (within)	-0.01	0.03	-0.47
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.20	1.07	-0.19
Day	0.00	0.09	0.03
Negative affect (between)	0.22	0.05	4.41***
Evening negative affect (within)	-0.10	0.03	-3.65***
Evening mental contamination	0.48	0.04	10.84***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5

Specific Emotion Primary Models

	Primary Model Mental Contamination → Anger		
	B	*SE*	*t*
Concurrent			
Intercept	-0.21	2.75	-0.08
Timepoint	-0.19	0.29	-0.68
Mental contamination (between)	1.12	0.17	6.52***
Mental contamination (within)	0.77	0.09	8.58***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	1.23	3.14	0.39
Day	-0.44	0.26	-1.69
Mental contamination (between)	1.19	0.21	5.77***
Morning mental contamination (within)	0.13	0.14	0.94
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	1.97	2.40	0.82
Day	-0.46	0.25	-1.86
Mental contamination (between)	0.79	0.17	4.73***
Morning mental contamination (within)	-0.16	0.14	-1.12
Morning anger	0.37	0.05	8.22***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-2.94	2.89	-1.02
Day	0.10	0.37	0.26
Mental contamination (between)	1.24	0.18	6.85***
Evening mental contamination (within)	0.42	0.14	2.98**
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-3.21	2.39	-1.34
Day	0.18	0.32	0.56
Mental contamination (between)	1.00	0.16	6.24***
Evening mental contamination (within)	0.30	0.14	2.11*
Evening anger	0.20	0.05	4.43***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Anxiety		
	B	*SE*	*t*
Concurrent			
Intercept	-0.26	3.00	-0.09
Timepoint	-0.04	0.33	-0.13
Mental contamination (between)	1.18	0.18	6.36***
Mental contamination (within)	0.82	0.08	9.83***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.32	3.23	0.10
Day	0.06	0.45	0.14
Mental contamination (between)	1.31	0.21	6.28***
Morning mental contamination (within)	-0.03	0.13	-0.23
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.71	2.59	0.27
Day	0.19	0.39	0.47
Mental contamination (between)	1.03	0.18	5.81***
Morning mental contamination (within)	-0.21	0.13	-1.59
Morning anxiety	0.26	0.05	5.66***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-2.03	3.25	-0.62
Day	0.10	0.43	0.23
Mental contamination (between)	1.17	0.21	5.50***
Evening mental contamination (within)	0.41	0.14	2.93**
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.90	2.67	-0.71
Day	0.10	0.38	0.25
Mental contamination (between)	0.88	0.19	4.63***
Evening mental contamination (within)	0.23	0.14	1.63
Evening anxiety	0.24	0.05	4.65***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Disgust		
	B	*SE*	*t*
Concurrent			
Intercept	-0.34	2.74	-0.12
Timepoint	-0.56	0.26	-2.11*
Mental contamination (between)	1.25	0.17	7.24***
Mental contamination (within)	0.92	0.08	12.19***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.69	3.05	0.23
Day	-0.48	0.23	-2.10*
Mental contamination (between)	1.23	0.20	6.15***
Morning mental contamination (within)	0.08	0.13	0.65
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.99	2.39	0.41
Day	-0.42	0.23	-1.82
Mental contamination (between)	0.92	0.17	5.43***
Morning mental contamination (within)	-0.18	0.13	-1.35
Morning disgust	0.27	0.05	5.49***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-1.75	2.68	-0.65
Day	-0.31	0.24	-1.30
Mental contamination (between)	1.22	0.18	6.81***
Evening mental contamination (within)	0.37	0.12	2.99**
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.98	2.09	-0.95
Day	-0.17	0.24	-0.68
Mental contamination (between)	0.96	0.15	6.30***
Evening mental contamination (within)	0.18	0.13	1.37
Evening disgust	0.23	0.05	4.89***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Guilt		
	B	*SE*	*t*
Concurrent			
Intercept	0.09	3.53	0.03
Timepoint	-0.42	0.19	-2.19*
Mental contamination (between)	0.85	0.23	3.71**
Mental contamination (within)	0.64	0.07	9.28***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	1.00	3.84	0.26
Day	-0.24	0.29	-0.85
Mental contamination (between)	0.87	0.25	3.49**
Morning mental contamination (within)	-0.02	0.11	-0.18
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.73	3.32	0.22
Day	-0.17	0.29	-0.60
Mental contamination (between)	0.71	0.22	3.22**
Morning mental contamination (within)	-0.14	0.11	-1.26
Morning guilt	0.17	0.05	3.55***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-1.23	3.66	-0.34
Day	-0.44	0.21	-2.05*
Mental contamination (between)	0.87	0.24	3.58***
Evening mental contamination (within)	0.22	0.11	2.02*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.34	3.16	-0.42
Day	-0.41	0.21	-1.91
Mental contamination (between)	0.76	0.21	3.57**
Evening mental contamination (within)	0.13	0.12	1.16
Evening guilt	0.14	0.05	2.78**

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Hopelessness		
	B	*SE*	*t*
Concurrent			
Intercept	-0.19	3.67	-0.05
Timepoint	0.22	0.19	1.18
Mental contamination (between)	1.01	0.22	4.54***
Mental contamination (within)	0.59	0.07	8.21***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	1.12	3.88	0.29
Day	0.33	0.29	1.11
Mental contamination (between)	1.12	0.25	4.50***
Morning mental contamination (within)	0.32	0.12	2.74**
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	1.27	3.11	0.41
Day	0.25	0.29	0.85
Mental contamination (between)	0.88	0.21	4.25***
Morning mental contamination (within)	0.17	0.12	1.44
Morning hopelessness	0.24	0.05	4.99***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.85	3.85	-0.22
Day	0.24	0.23	1.03
Mental contamination (between)	1.03	0.25	4.06***
Evening mental contamination (within)	0.21	0.12	1.72
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.02	3.40	-0.30
Day	0.17	0.24	0.73
Mental contamination (between)	0.89	0.23	3.81***
Evening mental contamination (within)	0.14	0.12	1.15
Evening hopelessness	0.13	0.05	2.59*

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Sadness		
	B	*SE*	*t*
Concurrent			
Intercept	0.15	3.33	0.04
Timepoint	0.01	0.27	0.04
Mental contamination (between)	0.94	0.20	4.58***
Mental contamination (within)	0.82	0.08	9.74***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.39	3.60	-0.11
Day	-0.11	0.33	-0.35
Mental contamination (between)	0.95	0.23	4.06***
Morning mental contamination (within)	0.18	0.13	1.36
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.37	2.78	-0.13
Day	-0.10	0.31	-0.30
Mental contamination (between)	0.67	0.19	3.55**
Morning mental contamination (within)	-0.03	0.14	-0.23
Morning sadness	0.29	0.05	6.41***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-1.42	3.53	-0.40
Day	0.05	0.28	0.20
Mental contamination (between)	0.93	0.24	3.93***
Evening mental contamination (within)	0.26	0.14	1.86
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.48	2.77	-0.53
Day	0.04	0.28	0.16
Mental contamination (between)	0.68	0.19	3.54**
Evening mental contamination (within)	0.14	0.14	0.97
Evening sadness	0.24	0.05	4.85***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.5 (continued)

Specific Emotion Primary Models

	Primary Model		
	Mental Contamination → Shame		
	B	*SE*	*t*
Concurrent			
Intercept	-0.24	3.48	-0.07
Timepoint	-0.18	0.19	-0.94
Mental contamination (between)	1.13	0.22	5.16***
Mental contamination (within)	0.72	0.07	10.61***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.12	3.71	0.03
Day	-0.10	0.19	-0.53
Mental contamination (between)	1.11	0.24	4.56***
Morning mental contamination (within)	0.20	0.11	1.85
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.35	2.96	0.12
Day	-0.02	0.19	-0.13
Mental contamination (between)	0.85	0.20	4.23***
Morning mental contamination (within)	-0.01	0.12	-0.10
Morning shame	0.24	0.05	5.05***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-2.02	3.58	-0.56
Day	-0.18	0.22	-0.80
Mental contamination (between)	1.12	0.24	4.74***
Evening mental contamination (within)	0.43	0.12	3.72***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-1.76	2.67	-0.66
Day	-0.15	0.23	-0.66
Mental contamination (between)	0.87	0.19	4.68***
Evening mental contamination (within)	0.35	0.12	2.96**
Evening shame	0.26	0.05	5.20***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6

Specific Emotion Reverse Models

	Reverse Model		
	Anger → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.41	1.73	0.24
Day	0.02	0.09	0.20
Anger (between)	0.43	0.07	6.09***
Morning anger (within)	0.01	0.02	0.32
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.11	1.13	-0.10
Day	0.07	0.09	0.79
Anger (between)	0.26	0.05	5.03***
Morning anger (within)	-0.02	0.02	-1.39
Morning mental contamination	0.37	0.05	7.74***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.13	1.78	0.07
Day	-0.05	0.10	-0.55
Anger (between)	0.45	0.07	6.06***
Evening anger (within)	-0.01	0.02	-0.80
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.20	1.06	-0.18
Day	-0.01	0.09	-0.11
Anger (between)	0.25	0.05	5.14***
Evening anger (within)	-0.04	0.02	-2.49*
Evening mental contamination	0.44	0.04	10.26***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Anxiety → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.47	1.77	0.27
Day	0.02	0.09	0.16
Anxiety (between)	0.39	0.07	5.78***
Morning anxiety (within)	-0.01	0.02	-0.73
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.08	1.11	-0.08
Day	0.06	0.09	0.68
Anxiety (between)	0.22	0.05	4.88***
Morning anxiety (within)	-0.04	0.02	-2.35*
Morning mental contamination	0.38	0.05	8.26***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.21	1.84	0.11
Day	-0.04	0.10	-0.43
Anxiety (between)	0.40	0.07	5.68***
Evening anxiety (within)	-0.02	0.02	-1.34
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.22	1.07	-0.20
Day	0.02	0.09	0.24
Anxiety (between)	0.21	0.04	4.64***
Evening anxiety (within)	-0.07	0.02	-3.64***
Evening mental contamination	0.46	0.04	10.65***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Disgust → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.20	1.62	0.13
Day	0.02	0.09	0.20
Disgust (between)	0.45	0.06	6.97***
Morning disgust (within)	0.01	0.02	0.63
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.20	1.01	-0.19
Day	0.05	0.09	0.56
Disgust (between)	0.27	0.05	5.86***
Morning disgust (within)	-0.04	0.02	-1.80
Morning mental contamination	0.39	0.05	8.15***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.05	1.79	-0.03
Day	-0.04	0.10	-0.45
Disgust (between)	0.44	0.07	6.05***
Evening disgust (within)	0.00	0.02	0.04
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.24	1.08	-0.23
Day	-0.02	0.09	-0.27
Disgust (between)	0.22	0.05	4.67***
Evening disgust (within)	-0.06	0.02	-2.98**
Evening mental contamination	0.46	0.05	10.26***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Guilt → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.43	2.06	0.21
Day	-0.01	0.09	-0.15
Guilt (between)	0.30	0.08	3.69***
Morning guilt (within)	-0.06	0.02	-2.50*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.14	1.20	-0.12
Day	0.03	0.09	0.33
Guilt (between)	0.17	0.05	3.49**
Morning guilt (within)	-0.09	0.02	-3.98***
Morning mental contamination	0.41	0.05	9.11***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.20	2.21	0.09
Day	-0.04	0.10	-0.40
Guilt (between)	0.27	0.09	3.18**
Evening guilt (within)	0.02	0.02	0.99
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.23	1.27	-0.18
Day	0.00	0.09	0.02
Guilt (between)	0.14	0.05	2.71*
Evening guilt (within)	-0.04	0.02	-1.55
Evening mental contamination	0.45	0.04	10.30***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Hopelessness → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.48	1.98	0.24
Day	0.05	0.14	0.35
Hopelessness (between)	0.32	0.07	4.76***
Morning hopelessness (within)	-0.01	0.02	-0.52
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.02	1.30	-0.02
Day	0.11	0.12	0.90
Hopelessness (between)	0.21	0.05	4.49***
Morning hopelessness (within)	-0.05	0.02	-2.39*
Morning mental contamination	0.34	0.05	7.32***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.22	2.12	0.10
Day	-0.05	0.10	-0.55
Hopelessness (between)	0.29	0.08	3.82***
Evening hopelessness (within)	0.02	0.02	0.83
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.18	1.27	-0.14
Day	0.02	0.09	0.22
Hopelessness (between)	0.15	0.05	3.19**
Evening hopelessness (within)	-0.03	0.02	-1.19
Evening mental contamination	0.44	0.04	9.99***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Sadness → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.48	1.97	0.24
Day	0.02	0.09	0.24
Sadness (between)	0.35	0.08	4.41***
Morning sadness (within)	0.00	0.02	-0.15
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.08	1.17	-0.07
Day	0.08	0.09	0.83
Sadness (between)	0.20	0.05	4.20***
Morning sadness (within)	-0.04	0.02	-2.05*
Morning mental contamination	0.40	0.05	8.82***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.17	2.11	0.08
Day	-0.04	0.10	-0.46
Sadness (between)	0.33	0.08	3.92***
Evening sadness (within)	-0.01	0.02	-0.37
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.24	1.26	-0.19
Day	0.01	0.09	0.12
Sadness (between)	0.17	0.05	3.27**
Evening sadness (within)	-0.04	0.02	-2.10*
Evening mental contamination	0.44	0.04	10.21***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.6 (continued)

Specific Emotion Reverse Models

	Reverse Model		
	Shame → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.46	1.87	0.25
Day	0.02	0.09	0.18
Shame (between)	0.35	0.07	5.11***
Morning shame (within)	-0.01	0.02	-0.54
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.19	1.00	-0.19
Day	0.06	0.09	0.62
Shame (between)	0.19	0.04	4.69***
Morning shame (within)	-0.08	0.02	-3.53***
Morning mental contamination	0.46	0.05	10.01***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.15	2.02	0.08
Day	-0.05	0.10	-0.51
Shame (between)	0.33	0.07	4.45***
Evening shame (within)	-0.03	0.02	-1.33
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.28	1.19	-0.24
Day	0.00	0.09	0.02
Shame (between)	0.17	0.05	3.78***
Evening shame (within)	-0.06	0.02	-2.80**
Evening mental contamination	0.45	0.04	10.35***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.7

Overall Avoidant Coping Primary and Reverse Models

	Primary Model		
	Mental Contamination → Avoid Coping		
	B	*SE*	*t*
Concurrent			
Intercept	0.02	0.06	0.25
Timepoint	0.00	0.01	0.65
Mental contamination (between)	0.03	0.00	7.11***
Mental contamination (within)	0.02	0.00	17.48***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.00	0.06	-0.01
Day	0.01	0.01	1.18
Mental contamination (between)	0.03	0.00	7.24***
Morning mental contamination (within)	0.01	0.00	5.72***
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.01	0.04	-0.39
Day	0.01	0.01	1.03
Mental contamination (between)	0.02	0.00	6.10***
Morning mental contamination (within)	0.00	0.00	1.29
Morning avoidance	0.46	0.05	9.59***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.00	0.07	0.05
Day	0.00	0.01	0.71
Mental contamination (between)	0.03	0.00	6.33***
Evening mental contamination (within)	0.01	0.00	4.31***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.00	0.05	0.09
Day	0.00	0.01	-0.02
Mental contamination (between)	0.02	0.00	5.10***
Evening mental contamination (within)	0.00	0.00	0.39
Evening avoidance	0.36	0.04	8.16***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.7 (continued)

Overall Avoidant Coping Primary and Reverse Models

	Reverse Model		
	Avoid Coping → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.11	1.63	-0.07
Day	0.02	0.09	0.27
Avoidance (between)	18.66	2.73	6.84***
Morning avoidance (within)	2.73	1.14	2.39*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.26	1.11	-0.23
Day	0.08	0.09	0.90
Avoidance (between)	11.44	2.15	5.33***
Morning avoidance (within)	-0.71	1.24	-0.57
Morning mental contamination	0.35	0.05	6.90***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.37	1.63	-0.23
Day	-0.08	0.09	-0.93
Avoidance (between)	19.35	2.77	6.98***
Evening avoidance (within)	4.09	1.03	3.96***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.54	1.04	-0.52
Day	-0.03	0.09	-0.32
Avoidance (between)	12.04	2.00	6.01***
Evening avoidance (within)	0.79	1.09	0.73
Evening mental contamination	0.39	0.05	8.31***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Denial		
	B	*SE*	*t*
Concurrent			
Intercept	0.01	0.05	0.11
Timepoint	0.01	0.00	2.12*
Mental contamination (between)	0.01	0.00	3.83***
Mental contamination (within)	0.01	0.00	10.00***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.02	0.05	0.33
Day	0.01	0.00	2.84**
Mental contamination (between)	0.01	0.00	3.14**
Morning mental contamination (within)	0.00	0.00	2.57*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.02	0.03	0.52
Day	0.01	0.00	1.84
Mental contamination (between)	0.01	0.00	2.58*
Morning mental contamination (within)	0.00	0.00	-0.06
Morning denial	0.42	0.05	8.90***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.00	0.05	-0.07
Day	0.01	0.00	1.95
Mental contamination (between)	0.01	0.00	3.26**
Evening mental contamination (within)	0.01	0.00	3.98***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.01	0.04	-0.29
Day	0.01	0.00	1.54
Mental contamination (between)	0.01	0.00	2.84**
Evening mental contamination (within)	0.00	0.00	2.30*
Evening denial	0.27	0.05	5.84***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Disengagement		
	B	*SE*	*t*
Concurrent			
Intercept	0.01	0.09	0.15
Timepoint	0.01	0.01	1.20
Mental contamination (between)	0.02	0.01	2.97**
Mental contamination (within)	0.02	0.00	7.31***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.03	0.09	0.29
Day	0.01	0.01	0.87
Mental contamination (between)	0.02	0.01	3.06**
Morning mental contamination (within)	0.02	0.00	5.87***
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.02	0.08	0.32
Day	0.01	0.01	0.54
Mental contamination (between)	0.02	0.01	3.00**
Morning mental contamination (within)	0.02	0.00	4.74***
Morning disengagement	0.20	0.05	4.25***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.01	0.09	-0.16
Day	0.02	0.01	1.54
Mental contamination (between)	0.01	0.01	2.16*
Evening mental contamination (within)	0.01	0.00	2.28*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.02	0.06	-0.29
Day	0.02	0.01	1.58
Mental contamination (between)	0.01	0.00	1.92
Evening mental contamination (within)	0.00	0.00	1.00
Evening disengagement	0.33	0.05	7.32***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Distraction		
	B	*SE*	*t*
Concurrent			
Intercept	0.00	0.13	-0.01
Timepoint	0.00	0.01	-0.59
Mental contamination (between)	0.03	0.01	4.26***
Mental contamination (within)	0.02	0.00	7.16***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.00	0.13	-0.01
Day	0.00	0.01	0.06
Mental contamination (between)	0.04	0.01	4.25***
Morning mental contamination (within)	0.00	0.00	0.45
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.00	0.10	-0.01
Day	0.00	0.01	0.33
Mental contamination (between)	0.03	0.01	4.00***
Morning mental contamination (within)	0.00	0.00	-0.31
Morning distraction	0.24	0.05	4.83***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.01	0.13	-0.10
Day	0.00	0.01	-0.28
Mental contamination (between)	0.04	0.01	4.02***
Evening mental contamination (within)	0.01	0.00	2.81**
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.02	0.11	-0.16
Day	-0.01	0.01	-0.82
Mental contamination (between)	0.03	0.01	3.73***
Evening mental contamination (within)	0.01	0.00	1.52
Evening distraction	0.20	0.04	4.51***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Self-Blame		
	B	*SE*	*t*
Concurrent			
Intercept	0.01	0.10	0.12
Timepoint	0.01	0.01	1.06
Mental contamination (between)	0.03	0.01	5.08***
Mental contamination (within)	0.03	0.00	11.32***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.02	0.11	-0.20
Day	0.01	0.01	0.86
Mental contamination (between)	0.03	0.01	4.77***
Morning mental contamination (within)	0.02	0.00	4.67***
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.03	0.09	-0.32
Day	0.01	0.01	0.74
Mental contamination (between)	0.03	0.01	4.50***
Morning mental contamination (within)	0.01	0.00	2.91**
Morning self-blame	0.22	0.05	4.51***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.01	0.10	0.10
Day	0.01	0.01	1.09
Mental contamination (between)	0.03	0.01	5.08***
Evening mental contamination (within)	0.00	0.00	1.23
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.01	0.08	0.19
Day	0.00	0.01	0.62
Mental contamination (between)	0.03	0.01	4.63***
Evening mental contamination (within)	0.00	0.00	0.05
Evening self-blame	0.25	0.05	5.23***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Substance Use		
	B	*SE*	*t*
Concurrent			
Intercept	0.07	0.12	0.62
Timepoint	0.01	0.01	0.96
Mental contamination (between)	0.01	0.01	0.90
Mental contamination (within)	0.01	0.00	4.48***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.07	0.13	0.52
Day	0.01	0.01	1.73
Mental contamination (between)	0.01	0.01	1.49
Morning mental contamination (within)	0.02	0.00	4.34***
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.05	0.10	0.45
Day	0.01	0.01	1.63
Mental contamination (between)	0.01	0.01	1.66
Morning mental contamination (within)	0.01	0.00	3.75***
Morning substance use	0.25	0.04	5.83***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.04	0.11	0.35
Day	-0.01	0.01	-0.49
Mental contamination (between)	0.00	0.01	0.22
Evening mental contamination (within)	0.01	0.00	1.31
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.01	0.05	0.16
Day	-0.01	0.01	-1.24
Mental contamination (between)	0.00	0.00	-0.99
Evening mental contamination (within)	0.00	0.00	-0.39
Evening substance use	0.52	0.04	12.74***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Thought Suppression		
	B	*SE*	*t*
Concurrent			
Intercept	-0.01	0.08	-0.09
Timepoint	-0.01	0.01	-1.58
Mental contamination (between)	0.04	0.01	8.19***
Mental contamination (within)	0.03	0.00	12.41***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.07	0.08	-0.84
Day	-0.01	0.01	-0.74
Mental contamination (between)	0.04	0.01	8.06***
Morning mental contamination (within)	0.01	0.00	3.06**
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.07	0.07	-1.12
Day	0.00	0.01	-0.40
Mental contamination (between)	0.03	0.00	7.01***
Morning mental contamination (within)	0.01	0.00	1.62
Morning thought suppression	0.23	0.05	4.61***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.01	0.09	0.11
Day	-0.01	0.01	-0.94
Mental contamination (between)	0.04	0.01	7.07***
Evening mental contamination (within)	0.01	0.00	2.53*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.03	0.08	0.31
Day	-0.01	0.01	-1.00
Mental contamination (between)	0.04	0.01	6.15***
Evening mental contamination (within)	0.00	0.01	0.50
Evening thought suppression	0.17	0.05	3.40***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 (continued)

Specific Avoidant Coping Primary Models

	Primary Model		
	Mental Contamination → Washing		
	B	*SE*	*t*
Concurrent			
Intercept	0.00	0.08	0.02
Timepoint	0.00	0.00	0.68
Mental contamination (between)	0.05	0.01	8.90***
Mental contamination (within)	0.02	0.00	10.29***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.05	0.08	-0.58
Day	0.01	0.01	1.56
Mental contamination (between)	0.05	0.01	8.37***
Morning mental contamination (within)	0.01	0.00	1.88
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.06	0.07	-0.75
Day	0.01	0.01	1.59
Mental contamination (between)	0.04	0.01	7.20***
Morning mental contamination (within)	0.00	0.00	0.99
Morning washing	0.14	0.05	2.66**
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.01	0.09	0.09
Day	0.00	0.01	0.14
Mental contamination (between)	0.05	0.01	7.45***
Evening mental contamination (within)	0.01	0.00	2.24*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.02	0.08	0.21
Day	0.00	0.01	-0.37
Mental contamination (between)	0.04	0.01	6.61***
Evening mental contamination (within)	0.00	0.00	0.96
Evening washing	0.15	0.05	3.21**

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Denial → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.47	2.12	0.22
Day	0.00	0.09	0.05
Denial (between)	19.94	6.00	3.33**
Morning denial (within)	3.15	1.52	2.08*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.02	1.37	-0.01
Day	0.08	0.09	0.86
Denial (between)	11.77	4.02	2.93**
Morning denial (within)	-0.46	1.59	-0.29
Morning mental contamination	0.37	0.05	7.61***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.01	2.19	-0.01
Day	-0.10	0.09	-1.13
Denial (between)	20.11	6.23	3.23**
Evening denial (within)	5.55	1.36	4.09***
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.38	1.38	-0.27
Day	-0.05	0.09	-0.52
Denial (between)	12.34	4.08	3.02**
Evening denial (within)	2.69	1.37	1.96
Evening mental contamination	0.39	0.04	8.63***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Disengagement → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.45	2.12	0.21
Day	-0.01	0.09	-0.06
Disengagement (between)	11.39	3.42	3.33**
Morning disengagement (within)	1.22	0.59	2.06*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.02	1.38	-0.02
Day	0.07	0.09	0.72
Disengagement (between)	7.08	2.29	3.09**
Morning disengagement (within)	0.26	0.60	0.43
Morning mental contamination	0.35	0.05	7.55***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.04	2.22	0.02
Day	-0.09	0.09	-0.99
Disengagement (between)	10.81	3.60	3.00**
Evening disengagement (within)	1.11	0.54	2.06*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.37	1.38	-0.27
Day	-0.04	0.09	-0.42
Disengagement (between)	5.94	2.30	2.58*
Evening disengagement (within)	0.47	0.53	0.89
Evening mental contamination	0.41	0.04	9.23***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Distraction → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.47	2.04	0.23
Day	0.04	0.09	0.41
Distraction (between)	8.06	2.09	3.86***
Morning distraction (within)	1.26	0.64	1.98*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.03	1.38	0.02
Day	0.08	0.09	0.89
Distraction (between)	4.86	1.48	3.29**
Morning distraction (within)	0.51	0.64	0.80
Morning mental contamination	0.34	0.05	7.24***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.05	2.01	0.02
Day	-0.08	0.09	-0.86
Distraction (between)	9.20	2.06	4.47***
Evening distraction (within)	0.42	0.56	0.74
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.39	1.17	-0.33
Day	-0.03	0.09	-0.29
Distraction (between)	5.43	1.25	4.33***
Evening distraction (within)	-0.36	0.55	-0.66
Evening mental contamination	0.43	0.04	9.96***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Self-Blame → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.22	1.86	0.12
Day	0.02	0.09	0.24
Self-blame (between)	11.82	2.32	5.11***
Morning self-blame (within)	0.99	0.66	1.50
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.15	1.12	-0.13
Day	0.09	0.09	1.01
Self-blame (between)	7.03	1.50	4.70***
Morning self-blame (within)	-0.75	0.69	-1.09
Morning mental contamination	0.39	0.05	8.37***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.14	1.98	-0.07
Day	-0.09	0.09	-0.93
Self-blame (between)	11.36	2.46	4.62***
Evening self-blame (within)	1.41	0.61	2.32*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.47	1.21	-0.39
Day	-0.03	0.09	-0.31
Self-blame (between)	6.66	1.59	4.20***
Evening self-blame (within)	0.21	0.60	0.34
Evening mental contamination	0.41	0.04	9.18***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Substance Use → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.57	2.38	0.24
Day	0.03	0.09	0.27
Substance use (between)	2.78	3.12	0.89
Morning substance use (within)	-0.50	0.63	-0.80
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.05	1.47	0.03
Day	0.08	0.09	0.91
Substance use (between)	1.40	1.97	0.71
Morning substance use (within)	-0.99	0.63	-1.59
Morning mental contamination	0.38	0.05	8.35***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.22	2.44	0.09
Day	-0.09	0.09	-1.00
Substance use (between)	1.87	3.24	0.58
Evening substance use (within)	1.56	0.63	2.46*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.26	1.47	-0.18
Day	-0.04	0.09	-0.42
Substance use (between)	0.45	2.01	0.22
Evening substance use (within)	0.79	0.62	1.26
Evening mental contamination	0.42	0.04	9.42***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Thought Suppression → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.08	1.51	0.06
Day	0.05	0.09	0.49
Thought suppression (between)	14.14	1.82	7.75***
Morning thought suppression (within)	1.22	0.55	2.21*
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.17	1.09	-0.15
Day	0.08	0.09	0.83
Thought suppression (between)	9.22	1.51	6.10***
Morning thought suppression (within)	0.35	0.56	0.62
Morning mental contamination	0.32	0.05	6.58***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.21	1.45	-0.15
Day	-0.07	0.09	-0.74
Thought suppression (between)	15.15	1.75	8.66***
Evening thought suppression (within)	0.94	0.51	1.85
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.56	0.86	-0.65
Day	-0.04	0.09	-0.47
Thought suppression (between)	8.68	1.23	7.05***
Evening thought suppression (within)	-0.81	0.53	-1.53
Evening mental contamination	0.44	0.05	9.67***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 (continued)

Specific Avoidant Coping Reverse Models

	Reverse Model		
	Washing → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.02	1.50	0.01
Day	0.02	0.09	0.26
Washing (between)	13.55	1.72	7.89***
Morning washing (within)	0.14	0.73	0.19
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.15	1.05	-0.14
Day	0.07	0.09	0.77
Washing (between)	8.17	1.41	5.78***
Morning washing (within)	-1.46	0.76	-1.93
Morning mental contamination	0.36	0.05	7.20***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.27	1.41	-0.19
Day	-0.08	0.09	-0.91
Washing (between)	14.73	1.63	9.04***
Evening washing (within)	1.68	0.66	2.53*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.51	0.88	-0.58
Day	-0.03	0.09	-0.32
Washing (between)	9.04	1.19	7.59***
Evening washing (within)	0.53	0.66	0.80
Evening mental contamination	0.40	0.04	9.08***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.10

Overall Approach Coping Primary and Reverse Models

	Primary Model		
	Mental Contamination → Approach Coping		
	B	*SE*	*t*
Concurrent			
Intercept	-0.01	0.11	-0.14
Timepoint	0.00	0.01	-0.63
Mental contamination (between)	0.02	0.01	2.99**
Mental contamination (within)	0.01	0.00	5.24***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.03	0.11	-0.27
Day	-0.01	0.01	-1.13
Mental contamination (between)	0.02	0.01	3.22**
Morning mental contamination (within)	0.00	0.00	1.35
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.03	0.09	-0.28
Day	-0.01	0.01	-0.97
Mental contamination (between)	0.02	0.01	3.24**
Morning mental contamination (within)	0.00	0.00	0.73
Morning approach	0.22	0.05	4.80***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.03	0.11	-0.24
Day	0.00	0.01	0.35
Mental contamination (between)	0.02	0.01	2.84**
Evening mental contamination (within)	0.00	0.00	1.05
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.02	0.09	-0.25
Day	0.00	0.01	0.22
Mental contamination (between)	0.01	0.01	2.54*
Evening mental contamination (within)	0.00	0.00	0.42
Evening approach	0.21	0.05	4.35***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.10 (continued)

Overall Approach Coping Primary and Reverse Models

	Reverse Model		
	Approach Coping → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.68	2.18	0.31
Day	0.02	0.09	0.22
Approach (between)	8.44	2.94	2.87**
Morning approach (within)	-0.44	0.86	-0.51
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.09	1.37	0.07
Day	0.07	0.09	0.80
Approach (between)	4.76	1.90	2.51*
Morning approach (within)	-1.31	0.86	-1.52
Morning mental contamination	0.37	0.05	8.17***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.25	2.18	0.12
Day	-0.07	0.09	-0.80
Approach (between)	9.61	2.94	3.27**
Evening approach (within)	1.33	0.85	1.57
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.30	1.30	-0.23
Day	-0.03	0.09	-0.29
Approach (between)	5.73	1.78	3.22**
Evening approach (within)	0.98	0.82	1.19
Evening mental contamination	0.42	0.04	9.74***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.11

Specific Approach Coping Primary Models

	Primary Model		
	Mental Contamination → Acceptance		
	B	*SE*	*t*
Concurrent			
Intercept	0.00	0.14	0.01
Timepoint	0.00	0.01	0.04
Mental contamination (between)	0.03	0.01	2.98**
Mental contamination (within)	0.01	0.00	4.19***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.05	0.14	-0.35
Day	0.00	0.01	0.49
Mental contamination (between)	0.03	0.01	3.33**
Morning mental contamination (within)	0.00	0.00	1.00
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.06	0.11	-0.54
Day	0.00	0.01	0.50
Mental contamination (between)	0.02	0.01	3.33**
Morning mental contamination (within)	0.00	0.00	0.87
Morning acceptance	0.22	0.05	4.72***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.01	0.15	0.07
Day	0.01	0.01	1.02
Mental contamination (between)	0.02	0.01	2.30*
Evening mental contamination (within)	0.00	0.00	0.35
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	0.01	0.12	0.12
Day	0.01	0.01	0.79
Mental contamination (between)	0.02	0.01	2.02
Evening mental contamination (within)	0.00	0.00	-0.26
Evening acceptance	0.18	0.05	3.87***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.11 (continued)

Specific Approach Coping Primary Models

	Primary Model		
	Mental Contamination → Emotion Expression		
	B	*SE*	*t*
Concurrent			
Intercept	-0.03	0.12	-0.24
Timepoint	0.00	0.01	0.12
Mental contamination (between)	0.02	0.01	2.60*
Mental contamination (within)	0.01	0.00	4.07***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.03	0.13	-0.22
Day	-0.01	0.01	-0.74
Mental contamination (between)	0.02	0.01	2.69*
Morning mental contamination (within)	0.00	0.00	-0.51
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.01	0.11	-0.14
Day	-0.01	0.01	-0.78
Mental contamination (between)	0.02	0.01	2.71*
Morning mental contamination (within)	0.00	0.00	-0.77
Morning emotion expression	0.21	0.05	4.01***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.04	0.12	-0.32
Day	0.00	0.01	0.58
Mental contamination (between)	0.02	0.01	2.87**
Evening mental contamination (within)	0.00	0.00	-0.47
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.04	0.09	-0.45
Day	0.00	0.01	0.33
Mental contamination (between)	0.02	0.01	2.58*
Evening mental contamination (within)	-0.01	0.00	-1.23
Evening emotion expression	0.25	0.04	5.84***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.11 (continued)

Specific Approach Coping Primary Models

	Primary Model		
	Mental Contamination → Emotion Processing		
	B	*SE*	*t*
Concurrent			
Intercept	-0.01	0.10	-0.12
Timepoint	0.00	0.01	-0.15
Mental contamination (between)	0.03	0.01	3.87***
Mental contamination (within)	0.02	0.00	6.27***
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.04	0.11	-0.37
Day	-0.01	0.01	-1.13
Mental contamination (between)	0.03	0.01	3.83***
Morning mental contamination (within)	0.01	0.00	1.47
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	-0.03	0.09	-0.40
Day	-0.01	0.01	-1.32
Mental contamination (between)	0.02	0.01	3.75***
Morning mental contamination (within)	0.00	0.00	0.76
Morning emotion processing	0.24	0.05	4.93***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.02	0.12	-0.19
Day	0.01	0.01	0.49
Mental contamination (between)	0.03	0.01	3.81***
Evening mental contamination (within)	0.00	0.00	0.04
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.01	0.10	-0.08
Day	0.01	0.01	0.48
Mental contamination (between)	0.02	0.01	3.81***
Evening mental contamination (within)	-0.01	0.00	-1.48
Evening emotion processing	0.22	0.04	4.87***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.11 (continued)

Specific Approach Coping Primary Models

	Primary Model		
	Mental Contamination → Emotional Support		
	B	*SE*	*t*
Concurrent			
Intercept	-0.02	0.14	-0.16
Timepoint	-0.01	0.01	-0.95
Mental contamination (between)	0.02	0.01	1.85
Mental contamination (within)	0.00	0.00	1.67
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	-0.01	0.15	-0.08
Day	-0.01	0.01	-1.29
Mental contamination (between)	0.02	0.01	1.82
Morning mental contamination (within)	0.01	0.00	1.51
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.01	0.12	0.07
Day	-0.01	0.01	-1.13
Mental contamination (between)	0.01	0.01	1.84
Morning mental contamination (within)	0.00	0.00	0.62
Morning emotional support	0.27	0.05	5.87***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	-0.05	0.15	-0.36
Day	-0.01	0.01	-0.78
Mental contamination (between)	0.01	0.01	1.30
Evening mental contamination (within)	0.01	0.00	2.07*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.05	0.11	-0.48
Day	0.00	0.01	-0.53
Mental contamination (between)	0.01	0.01	1.06
Evening mental contamination (within)	0.01	0.00	2.35*
Evening emotional support	0.30	0.05	6.21***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.12

Specific Approach Coping Reverse Models

	Reverse Model		
	Acceptance → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.59	2.23	0.26
Day	0.01	0.09	0.14
Acceptance (between)	5.84	2.39	2.45*
Morning acceptance (within)	-0.68	0.68	-1.00
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.06	1.44	0.04
Day	0.07	0.09	0.70
Acceptance (between)	3.07	1.58	1.95
Morning acceptance (within)	-0.89	0.67	-1.33
Morning mental contamination	0.36	0.05	7.88***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.20	2.19	0.09
Day	-0.09	0.09	-0.90
Acceptance (between)	7.48	2.34	3.20**
Evening acceptance (within)	1.21	0.65	1.87
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.31	1.25	-0.25
Day	-0.03	0.09	-0.34
Acceptance (between)	4.58	1.35	3.38**
Evening acceptance (within)	0.95	0.63	1.51
Evening mental contamination	0.44	0.04	10.18***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.12 (continued)

Specific Approach Coping Reverse Models

	Reverse Model		
	Emotion Expression → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.78	2.20	0.36
Day	0.03	0.09	0.27
Emotion expression (between)	7.02	2.67	2.63*
Morning emotion expression (within)	-0.79	0.63	-1.26
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.12	1.37	0.09
Day	0.08	0.09	0.88
Emotion expression (between)	4.21	1.69	2.49*
Morning emotion expression (within)	-1.11	0.62	-1.77
Morning mental contamination	0.37	0.05	8.25***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.36	2.24	0.16
Day	-0.08	0.09	-0.87
Emotion expression (between)	7.69	2.71	2.83**
Evening emotion expression (within)	0.48	0.55	0.87
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.25	1.33	-0.19
Day	-0.03	0.09	-0.34
Emotion expression (between)	4.54	1.63	2.78**
Evening emotion expression (within)	0.11	0.53	0.21
Evening mental contamination	0.43	0.04	9.76***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.12 (continued)

Specific Approach Coping Reverse Models

	Reverse Model		
	Emotion Processing → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.62	2.06	0.30
Day	0.02	0.09	0.26
Emotion processing (between)	10.11	2.68	3.77***
Morning emotion processing (within)	0.11	0.59	0.18
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.05	1.29	0.04
Day	0.09	0.09	0.92
Emotion processing (between)	6.11	1.74	3.51**
Morning emotion processing (within)	-0.57	0.59	-0.96
Morning mental contamination	0.37	0.05	8.17***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.24	2.11	0.11
Day	-0.06	0.09	-0.67
Emotion processing (between)	10.42	2.75	3.79***
Evening emotion processing (within)	1.26	0.54	2.33*
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.29	1.29	-0.23
Day	-0.03	0.09	-0.28
Emotion processing (between)	6.12	1.73	3.55**
Evening emotion processing (within)	0.39	0.53	0.73
Evening mental contamination	0.41	0.04	9.32***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.12 (continued)

Specific Approach Coping Reverse Models

	Reverse Model		
	Emotional Support → Mental Contamination		
	B	*SE*	*t*
Within-Day: Morning Predicting Evening (without controlling for outcome at prior timepoint)			
Intercept	0.79	2.32	0.34
Day	0.03	0.09	0.27
Emotional support (between)	4.04	2.53	1.60
Morning emotional support (within)	0.21	0.62	0.34
Within-Day: Morning Predicting Evening (controlling for outcome at prior timepoint)			
Intercept	0.13	1.44	0.09
Day	0.07	0.09	0.79
Emotional support (between)	2.49	1.57	1.58
Morning emotional support (within)	-0.42	0.62	-0.67
Morning mental contamination	0.38	0.05	8.22***
Next-Day: Evening Predicting Subsequent Morning (without controlling for outcome at prior timepoint)			
Intercept	0.37	2.38	0.16
Day	-0.08	0.09	-0.88
Emotional support (between)	4.33	2.59	1.67
Evening emotional support (within)	-0.12	0.62	-0.20
Next-Day: Evening Predicting Subsequent Morning (controlling for outcome at prior timepoint)			
Intercept	-0.27	1.40	-0.19
Day	-0.03	0.09	-0.29
Emotional support (between)	2.39	1.53	1.56
Evening emotional support (within)	0.41	0.60	0.68
Evening mental contamination	0.43	0.04	9.85***

Note. Between variables represent Level 2 person-means across the daily diary period. Within variables represent Level 1 within-person deviations from person means.
* $p < .05$, ** $p < .01$, *** $p < .001$.

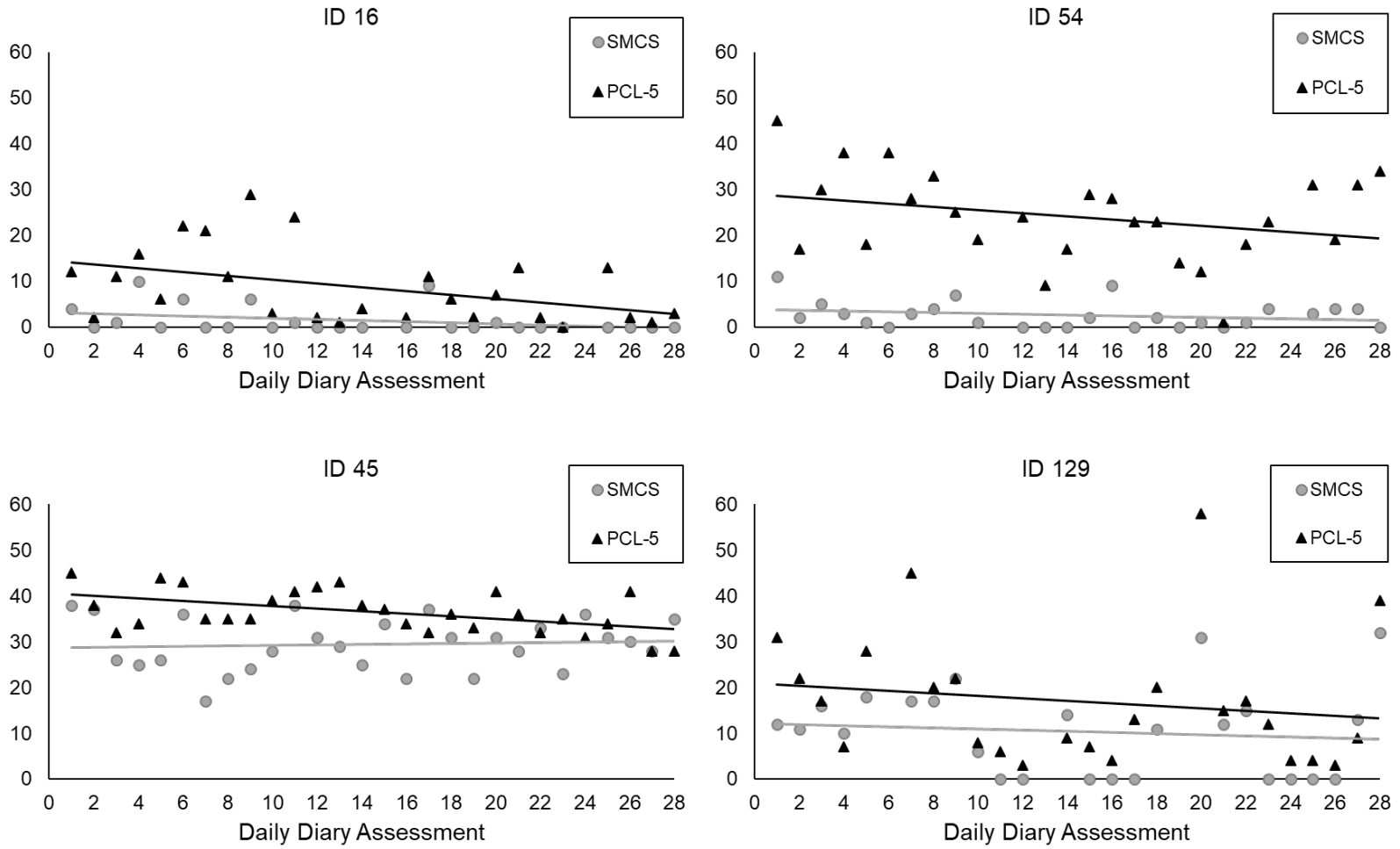

Figure 3.1. Participant scatterplots of overlaid responses to mental contamination and PTSD symptom daily assessments during the daily diary period. Participants were chosen at random from daily mental contamination person-mean quartiles; SMCS = State Mental Contamination Scale; PCL-5 = PTSD Checklist for DSM-5.

CHAPTER 4. DISCUSSION

Interpretation of Results

Prior research has shown mental contamination following sexual trauma to be a prevalent but understudied phenomenon. Ample cross-sectional evidence links mental contamination with posttraumatic symptoms, negative emotions, and maladaptive coping, but research has not yet investigated the day-to-day functional relationships among these factors. Thus, the present study aimed to explore daily relationships between mental contamination and these factors in order to better illuminate the importance of mental contamination in understanding psychopathology following sexual trauma.

Given that most of the sexual trauma literature has not yet examined the ecological prevalence or characteristics of mental contamination and its day-to-day changes, the present study aimed to explore the feasibility and utility of assessing cross-sectional and daily mental contamination levels in tandem. While baseline mental contamination was assessed using a recently validated measure of posttraumatic mental contamination (i.e., the PEMC), this study also piloted a novel daily diary adaptation of a state mental contamination scale (i.e., the SMCS). Results showed that reported mental contamination at baseline was only moderately correlated with average daily levels of mental contamination, suggesting that these assessment methods are not redundant, and that a single mental contamination survey may miss important details about an individual's daily experiences with this phenomenon. Over 80% of individuals who screened positive for any sexual trauma history also reported at least moderate baseline mental contamination levels (i.e., PEMC > 10), with the clear majority greatly exceeding this conservative threshold. This finding is notable given that the study only advertised

for history of sexual trauma (but not contamination concerns) and suggests that prevalence of mental contamination following sexual trauma may be even higher than initially evidenced by Fairbrother and Rachman (2004). It remains possible that some overreporting may have occurred due to expectancy bias or individuals' desire to appear eligible. Additionally, PEMC items are designed to assess for mental contamination "since the traumatic event" rather than a specific recent timeframe (e.g., past-month). As such, some participants were withdrawn from the study based on positive endorsement of experiences of mental contamination on the PEMC that occurred during or immediately after their sexual trauma but were not a present concern. Future revisions to PEMC items specifying a recent timeframe may offer more clarity on this issue. Still, the sample average of mental contamination reported over the diary period supports the notion that mental contamination is likely more prevalent than previously appreciated.

Survey adherence was also quite high during the daily diary period, suggesting that twice daily assessment of mental contamination via a smartphone app is acceptable to participants. Importantly, ratings of mental contamination (and PTSD symptoms, negative affect) did not worsen over time, suggesting that symptom monitoring and reporting did not result in a worsening of distress. Additionally, visual inspection of participants' mental contamination (and PTSD symptom) scores appear to show meaningful fluctuations across assessments during the daily diary period (see Figure 3.1 for example participants), and substantial standard deviation on the daily mental contamination measure (SD = 15.49) also supports this observation. Together, these findings suggest that individuals were able to report discernable differences in their mental contamination levels when reflecting over a half-day timeframe, and they did not

find the task overly burdensome, nor did it result in an exacerbation of symptoms. Although this measurement window did not allow us to detect the precise frequency and duration of discrete mental contamination episodes, examination of variability in reported mental contamination within and across day suggests that acute mental contamination elevations tend not to persist across entire days or across multiple days for most individuals. Future research utilizing participant-initiated responses to mark the onset and persistence of mental contamination may be well-suited to better understand the temporal characteristics of this phenomenon.

A primary aim of this study was to examine how variability in PTSD symptom severity and mental contamination relate both within and across days. As expected, PTSD symptoms and mental contamination were positively correlated at baseline, replicating prior cross-sectional findings (Adams et al., 2014; Badour et al., 2014; Brake et al., 2019). Individuals meeting diagnostic criteria for PTSD at baseline also reported higher levels of mental contamination across the two-week daily diary period compared to those not meeting criteria for PTSD. Moreover, PTSD symptom severity at baseline was moderately positively correlated with average mental contamination ratings across the two-week daily diary period.

Of note, daily PTSD symptoms during mornings were shown to be significantly higher on average compared to daily PTSD symptoms during evenings. Mean levels of mental contamination and (morning and evening) PTSD symptoms across the two-week daily diary period were very highly correlated (r = .90 & .91), leading to the question of whether daily measurements were successful in distinguishing between these two constructs, or whether these measures are a better index of general distress across the

two-week measurement period. Revisiting Figure 3.1, visualization of both daily PTSD symptom and mental contamination scores in several randomly selected cases shows that these measures appear to be capturing at least some nonoverlapping intraindividual variability for each construct. However, because multilevel models also accounted for fixed effects of daily averages, issues with multicollinearity cannot be ruled out.

Given concerns regarding multicollinearity in models including daily measures of PTSD symptoms and mental contamination, the resulting data must be interpreted with substantial caution. Mental contamination ratings at a given time point were likely to be higher for individuals who experienced higher PTSD on average, as well as for people experiencing more severe PTSD symptoms than their own average at that point. By contrast, individual variation in morning or evening PTSD symptoms did not uniquely predict subsequent ratings of mental contamination after taking earlier mental contamination into account. Reverse models also showed this same effect pattern, such that ratings of mental contamination on a given morning (or evening) did not predict PTSD symptom severity that evening (or subsequent morning). Considered in the light of measurement concerns, these results tentatively suggest that acute shifts in PTSD symptoms and mental contamination may either occur simultaneously or may exert effects on one another more rapidly than can be accurately reflected when aggregated across a 12-hour period. Alternatively, other factors such as inertia and shared elicitation cues may also be important. For example, the present data cannot predict whether mental contamination and PTSD symptoms are triggered by one another versus separate trauma cues, or how long episodes of each tend to endure in the context of the other. Future refinement of these daily measures may be necessary to address these questions.

Another aim of this study was to elaborate upon our understanding of how mental contamination is linked to negative affect. Unsurprisingly, mental contamination at baseline was positively correlated with trait negative affect, supporting prior investigations linking trait mental contamination with trait negative affect (e.g., Badour et al., 2014; Fergus & Bardeen, 2016). Baseline mental contamination was also moderately positively correlated with average negative affect reported across the two-week daily diary period. Average ratings for mental contamination and negative affect across the daily diary period were strongly positively correlated. However, these daily averages appeared to tap into related, but distinct constructs.

When examining intraindividual associations between mental contamination and negative affect, individuals who reported higher than average mental contamination at a given assessment were more likely to report not just greater overall negative affect, but also higher levels of all seven individual emotions at the same time point. Notably, disgust and shame showed the strongest concurrent correlations with mental contamination, lending support to prior work highlighting links between mental contamination and these self-directed emotions (Badour et al., 2014; Rachman, 1994). To the author's knowledge, these are also among the first findings to empirically demonstrate links between mental contamination and emotions of guilt and hopelessness.

It was expected that mental contamination experienced in the morning would predict higher negative affect when assessed in the evening. Counter to expectations, mental contamination in the morning did not prospectively predict general negative affect nor any specific emotions after controlling for earlier emotion levels. When controlling for evening emotion levels, mental contamination in the evenings also did not predict

general negative affect or the majority of specific emotions the next morning. However, higher than average mental contamination in the evening prospectively predicted higher ratings of anger and shame the next morning (controlling for prior levels of anger and shame; respectively). Prior ecological momentary research in the borderline personality disorder literature has evidenced strong and specific connections between daily experiences of perceived interpersonal transgressions (particularly rejection or abandonment) and later anger and shame responses (Scott et al., 2017). In the interpersonal context of sexual trauma, mental contamination has also been strongly linked to interpersonal perceptions of responsibility and violation (Rachman et al., 2015; Ishikawa et al., 2015). Though speculative, mental contamination may lead to strong activation of angry and shameful emotional responses as individuals reflect on their past interpersonal violation, and the strength of these responses may allow anger and shame to endure across days more so than other emotions. Future assessment of appraisals about one's sexual trauma may be an important next step in the daily mental contamination literature. Additionally, mental contamination research may benefit from future assessment of the target of negative emotions (e.g., do individuals experience self-directed anger or anger toward their perpetrator?).

In contrast to models linking evening mental contamination with higher anger and shame the next day, reverse models showed that overall negative affect actually predicted *lower* levels of mental contamination at the next assessment point (both morning to evening, and evening to subsequent morning when controlling for prior levels of mental contamination). Models examining specific negative emotions also displayed either one or both of these within- and across-day negative effects when prospectively predicting

mental contamination. Given that these results were in the opposite direction of what we would have predicted, exploratory tests were conducted to examine whether severity of PTSD symptoms might qualify this association. Indeed, there were significant interactions between negative affect and PTSD symptoms in predicting subsequent mental contamination, such that individuals experiencing stronger than usual morning negative affect (and specifically guilt, disgust, anxiety, or hopelessness) reported lower mental contamination that evening, but only if they were also experiencing more severe PTSD symptoms than usual that same morning. Of note, these interaction effects appear to only be relevant from mornings to evenings, as these same interactions were non-significant when predicting morning mental contamination from the interaction of PTSD symptoms and negative affect (and specific emotions) the prior evening.

These interaction effects offer interesting potential insights into temporal links between negative affect and mental contamination, as qualified by the presence of PTSD symptom elevations. PTSD symptoms and overall negative affect may be considered distinct but related indicators of trauma-specific and general distress, respectively. As noted, the unexpected link between morning negative affect and lower evening mental contamination only emerges when individuals are also experiencing elevations in morning PTSD symptoms. This interaction may be best understood as a compounding effect of trauma-specific symptoms alongside general emotional distress. Specifically, the unique combination of both negative affectivity and posttraumatic symptoms (e.g., having intrusive memories when one is already anxious) could prompt greater voluntary (e.g., via avoidant coping) or involuntary (e.g., via dissociation, emotional numbing) efforts to reduce distress than either state would alone. These intensified emotion

regulation efforts could conceivably lessen mental contamination over the course of the day, regardless of their effect on PTSD symptoms or negative affect. Because this initial investigation was limited in its ability to assess the precise timing of onset and duration of both symptoms and coping efforts, such an explanation could not be explicitly tested. However, future research utilizing more frequent assessment of negative affect, trauma-specific symptoms and emotion regulation in the context of mental contamination is certainly warranted.

The final aim of this study was to examine how mental contamination was related both concurrently and prospectively to avoidant and approach coping. Mental contamination has been described as difficult to manage and has been consistently linked with washing urges/behaviors as means of alleviation (e.g., Badour, Feldner, Babson, et al., 2013; Fairbrother & Rachman, 2004). Recent evidence has also implicated other cognitive (e.g., though suppression) and behavioral (e.g., substance use) avoidant strategies cross-sectionally (Brake et al., 2017; Jung & Steil, 2012); however, this was the first study to examine prospective links between mental contamination and various forms of avoidant coping, and was also the first to link mental contamination with approach coping.

As expected, mental contamination at baseline was positively linked with average daily overall avoidant coping across the two-week period, extending previous research associating mental contamination with avoidant behavior cross-sectionally (Brake et al., 2017). Average mental contamination and overall avoidant coping also showed a notably strong correlation yet still varied independently to a degree that would suggest these measures captured distinct constructs. Additionally, during the two-week period, if

individuals reported higher than average levels of mental contamination at any given timepoint, they were more likely to also report that they were employing more overall avoidant coping (and each of the seven specific avoidant strategies) during that same period. Furthermore, although concurrent links with washing were among the stronger avoidant strategy relationships, denial, self-blame, and thought suppression showed similarly strong correlations. These findings have important implications for previously proposed models of mental contamination coping. Beyond the historical emphasis on washing as the primary means of addressing mental contamination episodes, these results would suggest that strategies may be much more varied than previously documented, and that individuals may rely heavily on cognitive avoidant strategies (perhaps to manage contaminated thoughts or mental images). However, caution is warranted in these conclusions given the high degree of overlap between daily mental contamination and PTSD measures. Although stronger relationships with washing and cognitive avoidance strategies are in line with theoretical models of mental contamination, these correlations could also signal avoidance of PTSD symptoms not specific to mental contamination. Future research may clarify these lingering questions by querying participants' reasons for employing endorsed strategies at the time of assessment, as some prior daily diary paradigms have done (Sullivan, Weiss, Price, Pugh, & Hansen, 2019).

Prospectively, higher than average levels of mental contamination did not predict subsequent overall avoidant coping from morning to evening, nor from evening to next morning. However, mental contamination in the morning predicted more disengagement, self-blame, and substance use later in the day after accounting for morning strategy use. Evening mental contamination only positively predicted next-morning denial after

controlling for prior evening denial. Contrastingly, avoidant coping (overall and specific strategies) did not prospectively predict mental contamination in any models.

As with concurrent findings, these patterns suggest that avoidant strategies following experiences of mental contamination may be much more varied than previously considered. Given the empirical theoretical connections (Fairbrother & Rachman, 2004; Warnock-Parkes, Salkovskis, & Rachman, 2012), it is interesting that mental contamination did not prospectively predict engagement in washing behavior, especially in light of strong concurrent correlations. Future research is needed to help identify the time course of acute mental contamination experiences and to identify when during this time course different coping strategies might be employed. It may be that strategies like washing, denial, and thought suppression are uniquely appealing strategies for mental contamination as it is actively occurring. As time passes, coping strategies may shift focus as individuals attempt different strategies or aim to manage residual distress and impact of recently abated mental contamination. Furthermore, individuals may employ separate strategies for different lengths of time, which may explain why strategies of denial and self-blame maintain strong associations at both concurrent and prospective timepoints. Self-blame in particular aligns with the conceptualization that mental contamination is threatening to individuals' self-image and is both internal but inaccessible to efforts at remediation (Jung & Steil, 2012; Rachman et al., 2015).

In contrast with avoidant coping, the positive cross-sectional relationships between mental contamination and approach coping were unexpected. Mental contamination at baseline and across the daily dairy period evidenced moderate positive correlations with approach coping across the daily diary period. In addition, participants

who experienced higher than average mental contamination at a given timepoint were also more likely to report greater use of general approach coping, as well as specific strategies of acceptance, emotion expression, and emotion processing at the same timepoint. Prospectively, nearly all models predicting later approach coping (and specific strategies) from prior mental contamination were non-significant, as were reverse models predicting mental contamination from approach coping. However, notably, evening mental contamination predicted greater emotional support use the next morning after controlling for emotional support use the night before.

The present study is the first to examine links between approach coping and mental contamination, and hypothesized negative associations were based on prior research associating increased approach coping with less severe PTSD symptomology (e.g., Straight, Harper, & Arias, 2003), as well as theories suggesting that avoidance (often considered antithetical to approach coping) may maintain mental contamination in sexual trauma contexts (e.g., Olatunji, et al., 2008). The positive links that emerged between approach coping and mental contamination may be in line with prior observation that individuals typically use a range of adaptive and maladaptive strategies when coping with high distress (Carver et al., 1989). Additionally, Short et al. (2018) recently documented frequent use of approach coping strategies like acceptance and problem-solving to address PTSD symptoms and suggested that researchers may underestimate how often people with PTSD employ approach coping day-to-day. Current findings may then make sense, given the significant overlap between daily measures of mental contamination and PTSD symptoms. Individuals may also simply employ more approach coping strategies to manage mental contamination than has previously been considered.

Given that past theoretical emphasis has been placed on mental contamination's resistance to coping efforts, new directions of study on mental contamination and coping use are clearly called for. Future research should encompass not just avoidant strategies but also consider other coping strategies traditionally considered adaptive. As with avoidant coping, assessing individuals' rationale and intended targets when employing approach strategies may further clarify the role of coping in mental contamination.

In summary, the relationship between trauma-related mental contamination and posttraumatic psychopathology is far from straightforward. Individuals with a PTSD diagnosis reported higher levels of daily mental contamination on average over two weeks of twice-daily monitoring, and similarly individuals were more likely to endorse elevated mental contamination at times when their PTSD symptoms were higher than usual. And yet PTSD symptom variations did not predict mental contamination levels from morning to evening or from evening to subsequent morning (or vice-versa). These findings may signal that for individuals with sexual trauma history who experience mental contamination in their daily lives, either 1) PTSD symptoms and mental contamination are elevating simultaneously or in close proximity, or 2) PTSD and mental contamination do not prospectively predict one another above and beyond prior levels of symptomatology. Trauma-related mental contamination also predicted higher negative affect over the two weeks. When examining specific emotions, shame and disgust were most strongly linked to acute elevations in mental contamination, compared to higher shame and anger the next day. Unexpectedly, higher morning negative emotions predicted lower mental contamination later in the day, but only when PTSD symptoms were simultaneously elevated in the morning. Finally, trauma-related mental

contamination predicted higher use of both avoidant and approach coping over the course of two weeks. In contrast to early models emphasizing washing as a principal response to mental contamination, cognitive avoidance and other maladaptive behaviors may play a larger role than previously recognized. It remains plausible that specific approach and avoidant strategies might operate over different schedules, or in response to other forms of distress in the context of mental contamination. Taken together, these findings suggest that sexual trauma-related mental contamination appears to play a strong role in posttraumatic psychopathology, but only through continued longitudinal research, including more refined ecological assessment, will the nature of these complex relationships likely be elucidated.

Limitations

Results of this study must be considered alongside important study limitations. First, screening cutoffs for baseline trauma-related mental contamination were determined based on established cutoffs for denoting a moderate level of mental contamination in a nonclinical, unscreened sample. This threshold was chosen to maximize inclusivity in light of limited information on the occurrence of daily mental contamination. Thus, a small subset of participants met study eligibility criteria but went on to report minimal mental contamination in the daily diary period. Higher threshold scores at baseline might be more appropriate for detecting the presence of daily mental contamination. In addition, previously noted adjustments to the baseline mental contamination measure (i.e., PEMC) could better focus reports on recent mental contamination rather than experiences that have occurred any time following the index trauma.

Second, as previously noted, between-person associations between PTSD symptoms and mental contamination across the daily diary period were very strong. Although visual inspection of responses suggests greater independent variability within-person, it is possible that the state mental contamination measure used in this study captured general distress or PTSD symptom severity rather than distinct experiences of mental contamination when aggregated over the two-week period. The present study utilized half-day periods of daily assessment, in large part driven by feasibility constraints, and future studies should evaluate these measures in paradigms that include more frequent assessments or event-triggered assessments where participants would self-initiate assessments each time they experienced mental contamination or symptoms of PTSD.

Third, coping strategy measures were also developed based on a small selection of cross-sectional evidence. Items inquired about coping with sexual trauma-related difficulties broadly, rather than mental contamination symptoms specifically, and did not assess individuals' coping goals or effectiveness. As Rachman and colleagues (2015) proposed, individuals may be unaware of triggers for their experience of mental contamination and may cope in ways that do not address the (often internal) triggers. Understanding relationships between mental contamination and specific coping strategies are essential to understanding its manageability day-to-day and in treatment contexts.

Finally, despite efforts to recruit both men and women, low response rates precluded inclusion of males due to insufficient power. Thus, the present conclusions may not generalize to males, and future research should focus on sex differences in mental contamination, particularly following sexual trauma.

Conclusion

The present study was the first to investigate daily experiences of sexual trauma-related mental contamination and to consider how such experiences are related to PTSD symptoms, negative affect, and coping. Though future research is needed to establish best practices for daily assessment of mental contamination, this investigation demonstrated that these constructs are often interacting in survivors' day-to-day experiences, in many cases, years after sexual trauma occurred. Furthermore, prevalence of sexual trauma-related mental contamination notably exceeded previously reported figures. The widespread nature of sexual trauma, in combination with the relative clinical obscurity of mental contamination, highlights a significant gap in current research and practice. Better understanding how sexual trauma-related mental contamination impacts other treatment targets may improve treatment planning and effectiveness for difficult-to-treat posttraumatic presentations, such as those characterized by non-fear emotions like shame, disgust, and anger. Continued refinement of ecological approaches to assessment is an essential next step in increasing knowledge regarding this important yet understudied phenomenon.

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VITA

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EDUCATION

Doctoral Candidate, Clinical Psychology — 2020 (anticipated)
University of Kentucky, Lexington, KY
Advisor: Christal L. Badour, Ph.D.

Master of Arts, Psychology — 2014
Boston University, Boston, MA

Bachelor of Arts, Psychology and Economics — 2009
University of Virginia, Charlottesville, VA

HONORS AND DISTINCTIONS

Office for Policy Studies on Violence Against Women Graduate Fellowship — 2019
University of Kentucky

Dean's Competitive Graduate Fellowship — 2018
University of Kentucky

Excellent Clinical Performance Award — 2018
Jesse G. Harris Psychological Services Center, University of Kentucky

Scientist-Practitioner Award for Outstanding Commitment to Applied Clinical Science — 2018
Jesse G. Harris Psychological Services Center, University of Kentucky

Outstanding Student Achievement Award — 2017
International Society for Traumatic Stress Studies

Outstanding Predoctoral Research Award — 2017
University of Kentucky

Kentucky Opportunity Graduate Fellowship — 2014-2015
University of Kentucky

Psychology Department Graduate Fellowship — 2014-2015
University of Kentucky

RESEARCH POSITIONS

Stress, Trauma, and Recovery Research Collaborative — **Graduate Research Assistant**
University of Kentucky, Lexington, KY — 2015-2019
Supervisor: Christal L. Badour, Ph.D.

Mindfulness Research Laboratory — **Graduate Research Assistant**
University of Kentucky, Lexington, KY — 2014-2015
Supervisor: Ruth A. Baer, Ph.D.

Center for Anxiety and Related Disorders — **Graduate Research Assistant**
Boston University, Boston, MA — 2012-2014
Supervisors: David H. Barlow, Ph.D., Shannon Sauer-Zavala, Ph.D., Laren R. Conklin, Ph.D.

Brain & Mind Research Institute — **Clinical Research Intern**
University of Sydney, Sydney, Australia — 2010-2011
Supervisor: Adam J. Guastella, Ph.D.

CLINICAL POSITIONS

Providence VA Medical Center — **Psychology Intern**
Providence, RI — 2019-Present

Jesse G. Harris, Jr. Psychological Services Center — **Staff Therapist**
University of Kentucky, Lexington, KY — 2015-2019

Stress, Trauma, and Recovery Research Collaborative — **Study Therapist**
University of Kentucky, Lexington, KY — 2018

Jesse G. Harris, Jr. Psychological Services Center — **DBT Skills Group Co-Leader**
University of Kentucky, Lexington, KY — 2017-2018

Lexington VA Mental Health Outpatient Clinic — **Practicum Clinician**
Lexington, KY — 2016-2017

University of Kentucky Counseling Center — **Practicum Clinician**
University of Kentucky, Lexington, KY — 2015-2016

Narrative Comprehension Intervention Study — **Group Co-Leader**
Ashland and Glendover Elementary Schools, Lexington, KY — 2014-2015

Ridgeview Institute Psychiatric Hospital — **Clinical Assistant**
Atlanta, GA — 2011-2012

Headspace Youth Mental Health Foundation — **Clinical Intern**
University of Sydney, Sydney, Australia — 2010-2011

LEADERSHIP POSITIONS

Jesse G. Harris Psychological Services Center — **Assistant Director**
University of Kentucky, Lexington, KY — 2017-2018

Kentucky Psychological Association Board of Directors — **Graduate Student Representative**
Louisville, KY — 2017-2018

Psychology Advocacy Group — **President**
University of Kentucky, Lexington, KY — 2016-2017

TEACHING POSITIONS

Abnormal Psychology — **Summer Instructor**
Department of Psychological & Brain Sciences — 2014-2016
Boston University, Boston, MA

Introduction to Psychology — **Graduate Teaching Fellow**
Department of Psychological & Brain Sciences — 2013-2014
Boston University, Boston, MA

Psychology of Learning — **Graduate Teaching Fellow**
Department of Psychological & Brain Sciences — 2013
Boston University, Boston, MA

Psychology of Personality **Graduate Teaching Fellow**
Department of Psychological & Brain Sciences 2012
Boston University, Boston, MA

PROFESSIONAL PUBLICATIONS

1. Flores, J., **Brake, C. A.**, Hood, C. O., & Badour, C. L. (under review). Posttraumatic stress and risky sex in trauma-exposed college students: The role of personality dispositions toward impulsive behavior. Manuscript submitted for publication.
2. Hood, C. O., **Brake, C. A.**, Badour, C. L., & Logan, T. K. (under review). Pregestational chronic pain as a predictor of alcohol and drug use during pregnancy: The effects of perceived physical and mental health. Manuscript submitted for publication.
3. Jones, A. C., **Brake, C. A.**, & Badour, C. L. (in press). Disgust. In M. T. Tull & N. A. Kimbrel (Eds.), *Emotion in posttraumatic stress disorder*. Philadelphia, PA: Elsevier.
4. **Brake, C. A.,** Adams, T. G., Hood, C. O., & Badour, C. L. (2019). Posttraumatic mental contamination and the interpersonal theory of suicide: Effects via DSM-5 PTSD symptom clusters. *Cognitive Therapy and Research, 43,* 259-271.
5. Sonnier, H., **Brake, C. A.,** Flores, J., & Badour, C. L. (2019). Posttraumatic stress and hazardous alcohol use in trauma-exposed young adults: Indirect effects of self-disgust. *Substance Use & Misuse, 54,* 1051-1059.
6. Jones, A. C., Badour, C. L., **Brake, C. A.**, Hood, C. O., & Feldner, M. T. (2018). Facets of emotion regulation and posttraumatic stress: An indirect effect via peritraumatic dissociation. *Cognitive Therapy and Research*, *42*(4), 497-509.
7. Adams, T. G., Kelmendi, B., **Brake, C. A.,** Gruner, P. A., Badour, C. L., & Pittenger, C. (2018). The role of stress in the pathogenesis and maintenance of obsessive-compulsive disorder. *Chronic Stress, 2,* 1-11
8. **Brake, C. A.,** Jones, A. C., Wakefield, J. R., & Badour, C. L. (2018). Mental contamination and trauma: Understanding posttraumatic stress, risky behaviors, and help-seeking attitudes. *Journal of Obsessive-Compulsive and Related Disorders, 17,* 31-38.
9. **Brake, C. A.,** Rojas, S. M, Badour, C. L., Dutton, C. E., & Feldner, M. T. (2017). Self-disgust as a potential mechanism underlying the association between PTSD and suicide risk. *Journal of Anxiety Disorders*, *47,* 1-9.
10. **Brake, C. A.,** Sauer-Zavala, S., Boswell, J. F., Gallagher, M. W., Farchione, T. J., & Barlow, D. H. (2016). Mindfulness-based exposure strategies as a transdiagnostic mechanism of change: An exploratory alternating treatment design. *Behavior Therapy*, *47*(2), 225-238.
11. Boettcher, H. T., **Brake, C. A.**, & Barlow, D. H. (2016). Origins and outlook of interoceptive exposure. *Journal of Behavior Therapy and Experimental Psychiatry, 53,* 41-51.
12. Geiger, P. J., Boggero, I. A., **Brake, C. A.,** Caldera, C. A., Combs, H. L., Peters, J. R., & Baer, R. A. (2016). Mindfulness-based interventions for older adults: A review of the effects on physical and emotional well-being. *Mindfulness, 7*(2), 296-307.
13. Conklin, L. R., Cassiello-Robbins, C., **Brake, C. A.,** Sauer-Zavala, S., Farchione, T. J., Ciraulo, D. A., & Barlow, D. H. (2015). Relationships among adaptive and maladaptive emotion regulation strategies and psychopathology during the treatment of comorbid anxiety and alcohol use disorders. *Behaviour Research And Therapy, 73,* 124-130.