

ABSTRACT

Dimensions of Partner Interactions and Disclosure Predict Different Trauma Related Outcomes in Couple Relationships

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For people in married or cohabiting relationships where one partner has been exposed to a traumatic event, different trauma related outcomes may be associated with distinct dimensions of partner interactions and trauma disclosure. Studies conducted with military populations suggest the association of partner support and posttraumatic stress symptom severity is mediated by willingness to disclose trauma related experiences to an intimate partner. The current study examined a model in which positive and negative partner interactions were expected to predict two types of trauma related outcomes (i.e., posttraumatic stress symptoms and posttraumatic growth) and be mediated by three dimensions of disclosure (i.e., willingness to disclose, urge to disclose, and emotional reactivity to disclosure) after controlling for general relationship sentiment. A sample of 147 individuals in married or cohabiting relationships where one partner survived a traumatic event were asked to complete an online survey via the Amazon Mechanical Turk website. Negative interactions uniquely contributed to predicting posttraumatic stress symptoms and the effect was significantly larger than positive interactions. Positive

interactions uniquely contributed to predicting posttraumatic growth. Importantly, these associations remained significant after controlling for relationship sentiment. Only urge to disclose and emotional reactivity to disclosure uniquely contributed to predicting posttraumatic growth and posttraumatic stress symptoms, respectively. Results for mediation were less robust than previous research; nonetheless, four models of indirect effects remained significant after controlling for sentiment. Overall, the results of this study highlight the importance of positive and negative interpersonal behaviors and distinctive components of disclosure in predicting different trauma related outcomes.

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Different Trauma Related Outcomes in Couple Relationships

by

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A Dissertation

Approved by the Department of Psychology and Neuroscience

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Submitted to the Graduate Faculty of
Baylor University in Partial Fulfillment of the
Requirements for the Degree
of
Doctor of Psychology

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August 2020

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ACKNOWLEDGMENTS

I sincerely thank my faculty mentor and dissertation advisor Keith Sanford, Ph.D. for his guidance and support during this project and throughout my time in graduate school. I would also like to thank my committee members: Drs. Sara Dolan, Christine Limbers, Mark Morman, and Alisha Wray for their valuable insights and ideas related to this project. I thank my previous supervisors and the clinical psychology faculty for their commitment to scholarship and the success of their students. Finally, I thank my fellow graduate students, lab members, and cohort for their encouragement and genuine friendships.

DEDICATION

To my parents, who give so much of themselves. My achievements would not have been possible without your unwavering love and support.

To my sister, thank you for encouraging me to serve others and live life to the fullest.

And to my love, I can't imagine life without you. Thank you for being a voice of reason, reassurance, and inspiration.

Proverbs 16:3

CHAPTER ONE

Introduction

The associations between partner interactions and trauma related outcomes, including posttraumatic stress symptoms (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003) and posttraumatic growth (Linley & Joseph, 2004, Tedeschi & Calhoun, 2004), are important for people in married or cohabiting relationships where one partner has been exposed to a traumatic event. According to recent statistics, over 70% of the worldwide population is exposed to a traumatic event at some point in their lifetime (Benjet et al., 2016; Kessler et al., 2017). Traumatic events are defined as “exposure to actual or threatened death, serious injury, or sexual violence” by Criterion A of the diagnostic criteria for Posttraumatic Stress Disorder (PTSD) in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5; American Psychiatric Association (APA), 2013). To qualify as a traumatic event, an individual must have directly experienced the event, directly witnessed it as it occurred to others, learned that the event happened to a close family member or friend, or been repeatedly exposed to aversive details of the traumatic event. The majority of theories, empirical research, and treatments to date have focused on an individual’s intrapsychic experience after exposure to traumatic events, yet evidence has increasingly indicated a need for including interpersonal experiences to better understand trauma survivors’ recovery processes (Charuvastra & Cloitre, 2008; Sippel, Pietrzak, Charney, Mayes, & Southwick, 2015).

It is especially important to explore models of social support and trauma related outcomes because the literature suggests that social support serves as one of the strongest protective factors after trauma (for reviews see Brewin et al., 2000; Charuvastra & Cloitre, 2008; Heron-Delaney, Kenardy, Charlton, & Matsuoka, 2013; Ozer et al., 2003). There are two primary explanatory models for the association between social support and posttraumatic outcomes, including (a) social causation and (b) social selection. The *social causation* models emphasize that social support resources are antecedents of well-being, and that changes in support can either counteract detrimental effects or contribute to them (Cohen & Wills, 1985; Kaniasty & Norris, 1993). For example, the *stress buffering hypothesis* postulates the presence of greater perceived social support protects people from the negative effects of stressful or traumatic events (Cohen & Wills, 1985; Pietrzak, Johnson, Goldstein, Malley, Rivers, Morgan, & Southwick, 2010), whereas the *support deterioration model* postulates diminished social support accounts for the negative impact stressful or traumatic events has on well-being (Kaniasty & Norris, 1993). Thus, social causation theories suggest that levels of social support subsequently improve or worsen an individual's responses to stress or trauma. Alternatively, social selection theories suggest that an individual's responses to stress or trauma subsequently improve or worsen their social support. The *social selection* models emphasize that individuals experiencing stress or trauma reactions are less likely to be selected (or welcomed) into thriving social relationships (Kaniasty & Norris, 2008; see also Shallcross, Arbisi, Polusny, Kramer, & Erbes, 2016). For example, the *erosion model* posits that posttraumatic stress symptoms of social withdrawal, avoidance, numbing, detachment, and anger negatively affect the quality and quantity of support by pushing away potential support resources (Laffaye,

Cavella, Drescher, & Rosen, 2008; Lambert, Engh, Hasbun, & Holzer, 2012). A growing body of evidence exploring models of social support and post trauma reactions has emerged based on these theories (Maercker & Horn, 2013; Nelson Goff & Smith, 2005; Sharp, Fonagy, & Allen, 2012; Woodhouse, Brown, & Ayers, 2018), but underlying mechanisms that may best explain how interpersonal factors impact an individual's response to trauma are still undetermined.

Disclosure of trauma related experiences may be an important underlying mechanism that requires more investigation to fully understand its relationship to perceived social support and posttraumatic outcomes. Research with military and veteran populations has shown that disclosure to intimate partners mediates the association between relationship factors (e.g., marital intimacy, satisfaction) and posttraumatic stress symptoms (Allen, Rhoades, Stanley, & Markman, 2010; Campbell & Renshaw, 2013; Soloman, Debby-Aharon, Zerach, & Horesh, 2008). This line of research led to a noteworthy study by Balderrama-Durbin and colleagues (2013), which explored U.S. Airmen's willingness to disclose deployment and combat related experiences to intimate partners. Balderrama-Durbin and colleagues (2013) developed a rationale for disclosure as a mediating variable on the relation between perceived partner support and posttraumatic stress symptoms in part from cognitive-behavioral interpersonal theory of PTSD (Monson et al., 2011) and Foa and Kozak's (1986) model of emotional processing. For example, discussing a traumatic event with a supportive partner could promote the emotional habituation process and help to reevaluate one's thoughts about the traumatic event (Brewin, Dalgleish, & Joseph, 1996; Creamer, Burgess, & Pattison, 1992; Currier, Lisman, Harris, Tait, & Erbes, 2013; Ehlers & Clark, 2000; Foa & Kozak, 1986; Monson

et al., 2011). Balderrama-Durbin and colleagues' (2013) findings suggest that harmful effects of combat exposure may be mitigated by higher levels of perceived partner support producing a safer context for disclosure. Their results built on convergent evidence documenting the importance of communication, particularly trauma related disclosure, in active duty military or veteran populations with posttraumatic stress symptoms. This study also seemed to be the first to test the potential mediating effects of disclosure on perceived partner support opposed to overall social support or other relationship factors. Since emotional and cognitive processing can be initiated through discussing traumatic experiences with an intimate partner, is it expected that trauma related disclosure underlies the relationship between perceived social support and posttraumatic stress; however, several areas of investigation along this line of research remain. Building on these findings would contribute to the literature on perceived partner support and posttraumatic outcomes. Figure B.1 provides the proposed model of partner interactions, disclosure, and trauma outcomes.

Aim 1: Including Dimensions of Positive and Negative Interactions

First, it would be valuable to go beyond a unidimensional perspective of perceived support and explore the potential effects of distinct positive and negative dimensions of partner interactions on trauma related disclosure and posttraumatic outcomes. Much of the previous research on perceived support and trauma, including Balderrama-Durbin et al. (2013), has largely examined support as high or low, present or absent. This operationalization likely occurs because the positively valenced term 'support' suggests that low levels indicate the absence of helpful or reassuring behaviors. However, several studies support the validity of a two-dimensional approach to a variety

of interpersonal constructs, so it would be important to examine two dimensions of support (Finch, Okun, Pool, & Ruehlman, 1999; Rivers & Sanford, 2018; Sanford, Backer-Fulghum, & Carson, 2016; Sanford, Kruse, Proctor, Torres, Pennington, Synett, & Gulliver, 2017; Whisman & Li, 2015).

It would also be useful to obtain a more objective measure of support by operationalizing the construct in behavioral terms such as frequency of positive and negative partner interactions. Previous measures have assessed support as something more schematic (e.g., “my partner supports me”), which runs a greater risk of overlapping with how the individual generally categorizes or views the relationship. Previous research has shown the more schematic ways of assessing support tend to overlap and are difficult to distinguish from overall relationship satisfaction (Norton, Baptist, & Hogan, 2018). The present study henceforth uses the terms positive interactions and negative interactions to describe these dimensions. Positive and negative interactions are likely to show statistical independence in the proposed model and are expected to be distinct from general relationship sentiment.

The impact of negative interactions may be more important than positive interactions in predicting posttraumatic stress symptom severity. Theoretical support for this idea stems from the *social negativity hypothesis* (Major, Zubek, Cooper, Cozzarelli, & Richards, 1997), which suggests that negative social interactions following a stressful event have greater impact on symptoms, coping, and adjustment than positive interactions. Several empirical studies indicate that negative reactions and behaviors by others (e.g., victim blaming, invalidating responses, minimization) are more related to posttraumatic stress symptoms than supportive behaviors (Charuvastra & Cloitre, 2008;

Cox, Buhr, Owen, & Davidson, 2016; Laffaye et al., 2008; Ullman & Filipas, 2001; Wagner, Keller, Knaevelsrud, & Maercker, 2012; Zoellner, Foa, & Brigidi, 1999). For these reasons negative interactions are likely to have stronger effects in predicting posttraumatic stress symptoms than positive interactions.

Aim 2: Including Posttraumatic Growth

Second, it would be valuable to examine posttraumatic growth as an outcome in the proposed model. Most studies examining perceived support after trauma exposure, such as Balderrama-Durbin et al. (2013), utilize the severity of posttraumatic stress symptoms as a primary outcome; however, the proliferation of positive psychology research indicates a need for moving beyond stress manifestations and towards examining posttraumatic growth as well. Posttraumatic growth refers to the benefits one might experience after a traumatic event, such as finding meaning, changing priorities, or improving relationships (Tedeschi & Calhoun, 2004). Previous research has demonstrated that potentially detrimental trauma outcomes like posttraumatic stress symptoms can co-occur with potentially beneficial trauma outcomes like posttraumatic growth (Frazier, Conlon, & Glaser, 2001; Johnson, Hobfoll, Hall, Canetti-Nisim, Galea, & Palmieri, 2007; Lechner, Carver, Antoni, Weaver, & Phillips, 2006; Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003). To obtain a more comprehensive picture of the relationships between dimensions of partner interactions and trauma recovery, posttraumatic growth needs to be examined alongside posttraumatic stress symptom severity.

The impact of positive interactions may be more important than negative interactions in predicting posttraumatic growth. Schaefer and Moos' (1992) conceptual

model of positive outcomes after life crises includes social support as a predictor of positive change through its influence on coping behavior and other studies suggest social support serves as a distinct coping behavior itself (Linley & Joseph, 2004; Nolen-Hoeksema & Davis, 1999; Tedeschi & Calhoun, 2004). Moreover, several empirical studies have found social support contributes to the occurrence of posttraumatic growth (Borja, Callahan, & Long, 2006; Cieslak, Benight, Schmidt, Luszczynska, Curtin, Clark, & Kissinger, 2009; Garcia, Paez-Rovira, Zurtia, Martel, & Reyes, 2014; Holland & Holahan, 2003; Linley & Joseph, 2004, Prati & Pietrantonio, 2009; Tedeschi & Calhoun, 2004; Zhou & Wu, 2016; Zukauskienė, Kaniusonyte, Bergman, Bakaitė, & Truskauskaitė-Kuneviciene, 2019). For these reasons positive interactions are likely to have stronger effects in predicting posttraumatic growth than negative interactions.

Aim 3: Measuring Three Dimensions of Disclosure

Third, it would be important to include willingness to disclose, urge to disclose, and emotional reactivity to disclosure in the current study's model. Disclosure is defined as the written or verbal process of expressing or describing the cognitive and emotional impact of experiencing distressing or traumatic events (Clark, 1993). As such, disclosure has been previously operationalized by (a) willingness (versus reluctance) to share, (b) urge to share, and/or (c) emotional reactivity to sharing (Mueller, Beauducel, Raschka, & Maercker, 2000; Mueller, Moergeli, & Maercker, 2008; Maercker & Mueller, 2004).

Willingness (versus reluctance) to disclose should be included in the proposed model to compare with Balderrama-Durbin and colleagues' results (2013). It is expected that willingness to disclose will predict trauma related outcomes after controlling for partner interactions and two other dimensions of disclosure that were not included in the

Balderrama-Durbin and colleagues (2013) study. What still remains unclear from their study is the potential mediating effects of urge to disclose and emotional reactivity to disclosure on the associations between positive and negative partner interactions and trauma related outcomes.

Measuring urge to disclose would be valuable in the proposed model because a strong desire to repeatedly talk about traumatic experiences may comprise a distinct aspect of disclosure. Urge to disclose (e.g., talking about traumatic experiences again and again) has been consistently found to be independent from willingness/resistance to tell others about trauma (Maercker, Povilonyte, Lianova, & Pohlmann, 2009; Mueller et al. 2000; Mueller et al., 2008). Pielmaier and Maercker (2011) suggest that having a strong desire to repeatedly talk about traumatic experiences may reflect intrusive re-experiencing or rumination of trauma related thoughts and memories that could interfere with the emotional and cognitive processing of trauma. Rumination often means exclusively negative and unhelpful thinking; however, rumination can also be a deliberate and reflective process of examining an event or one's core beliefs (Lindstrom, Cann, Calhoun, & Tedeschi, 2013). Although intrusive rumination (e.g., unwanted thoughts or trauma related memories) is characteristic of posttraumatic stress, it has been theorized that deliberate rumination may promote posttraumatic growth (Lindstrom et al., 2013; Tedeschi & Calhoun, 2004). As such, urge to disclose may be an adaptive disclosure tendency if it facilitates deliberate rumination that may subsequently help an individual correct dysfunctional beliefs, enhance integration of trauma memories, and/or habituate to trauma related emotions (Brewin et al., 1996; Foa & Kozak, 1986). It is expected that

urge to disclose will be uniquely associated with posttraumatic outcomes in the proposed model.

Lastly, emotional reactivity to disclosure would be particularly important to include in the proposed model. Expressive writing studies highlight the importance of communicating about the cognitive and emotional impact of trauma by showing that sharing one's thoughts and feelings about traumatic experiences may be more important in predicting outcomes than discussing details about the experiences themselves (Baddeley & Pennebaker, 2011; Pennebaker, 1985; Pennebaker, 1997b; Pennebaker, Kiecolt-Glacier, & Glaser, 1998). The focus on cognitive content stems from the *cognitive adaptation model* (Pennebaker, 1997a), which suggests that the benefits of written disclosure are achieved through cognitive resolution of a stressful event and reduction in intrusive thoughts. The focus on emotional content stems from the *emotional exposure-habituation model* (Lepore & Smyth, 2002; Sloan & Marx, 2004), which suggests that habituation to negative affect and intrusive thoughts about a traumatic event produce the benefits of written disclosure.

Although cognitive and emotional content have been theorized as significant factors in expressive writing, it may be that an individual's own emotional reaction to the act of disclosure is most important in defining disclosure. Language analyses of written disclosures have shown more frequent use of positive emotion words is associated with improved health outcomes, but both very high and very low levels of negative emotion words are correlated with poorer health (Pennebaker, 1997b). Moreover, there is a considerable body of literature documenting negative sentiments towards disclosure and the tendencies of individuals to avoid unpleasant thoughts, emotions, and memories

(Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; for review see Chawla, & Ostafin, 2007). As such, it may be especially important to explore the affective states and experiences that occur during disclosure. It is expected that emotional reactivity to disclosure will make unique contributions to predicting trauma related outcomes in the model. Notably, research on different methods of disclosure (e.g., written, privately spoken, etc.) has shown that there are comparable effects on posttraumatic outcomes regardless of method (Slavin-Spenny, Cohen, Oberleitner, & Lumley, 2011), so the type of disclosure method (e.g., verbal versus written) should not be a confounding variable. There is reason to expect distinct associations between dimensions of partner interactions, trauma outcomes, and the three components of disclosure.

Aim 4: Controlling for Relationship Sentiment

Fourth, it would be important to test the extent to which positive and negative interactions explain unique variance in posttraumatic stress symptoms and posttraumatic growth after controlling for general relationship sentiment. Self-report relationship measures have a high risk of people responding on the basis of sentiment override (Weiss, 1980), where all responses reflect general levels of relationship satisfaction rather than specific item content. Similarly, measures of perceived intimacy and partner responsiveness assess general schemas about overall relational closeness and partner responsiveness, respectively. Perceived intimacy refers to feelings of being secure, cared for, close to, and understood by the partner, whereas perceived partner responsiveness refers to perceiving that partners understand, value, and support important aspects of the self (Debrot, Cook, Perrez, & Horn, 2012). Both of these constructs have been identified as central relationship processes (Reis, Clark, & Holmes, 2004). Poor partner intimacy

and responsiveness have been shown to predict psychological distress and greater responsiveness has been shown to promote posttraumatic growth (Canevello, Michels, & Hilaire, 2016; Selcuk & Ong, 2013). If positive and negative partner interactions are redundant with general relationship sentiment (e.g., satisfaction, intimacy, and responsiveness), then there is no need for separate scales. Dimensions of partner interactions presumably involve more than mere relationship schema. For example, positive interactions may include interactions where partners helped each other view a stressful situation from a good perspective, and these types of interactions may be separate from one's conceptualization of their overall relationship. Thus, positive interactions may correlate with relationship sentiment, but the proposed model of positive and negative interactions should demonstrate unique variance in trauma outcomes after controlling for relationship sentiment. Additionally, any mediating effects of disclosure should remain after controlling for these schematic relationship factors not thoroughly considered in the Balderrama-Durbin et al. (2013) study.

Aim 5: Testing the Generalizability

Fifth, the mediating role of the dimensions of disclosure on partner interactions and posttraumatic outcomes needs to be tested in a non-military sample. Balderrama-Durbin et al. (2013) examined the mediating role of willingness to disclose on perceived partner support and posttraumatic stress symptoms in a military sample. Although the direct effect of social support and posttraumatic stress symptoms severity has been well established in both military and civilian samples (Brewin et al., 2000; Heron-Delaney et al., 2013; Kaniasty & Norris, 2008; Ozer et al., 2003; see also Sippel et al., 2015), only a handful of studies have looked at mediating effects in civilian samples. For example, Xu

and colleagues (2016) showed that higher levels of disclosure following a web-based intervention mediated the reduction of posttraumatic stress symptoms in a Chinese civilian sample. Additionally, studies among individuals diagnosed with breast cancer have demonstrated that social support from other survivors who act as partners to talk about the cancer experience is associated with posttraumatic growth (McDonough, Sabiston, & Ullrich-French, 2011). Although these studies provide support for testing mediating effects of disclosure on relationships between partner support and trauma related outcomes in a non-military sample, they do not directly test how dimensions of partner interactions and disclosure uniquely predict both posttraumatic stress symptoms and growth. There is reason to expect Balderrama-Durbin's model (i.e., mediation of willingness to disclose on association between positive interactions and posttraumatic stress symptoms) will be replicated in a civilian sample and the additional components to the proposed model (see Figure B.1) will demonstrate effects in a civilian sample.

Current Study

The mediating role of disclosure on the association between perceived partner support and posttraumatic stress symptoms has been shown in previous research (Balderrama-Durbin et al., 2013); however, this research has several limitations. Prior research has focused on a unidimensional assessment of perceived partner support rather than distinct positive and negative partner interactions. A comparison of posttraumatic stress symptoms and posttraumatic growth outcomes would also add to the previous line of research by exploring a greater range of post trauma reactions. Additionally, prior studies have not compared different components of trauma related disclosure, including willingness to disclose, urge to disclose, and emotional reactivity to disclosure within the

mediation model. Controlling for general relationship sentiment would demonstrate unique associations between dimensions of partner interactions, disclosure, and posttraumatic outcomes over and above measures of relationship schema. Consequently, the current study expanded on the existing research in several ways. First, it compared positive and negative dimensions of partner interactions. Second, it included measures of disclosure that assessed willingness to disclose, urge to disclose, and emotional reactivity to disclosure. Third, this study included posttraumatic stress symptom severity and posttraumatic growth outcomes to explore a broader range of post trauma experiences. Fourth, the current study showed the extent to which positive and negative interactions demonstrated unique associations above and beyond effects of general relationship sentiment. Lastly, the proposed model built on previous studies of social support and trauma outcomes in civilian samples.

Hypotheses

The present study consisted of the following main hypotheses:

H1. Positive and negative interactions should make distinct, unique contributions in predicting the following key variables: posttraumatic stress symptoms, posttraumatic growth, willingness to disclose, urge to disclose, and emotional reactivity to disclosure. Specifically:

H1A. Negative interactions should predict posttraumatic stress symptoms, and the effect should be bigger than positive interactions and remain significant after controlling for positive interactions and relationship sentiment.

H1B. Positive interactions should predict posttraumatic growth, and the effect should be bigger than negative interactions and remain significant after controlling for negative interactions and relationship sentiment.

H1C. Both positive and negative interactions should predict willingness to disclose, urge to disclose, and emotional reactivity to disclosure, and these effects should remain significant after controlling for each other and relationship sentiment.

H2. Willingness to disclose, urge to disclose, and emotional reactivity to disclosure will have direct effects in predicting trauma outcomes (i.e., posttraumatic stress symptoms and posttraumatic growth) that remain significant after controlling for each other, positive and negative interactions, and relationship sentiment.

H3. The effects of the two interpersonal behavior variables (i.e., positive and negative interactions) on the two trauma outcome variables (i.e., posttraumatic stress symptoms and posttraumatic growth) will be partly mediated by each of the three disclosure variables (i.e., willingness to disclose, urge to disclose, and emotional reactivity to disclosure). Moreover, these effects will remain significant after controlling for relationship sentiment.

CHAPTER TWO

Methods

Participants

A sample of 147 participants was drawn from Amazon Mechanical Turk (MTurk), which is a crowd-sourcing website. The age of participants ranged from 19 to 67 years old ($M = 36.91$, $SD = 10.06$). The participants consisted of 60.5% female, 38.8% male, and .7% (one participant) who preferred to self-describe as non-binary. The sample had 80.3% participants identify as White or Caucasian, 10.2% as Black or African American, 5.4% as Hispanic or Latino(a), 2.7% as Asian or Asian American, and 1.4% who preferred to self-describe as multiracial. Over half of the sample (60.5%) were married couples and 39.5% were in a cohabiting dating relationship. There was a range in the length of participant relationships from less than one year to 12 years cohabiting ($M = 5.24$, $SD = 2.6$) and from one year of marriage to 45 years of marriage ($M = 13.29$, $SD = 10.21$). The sample included 2.7% participants cohabiting for less than one year, 23.8% cohabiting for one to five years, 21.1% married for one to five years, 12.9% cohabiting for six to 12 years, 21.1% married for six to 15 years, and 18.4% married for 16 to 45 years. Tables A.1 and A.2 provide demographic information for the participants.

Amazon MTurk is an online labor market where workers are recruited by requesters for execution of tasks. It has been shown to obtain high-quality psychological data inexpensively and rapidly (Buhrmester, Kwang, & Gosling, 2011; Mortensen & Hughes, 2018; Shapiro, Chandler, & Mueller, 2013). Participants were required to meet

two eligibility criteria on a screener survey in order to provide responses to the study survey. Participants in this study were also required to be United States citizens, which was determined by the location associated with the MTurk workers' registered account, as well as additional screener questions to reduce responses from non-authentic users using a proxy to spoof Internet Protocol (IP) addresses. See Eligibility Criteria section below for additional information. Each participant was compensated \$2.00 to complete the survey.

Eligibility Criteria

Participants first completed a screener survey consisting of demographic, trauma history, and filler questions. In order to participate in this study, participants had to meet two eligibility criteria. First, participants had to report being in a current romantic relationship, which could include married or cohabiting relationships, in order to provide responses based on that relationship. Second, participants had to report experiencing common traumatic events known to affect a large proportion of the population in order to provide responses based on their experiences (Benjet et al., 2015). Specifically, participants had to endorse experiencing one of the following events in their lifetime: "I experienced a motor vehicle accident that resulted in a death or serious injury," "I experienced physical or sexual assault that threatened death or caused serious injury," or "I experienced military combat."

Additionally, participants had to pass two validity checks to ensure they were paying attention to the items and providing honest responses. Specifically, participants had to deny the items: "I am currently taking the medication called Ributerol," which is impossible, and "I currently work in a job that requires frequent mixing and sanding or

blasting of fiberglass resins,” which is not impossible but is highly improbable. Filler questions “I have experienced a period of unemployment (where I was actively looking for work) lasting longer than one month,” “I have used a gun,” and “I support declaring a national emergency to build a wall along the southern border of the United States” were used to ensure the eligibility criteria for passing the screening survey were not entirely obvious to participants.

To discourage poor-quality data from non-authentic spoof accounts and server farms, participants also had to answer a second page of screening items including four English vocabulary items and four object naming items. The response options for each object included the term used in American English, the term used in Indian English, and two filler terms. Participants in a current romantic relationship with at least one “yes” response to experiencing a common traumatic event and who passed the validity check and vocabulary screen were directed to the study qualification page. Participants who were unable to satisfy these eligibility requirements were excluded and sent to the page telling them they did not qualify.

There were 178 out of 1724 responses to the screener survey that were eligible for the study. Reasons for ineligibility included positive response to foil items (e.g., “I am currently taking the medication called Ributerol” and/or “I currently work in a job that requires frequent mixing and sanding or blasting of fiberglass resins”), failed vocabulary screen, not currently in cohabiting or marriage relationship, and/or did not endorse history of experiencing traumatic event(s) (e.g., serious motor vehicle accident, physical or sexual assault, and/or military combat). Additionally, 31 participants out of the 178 eligible responses were excluded from analyses due to poor and/or confusing quality of

written answers (e.g., “It was very worst experience to me. I met severe accident. It makes very pain. I have no conscious. After that I have conscious.”; $n = 10$), not completing the full study survey ($n = 2$), and/or identification of their worst event as something that did not meet this study’s definition of a traumatic event (e.g., parent dying from terminal illness; $n = 19$). There were no missing data in the final analyses of 147 participants’ responses.

Procedures

This study was listed on the Amazon MTurk website. The listing included a brief description of the screener process and study, the compensation amount, and the estimated length of time to completion, which was approximately less than one minute for the screener and 20 minutes for the survey. The survey was available to participants with accounts registered to United States citizens. The users remained anonymous to the researcher throughout the course of completion, although their identities were retained by Amazon.com for payment purposes. Participants were advised that they needed to collect a code at the end of the survey to then paste into a designated text box on the MTurk page for payment. Participants were instructed to follow a link from the MTurk website to the survey webpage hosted by Qualtrics.

The first page included a welcome to the screener survey. The screener survey included demographic, trauma history, and filler questions. Participants’ responses to demographic and trauma history questions within the screening survey were used to ensure study eligibility (see Eligibility Criteria section above). Participants who met the eligibility requirements were automatically directed to the study qualification page. Participants had the option to continue to the study or exit the survey. The first page of

the study survey included the informed consent document. Participants were asked to read and select “I agree” to indicate their consent to participate. Next, the participants completed the survey through a progression of webpages. Upon completion of the survey, each participant was given a unique code to enter into the indicated space on the MTurk website. This code was used to determine that the participant completed the survey and they were compensated accordingly.

Measures

Traumatic Event Exposure

The Life Events Checklist for DSM-5 (LEC-5; Weathers, Blake, Schnurr, Kaloupek, Marx, & Keane, 2013) is a 17-item self-report measure that assesses exposure to potentially traumatic events across the life span. Participants were asked about their exposure to 16 events that may be considered traumatic. An open-ended item that assesses exposure to other extraordinary stressful events was removed for this study. The LEC-5 extended version was used to ask participants to describe the worst event that happened to them and provide additional information about the circumstances under which it occurred.

Posttraumatic Stress Symptoms

The PTSD Checklist for DSM-5 (PCL-5; Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013) is a 20-item self-report measure that assesses the experience of DSM-5 PTSD symptoms in the last month (e.g., “Feeling very upset when something reminded you of the stressful experience”) on a 5-point Likert scale. Items assess symptoms across the four symptom clusters of PTSD including intrusion, avoidance, negative alterations

of cognition/mood, and arousal/reactivity. Total scores range from 0-80 with a score of 33 or higher indicating likely PTSD. The PCL-5 was anchored to the overall worst experience identified by participants after completing the LEC-5. Internal consistency for the PCL-5 in the current sample was excellent ($\alpha = .95$).

Posttraumatic Growth

The 10-item version of the Posttraumatic Growth Inventory (PTGI-SF; Cann, Calhoun, Tedeschi, Taku, Vishnevsky, Triplett, & Danhauer, 2010; Tedeschi & Calhoun, 1996) is a self-report measure of perceived benefits from coping with stressful or traumatic events (e.g., “I changed my priorities about what is important in life”). The scale yields a total score as well as scores on five subscales: new possibilities, relating to others, personal strength, appreciation of life, and spiritual change. For each item, participants rated how much perceived change has occurred on a 6-point Likert scale. Internal consistency for the PTGI-SF in the current sample was good ($\alpha = .89$).

Disclosure

The three disclosure dimensions (a) willingness (versus reluctance) to disclose, (b) urge to disclose, and (c) emotional reactivity to disclosure were assessed using items from the Combat Disclosure Scale (Balderrama-Durbin et al., 2013) and Disclosure of Trauma Questionnaire (DTQ; Mueller et al. 2000). Minor revisions to the items were made to relate disclosure experiences to an intimate partner and a civilian sample. Urge to disclose was measured with a single scale (DTQ Urge to Talk) containing 11 items rated on a 4-point Likert scale (e.g., “It is important for me to talk with my partner repeatedly about what happened and how it happened”). Internal consistency for the Urge

to Talk scale in the current sample was excellent ($\alpha = .90$). Emotional reactivity to disclosure was also measured with a single scale (DTQ Emotional Reactions) containing 10 items rated on a 4-point Likert scale (e.g., “Describing my worst experience to my partner makes me feel very sad”). Internal consistency for the Emotional Reactions scale in the current sample was good ($\alpha = .82$). Willingness (versus reluctance) to disclose was assessed using items from two scales called Reluctance to Talk (from the DTQ) and the Combat Disclosure Scale. The Reluctance to Talk scale contains 13 items rated on a 4-point Likert scale (e.g., “I have not told my partner about my worst experience”) and the Combat Disclosure Scale contains six items rated on a 4-point Likert scale (e.g., “I avoid discussing my worst experience with my partner). The 19 items from these two scales were reverse scored and combined to measure willingness (versus reluctance) to disclose. Scales were combined because both are indicators of the same target construct and joining them reduces problems that would be caused by using redundant scales (i.e., collinearity or inflated family-wise error). Moreover, empirical evidence from this dataset supported the decision to combine scales because the Reluctance to Talk scale and Combat Disclosure Scale were largely correlated ($r = .74$) and there was excellent reliability after scales were combined ($\alpha = .90$).

Positive and Negative Interactions

The Interpersonal Resilience Inventory (IRI; Rivers & Sanford, 2018) is a self-report measure that assesses positive interactions (e.g., “In your relationship with your partner, one of you helped the other by maintaining a positive attitude and being optimistic”) and negative interactions (e.g., “In your relationship with your partner, one of you made it more difficult for the other by having a negative attitude and being

pessimistic”). The two scales have been found to fit a dimensional confirmatory factor model, and both IRI scales have predicted outcome variables such as stress, negative affect, quality of life, and depression (Rivers & Sanford, 2018). Internal consistencies for the IRI positive interactions ($\alpha = .86$) and negative interactions ($\alpha = .89$) scales in the current sample were good.

Relationship Sentiment

Relationship sentiment was assessed with items from the Couples Satisfaction Index (CSI; Funk & Rogge, 2007), Psychological Intimacy Scale (PIS; Debrot et al., 2012), and one item of perceived partner responsiveness (Debrot et al., 2012). The 4-item version of the CSI measures relationship satisfaction on a 6- or 7-point Likert scale (e.g., “In general, how satisfied are you with your relationship?”). The PIS contains four items that measure the experience of intimate feelings towards a partner, including: feelings of being secure, cared for, close to, and understood on a 4-point Likert scale. Lastly, perceived partner responsiveness was measured with one item on a 4-point Likert scale (e.g., “My partner is responsive to me”). The nine items from these three scales were combined to measure general relationship sentiment. The three scales were largely correlated with one another (e.g., CSI and PIS $r = .83$; CSI and perceived responsiveness $r = .73$; and PIS and perceived responsiveness $r = .84$), so joining them reduced collinearity problems and risk of inflated family-wise error from redundant scales. There was excellent internal consistency after scales were combined ($\alpha = .95$).

CHAPTER THREE

Results

Preliminary Analyses

Descriptive statistics (i.e., mean, standard deviation, range) were calculated to describe the sample and the key variables (e.g., positive interactions, negative interactions, posttraumatic stress symptoms, posttraumatic growth, willingness to disclose, urge to disclose, emotional reactivity to disclosure, and relationship sentiment). Notably, the mean score for posttraumatic stress symptoms in this sample was lower than expected given the typical cut-off score between 31-33 ($M = 25.89$, $SD = 17.95$). Descriptive statistics for all measures are reported in Table A.3.

Gender, Race, and Relationship Status Differences

Several independent samples *t*-tests were conducted to compare scores between men and women in the sample. Negative interactions, posttraumatic stress symptoms, and emotional reactivity to disclosure were significantly higher for women than for men. Willingness to disclose and relationship sentiment were significantly higher for men than for women. The gender effects for all measures are shown in Table A.4.

Several ANOVAs were conducted to compare scores between self-identified racial groups. As shown in Table A.5, there were significant differences across Asian/Asian American, Black/African American, Hispanic/Latino(a), White/Caucasian, and participants who preferred to self-describe their racial group(s) for measures of positive interactions, negative interactions, and relationship sentiment. There were no

differences between self-identified racial groups on measures of posttraumatic stress symptoms, posttraumatic growth, willingness to disclose, urge to disclose, and emotional reactivity to disclosure. ANOVAs were also conducted to compare scores between age groups (i.e., ages 19-29, 30-39, 40-49, 50-59, and 60-67). There were no significant differences between age groups and the primary study variables (see Table A.6).

Independent samples *t*-tests were used to compare scores between married and cohabiting respondents. Willingness to disclose was significantly higher for cohabiting participants and emotional reactivity to disclosure was significantly higher for married participants. There were no relationship status differences on measures of positive interactions, negative interactions, posttraumatic stress symptoms, posttraumatic growth, urge to disclose, or relationship sentiment. Table A.7 shows the differences between married and cohabiting participants.

Hypothesis 1: Positive and Negative Interactions Predict Trauma Outcomes and Disclosure

It was hypothesized that positive and negative interactions should make distinct, unique contributions in predicting posttraumatic stress symptoms, posttraumatic growth, willingness to disclose, urge to disclose, and emotional reactivity to disclosure.

Correlation analyses of the primary study variables were conducted for a preliminary examination of their associations and are presented in Table A.8. Steiger *t*-tests were used to calculate the magnitude of difference between correlations for Hypotheses 1A and 1B. Multiple regression models were conducted to examine unique variance explained by the dimensions of partner interactions over and above each other and general relationship sentiment on criterion variables for Hypotheses 1A, 1B, and 1C. To aid in the

interpretation of results, all variables were first converted to z-scores prior to regression analysis to produce standardized beta weights. Results are presented by sub-hypotheses below. The standardized regression coefficients for Hypothesis 1 can be found in Table A.9.

Hypothesis 1A: Negative Interactions Predict Posttraumatic Stress Symptoms

It was hypothesized that negative interactions would predict posttraumatic stress symptoms, and the effect should be bigger and remain significant after controlling for positive interactions and relationship sentiment. As shown in Table A.8, negative interactions and posttraumatic stress symptoms had a moderate association ($r = .37, p < .001$) that was significantly larger than the association between positive interactions and posttraumatic stress symptoms ($r = -.09, p = .26$). The magnitude of difference between the absolute values of these correlations was .28, $t(144) = 2.78, p = .01$. As hypothesized, negative interactions uniquely contributed to predicting posttraumatic stress symptoms over and above positive interactions and relationship sentiment ($\beta = .38, t(143) = 3.95, p < .001$, see Table A.9).

Hypothesis 1B: Positive Interactions Predict Posttraumatic Growth

It was hypothesized that positive interactions would predict posttraumatic growth, and the effect would be bigger and remain significant after controlling for negative interactions and relationship sentiment. As shown in Table A.8, positive interactions and posttraumatic growth had a small association ($r = .21, p = .01$) that was not significantly larger than the association between negative interactions and posttraumatic growth ($r = -.01, p = .87$). The magnitude of difference between the

absolute values of these correlations was .20, $t(144) = 1.90$, $p = .06$. As hypothesized, positive interactions uniquely contributed to predicting posttraumatic growth over and above negative interactions and relationship sentiment ($\beta = .22$, $t(143) = 2.00$, $p = .047$, see Table A.9).

Hypothesis 1C: Positive and Negative Interactions Predict Different Dimensions of Disclosure

It was hypothesized that both positive and negative interactions would predict willingness to disclose, urge to disclose, and emotional reactivity to disclosure, and the effects would remain significant after controlling for each other and relationship sentiment. As shown in Table A.8, positive interactions had a moderate association with willingness to disclose ($r = .32$, $p < .001$), but was not significantly correlated with urge to disclose or emotional reactivity to disclosure. Negative interactions had a moderate association with willingness to disclose ($r = -.34$, $p < .001$), a small association with emotional reactivity to disclosure ($r = .27$, $p = .001$), and was not significantly correlated with urge to disclose. Regression results demonstrated partial support for the hypothesis. Both negative ($\beta = -.26$, $t(143) = -2.80$, $p = .01$) and positive interactions ($\beta = .22$, $t(143) = 2.22$, $p = .03$) uniquely contributed to predicting willingness to disclose over and above each other and relationship sentiment. Only negative interactions predicted emotional reactivity to disclosure after controlling for positive interactions and relationship sentiment ($\beta = .26$, $t(143) = 2.65$, $p = .01$). Positive and negative interactions were not significant predictors of urge to disclose. Standardized regression coefficients can be found in Table A.9.

Hypothesis 2: Dimensions of Disclosure Predict Trauma Outcomes

It was hypothesized that three dimensions of disclosure (i.e., willingness to disclose, urge to disclose, and emotional reactivity to disclosure) should make distinct, unique contributions in predicting posttraumatic stress symptoms and posttraumatic growth, and effects would remain significant after controlling for each other, positive and negative interactions, and relationship sentiment. Correlations were used to examine preliminary associations between variables and are shown in Table A.8. Willingness to disclose had a small association with posttraumatic stress symptoms ($r = -.23, p = .01$), but was not significantly correlated with posttraumatic growth. Urge to disclose had a small association with posttraumatic stress symptoms ($r = .19, p = .02$) and a moderate association with posttraumatic growth ($r = .30, p < .001$). Emotional reactivity to disclosure had a large association with posttraumatic stress symptoms ($r = .54, p < .001$), but was not significantly correlated with posttraumatic growth. Multiple regression models were conducted to determine whether the three dimensions of disclosure explained unique variance in the two trauma outcome variables (i.e., posttraumatic stress symptoms and posttraumatic growth) after controlling for each other, domains of partner interactions, and relationship sentiment. Table A.10 shows the standardized regression coefficients for Hypothesis 2. Results mostly failed to support the second hypothesis. Only urge to disclose uniquely contributed to predicting posttraumatic growth after controlling for dimensions of partner interactions, relationship sentiment, and other disclosure variables ($\beta = .31, t(140) = 3.24, p = .002$). Additionally, only emotional reactivity to disclosure uniquely contributed to predicting posttraumatic stress symptoms after controlling for the other primary study variables ($\beta = .48, t(140) = 5.49, p < .001$).

Willingness to disclose was not a significant predictor of posttraumatic outcomes after controlling for other primary study variables.

Hypothesis 3: Identifying Mediation Models

It was hypothesized that the effects of the two partner interaction variables (i.e., positive and negative) on the two trauma outcome variables (i.e., posttraumatic stress symptoms and posttraumatic growth) would be partly mediated by each of the three disclosure variables, and the effects would remain significant after controlling for relationship sentiment. Mediation analyses were conducted using the PROCESS macro in SPSS (Hayes, 2017). Given the sample size, data is sufficiently large to ignore violations of normality, but bias-corrected bootstrapping ($N = 5000$) was used in path analyses to correct for skew in the population and provide the strongest possible confidence intervals for examining statistical significance of indirect effects (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2008). There was no indication of overall outliers in the data (Tabachnick & Fidell, 2007). Mediation models using all primary study variables were tested despite several non-significant associations in correlation analyses because the failure to find a direct association between two variables does not preclude an indirect effect of a third variable (Hayes, 2017; MacKinnon, Fairchild, & Fritz, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Variables were transformed to z -scores prior to completing mediation analyses and thereby provide standardized estimates.

Mediation analyses revealed four statistically significant indirect effects: 1) willingness to disclose partially mediated the relationship between positive interactions and posttraumatic stress symptoms, 2) urge to disclose partially mediated the relationship

between positive interactions and posttraumatic stress symptoms, 3) emotional reactivity to disclosure partially mediated the relationship between negative interactions and posttraumatic stress symptoms, and 4) urge to disclose partially mediated the relationship between positive interactions and posttraumatic growth. Total, direct, and indirect effects for all simple mediation models are provided in Table A.11. See Figures B.2 through B.5 for standardized path coefficients and *p*-values. The four models were then tested with relationship sentiment as a control variable using the PROCESS macro. Standardized regression coefficients for these four models are shown in Table A.12. Indirect effects of the disclosure variables remained significant after controlling for relationship sentiment in all four models, although sentiment did significantly contribute to the variance in posttraumatic stress within the model of positive interactions and urge to disclose. Results mostly failed to support the third hypothesis. It was expected that each dimension of partner interactions and disclosure would demonstrate mediating effects on both types of trauma outcomes after controlling for sentiment, yet most of the indirect effects were not significant.

CHAPTER FOUR

Discussion

This study explored a model in which distinct positive and negative partner interactions were expected to predict two types of trauma related outcomes and be mediated by three dimensions of trauma related disclosure after controlling for general relationship sentiment. Results demonstrated strong evidence for distinction between types of partner interactions. A key finding of the present study was negative interactions uniquely predicted posttraumatic stress symptoms, and the effect was significantly larger than positive interactions. Additionally, positive interactions uniquely predicted posttraumatic growth. These associations between dimensions of partner interactions and trauma outcomes remained significant after controlling for each other and relationship sentiment. Positive and negative interactions also had distinct effects for predicting disclosure. Both dimensions uniquely contributed to predicting willingness to disclose over and above each other and relationship sentiment. Only negative interactions predicted emotional reactivity to disclosure after controlling for positive interactions and relationship sentiment. Evidence for distinctions between types of disclosure were less robust than for partner interactions, but there were differences in predicting trauma outcomes. Urge to disclose had direct effects in predicting posttraumatic growth and emotional reactivity to disclosure had direct effects in predicting posttraumatic stress, and these associations remained significant after controlling for partner interactions, the other disclosure variables, and relationship sentiment. The present study provides valuable

information on different aspects of interpersonal relationships and trauma related disclosure that each play a unique role in predicting posttraumatic outcomes.

The proposed model showed positive and negative dimensions of partner interactions make unique contributions to predicting posttraumatic growth and posttraumatic stress symptom severity, respectively. Results are in line with prior research that suggests relationship appraisals are often best conceptualized as having separate positive and negative dimensions (Fincham, Beach, & Kemp-Fincham, 1997; Fincham & Linfield, 1997; Mattson, Rogge, Johnson, Davidson, & Fincham, 2013; Rivers & Sanford, 2018; Sanford et al., 2016, 2017). Rivers and Sanford (2018) found positive behaviors had larger associations (in absolute value) with other positive scales, and negative behaviors had larger associations (in absolute value) with other negative scales. Results from the present study are consistent with this finding as well.

One of the most interesting and important features of these results is that negative interactions uniquely predicted posttraumatic stress symptoms, and the effect was significantly larger than positive interactions. Positive interactions uniquely predicted posttraumatic growth, and although the magnitude of difference between these correlations was not statistically significant, the effect was larger in absolute value than negative interactions. Moreover, both of these associations remained significant after controlling for relationship sentiment. Previous research investigating positive and negative partner interactions found negative behavior has larger effects than positive behavior in predicting outcomes such as well-being, quality of life, perceived stress, and relationship satisfaction when couples are coping with stressful or traumatic life events (Cox et al., 2016; Rivers & Sanford, 2018; Sanford et al., 2016, 2017). Importantly, the

present study suggests that both positive and negative interactions produce effects for trauma related outcomes, and these effects are over and above relationship sentiment. Results suggest studies that only include unidimensional measures of interpersonal constructs or only measure general relationship schemas are likely to miss out on important ways in which positive and negative partner interactions uniquely predict trauma related outcomes.

The second major result from the study was two (out of three) dimensions of disclosure differentially predicted posttraumatic outcomes, and the effects remained after controlling for dimensions of partner interactions, the other disclosure variables, and relationship sentiment. Consistent with previous research, the three dimensions of disclosure were found to be moderately correlated but still independent from one another in predicting outcomes (Maercker et al., 2009; Mueller et al. 2000; Mueller et al., 2008). Urge to disclose uniquely contributed to predicting posttraumatic growth and emotional reactivity to disclosure uniquely contributed to predicting posttraumatic stress symptoms. Willingness to disclose was not a significant predictor of posttraumatic outcomes after controlling for other primary study variables.

The present study found urge to disclose predicted posttraumatic growth after controlling for the other primary study variables and thereby may be a particularly adaptive disclosure tendency. These results are different from previous research on trauma related disclosure which has shown reluctance (versus willingness) to disclose, urge to disclose, and emotional reactivity to disclosure are all associated with increased distress and more severe posttraumatic stress symptoms (Maercker et al., 2009; Mueller et al. 2000; Mueller et al., 2008; Mueller, Orth, Wang, & Maercker, 2009; Pielmaier &

Maercker, 2011). Urge to disclose has typically been conceptualized as intrusive re-experiencing and maladaptive rumination (Pielmaier & Maercker, 2011); however, other studies have found deliberate rumination about traumatic experiences promotes posttraumatic growth (Lindstrom et al., 2013; Tedeschi & Calhoun, 2004). The present study builds on this line of research and suggests urge to disclose may uniquely contribute to the process of finding meaning, changing priorities, or improving relationships after someone experiences a traumatic event.

Another finding of this study was that emotional reactivity to disclosure predicted posttraumatic stress symptom severity after controlling for the other primary study variables. This is different from other studies which found all three disclosure dimensions predict posttraumatic stress symptoms (Maercker et al., 2009; Mueller et al. 2000; Mueller et al., 2008; Mueller et al., 2009; Pielmaier & Maercker, 2011). However, the finding is consistent with research on expressive writing and written emotional disclosure that demonstrate very high levels of negative emotions are correlated with poorer outcomes (Pennebaker, 1997b). Emotional reactivity to disclosure may be especially important for understanding how difficult someone finds the disclosure process to be. Bedard-Gilligan, Jaeger, Echiverri-Cohen, and Zoellner (2012) showed difficulty of disclosure differentiated people with and without PTSD, whereas the amount of disclosure did not. Results of the current study provide further evidence that higher levels of negative emotions around the disclosure process predict worse posttraumatic stress symptom severity.

Willingness (versus reluctance) to disclose was not a significant predictor of posttraumatic growth or posttraumatic stress symptoms after controlling for other primary

variables in the current study. This finding is particularly surprising as it relates to posttraumatic stress symptoms because it is inconsistent with Balderrama-Durbin and colleagues' study (2013) and other research which shows greater reluctance to disclose predicts PTSD (Mueller et al., 2008). Positive and negative partner interactions were moderately associated with willingness to disclose, but results suggest a willing attitude towards disclosure does not predict trauma outcomes beyond the contributions of partner interactions themselves or the other components of disclosure. Previous investigations have found non-supportive responses (e.g., invalidation, victim blaming) are associated with more negative trauma related cognitions and distress (Bonnar-White, Hetzel-Riggin, Diamond-Welch, & Tollini, 2018; Campbell, Ahrens, Sefl, Wasco, & Barnes, 2001; Charuvastra & Cloitre, 2008; Cox et al., 2016; Laffaye et al., 2008; Ullman & Filipas, 2001; Wagner et al. 2012; Zoellner et al., 1999). This line of research is consistent with current results demonstrating negative interactions and emotional reactivity to disclosure better predict posttraumatic stress symptoms than willingness to disclose.

The results of mediation in the current study were predominately not significant, which likely pertains to the fact that many of the effects for disclosure were weak and mostly inconsistent with prior research on the three dimensions of disclosure (i.e., willingness, urge, and emotional reactivity) because they were not all associated with posttraumatic stress symptoms as most of the previous literature suggests (Maercker et al., 2009; Mueller et al. 2000; Mueller et al., 2008; Mueller et al., 2009; Pielmaier & Maercker, 2011). Although there was not a statistically significant association between positive interactions and posttraumatic stress symptoms, results indicated a significant indirect effect of willingness to disclose. These findings are partially consistent with the

mediation model presented by Balderrama-Durbin and colleagues (2013) in which combat disclosure (i.e., willingness) mediated the relationship between perceived partner support (i.e., positive interactions) and posttraumatic stress symptoms. Differences between study samples could account for the diminished effects in the current study. Recent evidence by van Stolk-Cooke and colleagues (2018) showed higher prevalence of posttraumatic stress symptoms in MTurk samples than in college samples; however, a lower rate of posttraumatic stress symptoms in this sample likely underestimated the strength of relationships between symptoms and other key study variables. Interestingly, results indicate significant indirect effects of urge to disclose on the associations between positive interactions and both trauma outcomes (i.e., symptoms and growth); however, relationship sentiment did significantly contribute to variance in posttraumatic stress symptoms in the model of positive interactions and urge to disclose. Lastly, emotional reactivity to disclosure partially mediated the relationship between negative interactions and posttraumatic stress symptom severity. Although only four out of 12 mediation models were significant, previous literature suggests they may be particularly important.

Positive interactions may facilitate greater urge to disclose by promoting beneficial communication tendencies such as self-reflection and mutual problem-solving that comprise deliberate rumination and subsequently fuel the desire for repeatedly talking about trauma with a romantic partner (i.e., urge to disclose) and contributes to posttraumatic growth. Models of posttraumatic growth have identified deliberate rumination as a process of repetitive re-examination and proactive contemplation about traumatic experiences, which is distinct from intrusive rumination where individuals focus on negative aspects of traumatic events (Lindstrom et al., 2013; Tedeschi &

Calhoun, 2004). Deliberate rumination has been shown to be positively associated with posttraumatic growth (Andrades, Garcia, Calonge, & Martinez-Arias, 2018), and a longitudinal study of trauma survivors found that people with a more ruminative coping style sought more social support compared to those without a ruminative coping style (Nolen-Hoeksema & Davis, 1999). Additionally, a recent study found social support mediated the relationship between deliberate rumination and posttraumatic growth in a sample of adolescents following a natural disaster (Xu, Jiang, Zhou, Zhou, & Fu, 2019). It may be that urge to disclose akin to deliberate rumination promotes posttraumatic growth, whereas urge to disclose akin to intrusive rumination perpetuates posttraumatic stress symptoms. The results of the current study build on this emerging literature by showing urge to disclose had indirect effects on both trauma related outcomes.

Negative interactions may increase distress and associated emotional reactivity towards the act of disclosure, and subsequently higher levels of negative emotions around disclosure contribute to posttraumatic stress symptoms. Prior research suggests negative interactions are associated with greater posttraumatic stress symptoms and are likely to make the process of disclosure more difficult (Bonnar-White et al., 2018; Campbell et al., 2001; Cox et al., 2016; Ullman & Filipas, 2001; Wagner et al. 2012; Zoellner et al., 1999). Additionally, research on emotional avoidance and fear of emotions is prominent across the trauma literature (Chawla, & Ostafin, 2007; Foa & Kozak, 1986; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Sippel & Marshall, 2013; Ullman, Filipas, Townsend, & Starzynski, 2007; for review see Litz & Gray, 2002). The current study suggests negative interactions predict posttraumatic stress symptoms, yet emotional reactivity to disclosure partly mediates the association and uniquely contributes to

symptom severity as well. The mediation findings suggest specific disclosure mechanisms underly the associations between dimensions of partner interactions and posttraumatic outcomes. As the mechanisms of action in trauma related disclosure among couples are identified over time, they can be combined with other interpersonal variables in future studies or used in treatment settings.

Existing interventions may be expanded by incorporating assessments of different disclosure dimensions. Work by Monson and colleagues has demonstrated efficacy for improving individual and relationship functioning among couples receiving Cognitive-Behavioral Conjoint Therapy (CBCT) for PTSD, which focuses on simultaneously enhancing relationships and processing trauma (Fredman, Monson, & Adair, 2011; Monson et al., 2011; Monson & Fredman, 2012; Monson, Fredman, & Adair, 2008). In this approach, explicit renditions of the traumatic event are discouraged. Integrative Behavioral Couple Therapy (IBCT) has also been used to treat PTSD and similarly encourages limited disclosure of traumatic experiences (Erbes, Polusny, MacDermid, & Compton, 2008). Moreover, current individual trauma therapies encourage disclosure of experiences to differing degrees of detail and in various contexts (Foa, Hembree, & Rothbaum, 2007; Foa & Rothbaum, 1998; Resick, Monson, & Chard, 2017).

Determining an individual's urge to disclose and their emotional reactivity to the act of disclosing may be more important in predicting outcomes than level of disclosure. These dimensions of disclosure could be additional targets of intervention, such as attempting to facilitate adaptive urge to disclose (i.e. deliberate rumination) and/or attempting to reduce maladaptive emotional reactivity to disclosure. Perhaps even more importantly, results of the present study also suggest current treatments should continue to address positive and

negative dimensions of partner interactions, particularly when measuring progress beyond stress manifestations alone.

The current study included several limitations. First, data were based on one partner's perceptions of relationship factors, disclosure, and their own trauma reactions. Although this was in accordance with the primary purposes of this study, future research could collect data from both partners and make direct comparisons between the two sources of information. Relatedly, it may be worthwhile to develop a measure of partner experiences during trauma related disclosure that could be compared to the three dimensions used in the present study. It would be interesting to explore whether similar constructs on the recipient end differentially predict trauma and/or relationship outcomes. Second, the current sample reported lower prevalence of posttraumatic stress symptoms than expected. Future studies may obtain a greater range of symptom severity by screening for broad posttraumatic stress symptoms rather than screening for previous experiences with common trauma types. Third, the current study used a cross-sectional sample and data were correlational. As a result, cause and direction of the relationships between positive and negative partner interactions, trauma related disclosure, posttraumatic stress symptoms, and posttraumatic growth could not be determined. Future studies could address this limitation by applying this model in longitudinal studies or experimental clinical research. The collection of data over time and/or the use of experimental and control groups would determine if the indirect effects of disclosure types are causal to posttraumatic stress symptoms and growth. In terms of clinical application, it would be beneficial to explore potential differences between treatment conditions focused exclusively on modifying dimensions of partner interactions,

exclusively on modifying elements of disclosure, and a combination of these elements to better understand essential components for predicting treatment outcomes.

In conclusion, this study aimed to examine the relationships between positive and negative partner interactions and posttraumatic symptoms and growth, with distinct dimensions of trauma related disclosure mediating these associations. A model was created using a series of regressions to determine the unique contributions of the primary study variables on trauma outcomes. It was found that positive and negative interactions uniquely contributed to predicting posttraumatic growth and posttraumatic stress symptoms, respectively. Additionally, distinct dimensions of disclosure partly mediated these associations. These effects remained after controlling for general relationship sentiment. Overall, the results of this study highlight the importance of positive and negative interpersonal behaviors and distinctive components of disclosure in predicting different trauma related outcomes, which informs theoretical and clinical applications.

APPENDICES

APPENDIX A

Tables

Table A.1

Number (Percentage) of Participants Reporting Type of Overall Worst Experience by Gender

Trauma Type	Male (n = 57)	Female (n = 89)	Prefer to self-describe (n = 1)
Natural disaster	8 (14%)	7 (7.9%)	0
Fire or explosion	0	0	0
Transportation accident	10 (17.5%)	12 (13.5%)	0
Serious accident at work, home, or during recreational activity	1 (1.8%)	0	0
Exposure to toxic substance	0	0	0
Physical assault	3 (5.3%)	6 (6.7%)	0
Assault with weapon	3 (5.3%)	6 (6.7%)	0
Sexual assault	11 (19.3%)	32 (36%)	1 (100%)
Other unwanted sexual experience	2 (3.5%)	2 (2.2%)	0
Combat or exposure to war zone	1 (1.8%)	2 (2.2%)	0
Captivity (e.g., kidnapping, prisoner of war, hostage)	2 (3.5%)	0	0
Life threatening illness or injury	5 (8.8%)	9 (10.1%)	0
Severe human harm	1 (1.8%)	0	0
Sudden violent death (e.g., homicide, suicide)	6 (10.5%)	1 (1.1%)	0
Sudden accidental death	4 (7%)	12 (13.5%)	0
Serious injury, harm, or death you caused to someone else	0	0	0

Table A.2

Sample Demographics

Descriptive Statistics				
	<i>n</i>	<i>M</i>	<i>SD</i>	Range
Age	147	36.91	10.06	19-67 years
Relationship Duration				
Married	89	13.29	10.21	1-45 years
Cohabiting	58	5.24	2.6	<1-12 years
Frequencies		<i>n</i>	%	
Gender				
Female	89	60.5		
Male	57	38.8		
Prefer to self-describe	1	0.7		
Race				
White/Caucasian	118	80.3		
Black/African American	15	10.2		
Hispanic/ Latino(a)	8	5.4		
Asian/Asian American	4	2.7		
Prefer to self-describe	2	1.4		
Relationship Status				
Married	89	60.5		
Cohabiting	58	39.5		
Relationship Duration				
Cohabiting <1 year	4	2.7		
Cohabiting 1-5 years	35	23.8		
Cohabiting 6-12 years	19	12.9		
Married 1-5 years	31	21.1		
Married 6-15 years	31	21.1		
Married 16-45 years	27	18.4		
Previous PTSD Treatment				
Individual therapy for PTSD	12	8.2		
Group therapy for PTSD	2	1.4		
Both individual and group therapy for PTSD	3	2.0		
Individual therapy not for PTSD	23	15.6		
Group therapy not for PTSD	2	1.4		
Not sure	8	5.4		
None	97	66.0		
Employment Status				
Employed for salary/wages	103	70.1		
Self-employed	20	13.6		
Full time homemaker or caretaker	9	6.1		
Student	5	3.4		
Out of work, looking for work	3	2.0		
Out of work, not looking for work	1	0.7		
Retired	3	2.0		
Unable to work	3	2.0		

Table A.3

Means, Standard Deviations, and Ranges for Primary Study Variables

Variable	<i>M</i>	<i>SD</i>	Possible range	Actual range
1. Positive interactions	37.41	8.89	0 - 56	3 - 52
2. Negative interactions	21.67	7.86	0 - 56	0 - 46
3. Posttraumatic stress symptoms	25.89	17.95	0 - 80	0 - 80
4. Posttraumatic growth	30.95	12.65	10 - 60	10 - 60
5. Willingness to disclose	54.50	12.01	19 - 76	25 - 74
6. Urge to disclose	20.85	7.83	11 - 44	11 - 41
7. Emotional reactions to disclosure	21.10	6.34	10 - 40	10 - 34
8. Relationship sentiment	37.51	7.01	9 - 45	9 - 45

Table A.4

Independent Samples t-tests for Gender Differences

Variable	Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> -statistic	Cohen's <i>d</i>
1. Positive interactions	Female	89	36.42	8.92	1.64	.28
	Male	57	38.88	8.76		
2. Negative interactions	Female	89	23.84	10.28	-3.33**	.58
	Male	57	18.42	8.42		
3. Posttraumatic stress symptoms	Female	89	30.38	18.64	-3.95**	.69
	Male	57	18.88	14.54		
4. Posttraumatic growth	Female	89	30.79	12.48	.24	.04
	Male	57	31.30	13.11		
5. Willingness to disclose	Female	89	52.28	12.56	2.93**	.51
	Male	57	58.11	10.30		
6. Urge to disclose	Female	89	20.45	7.81	.84	.14
	Male	57	21.56	7.91		
7. Emotional reactions to disclosure	Female	89	22.49	6.14	-3.50**	.59
	Male	57	18.86	6.08		
8. Relationship sentiment	Female	89	36.35	7.50	2.45*	.43
	Male	57	39.21	5.82		

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

Table A.5

One-Way ANOVAs for Racial Group Differences

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	η^2
1. Positive interactions				4.63**	.12
Asian ^{a, b, c}	4	22.50	9.11		
Black ^a	15	41.73	5.89		
Hispanic ^b	8	41.63	5.01		
White ^c	118	37.11	8.91		
Self-Describe	2	35.50	3.53		
2. Negative interactions				4.00**	.10
Asian	4	27.25	9.54		
Black ^d	15	17.13	8.29		
Hispanic ^e	8	14.25	5.90		
White	118	22.28	9.88		
Self-Described, ^e	2	38.00	1.41		
3. Posttraumatic stress symptoms				.86	.02
Asian	4	32.25	6.70		
Black	15	25.67	22.90		
Hispanic	8	17.38	9.35		
White	118	26.05	17.88		
Self-Describe	2	39.50	20.51		
4. Posttraumatic growth				1.58	.04
Asian	4	30.75	16.80		
Black	15	37.40	13.52		
Hispanic	8	36.00	11.78		
White	118	29.86	12.39		
Self-Describe	2	27.50	4.95		
5. Willingness to disclosure				1.31	.04
Asian	4	47.75	3.86		
Black	15	60.13	12.79		
Hispanic	8	51.50	10.80		
White	118	54.25	12.11		
Self-Describe	2	52.00	1.41		
6. Urge to disclose				1.64	.04
Asian	4	20.00	6.98	(continued)	

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	η^2
Black	15	25.00	10.04		
Hispanic	8	23.88	6.85		
White	118	20.14	7.52		
Self-Describe	2	21.50	6.36		
7. Emotional reactions to disclosure				2.41	.06
Asian	4	23.25	3.30		
Black	15	16.60	5.78		
Hispanic	8	22.38	6.59		
White	118	21.46	6.33		
Self-Describe	2	24.50	.71		
8. Relationship sentiment				2.61*	.07
Asian _r	4	29.25	10.59		
Black _r	15	40.53	4.93		
Hispanic	8	40.38	2.77		
White	118	37.25	7.11		
Self-Describe	2	35.50	6.36		

Note. Means with same subscripts significantly differ according to Tukey HSD post hoc comparisons. * $p < .05$, ** $p < .01$.

Table A.6

One-Way ANOVAs for Age Group Differences

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	η^2
1. Positive interactions				1.19	.03
Ages 19-29	34	38.15	9.70		
Ages 30-39	65	38.18	7.60		
Ages 40-49	28	35.04	8.62		
Ages 50-59	16	42.50	12.38		
Ages 60-67	4	37.41	4.36		
2. Negative interactions				.78	.02
Ages 19-29	34	20.29	8.35		
Ages 30-39	65	22.06	10.11		
Ages 40-49	28	22.29	10.51		
Ages 50-59	16	23.56	11.71		
Ages 60-67	4	15.25	7.14		
3. Posttraumatic stress symptoms				1.90	.05
Ages 19-29	34	22.91	19.07		
Ages 30-39	65	28.52	18.91		
Ages 40-49	28	22.39	15.03		
Ages 50-59	16	31.25	15.35		
Ages 60-67	4	11.50	5.97		
4. Posttraumatic growth				1.64	.04
Ages 19-29	34	26.41	11.96		
Ages 30-39	65	31.57	12.48		
Ages 40-49	28	33.11	13.25		
Ages 50-59	16	33.06	12.00		
Ages 60-67	4	36.00	15.77		
5. Willingness to disclosure				1.38	.04
Ages 19-29	34	57.53	10.43		
Ages 30-39	65	54.05	12.39		
Ages 40-49	28	51.14	12.75		
Ages 50-59	16	54.25	12.60		
Ages 60-67	4	60.50	5.92		

(continued)

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	η^2
6. Urge to disclose				1.15	.03
Ages 19-29	34	20.85	7.34		
Ages 30-39	65	21.99	7.76		
Ages 40-49	28	19.14	8.43		
Ages 50-59	16	20.56	8.31		
Ages 60-67	4	15.50	5.26		
7. Emotional reactions to disclosure				1.70	.05
Ages 19-29	34	19.74	6.90		
Ages 30-39	65	21.66	6.01		
Ages 40-49	28	21.57	6.66		
Ages 50-59	16	22.44	5.63		
Ages 60-67	4	15.00	3.56		
8. Relationship sentiment				2.12	.06
Ages 19-29	34	38.94	3.89		
Ages 30-39	65	37.92	6.20		
Ages 40-49	28	35.46	9.31		
Ages 50-59	16	35.06	9.90		
Ages 60-67	4	42.75	.96		

Note. Means between groups were not significantly different according to Tukey HSD post hoc comparisons. * $p < .05$, ** $p < .01$.

Table A.7

Independent Samples t-tests for Relationship Status

Variable	Status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> -statistic	Cohen's <i>d</i>
1. Positive interactions	Married	89	36.51	9.90	1.53	.27
	Cohabiting	58	38.79	6.91		
2. Negative interactions	Married	89	22.58	10.15	-1.38	.23
	Cohabiting	58	20.28	9.45		
3. Posttraumatic stress symptoms	Married	89	27.48	16.26	-1.34	.22
	Cohabiting	58	23.45	20.17		
4. Posttraumatic growth	Married	89	31.31	12.31	-.43	.07
	Cohabiting	58	30.40	13.25		
5. Willingness to disclose	Married	89	52.80	11.73	2.15*	.36
	Cohabiting	58	57.10	12.07		
6. Urge to disclose	Married	89	20.76	7.74	.17	.03
	Cohabiting	58	20.98	8.02		
7. Emotional reactivity to disclosure	Married	89	22.21	6.01	-2.69**	.57
	Cohabiting	58	19.40	3.44		
8. Relationship sentiment	Married	89	37.03	7.93	1.02	.18
	Cohabiting	58	38.24	5.28		

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

Table A.8

Pearson Correlation Matrix for Primary Study Variables

Variable	1	2	3	4	5	6	7	8
1. Positive interactions	—							
2. Negative interactions	-.17*	—						
3. Posttraumatic stress symptoms	-.09	.37**	—					
4. Posttraumatic growth	.21*	-.01	.13	—				
5. Willingness to disclose	.32**	-.34**	-.23**	.09	—			
6. Urge to disclose	.16	-.14	.19*	.30**	.32**	—		
7. Emotional reactivity to disclosure	-.09	.27**	.54*	.06	-.48**	.22**	—	
8. Relationship sentiment	.63**	-.55**	-.21*	.12	.37**	.11	-.17*	—

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

Table A.9

Standardized Betas from Regression Equations for Hypothesis 1

Criterion variables	Predictor variables		Control variable
	Positive interactions	Negative interactions	Relationship sentiment
Posttraumatic stress symptoms	-.05	.38**	.03
Posttraumatic growth	.22*	.01	-.02
Willingness to disclose	.22*	-.26**	.08
Urge to disclose	.21	-.17	-.12
Emotional reactivity to disclosure	-.05	.26**	.004

Note. Regression models controlled for the other dimension of partner interactions and relationship sentiment. * $p < .05$, ** $p < .01$.

Table A.10

Standardized Betas from Regression Equations for Hypothesis 2

Criterion variables	Predictor variables			Control variables		
	Willingness	Urge	Emotional reactivity	Positive interaction	Negative interaction	Sentiment
PTSS _a	.07	.11	.48**	-.06	.29**	.04
PTG _b	-.06	.31**	-.04	.17	.06	.03

Note. ^aPTSS – Posttraumatic stress symptoms, ^bPTG – posttraumatic growth. Regression models controlled for the other types of disclosure, partner interactions, and relationship sentiment. * $p < .05$, ** $p < .01$.

Table A.11

*Total, Direct, and Indirect Effects for Primary Study Variables
in Simple Mediation Models*

Independent variable	Mediator variable	Dependent variable	Total effect	Direct effect	Indirect effect	95% CI [BootLL, BootUL] of indirect effect
Positive interactions	Willingness to disclose	PTSS ^a	-.09	-.02	-.07	[-.14, -.01] †
Positive interactions	Willingness to disclose	PTG ^b	.21*	.20*	.01	[-.05, .07]
Positive interactions	Emotional reactivity to disclosure	PTSS	-.09	-.04	-.05	[-.14, .04]
Positive interactions	Emotional reactivity to disclosure	PTG	.21*	.21*	-.01	[-.03, .01]
Positive interactions	Urge to disclose	PTSS	-.09	-.13	.03	[.0001, .09] †
Positive interactions	Urge to disclose	PTG	.21*	.16*	.04	[.002, .11] †
Negative interactions	Willingness to disclose	PTSS	.37**	.33**	.04	[-.02, .11]
Negative interactions	Willingness to disclose	PTG	-.01	.02	-.03	[-.10, .03]
Negative interactions	Emotional reactivity to disclosure	PTSS	.37**	.24**	.13	[.05, .23] †
Negative interactions	Emotional reactivity to disclosure	PTG	-.01	-.03	.02	[-.03, .07]
Negative interactions	Urge to disclose	PTSS	.37**	.41**	-.04	[-.08, .001]
Negative interactions	Urge to disclose	PTG	-.01	.03	-.04	[-.10, .001]

Note. ^aPTSS – Posttraumatic stress symptoms, ^bPTG – posttraumatic growth. Standardized scores, boot-strapped to 5000. * $p < .05$, ** $p < .01$, † indicates significant indirect effect.

Table A.12

Standardized Betas of Model Paths Controlling for Relationship Sentiment

Variables		β	95% CI for β [LL, UL]
<hr/> Posttraumatic stress <hr/>			
1.	Relationship sentiment	-.20	[-.41, .01]
	Positive interactions	.09	[-.12, .30]
	Willingness to disclose	-.18*	[-.36, -.01]
2.	Relationship sentiment	-.25*	[-.45, -.05]
	Positive interactions	.03	[-.17, .24]
	Urge to disclose	.21*	[.05, .37]
3.	Relationship sentiment	.01	[-.15, .17]
	Negative interactions	.25**	[.09, .41]
	Emotional reactivity to disclosure	.48**	[.34, .62]
<hr/> Posttraumatic growth <hr/>			
4.	Relationship sentiment	-.03	[-.23, .17]
	Positive interactions	.18	[-.02, .38]
	Urge to disclose	.27**	[.12, .43]

Note. Posttraumatic stress and posttraumatic growth are criterion variables. Standardized scores, boot-strapped to 5000. * $p < .05$, ** $p < .01$.

APPENDIX B

Figures

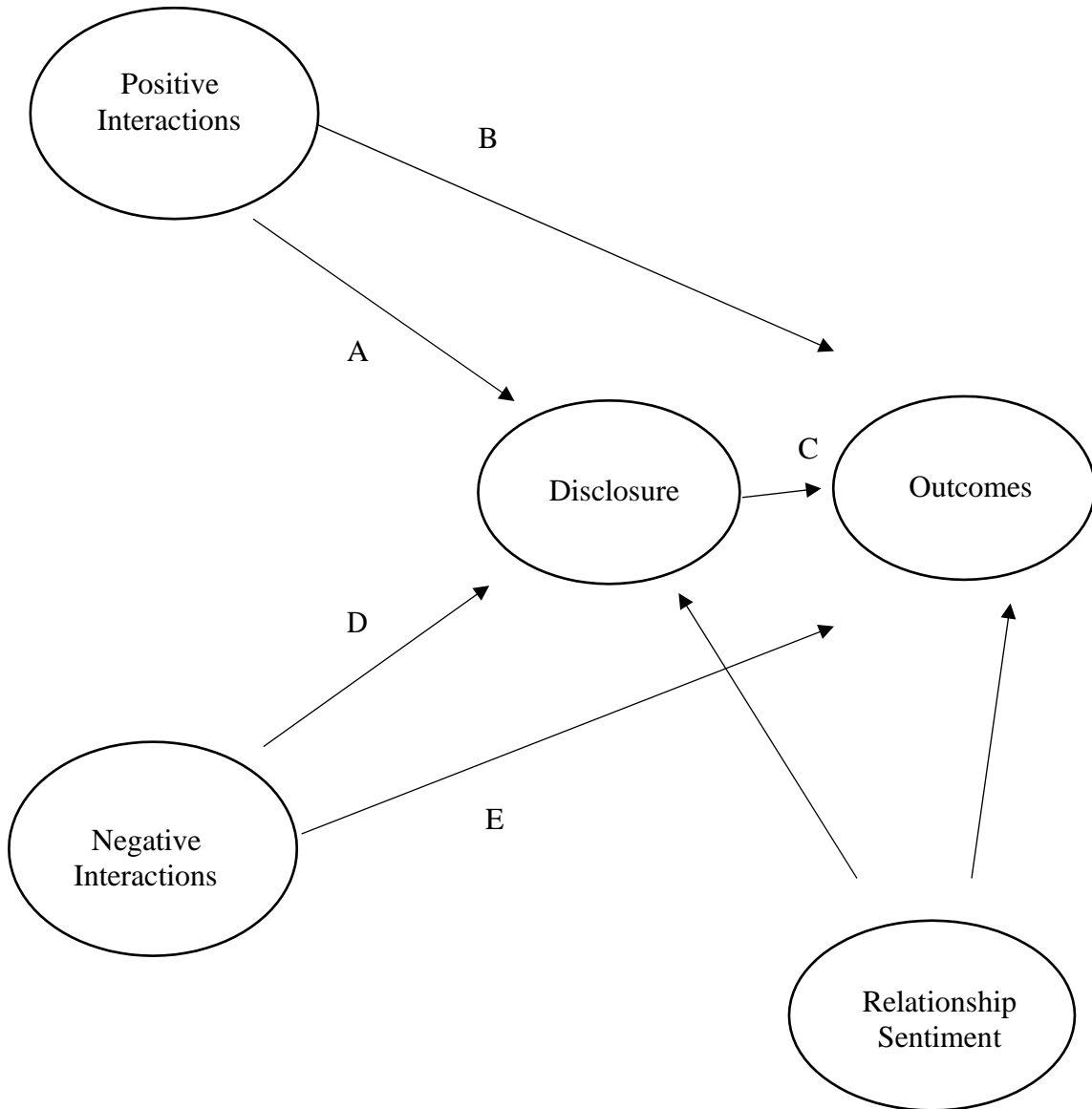


Figure B.1. Proposed Pathways of Partner Interactions and Disclosure in Relation to Trauma Outcomes

Note. Outcomes include both posttraumatic stress symptoms and posttraumatic growth, and disclosure includes willingness to disclose, urge to disclose, and emotional reactivity to disclosure.

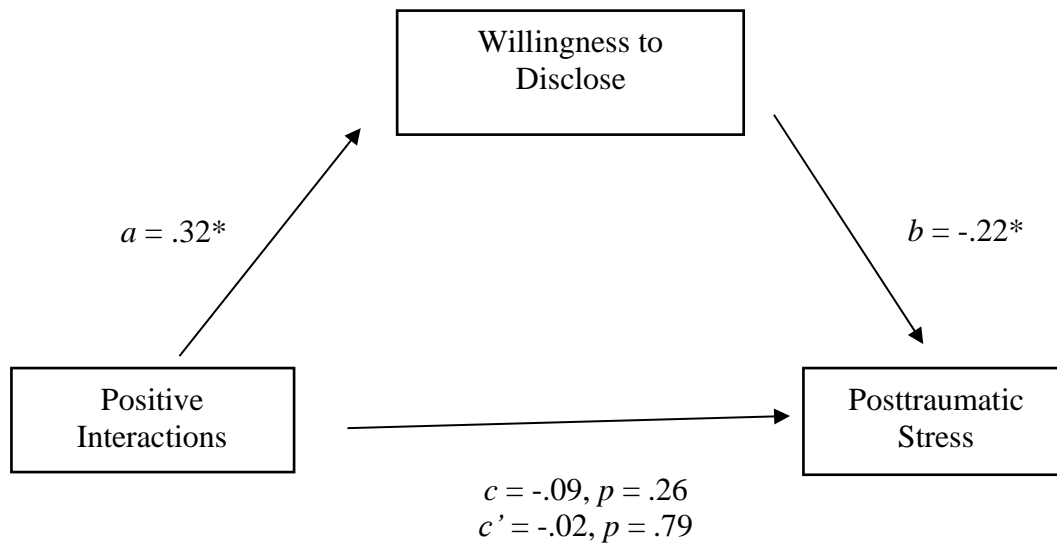


Figure B.2. Standardized Betas for Path Model of Positive Interactions, Willingness to Disclose, and Posttraumatic Stress

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

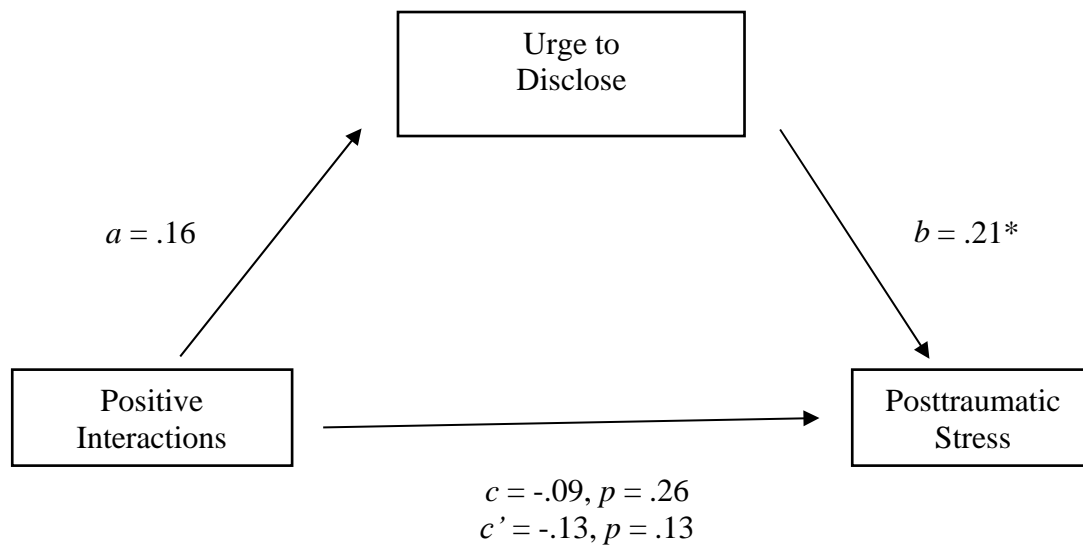


Figure B.3. Standardized Betas for Path Model of Positive Interactions, Urge to Disclose, and Posttraumatic Stress

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

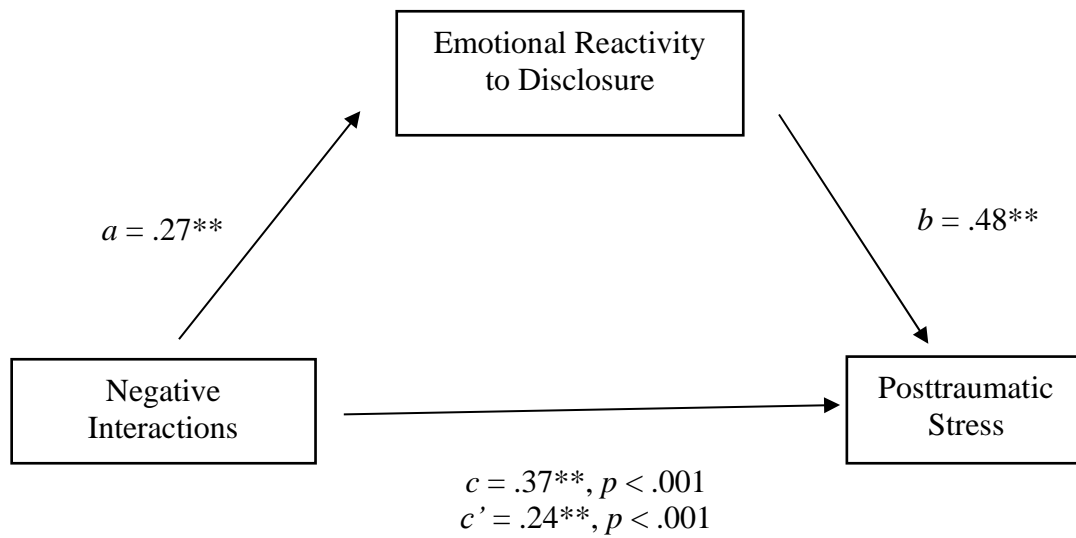


Figure B.4. Standardized Betas for Path Model of Negative Interactions, Emotional Reactivity to Disclosure, and Posttraumatic Stress

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

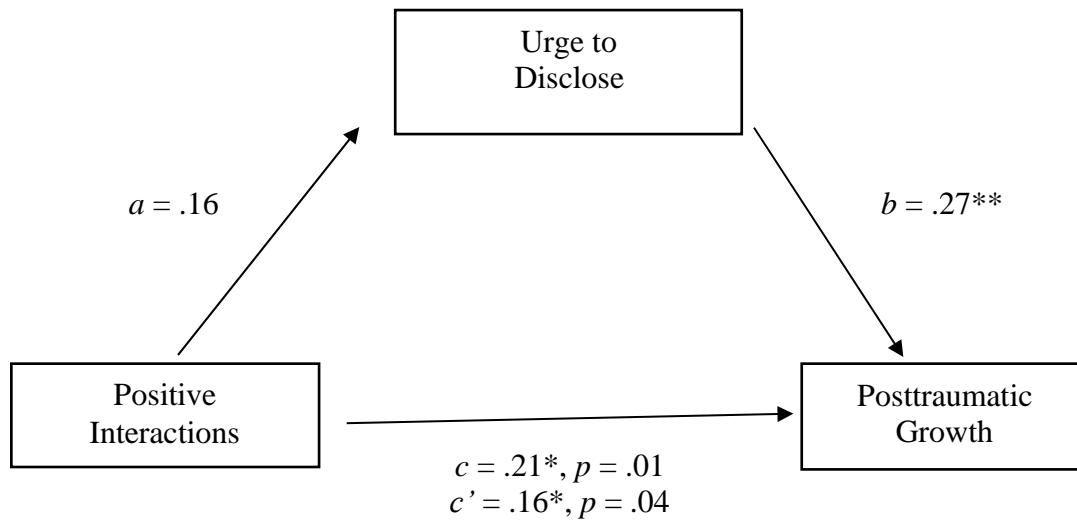


Figure B.5. Standardized Betas for Path Model of Positive Interactions, Urge to Disclosure, and Posttraumatic Growth

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

APPENDIX C

Study Survey

Screener

Welcome to the brief screening questionnaire.

To ensure proper payment (if you qualify) please enter your Mechanical Turk ID number below.

This is a screening questionnaire to determine eligibility for participation in a research study.

The information below describes this project. Click the button at the bottom of this page if you choose to complete this screening questionnaire.

Screener Survey Informed Consent

This is a brief screening survey to determine your eligibility for participation in a research study being conducted by Amanda Proctor, M.S., a doctoral student at Baylor University, and Keith Sanford, Ph.D., an Associate Professor in the department of Psychology and Neuroscience at Baylor University.

Completing this screening survey should take you less than 1 minute. If you agree to complete this screening survey and you are eligible for the research study, you will be given an invitation to complete a full questionnaire. You will not be paid for completing this short screening survey, but if you are eligible to participate in the research study, you will be offered payment for completing the full questionnaire. There are no costs to you for taking part in this research study.

Your participation in completing this screening survey involves risks similar to a person's everyday use of the Internet, which could include illegal interception of the data by another party. If you are concerned about your data security, you should not complete this survey. The only identifying information we collect from this screening survey will be a computer address and MTurk worker ID number. We will keep this information confidential by storing it using password protection.

If you have any questions or concerns about the study or any problems that result from participation you may contact Amanda Proctor at Baylor University, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, TX 76798-7334, email

Amanda_Proctor@baylor.edu. If you want to speak with someone not directly involved in this research study, you may contact the Baylor University IRB through the Office of the Vice Provost for Research at 254-710-1438. You can contact this office to talk about your rights as a research subject, your concerns about the research, or a complaint about the research.

Your participation in this screening survey is completely optional. You are free not to take part or to withdraw at any time for any reason. Information already collected about you cannot be deleted.

By clicking the button below, I am attesting that I am at least 18 years old, that I have read and understood the information above, and that I freely give my consent to participate in this research.

1 = I agree

2 = I do not wish to participate (please close your browser)

Initial Screen

Which phrase best describes your current relationship status?

1 = Single

2 = In a dating relationship

3 = Cohabiting with a partner

4 = Married

5 = Separated or divorced

6 = Widowed

Please indicate whether or not the following has been true for you in your lifetime.

1. I have experienced a period of unemployment (where I was actively looking for work) lasting longer than one month.

1 = Yes

2 = No

2. I have used a gun.

1 = Yes

2 = No

3. I am currently taking the medication called Ributerol.

1 = Yes

2 = No

4. I experienced a motor vehicle accident that resulted in a death or a serious injury.

1 = Yes

2 = No

5. I support declaring a national emergency to build a wall along the southern border of the United States.

1 = Yes

2 = No

6. I have experienced physical or sexual assault that threatened death or caused serious injury.

1 = Yes

2 = No

7. I currently work in a job that requires frequent mixing and sanding or blasting of fiberglass resins.

1 = Yes

2 = No

8. I have experienced military combat.

1 = Yes

2 = No

Fake Screen

Please indicate whether or not the following has been true for you in your lifetime.

1. I have been diagnosed with osteoarthritis.

1 = Yes

2 = No

2. I received notification that I was exposed to high levels of pica in the workplace.

1 = Yes

2 = No

3. I was unable to afford basic necessities such as medical treatment, food, rent, or utilities.

1 = Yes

2 = No

4. I felt overwhelmed by too many responsibilities.

1 = Yes

2 = No

5. I voted in a midterm election.

1 = Yes

2 = No

Spoof IP Screen

synonym1 Which of the following means the same thing as “miserable?”

1 = greedy

2 = disruptive

3 = depressed

4 = abstract

synonym2 Which of the following means the same thing as “revise?”

1 = alter

2 = clarify

3 = postpone

4 = neglect

synonym3 Which of the following means the same thing as “immense?”

- 1= calm
- 2 = huge
- 3= strange
- 4 = tiny

synonym4 Which of the following means the same thing as “affection?”

- 1 = hate
- 2 = danger
- 3 = dislike
- 4 = love

Food 1 What do you call the food depicted above?

- 1= Brussels sprout
- 2 = Brinjal
- 3 = Eggplant
- 4 = Cantaloupe

Food 2 What do you call the food depicted above?

- 1 = French Fries
- 2 = Wafers
- 3 = Hot sticks
- 4 = Finger chips

Food 3 What do you call the food depicted above?

- 1 = Capsicum
- 2 = Kohlrabi
- 3 = Rutabaga
- 4 = Bell pepper

object 1 What do you call the object depicted above?

- 1 = Fuse box
- 2 = Power strip
- 3 = Switchboard
- 4 = Regulator

Qualify

You qualify for participation in a study about coping with difficult or stressful life experiences. You will be paid two dollars (\$2.00) for completing a survey expected to take about 20 minutes. If you have not done so already, you may accept the HIT at Mechanical Turk.

Note that attempts to complete the screen more than once, unreasonably fast completion times, and incoherent written answers to questions will not be considered valid and will be denied payment.

Please choose one of the options below.

1 = Continue with the survey and receive two (\$2.00) dollars

2 = Stop and exit the survey (please close your browser)

Study Survey

Survey Informed Consent

The purpose of this form is to provide you with important information about taking part in a research study. If any of the statements or words in this form are unclear, please let us know. We would be happy to answer any questions. You have the right to discuss this study with another person who is not part of the research team before making your decision whether or not to be in the study.

The people conducting this study are Amanda Proctor, M.S., a doctoral student at Baylor University, and Keith Sanford, Ph.D., an Associate Professor in the department of Psychology and Neuroscience at Baylor University. We will refer to these people as the “researchers” throughout this form.

Why is this study being done?

This study is part of a project helping us understand how we can best serve individuals and couples who have experienced significant stress. Your participation in this study will contribute to a better understanding of how certain life events influence attitudes and behaviors.

How long will I take part in this research study?

Completion of this survey is expected to take approximately 20 minutes.

What will happen if I take part in this research study?

If you agree to take part in this study, you will complete a survey that includes questions about your perceptions of and responses to previous stressful experiences or crises. To get a full picture of what things are like for you right now, you will also be asked about current experiences in your marriage or cohabiting/domestic partnership and in your life.

What are the risks and benefits of taking part in this research study?

This questionnaire includes several questions about your life experiences and interpersonal relationships. This questionnaire contains questions about traumatic life events. If you are experiencing life difficulties, you may find it unpleasant or stressful to think about them as you complete this questionnaire. If you do not want to answer questions about these topics you should not participate in the research.

Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet, which could include illegal interception of the data by another party. If you are concerned about your data security, you should not participate in this research.

You may or may not benefit from taking part in this study. It is possible that you may find this survey beneficial because the process of answering questions may help you clarify your own personal perspectives and priorities. The results of this study will be used to help researchers and clinicians better understand how to support the needs of individuals after they have experienced something very stressful or traumatic. Thus, others may benefit in the future from the information that is learned in this study.

How will you keep my study records confidential?

The only identifying information we collect in this study will be a computer address and MTurk ID number. We will keep this identifying information confidential by ensuring it is stored using password protection. We will make every effort to keep your records confidential. The results of this study may also be used for teaching, publications, or presentations at professional meetings; however, your individual results will not be discussed.

Study participation and early withdrawal

Taking part in this study is your choice. You are free not to take part or to withdraw at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential. You cannot withdraw information collected prior to your withdrawal.

Will I get paid for taking part in this research study?

At the end of the survey, you will receive a confirmation code which you can submit at the Mechanical Turk Portal to receive a \$2.00 payment. There are no costs to you for taking part in this research study.

What will it cost me to take part in this research study?

There are no costs to you for taking part in this research study.

What if I have any questions or concerns about this research study?

If you have any questions or concerns about the study or any problems that result from participation you may contact Amanda Proctor at Baylor University, Department of Psychology and Neuroscience, One Bear Place #97334, Waco, TX 76798-7334, phone number 254-710-2470. If you want to speak with someone not directly involved in this research study, you may contact the Baylor University IRB through the Office of the Vice Provost for Research at 254-710-1438. You can contact this office to talk about your rights as a research subject, your concerns about the research, or a complaint about the research.

Statement of consent:

By clicking the button below, I am attesting that I am at least 18 years old, that I have read and understood the information above, and that I freely give my consent to participate in this research.

1 = I agree

2 = I do not wish to participate (please close your browser)

Life Events Checklist for DSM-5 – Extended

Listed below are a number of difficult or stressful things that sometimes happen to people.

For each event please indicate whether: (a) it happened to you personally, (b) you witnessed it happen to someone else, (c) you learned about it happening to a close family member or close friend, (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder), or (e) it doesn't apply to you.

You may select multiple answers. Be sure to consider your *entire life* (growing up as well as adulthood) as you go through the list of events.

1. Natural disaster (for example, flood, hurricane, tornado, earthquake)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
2. Fire or explosion
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
4. Serious accident at work, home, or during recreational activity
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply

5. Exposure to toxic substance (for example, dangerous chemicals, radiation)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
9. Other unwanted or uncomfortable sexual experience
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
10. Combat or exposure to a war-zone (in the military or as a civilian)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
12. Life-threatening illness or injury
 - a. Happened to me

- b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
- 13. Severe human suffering
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
- 14. Sudden violent death (for example, homicide, suicide)
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
- 15. Sudden accidental death
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply
- 16. Serious injury, harm, or death you caused to someone else
 - a. Happened to me
 - b. Witnessed it
 - c. Learned about it
 - d. Part of my job
 - e. Doesn't apply

You reported experiencing the following difficult or stressful experiences:

`#{q://QID37/ChoiceGroup/SelectedChoicesForAnswer/1 }`

`#{q://QID37/ChoiceGroup/SelectedChoicesForAnswer/2 }`

`#{q://QID37/ChoiceGroup/SelectedChoicesForAnswer/3 }`

`#{q://QID37/ChoiceGroup/SelectedChoicesForAnswer/4 }`

Think about the event you consider the worst event, which for this questionnaire means the event that **currently bothers you the most**. If you have experienced only one very stressful event, use that one as the worst event. Please answer the following questions about the worst event.

Briefly describe the worst event (for example, what happened, who was involved, etc.).

How long ago did the worst event happen? (Please respond with numerical value and time frame, for example "14 months" or "8 years").

How did you experience the worst event?

- a. It happened to me directly
- b. I witnessed it
- c. I learned about it happening to a close family member or close friend
- d. I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)
- e. Other, please describe: _____

Was someone's life in danger?

- a. Yes, my life
- b. Yes, someone else's life
- c. Yes, my life and someone else's life
- d. No

Was someone seriously injured or killed?

- a. Yes, I was seriously injured
- b. Yes, someone else was seriously injured or killed
- c. Yes, I was seriously injured and someone else was seriously injured or killed
- d. No

Did it involve sexual violence?

- a. Yes
- b. No

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

- a. Accident or violence
- b. Natural causes
- c. Not applicable (The event did not involve the death of a close family member or close friend)

How many times altogether have you experienced a similar event as stressful or nearly as stressful as the worst event?

- a. Just once
- b. More than once, please specify or estimate the total number of times you have had this experience: _____

PTSD Checklist for DSM-5

You reported experiencing {traumatic event} as the worst stressful event you've experienced.

Below is a list of problems that people sometimes have in response to a very stressful experience. Please indicate how much you have been bothered by each problem in the past month.

1. Repeated, disturbing, and unwanted memories of the stressful experience?
0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
2. Repeated, disturbing dreams of the stressful experience?
0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?
0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
4. Feeling very upset when something reminded you of the stressful experience?
0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?
0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
6. Avoiding memories, thoughts, or feelings related to the stressful experience?

- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?
- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
8. Trouble remembering important parts of the stressful experience?
- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?
- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
10. Blaming yourself or someone else for the stressful experience or what happened after it?
- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
- 0 = Not at all
1 = A little bit
2 = Moderately
3 = Quite a bit
4 = Extremely
12. Loss of interest in activities that you used to enjoy?

- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
13. Feeling distant or cut off from other people?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
15. Irritable behavior, angry outbursts, or acting aggressively?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
16. Taking too many risks or doing things that could cause you harm?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
17. Being “superalert” or watchful or on guard?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately
 - 3 = Quite a bit
 - 4 = Extremely
18. Feeling jumpy or easily startled?
- 0 = Not at all
 - 1 = A little bit
 - 2 = Moderately

3 = Quite a bit

4 = Extremely

19. Having difficulty concentrating?

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

20. Trouble falling or staying asleep?

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

Posttraumatic Growth Inventory – Short Form

You reported experiencing {traumatic event} as the worst stressful event you've experienced.

Below is a list of statements about changes in your life that may have occurred as a result of this stressful event, which is referred to as *crisis* in the following statements.

Please indicate the degree to which these changes occurred in your life.

1. I changed my priorities about what is important in life.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
2. I have a greater appreciation for the value of my own life.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
3. I am able to do better things with my life.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
4. I have a better understanding of spiritual matters.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.

5. I have a greater sense of closeness with others.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
6. I established a new path for my life.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
7. I know better that I can handle difficulties.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
8. I have a stronger religious faith.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.
9. I discovered that I'm stronger than I thought I was.
 - 1 = I did not experience this change as a result of my crisis.
 - 2 = I experienced this change to a very small degree as a result of my crisis.
 - 3 = I experienced this change to a small degree as a result of my crisis.
 - 4 = I experienced this change to a moderate degree as a result of my crisis.
 - 5 = I experienced this change to a great degree as a result of my crisis.
 - 6 = I experienced this change to a very great degree as a result of my crisis.

10. I learned a great deal about how wonderful people are.

1 = I did not experience this change as a result of my crisis.

2 = I experienced this change to a very small degree as a result of my crisis.

3 = I experienced this change to a small degree as a result of my crisis.

4 = I experienced this change to a moderate degree as a result of my crisis.

5 = I experienced this change to a great degree as a result of my crisis.

6 = I experienced this change to a very great degree as a result of my crisis.

Interpersonal Resilience Inventory

You reported that you are {relationship status}.

In the next section, you will be given descriptions of events that you may have experienced with your partner as you coped with the worst stressful event you identified.

1. Event 1: You and your partner laughed together or enjoyed humor together.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

2. Event 2: In your relationship with your partner, one of you felt annoyed or frustrated about something the other did.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

3. Event 3: You and your partner discussed a stressful situation using communication that was clear and accurate.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

4. Event 4: In your relationship with your partner, there was a situation where one of you did not listen carefully to something the other said.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

5. Event 5: In your relationship with your partner, one of you helped the other by maintaining a positive attitude and being optimistic.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

6. Event 6: In your relationship with your partner, one of you made it more difficult for the other by having a negative attitude and being pessimistic.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

7. Event 7: In your relationship with your partner, one of you was attentive to the other's needs.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once

- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

8. Event 8: In your relationship with your partner, one of you decided it was best to avoid discussing a stressful situation with the other.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

9. Event 9: You and your partner worked together like a team.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

10. Event 10: In your relationship with your partner, one of you was critical or hostile or blamed the other.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

11. Event 11: In your relationship with your partner, one of you helped the other by remaining calm, stable and strong.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

12. Event 12: In your relationship with your partner, one of you made it difficult for the other by being overly emotional, unstable, or weak.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

13. Event 13: You and your partner spent time together doing things as a couple.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

14. Event 14: In your relationship with your partner, one of you had a clear opportunity to notice the other's needs but failed to do so.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week

- 6 = This happened once a day
- 7 = This happened a few times per day

15. Event 15: In your relationship with your partner, one of you helped the other by using special skills or abilities to manage a stressful situation.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

16. Event 16: In your relationship with your partner, there was an interaction involving a miscommunication or misunderstanding.

How many times did this event occur for you in the past month?

- 0 = This definitely did not happen
- 1 = I do not think this happened
- 2 = This happened once
- 3 = This happened a few times
- 4 = This happened once a week
- 5 = This happened a few times per week
- 6 = This happened once a day
- 7 = This happened a few times per day

The next question will ask about significant adult people in your life today.

A significant adult person could be your spouse, partner, adult child, parent, or friend. A significant adult person is someone that you think about almost every day, that is important to you, that currently plays a key role in your life, and that can influence how you feel.

For these questions, please do NOT include any professionals you pay, such as therapists.

How many significant adult people can you think of in your life today?

Combat Disclosure Scale

You indicated that you are {relationship status}. In the next section, you will be asked about things that you may or may not share with your partner after having experienced your worst stressful event. Please rate your agreement with each of the following statements.

1. I avoid discussing my worst event experiences with my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

2. There are things that I have done or did during my worst event experiences that I have intentionally kept from my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

3. There are things I experienced during my worst event experiences that I will not discuss with my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

4. I find it hard to discuss my feelings related to my worst event experiences with my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

5. I find it difficult to talk about my worst event experiences with my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

6. I am uncomfortable discussing some aspects of my worst event experiences with my partner.

1 = Strongly disagree

2 = Disagree

3 = Agree

4 = Strongly agree

Disclosure of Trauma Questionnaire

Please indicate the extent to which you agree or disagree with each of the following statements about discussing your worst stressful experience with your partner.

1. I have told my partner the whole story to more than once.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
2. It is important for me to talk with my partner repeatedly about what happened and how it happened.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
3. The more I talk about the event with my partner, the clearer it becomes to me.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
4. When I talk about my experiences with my partner, I try to image everything as it was.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
5. I often describe feelings of fear, shock, humiliation, or of feeling paralyzed.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
6. I think considerably more about the incident than I talk about it with my partner.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
7. If I tell my partner about the incident, I will only shock them.
1 = Not at all
2 = Slightly
3 = Mostly

- 4 = Completely
8. I must get the experience clear in my mind.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
9. I have not told my partner about the event.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
10. It is much more important to clarify my feelings about the situation than to describe the incident precisely to my partner.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
11. I feel like I need to talk about the event a lot with my partner.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
12. I only describe the things that happened using the same few words or phrases.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
13. My voice often fails when I describe my experiences in full.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
14. I often describe how helpless I felt in the situation.
- 1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
15. After I talk about the event with my partner, I always feel exhausted.
- 1 = Not at all
2 = Slightly

- 3 = Mostly
4 = Completely
16. Telling my partner about the incident would not be of any help to me.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
17. I find it difficult to talk to my partner about the incident.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
18. I never find the right time to talk about what I experienced during the event.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
19. The more I talk about the incident with my partner, the better I can express how I felt during the situation.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
20. I often leave out details when I describe the incident to my partner.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
21. I feel extremely tense when I describe the incident to my partner.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
22. After I have described everything about the incident to my partner, I feel relieved.
1 = Not at all
2 = Slightly
3 = Mostly
4 = Completely
23. I find it more comfortable not to talk about the incident with my partner.
1 = Not at all

- 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
24. I do not want to burden my partner by telling them about the incident.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
25. I find it easy to talk about my experiences of the situation with my partner.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
26. I feel compelled to talk about my experiences of the situation again and again with my partner.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
27. I like to talk about the event with my partner as often as possible.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
28. My partner criticizes me for only ever talking about the incident.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
29. It is difficult for me to speak about the incident in detail with my partner.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
30. Describing the event to my partner makes me feel very sad.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely

31. When I describe the incident in detail to my partner, I feel like I am back in the event.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
32. When I describe the incident to my partner, my heart starts to pound, I start to sweat, and I start to shake.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
33. I often think about the event, but do not talk about it very much with my partner.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely
34. I have not told my partner exactly what happened during the event.
- 1 = Not at all
 - 2 = Slightly
 - 3 = Mostly
 - 4 = Completely

Couples Satisfaction Index

You indicated you are {relationship status}. In the next section, you will be asked about your relationship in general.

1. Please indicate the degree of happiness, all things considered, of your relationship.
1 = Extremely unhappy
2 = Fairly unhappy
3 = A little unhappy
4 = Happy
5 = Very happy
6 = Extremely happy
7 = Perfect
2. I have a warm and comfortable relationship with my partner.
1 = Not at all true
2 = A little true
3 = Somewhat true
4 = Mostly true
5 = Almost completely true
6 = Completely true
3. How rewarding is your relationship with your partner?
1 = Not at all
2 = A little
3 = Somewhat
4 = Mostly
5 = Almost completely
6 = Completely
4. In general, how satisfied are you with your relationship?
1 = Not at all
2 = A little
3 = Somewhat
4 = Mostly
5 = Almost completely
6 = Completely

Perceived Intimacy Scale

Please indicate the extent to which you agree or disagree with each of the following statements about your partner.

1. I feel secure with my partner.
1 = Not at all
2 = A little
3 = Some
4 = A lot
2. I feel cared for by my partner.
1 = Not at all
2 = A little
3 = Some
4 = A lot
3. I feel close to my partner.
1 = Not at all
2 = A little
3 = Some
4 = A lot
4. I feel understood by my partner.
1 = Not at all
2 = A little
3 = Some
4 = A lot

Perceived Partner Responsiveness Question

1. My partner is responsive to me.
1 = Not at all
2 = A little
3 = Some
4 = A lot

Demographic Questions

What is your age? (Please respond with a numerical value like 32).

What is your gender?

1 = Male

2 = Female

3 = Prefer to self-describe _____

You indicated that you are married. How long have you been married?

1 = Less than 1 year

2 = 1 year

.....

72 = More than 70 years

What is your spouse's gender?

1 = Male

2 = Female

3 = Prefer to self-describe _____

You indicated that you are cohabiting with a partner. How long have you been living with your partner?

1 = Less than 1 year

2 = 1 year

.....

72 = More than 70 years

What is your partner's gender?

1 = Male

2 = Female

3 = Prefer to self-describe _____

What is your current employment status?

1 = Employed for salary/wages

2 = Self employed

3 = Out of work and looking for work

4 = Out of work but not currently looking for work

5 = Student

6 = Full time homemaker or caretaker

7 = Retired

8 = Unable to work

What is your race?

1 = Asian or Asian American

2 = Black or African American

3 = American Indian or Native American

- 4 = Hispanic or Latino(a)
- 5 = Pacific Islander or Native Hawaiian
- 6 = White or Caucasian (non-Hispanic)
- 7 = Prefer to self-describe _____

Have you previously participated in any form of psychological treatment for Posttraumatic Stress Disorder (PTSD)?

- 1 = Never participated
- 2 = Participated in individual therapy but not for PTSD
- 3 = Participated in group therapy but not for PTSD
- 4 = Participated in individual therapy for PTSD specifically
- 5 = Participated in group therapy for PTSD specifically
- 6 = Not sure

You indicated that you participated in some form of psychological treatment for Posttraumatic Stress Disorder (PTSD). Which form of treatment did you participate in (either individually or in a group)?

- 1 = Cognitive Processing Therapy for PTSD (CPT)
- 2 = Prolonged Exposure Therapy for PTSD (PE)
- 3 = Adapted Disclosure for PTSD
- 4 = Cognitive-Behavioral Conjoint Therapy for PTSD (CBCT)
- 5 = Eye Movement Desensitization and Reprocessing (EMDR)
- 6 = Cognitive Behavior Therapy (CBT)
- 7 = Other type of therapy
- 8 = Not sure what type of therapy

Optional: Do you have any comments regarding this survey?

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