

# Trauma symptoms following romantic breakups

## Abstract

The stress following romantic breakups has typically been assessed by the Breakup Distress Scale which taps feelings and cognitions about the breakup. More serious effects like physical symptoms and sleep disturbances following breakups were uniquely tapped in the current study by the Trauma Symptoms Checklist. The aim of the study was to determine the amount of the variance in trauma symptoms that was explained by breakup distress, missing the relationship, intrusive thoughts and fears of abandonment. Participants were recruited via a study flyer posted on Facebook that listed inclusion criteria for the study, some sample items and a link to Survey Monkey where the survey was completed. Data analyses revealed not only a positive correlation between scores on the Trauma Symptoms Checklist and Breakup Distress Scale but also positive correlations between the Trauma Symptoms Checklist scores and scores on the Missing the Relationship, the Impact of Events (Intrusive thoughts), and the Experience in Close Relationships (fears of abandonment) scales. And Trauma Symptoms scores were negatively related to scores on the Posttraumatic Growth Inventory. Trauma Symptoms scores were also positively related to ratings suggesting excessive use of social media and on rejection factors including the other person initiating the breakup, its being a sudden breakup, and feelings of rejection and betrayal. Surprisingly, although Trauma Symptoms scores were related to negative relationship behaviors that led to the breakup including verbal and emotional abuse, they were also related to a committed relationship and the hope to renew it. A regression analysis revealed that scores on the Breakup Distress Scale explained 53% of the variance in the scores on the Trauma Symptoms Checklist, suggesting that stressful feelings and cognitions were significantly contributing to physical symptoms. Intrusive thoughts and fears of abandonment added 9% of the variance for a total of 62% of the variance in trauma symptoms. These data highlight the need for intervention research to decrease trauma symptoms and related stressors associated with romantic breakups.

**Keywords:** trauma symptoms, posttraumatic growth inventory, psychological variables

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Tiffany Field,<sup>1,2</sup> Samantha Poling,<sup>2</sup> Shantay Mines,<sup>2</sup> Miguel Diego,<sup>1</sup> Debra Bendell,<sup>2</sup> Martha Pelaez<sup>3</sup>

<sup>1</sup>Department of Pediatrics, University of Miami/Miller School of Medicine, USA

<sup>2</sup>School of Psychology, Fielding Graduate University, USA

<sup>3</sup>Department of Counseling, Recreation and School Psychology, Florida International University, USA

**Correspondence:** Tiffany Field, Department of Pediatrics, University of Miami/Miller School of Medicine, USA, Email [tfield@med.miami.edu](mailto:tfield@med.miami.edu)

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## Introduction

Most of the literature on romantic breakups has focused on variables that relate to the Breakup Distress Scale which taps cognitions and feelings following the breakups. More serious symptoms that have not been tapped by that scale but have been reported following romantic breakups include the heartbreak syndrome which mimics a heart attack (Potu et al, 2016).<sup>1</sup> The Trauma Symptoms Checklist, that was uniquely used as the outcome variable of the current study, was designed to assess the more serious physical symptoms as well as sleep disturbances that accompany romantic breakups.

A problem with the existing research is that the studies have focused on single variables. The present study includes several variables that have related to breakup distress in previous studies. In that way, this multivariate study could be used to formulate a profile for identifying those at risk for trauma symptoms following romantic breakups. And, finally, the present study has included a wider age range sample than the previous studies that recruited university students, thereby limiting their generalizability.

The variables selected for the current study were significantly related to scores on the Breakup Distress Scale in previous studies. Those variables include the type of relationship based on commitment<sup>2,3</sup> and the hope to renew the relationship. In a recent study, the loss of intimacy that led to a romantic breakup was related to a negative rating of the relationship but, surprisingly, also to a committed and longer term relationship.<sup>4</sup>

Other variables characterize the nature of the breakup including being the “dumpee”,<sup>5,6</sup> it being a sudden breakup, and the “dumpee”

feeling rejected and betrayed.<sup>7</sup> All of these factors have been positively related to scores on the Breakup Distress Scale, although the relative variance that they explain has not been explored.<sup>4</sup> These characteristics of romantic breakups have been the focus of previous studies along with the effects of breakups, risk factors for breakups and experiences that exacerbate the stress of breakups.

The effects of romantic breakups have not only included high scores on the Breakup Distress Scale but also lack of concentration, inferior grades and the thought of dropping out of school (which were major variables in studies on breakups by university students).<sup>7</sup> Other more long term effects are the lack of insight about the breakup or the lack of posttraumatic growth.<sup>8-11</sup> The literature on effects of romantic breakups has preceded the literature on risk factors, as has typically occurred in the history of research for most psychological variables.

The risk factors for breakup distress have included extensive use of social media (Abbassi, 2019),<sup>12</sup> scores on the Breakup Reasons Scale (negative relationship behaviors)<sup>4,13</sup> and verbal and emotional abuse during the relationship. These problems are included here in a more multivariate assessment of predictor variables.

Breakup distress has been further exacerbated by fears of abandonment,<sup>14,15</sup> rumination or intrusive thoughts<sup>16</sup> missing the relationship,<sup>4</sup> still seeing the person, and hoping to renew the relationship.<sup>17</sup> These variables that have exacerbated romantic breakup distress in previous studies were also expected to contribute to the more serious trauma symptoms that are assessed in this study.

Thus, this study assessed the relationships between the more serious trauma symptoms following romantic breakup variables as

opposed to the less serious breakup feelings and cognitions that had previously been assessed by the Breakup Distress Scale. In addition, most of the earlier studies had focused on single breakup variables, while the present study attempted to take a more multivariate approach to explain the relative variance of predictor variables in order to formulate a profile for those needing intervention for breakup trauma. Finally, the sample was more diverse than the previous university student samples to allow for more generalizability of its results.

## Method

### Recruitment

Participants were recruited via a study flyer posted on Facebook that listed inclusion criteria for the study, sample items and a link to Survey Monkey where the survey was completed. The inclusion criteria were being at least 18-years-old and having recently experienced a romantic breakup. The survey was comprised of demographic questions, seven scales including: The Trauma Symptoms Checklist-38, The Breakup Distress Scale, The Breakup Reasons Scale (negative relationship behaviors), The Impact of Events Scale (intrusive thoughts), The Experiences in Close Relationships Scale (fears of abandonment), The Missing the Partner Scale and The Posttraumatic Growth Inventory as well as ratings on 17 risk factors for trauma symptoms.

### Participants

The sample was comprised of 102 individuals (77% female), ranging from 18 to 55 years ( $M = 28.17$ ,  $SD = 9.06$ ). A  $G^*$  power analysis suggested a sample size of  $N=76$ . The ethnic distribution was 51% Non-Hispanic White, 20% Asian, 6% Black, 4% Hispanic and 19% other. Of the various types of relationships, 77% were girlfriend/boyfriend, 19% lived together, and 4% were married. The length of the relationships ranged from 0-3months (3%), 3-6 months (13%), 6-9 months (16%) and greater than 12 months (68%). The months since the breakup had occurred ranged from 0-3 months (54%); 3-6 months (11%); 6-9 months (12%); and greater than 12months (23%).

### Scales

The Trauma Symptoms Checklist-38 used in this study is an adapted version of the Trauma Symptoms Checklist-40.<sup>18</sup> Two items were omitted from this checklist because the Institution Review Board noted that participants at risk could not be identified on an anonymous survey. These included the items “desire to physically hurt you” and “desire to physically hurt others”. The adapted version included 38 physical and psychological symptoms that relate specifically to romantic breakups: 1) 6 physical symptoms including headaches, weight loss (without dieting), stomach problems, dizziness, passing out, and having trouble breathing; 2) 6 sleep disturbances including insomnia, restless sleep, nightmares, waking up early in the morning, not feeling rested in the morning, and waking up in the middle of the night; 3) 10 sexual disturbances including sexual problems, low sex drive, sexual over activity, not feeling satisfied with your sex life, fear of men, having sex that you didn’t enjoy, fear of women, bad thoughts or feelings during sex, being confused about your sexual feelings and sexual feelings when you shouldn’t have them; and 4) 16 psychological problems (symptoms of anxiety, depression and disassociation) including feeling isolated from others, “flashbacks” (sudden, vivid, distracting memories), anxiety attacks, loneliness, “spacing out” (going away in your mind), sadness, trouble controlling your temper, uncontrollable crying, trouble getting along with others, memory problems, feeling that things are “unreal”, unnecessary or over-frequent washing, feelings of inferiority, feeling tense all the time, feelings of guilt, and feeling that you are not always in your

body. The internal consistency for this scale was high (Cronbach’s  $\alpha=.92$ ). The items are rated on a four-point Likert scale ranging from 0 (never) to 1 (seldom) to 2 (sometimes) to 3 (often). Although six subscales have been formed from the original Trauma Symptoms Checklist-40, these were not used here because the inclusion of those plus the other scales and ratings included in the survey would have exceeded the traditionally accepted variables-to-subjects ratio.

**The Breakup Distress Scale<sup>7</sup>** was adapted from the Inventory of Complicated Grief<sup>9</sup> to reflect problems that related to breakup distress rather than grief in general, and they were rated on a different Likert scale ranging from ratings of 1 for “not at all” to 4 for “very much so”. The Breakup Distress Scale includes 16 of the original 19 items. The internal consistency of the scale reported in the Field et al 2009 study where it was originally used was high (Cronbach’s  $\alpha =.94$ ). The scale items include: 1) I think about this person so much that it’s hard for me to do things I normally do; 2) Memories of the person upset me; 3) I feel I cannot accept the breakup I’ve experienced; 4) I feel drawn to places and things associated with the person; 5) I can’t help feeling angry about the breakup; 6) I feel distressed over what happened; 7) I feel stunned or dazed over what happened; 8) Ever since the breakup it is hard for me to trust people; 9) Ever since the breakup I feel like I have lost the ability to care about other people or I feel distant from people I care about; 10) I have been experiencing pain since the breakup; 11) I go out of the way to avoid reminders of the person; 12) I feel that life is empty without the person; 13) I feel bitter over this breakup; 14) I feel envious of others who have not experienced a breakup like this; 15) I feel lonely a great deal of the time since the breakup; and 16) I feel like crying when I think about the person. The 4-point ratings on the individual items are added for the total score.

**The Breakup Reasons Scale<sup>13</sup>** is a twenty-item scale including four subscales on negative relationship behaviors that have been labeled loss of: 1) intimacy, 2) affiliation, 3) sexuality and 4) autonomy. The loss of intimacy items include poor communication, distrust, unreciprocated love, diminishing considerate and caring behavior, diminishing empathy, frequent disagreements/arguments, infidelity and hypersensitivity. The loss of affiliation items include boredom, lack of time together, dissimilarity of interests, dissimilarity of personality traits, diminishing fun, diminishing excitement, and increasing time doing own activities, for example, working out or going on the computer. The loss of sexuality items include sexual dissatisfaction, diminishing physical attraction and diminishing physical affection. The autonomy items include problems maintaining independent self and having to have own way or being overly controlling. Each of the items was rated on a four-point Likert scale ranging from 1 (not at all), to 2 (somewhat) to 3 (moderately so) to 4 (very much so). The internal consistency for this 20-item scale is high (Cronbach’s  $\alpha=.93$ ). The Cronbach’s alphas for the subscales were moderate to high (intimacy  $=.84$ , affiliation  $=.79$ , sexuality  $=.71$ , and autonomy  $=.67$ ).

**The Impact of Event Scale-Revised (intrusive thoughts)<sup>20</sup>** includes 22 items on 3 subscales including intrusive thoughts, avoidance of intrusive thoughts, and hyperarousal that are rated on 5-point Likert scales. The scale ratings range from 0 (not at all) to 4 (extremely). The scale includes; 1) 7 items on intrusive thoughts about the event including: “Any reminder brought back feelings about it”, “I had trouble staying asleep”, “Other things kept making me think about it”, “I thought about it when I didn’t mean to”, “Pictures about it popped into my mind”, “I had waves of strong feelings about it”, “I had dreams about it; 2) 8 items on avoidance of the intrusive thoughts including “I avoided letting myself get upset when I thought about it”, “I felt as if it hadn’t happened or wasn’t real”, “I

stayed away from reminders of it”, “I tried not to think about it”, “I was aware that I still had a lot of feelings about it, but I didn’t deal with them”, “My feelings about it were kind of numb”, “I tried to remove it from my memory”, and “I tried not to talk about it”; and 3) 7 hyperarousal items related to the intrusive thoughts and avoidance of the intrusive thoughts including “I felt irritable and angry”, “I was jumpy and easily startled”, “I found myself acting or feeling like I was back at that time” “I had trouble falling asleep”, “I had trouble concentrating”, “Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, and “I felt watchful and on-guard”. The internal consistency for this scale was also high (Cronbach’s alpha=.91).

**The Experience in Close Relationships Scale** (fears of abandonment)<sup>21</sup> includes 17 items of the original 18 item anxiety subscale that relate to fears of abandonment. For this revised version, one item was omitted (“I rarely worry about my partner leaving me”) and another was altered by removing the words do not (“I often worry about being abandoned”) as follows: 1) I’m afraid I will lose my partner’s love, 2) I often worry that my partner will not want to stay with me, 3) I often worry that my partner doesn’t really love me, 4) I worry that romantic partners won’t care about me as much as I care about them, 5) I often wish that my partner’s feelings for me were as strong as mine; 6) I worry a lot about my relationships, 7) When my partner is out of sight, I worry that he or she might become interested in someone else; 8) When I show my feelings for romantic partners, I’m afraid they will not feel the same about me; 9) My romantic partner makes me doubt myself; 10) I often worry about being abandoned; 11) I find that my partner(s) don’t want to get as close as I like; 12) Sometimes romantic partners change their feelings about me for no apparent reason; 13) My desire to be very close sometimes scares people away; 14) I’m afraid that once a romantic partner gets to know me, he or she won’t like who I really am; 15) it makes me mad that I don’t get the affection and support I need from my partner; 16) I worry that I won’t measure up to other people; and 17) My partner only seems to notice me when I’m angry. These items were rated on a Likert scale of 1-3 with 1 being never, 2 being one or two times and 3 being more than that. The Cronbach’s alpha on this scale was also high at .93.

**The Missing the Partner Scale**<sup>22</sup> includes four items: 1) I miss our daily activities/rhythms, 2) I miss our talking/ emotional closeness, 3) I miss our touching/physical closeness, and 4) I used to be a happy person but now I am miserable. Each item is rated on a Likert scale that ranges from 1 (totally disagree) to 4 (totally agree). The four items are added for the total score (Field et al., 2013). The internal consistency for this scale was high (Cronbach’s alpha=.90).

**The Post-traumatic Growth Inventory** is a 20-item scale<sup>23</sup> including: 1) I changed my priorities about what is important in life; 2) I developed a greater appreciation for the value of my own life; 3) I developed new interests; 4) I have a greater feeling of self-reliance; 5) I have a better understanding of spiritual matters; 6) I more clearly see that I can count on people in times of trouble; 7) I established a new path for my life; 8) I have a greater sense of closeness with others; 9) I am more willing to express my emotions; 10) I know better that I can handle difficulties; 11) I am able to do better things with my life; 12) I am better able to accept the way things work out; 13) I can better appreciate each day; 14) New opportunities are available; 15) I have more compassion for others; 16) I put more effort into my relationships; 17) I am more likely to try to change things which need changing; 18) I discovered that I’m stronger than I thought I was; 19) I learned a great deal about how wonderful people are; and 20) I better accept needing others. A 4-point rather than the original 5-point Likert

scale was used here with ratings ranging from (1) not at all to (4) very much. The Cronbach’s alpha for this scale was extremely high at .96.

**Other Ratings** that were included as potential risk factors for trauma symptoms following a breakup were: 1) “Rating of the relationship before you broke up-including ratings from (1) for ok to (4) wonderful”; 2) “Type of relationship with person (level of commitment) rated as (1) boyfriend/girlfriend, (2) living together, (3) married”; 3) “How long did this relationship last including (1) 0-3 months; (2) 3-6 months; (3) 6-9; (4) 9-12; (5) >12 months”; 4) “Who initiated the breakup? (1) You, (2) Other person”; 5) “Was it sudden and unexpected rated as (1) yes, (2) no”; 6) “Did you feel totally rejected by this breakup rated as (1) yes, (2) no” 7) “Did you feel totally betrayed by this breakup rated as (1) yes, (2) no”; 8) “Was one of the reasons for the breakup that he/she betrayed you and it was publicly known by others? rated as (1) Yes, (2) No”; 9) “Did a third person or friend tell you of his/her intentions to breakup? rated as (1) Yes, (2) No”; 10) “Approximately how many hours per day do you spend posting messages? Including (1) 0, (2) 1-2, (3) 3-4. (4) >4”; 11) “Did any of your partners ever abuse you verbally or in any other way? rated as (1) Yes, (2) No. “; 12) “Did any of your partners ever abuse you emotionally or in any other way? rated as (1) Yes, (2) No.” 13) “Do you have any hope of renewing this relationship rated as (1) yes, (2) no”; 14) “Do you still see or talk with this person rated as (1) yes, (2) no”; 15) “Has the break-up affected your ability to concentrate and learn new material” rated as (1) yes, (2) no”; 16) “Has the breakup affected your test scores or grades rated as (1) yes, (2) no”; and 17) “Would you ever consider dropping out of school rated as (1) yes, (2) no”.

## Results

### Distribution of variables

As can be seen in Table 1, the mean scores for the scales are midway between the minimum and maximum scores. And, the standard deviations suggest normally distributed scale scores.

**Table 1** Mean scores (minimum, maximum and standard deviation) for scales

Scale	Min/Max	Mean	s.d.
Trauma Symptoms Checklist-38	1-108	44.31	26.67
Breakup Distress Scale	16-63	35.56	12.67
Breakup Reasons Scale	21-75	42.11	11.76
Impact of Events Scale-Revised	0-77	41.65	19.28
Experiences in Close Relationships Scale	17-51	35.34	9.72
Missing the Partner Scale	4-16	11.78	3.34
Post-Traumatic Growth Inventory	1-88	52.84	17.89

### Correlation analysis

Those scales and ratings that were significantly correlated with Trauma Symptoms Checklist scores are given in Table 2. They have been grouped by the types of variables including the type of relationship, the type of breakup, effects of the breakup, risk factors for trauma symptoms and exacerbators of trauma symptoms as follows: 1) the type of relationship variables that are significantly correlated with the Trauma Symptoms Checklist include a more committed relationship (i.e. living with someone) and a hope to renew the relationship; 2) the type of breakup variables that were significantly

correlated with Trauma Symptoms Checklist scores included being the “dumpee”, experiencing a sudden breakup and feeling rejected and betrayed; 3) the effects of the breakup that were significantly correlated with Trauma Symptoms Checklist scores included the Breakup Distress Scale scores, a lack of concentration, inferior grades and thoughts of dropping out; 4) the risk factors for trauma symptoms that were significantly correlated with Trauma Symptoms Checklist scores included excessive social media, Breakup Reasons Scale scores (negative behaviors), verbal and emotional abuse; and 5) exacerbators of trauma symptoms that were significantly correlated with Trauma Symptoms Checklist scores included Experiences in Close Relationships Scale scores (fears of abandonment), Impact of Events Scale scores (intrusive thoughts), Missing the Partner Scale scores, still seeing the partner and scores on the Posttraumatic Growth Inventory (a negative correlation).

**Table 2** Correlation coefficients for variables significantly related to Trauma Symptoms Checklist-38 scores

Variable	Correlation coefficient	p value
<b>Type of relationship</b>		
Committed	0.33	0.003
Hope to renew	0.27	0.02
<b>Type of breakup</b>		
“Dumpee	0.35	0.002
Sudden	0.46	0.001
Feeling Rejected	0.43	0.001
Feeling Betrayed	0.45	0.001
<b>Effects of breakup</b>		
Breakup Distress Scale scores	0.74	0.001
Lack of concentration	0.58	0.001
Inferior grades	0.37	0.001
Thoughts of dropping out	0.31	0.02
<b>Risk Factors for trauma symptoms</b>		
Excessive social media	0.24	0.05
Breakup Reasons Scale (negative behaviors)	0.22	0.05
Verbal abuse	0.22	0.05
Emotional abuse	0.24	0.05
<b>Exacerbators of trauma symptoms</b>		
Experiences in Close Relationships scale	-0.24	0.001
Impact of Events Scale-Revised (intrusive thoughts)	0.27	0.001
Missing the Partner Scale	0.57	0.001
Still seeing the partner	0.71	0.02
Posttraumatic Growth Inventory	0.57	0.05

**Stepwise regression analysis**

Those scales that were highly significantly correlated with the Trauma Symptoms Checklist were entered into a stepwise regression

to determine the amount of variance in trauma symptoms scores that was explained by the other scale scores. Those included the Breakup Distress Scale scores, The Experiences in Close Relationships Scale scores, the Impact of Events Scale scores and the Missing the Partner Scale scores.

As can be seen in Table 3, scores on the Breakup Distress Scale contributed to 53% of the variance in Trauma Symptoms Checklist scores. Scores on the Impact of Events Scale (intrusive thoughts) added 5% to the variance and scores on the Experiences in Close Relationships (fears of abandonment) added another 4% to the variance for a total of 62% of the variance.

**Table 3** Stepwise regression on those scales that were highly significantly correlated with the Trauma Symptoms Checklist scores

Scale	R	R square	F value	P Level
Breakup Distress Scale	0.73	0.53	84.59	0.001
Impact of Events Scale (intrusive thoughts)	0.76	0.58	51.25	0.001
Experiences of Close Relationships (abandonment fear)	0.79	0.62	39.55	0.001

**Discussion**

That trauma symptoms were related to a more committed relationship is not surprising given that the breakup of a more committed relationship would be a greater loss. And for the same reason, the hope to renew would follow from an attempt to cope with trauma symptoms. These findings are consistent with previous studies.<sup>2-3,24</sup>

Not only the type of relationship but the type of breakup was related to trauma symptom scores. These included being the “dumpee” or the person who was rejected who has invariably been the more affected by romantic breakups in previous studies.<sup>5,6</sup> And, that person has typically reported the suddenness of the breakup and feelings of rejection and betrayal.<sup>7</sup> These feelings have previously been related to scores on the Breakup Distress Scale but are uniquely reported here for their significant relationships to the more serious psychological and physical symptoms on the Trauma Symptoms Checklist.

That the highest correlation was noted between the Breakup Distress Scale and the Trauma Symptoms Checklist scores highlights the relationships between the feelings and thoughts tapped by the Breakup Distress Scale and the more serious psychological and physical symptoms tapped by the Trauma Symptoms Checklist including depression, anxiety, sleep disturbances and somatic symptoms. Other effects of the breakup that were significantly related to trauma symptoms included the lack of concentration, inferior grades and the thought about dropping out of school, symptoms that have been reported in previous studies on breakups in university students.

Although most of the studies on romantic breakups have focused on effects of the breakups, increasing literature is appearing on risk factors for breakups. In this data base, the risk factors for breakups included extensive use of social media, negative relationship behaviors and verbal and emotional abuse. Social media, most especially Facebook time, has been frequently reported for having negative effects on relationships and some of those relationships have occurred predominantly on Facebook time.<sup>12,25-27</sup>

The significant relationships between trauma symptoms and negative relationship behaviors as assessed by the Breakup Reasons

Scale and the more serious verbal and emotional abuse behaviors are not surprising as the trauma symptoms in the case of these abusive behaviors are likely exacerbated by anger, which unfortunately was not included on this survey. These relationships have been previously reported for the same database focused on negative relationship behaviors.<sup>24</sup> These are likely less frequently studied because they evoke unpleasant feelings that are not desirable especially on anonymous surveys when the disturbed participant cannot be identified.

All of the variables that were expected to exacerbate trauma symptoms were significantly related to the Trauma Symptoms Checklist scores. These were included in the current survey because they had appeared in previous studies as being related to breakup distress including fear of abandonment as tapped by the Experiences in Close Relationships Scale<sup>14,15</sup> rumination or intrusive thoughts as assessed by the Impact of Events Scale<sup>16,28</sup> missing the relationship tapped by the scale with that name,<sup>24</sup> still seeing the person and the hope to renew the relationship<sup>17</sup> as well as low scores on the Posttraumatic Growth Inventory.<sup>8-11</sup>

Those scales that were highly significantly correlated with the Trauma Symptoms Checklist were entered into a stepwise regression to determine the amount of variance in trauma symptoms scores that was explained by the other scale scores. Those included the Breakup Distress Scale scores, The Experiences in Close Relationships Scale scores, the Impact of Events Scale scores and the Missing the Partner Scale scores. As would be expected, the Breakup Distress scores explained most of the variance (53%) in the Trauma Symptoms Checklist scores. Although the Breakup Distress Scale items focus primarily on feelings and cognitions and the Trauma Symptoms Checklist on physical symptoms, they are both focused on the distress of the breakup. The Impact of Events Scale added a small but significant amount to the variance (5%) which would reflect intrusive thoughts/rumination that occurred in the wake of the breakup distress and have been significant contributors to prolonged distress in previous studies.<sup>16,28</sup> The Trauma Symptoms Checklist and The Impact of Events Scale have some very similar items on sleep disturbances and the Impact of Events Scale has often been used to assess post-traumatic stress symptoms, so it's not surprising that it made a significant contribution to the variance. And, the Experiences in Close Relationships scores also added a small but significant amount to the variance (4%) which was not surprising since it reflects fears of abandonment and has been referred to as "longing for ex-partners out of fear of being single".<sup>15</sup> The regression results suggest that the most proximal distress (breakup distress) made the most significant contribution to the traumatic physical symptoms while the later intrusive thoughts/rumination and worries about being abandoned or not finding another partner have lesser effects on the immediate trauma. And those that did not enter the regression (The Breakup Reasons and The Posttraumatic Growth Scales) were even more distal (breakup reasons relating to items before the breakup and posttraumatic growth to experiences that likely did not yet happen).

These results have clinical implications for how to intervene at various stages following the breakup. Future research might assess the timing of these experiences following romantic breakups, namely the feelings, physical symptoms, intrusive thoughts and fears of abandonment. Future research might also use interviewing and diary-like data to note the sequence and endurance of these experiences as well as to correct for the limitations of self-report recall data.

Unfortunately, romantic breakups have been difficult to predict or pre-breakup interventions could be recommended. Longitudinal studies could be conducted on relationships not only to collect pre and post-breakup data but also to yield more objective data as in

observational studies rather than retrospective self-reports. More complex analyses such as structural equations models would enable the entry of both single ratings such as the type of breakup in addition to scale scores to inform the strength of their interrelationships.

## Conclusion

Despite these limitations, the data from this study suggest that those experiencing romantic breakups are having physical trauma symptoms that are related to several aspects of the breakup including feelings and thoughts, rumination, and fears of abandonment as well as the hope to renew the relationship. Future structural equations and/or profile analysis based on longitudinal, observational data could be used to inform interventions that might reduce these stressors and trauma symptoms.

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## Conflicts of interest

The author declares that there is no conflict of interest to declare.

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