

BREAKUP DISTRESS IN UNIVERSITY STUDENTS: A REVIEW

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This review covers recent research on breakup distress in university students using the Breakup Distress Scale adapted from the Inventory of Complicated Grief. In the first study, 37% of the variance in Breakup Distress Scale scores was explained by depression, feelings of betrayal, having less time since the breakup and higher relationship ratings. In a second study, intrusive thoughts contributed to 28% of the variance. Depression and sleep disturbances were also related to breakup distress in this sample. Other negative emotions and behaviors included anxiety, anger, disorganized behavior and inferior academic performance. Studies on reasons for breakups revealed that insecurity and loss of intimacy were the most significant problems in those experiencing breakup distress. Although female students typically reported greater breakup distress, the studies are limited in their generalizability because they sampled primarily Hispanic female psychology students. Nonetheless, the data highlight the negative effects of breakup distress for university students.

Breakup Distress

Breakup distress in university students may take the form of complicated grief, defined as an intense and prolonged period of grief following a loss (Horowitz, Siegel, Holen, Bonanno, Milbrath & Stinson, 1997). The criteria for complicated grief are intense intrusive thoughts, pangs of severe emotion, distressing yearnings, feeling excessively alone and empty, unusual sleep disturbances and loss of

interest in personal activities (Horowitz et al, 1997). In a study on college students, complicated grief symptoms were assessed by the Inventory of Complicated Grief, and insomnia and associated sleep behaviors were also self-reported (Hardison, Neimeyer & Lichstein, 2005). The rate of insomnia was significantly higher in the complicated versus the uncomplicated grief samples (22% versus 17%), and sleep disturbances were related to intrusive thoughts about

the loss as well as images of the deceased in their dreams.

To assess whether college students' breakup distress simulated complicated grief, the Breakup Distress Scale was adapted from the Inventory of Complicated Grief referring to the breakup person instead of the deceased person, and 16 of the 19 ICG items appropriate to breakups were included. A different rating scale was also used, i.e. a Likert scale with responses ranging from 1 (not at all) to 4 (very much so) (see table 1 for scale). A sample of 192 university students who had experienced a recent breakup of a romantic relationship was divided into high versus low score groups based on the Breakup Distress Scale (Field, Diego, Pelaez, Deeds & Delgado, 2009). Females had higher Breakup Distress Scale scores, and the higher Breakup Distress groups reported having less time since the breakup occurred, did not initiate the breakup, reported that the breakup was sudden and unexpected, felt rejected and betrayed and had not yet found a new relationship. They

also scored higher on the Intrusive Thoughts Scale, the Difficulty Controlling Intrusive Thoughts Scale, The Sleep Disturbance Scale, and the depression (CES-D) and anxiety scales (STAI) (see table 2). In a regression analysis, significant predictors of the Breakup Distress scores were the depression score (CES-D), the feeling betrayed by the breakup, having less time since the breakup, and a higher rating of the relationship. These variables explained as much as 37% of the variance, highlighting their contributions to relationship breakup distress. These predictors might be expected inasmuch as depression has been associated with other kinds of grief, and betrayal has been noted to be similar to physical pain (Fisher, 2004). Time since the breakup has been cited as one of the most helpful factors in getting over a broken heart (Knox et al, 2000), and a higher rating of the relationship prior to the breakup would logically make for more breakup distress (see table 3).

Table 1. Breakup Distress Scale

- 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 disbelief 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 my 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
- 16) I feel like crying when I think about the person.

Table 2. Means for high and low scoring Breakup Distress Scale groups (Standard deviations in parentheses).

Primary Variables	Low	High	F	p
Time Since Breakup (mos.)	3.62 (1.57)	2.99 (1.73)	6.76	.01
Relat. Rating Pre-breakup (1-4)	2.36 (.92)	2.72 (.98)	9.07	.003
Duration Relationship (mos.)	3.36 (1.70)	3.75 (1.54)	4.19	.04
Intrusive Thoughts	2.88 (2.94)	5.63 (2.84)	15.27	.000
Controlling Int. Thoughts	15.73 (10.61)	26.05 (8.18)	27.20	.000
Sleep Disturbances	4.00 (2.39)	5.35 (2.97)	9.07	.003
Depression (CES-D)	13.56 (9.30)	20.88 (11.22)	8.15	.005
Anxiety (STAI)	38.36 (11.34)	45.69 (10.55)	9.05	.003

Table 3. Stepwise regression on Breakup Distress Scale scores

Step	R	R square	R ² change	F for change	p
1	.41	.17	.17	29.43	.000
2	.52	.27	.10	20.09	.000
3	.58	.33	.07	14.38	.000
4	.61	.37	.04	8.54	.004

Predictors in order of their entry

- 1 – Depression (CES-D) scores
- 2 – Feeling betrayed by the breakup
- 3 – Time since the breakup occurred
- 4 – Relationship rating prior to the breakup

Two-thirds of the students in this university student sample had experienced a breakup approximately 3 months previously. On average their relationships lasted an average of 4 months, and they had an average of 2.5 relationships prior to the breakup, with 1.7 of the 2.5 being breakups with the same person. The total sample (both those who had and those who had not experienced breakups) had high scores on the Intrusive Thoughts, Difficulty Controlling Intrusive Thoughts and Sleep Disturbances scales, and their depression and anxiety scores were also higher than the cut-off scores for depression and anxiety on the Center for Epidemiological Studies Depression Scale and the State Anxiety Inventory.

That female students experienced

greater breakup distress is consistent with the adult literature (Perilloux & Buss, 2008). That the higher Breakup Distress group had less time since the breakup occurred is consistent with others reports of inverse relationships between the time since a breakup and the amount of breakup distress (Knox, Zusman, Kaluzny & Cooper, 2000; Moller, Fouladi, McCarthy & Hatch, 2003). In the Knox et al (2000) study, time was one of the most helpful factors in getting over a broken heart.

The experience of rejection is fairly common. In a survey at Case Western Reserve University, 95% of the students reported that they had rejected someone who was in love with them, and 93% said that they had been rejected by someone they loved (Baumeister, Wotman, & Still-

well, 1993). Rejection in romantic relationships is said to be so painful that people are “not only in agony but incapacitated” (MacDonald & Leary, 2005). Rejection has also been accompanied by increased blood pressure and cortisol levels (Stroud, Tranofsky-Kraff, Wilfley & Salovey, 2000), by analgesia or numbing (MacDonald & Shaw, 2005) and, paradoxically, by activation of the same part of the brain that is activated by love (Eisenberger & Lieberman, 2003). Rejection also has characteristics that are similar to drug withdrawal. In an fMRI study, rejected individuals showed signs of drug withdrawal including anxiety, depression, crying, loss of appetite and irritability, and their fMRIs were similar to those on cocaine or opioids (Bartels & Zki, 2000).

The higher Intrusive Thoughts Scale scores were also not surprising given that several investigators have noted intrusive thoughts as being one of the most distressing heartbreak experiences (Peirce, 2007; Wegner, Schneider, Carter & White, 1987). The higher Difficulty Controlling Intrusive Thoughts scores are also consistent with the literature showing that suppression of intrusive thoughts often leads to increased intrusive thoughts (Salkovskis & Campbell, 1994), as well as depression (Nolen-Hoeksema, 1991) and insomnia (Hobson, Pace-Schott & Stickgold, 2000). Sleep Disturbances are also consistent with insomnia and sleep disturbances being reported in as many as 43% of bereaved individuals (Ford & Kamerow, 1989) and being more prevalent in those experiencing complicated versus uncomplicated grief (Hardison et al, 2005).

Higher depression and anxiety scores in the more distressed group of students are consistent with the adult literature on breakups being a risk factor for Major Depression Disorder (Monroe, 1999). And, anxiety was not only frequently comorbid with depression but was also significantly associated with relationship dissolution in a survey of more than 5000 internet responders (Davis, Shaver & Vernon, 2003).

Intrusive Thoughts

Intrusive thoughts are one of the most painful heartbreak experiences inasmuch as they are continual and uncontrollable (Peirce, 2007). Some have interpreted intrusive thoughts as occurring because individuals’ unrealistic expectations have to be reconciled when something very unexpected happens like heartbreak (Wegner, Schneider, Carter & White, 1987). Although they contribute to anxiety symptoms (Nolen-Hoeksema, 2000), some have suggested that intrusive thoughts would not happen unless they served an adaptive purpose (Peirce, 2007).

Much of the research on intrusive thoughts has focused on whether suppression of intrusive thoughts increases or decreases the intrusive thoughts. Suppressing the idea of “white bears” can cause a rebound effect, i.e. more thoughts about “white bears” (Wegner et al, 1987). Thus, suppression apparently has paradoxical effects in that it leads to produce the very thought that is to be avoided (Marcks & Woods, 2005; Salkovskis & Campbell, 1994). Suppression of intrusive thoughts can also lead to depression (Nolen-Hoeksema, 1991) and insomnia (Hobson et al,

2000). The practice of suppressing thoughts during wakefulness often leads to their emergence during dreams, which some have said happens for the sake of “giving the person peace during awake time” (Hobson et al, 2000).

To determine whether intrusive thoughts, controlling intrusive thoughts and having somatic symptoms like sleep disturbances contributed to breakup distress, and whether extracurricular activities and social support alleviated breakup distress we conducted another study on university students (Field, Diego, Pelaez, Deeds & Delgado, 2010d). The Breakup Symptoms and Solutions Scale was created for this study including subscales on intrusive thoughts, somatic symptoms, extracurricular activities and social support. Also, several measures of intrusive thoughts and controlling intrusive thoughts were included to determine their convergent validity.

Intrusive thoughts contributed to 28% of the variance on breakup distress scores in a regression analysis. Somatic symptoms added another 8%, and extracurricular activities added 2% for a total of 38% of the variance. The predictor that explained most of the variance in the Breakup Distress Scale scores was the subscale of the Breakup Symptoms and Solutions Scale called Intrusive Thoughts. Two other subscales called the Somatic Symptoms and Extracurricular Activities added significant amounts of variance to total 38% of the variance, suggesting that these factors were important contributors to the breakup distress. This might have been expected inasmuch as these predictors have been associated with other kinds of grief (Fish-

er, 2004). Surprisingly though, the social support subscale was not a significant predictor, a finding that is difficult to interpret.

The five “intrusive thoughts” scales differentiated the high from the low breakup distress groups suggesting convergent validity of the scales. These included: 1) a 2-item measure, the items being “trouble getting this person out of your mind” and “dreaming about this person”; 2) the 4-item “Intrusive Thoughts Scale” assessing the frequency and intensity of the thoughts; 3) the 19-item “Controlling Intrusive Thoughts Scale” tapping many activities used to distract oneself from the intrusive thoughts; 4) the 7-item “Ruminative Thoughts Scale” about feeling sad and alone and unable to work or concentrate; and 5) the 8-item “Post-Traumatic Cognitions Scale” including, for example, being miserable, unable to cope and blaming one’s self.

The group with higher Breakup Distress Scale scores scored higher on all of the intrusive thoughts measures (see table 4). This was not surprising inasmuch as several investigators have suggested that intrusive thoughts are one of the most distressing heartbreak experiences (Peirce, 2007; Wegner et al, 1987). The Difficulty Controlling Intrusive Thoughts Scale scores were also higher for the high scoring Breakup Distress group which was not surprising since suppression of intrusive thoughts often leads to increased intrusive thoughts (Salkovskis & Campbell, 1994). The high scores on the Ruminative Responses Scale in the high distress students were also consistent with the literature inasmuch as ruminative responses have been reported in many bereaved

Table 4. Stepwise regression on depression (CES-D) scores

Step	R	R square	R ² change	F for change	p
1	.66	.44	.44	165.01	.000
2	.69	.47	.03	91.91	.000
3	.70	.49	.02	66.97	.000
4	.71	.51	.02	53.68	.000

Predictors in order of their entry

1 – Anxiety (STAI score)

2 – Controlling Intrusive Thoughts Scale

3 – Sleep Disturbances Scale

4 – Age

individuals (Germain et al, 2005).

Depression

A romantic breakup was one of the most frequently reported “worst events” in a large phone survey and a significant risk factor for Major Depression Disorder (Monroe, 1999). In another study, over 40% experienced clinical depression, (12% experiencing moderate to severe depression) (Mearns, 1991). Heart attacks and strokes can also follow breakups and depression (Rosenthal, 2002). These complications have been attributed to decreasing dopamine levels associated with depression (Panksepp, 1998). Depression in university students has been related to loneliness (35% for women and 24% for men), and women had higher depression and loneliness scores (Kim, 2001). Women typically experience more severe depression and hopelessness, being twice as likely to be depressed as men, although men are three to four times more likely to commit suicide after a romantic breakup (Mearns, 1991; Ustun & Sartorius, 1995). Depression related to rejection more frequently occurs in those who have been rejected versus those who initiated the rejection (Ayduk et al, 2001).

Depression in university students is an increasing concern worldwide (Bayrem & Bilgel, 2008), ranging from 16% in a large survey study in Michigan (Eisenberg, Golust, Golberstein, & Hefner, 2007) to 33% depressive symptoms in Spain (Vazquez & Blanco, 2006) and to 33% for mild depression in Japan (Kawada, Katsumata, Suzuki, & Shimizu, 2007). Understanding depression in university students is a significant concern because of its increasing incidence not only in foreign countries but also in the U.S. (U.S. Department of Education, National Center for Education Statistics, 2005). In another national survey counseling center directors, 86% reported increasing depression among university students (Gallagher, Weaver-Graham, & Taylor, 2005). This is problematic given that Major Depression Disorder often first occurs during or shortly before college (Kessler, Berglund, Demler, Jin, Merikangas & Walters, 2005).

The most commonly reported problems related to depression in students are anxiety, intrusive thoughts, controlling intrusive thoughts and sleep disturbances. Insomnia and sleep disturbances have been reported in as many as 43% of individuals as late as 13 months after a loss (Ford &

Table 5. Stepwise regression on depression (CES-D) scores excluding the comorbid anxiety (STAI) scores as a potential predictor.

<u>Step</u>	<u>R</u>	<u>R square</u>	<u>R² change</u>	<u>F for change</u>	<u>p</u>
1	.46	.21	.21	57.19	.000
2	.56	.31	.11	34.06	.000
3	.58	.34	.02	7.33	.007

Predictors in order of their entry

1 – Sleep Disturbances Scale

2 – Intrusive Thoughts Scale

3 – Controlling Intrusive Thoughts Scale

Kamerow, 1989). Insomnia is thought to be more prevalent in those experiencing complicated versus uncomplicated grief (22% versus 17%) (Hardison, Neimeyer & Lichstein, 2005), and poor sleep has been characteristic of bereavement-related depression, (McDermott, Prigerson, Reynolds, Houck, Dew, Hall, et al, 1997; Reynolds, Hoch, Buysse, Houck, Schleritzauer, Pasternak, et al, 1993). Comorbid depression typically exacerbates sleep disturbances (Germain, Caroff, Buysse & Shear, 2005; Moo-Estrella, Perez-Benitez, Solis-Rodriguez & Arankowsky-Sandoval, 2005), although a recent study on depression and sleep disturbances in university students reported a significant correlation only for females (Kawada, Katsumata, Suzuki & Shimizu, 2007).

Depression and these related problems were recently studied in a sample of 283 university students (Field, Diego, Pelaez, Deeds & Delgado, 2010c). The sample was divided into depressed and non-depressed groups using the cutoff score for depression on the Center for Epidemiological Studies-Depression scale. The depressed group had higher scores on: 1) Anxiety; 2) Intrusive Thoughts; 3) Controlling Intrusive Thoughts; and 4) Sleep Disturbances.

Although a stepwise regression suggested that anxiety explained most of the variance, other factors added significant amounts of variance including controlling intrusive thoughts, sleep disturbances and age, which together totaled 51% of the variance on depression scores (see table 5).

It was not surprising that anxiety explained most of the variance on depression in the first regression given that those mood states are frequently comorbid in university students (Dusselier, Dunn, Wang, Shelley & Whalen, 2005). It was surprising that the Intrusive Thoughts Scale scores did not enter the first regression given that intrusive thoughts are commonly reported among university students (Ciesla & Roberts, 2007; Ito, Takenaka, Tomita & Agari, 2006). The Controlling Intrusive Thoughts Scale scores were, however, a significant predictor. Paradoxically trying to control intrusive thoughts often leads to more intrusive thoughts (Wegner, Schneider, Carter, & White, 1987). In experimentally controlled studies where one group was asked to suppress intrusive thoughts while another group was instructed to monitor them, the deliberate thought suppression efforts, regardless of their con-

Table 6. Mean scores on intrusive thoughts scales for high and low scoring Breakup Distress groups (Standard deviations in parentheses).

Primary Variables	Breakup Distress Groups		F	p
	Low	High		
Intrusive Thoughts Scale	0.61(0.70)	1.66 (0.61)	119.86	.000
Intrusion Questionnaire	1.77(2.28)	4.87 (3.72)	47.54	.000
Difficulty Controlling Int. Thoughts Scale	11.83(9.84)	22.90(11.96)	47.5	.000
Ruminative Responses Scale	3.59(2.98)	7.44 (5.11)	39.46	.000
Posttraumatic Cognitions Inventory	1.84(2.74)	4.80 (4.67)	27.57	.000

tent, led to more intrusive thoughts (Belloch, Morillo & Gimenez, 2004).

For the second regression, anxiety was removed (see table 6). Intrusive thoughts then contributed to a significant amount of the variance and controlling intrusive thoughts to less of the variance. This comparison between these 2 regressions highlights the confounding effects of anxiety on depression as well as on the intrusive thoughts and controlling intrusive thoughts variables.

Sleep disturbances

Sleep disturbances were a significant predictor of depression in the first regression and the most significant predictor when anxiety was omitted for the second regression. This was not surprising given the high incidence of sleep disturbances among depressed university students including a greater latency to sleep and a greater number of awakenings (Kawada, Katsumata, Suzuki & Shimizu, 2007; Moo-Estrella, Perez-Benitez, Solis-Rodriguez & Arankowsky-Sandoval, 2005). Sleep disturbances and depression have been frequently associated with physiological and biochemical imbalances (Field, Diego, Hernandez-Reif, Figueiredo, Schanberg, & Kuhn, 2006), although these imbalances have not yet been assessed in depressed

university students. Certainly sleep disturbances would be expected to affect academic performance, which is another association that needs exploring. Given the high prevalence of depression and sleep disturbances in this mostly Hispanic sample (52% of the females being depressed) and an even higher incidence in Spain (81% depressed mood and 79% altered sleep) (Vazquez & Blanco, 2008), there is growing concern that the majority of students with moderately severe or severe depression (85%) or current suicidal ideation (84%) were not receiving psychiatric treatment (Garlow, Rosenberg, Moore, Haas, Koestner, Hendin, et al, 2008).

Other emotions and behaviors

Anxiety is often comorbid with depression, and anxiety was significantly associated with romantic breakups in a survey of more than 5000 internet respondents (Davis, Shaver, & Vernon, 2003). In this study, anxiety was related to more intrusive thoughts about the lost partner, more extreme physical and emotional distress and exaggerated attempts to re-establish the relationship. High anxiety scores are often associated with more physical pain (Wade & Price, 2000) and rejection sensitivity (Downey & Feldman, 1996), and higher anxiety levels often follow breakups

of close relationships (Feeney, 1999). Higher anger levels have also been noted in individuals who do poorly following a romantic breakup, and sadness decreased the probability of recovering from anger (Sbarra, 2006).

In contrast to these negative emotions, very few studies have investigated the positive emotions following breakups including forgiveness and posttraumatic growth (Tashiro & Frazier, 2003). *Forgiveness* has been negatively correlated with anger, anxiety and depression (Thompson, Snyder, Hoffman, Michael, Rasmussen, Billings, et al, 2005; Worthington, Witvliet, Pietrini, & Miller, 2007). Forgiveness has also been related to less alcohol use and lower blood pressure and heart rate.

Posttraumatic growth may also reduce breakup distress. In a recent paper entitled "I'll never be in a relationship like that again: Personal growth following romantic relationship breakups", research was reviewed on stress-related growth following breakups (Tashiro & Frazier, 2003). The incidence of posttraumatic growth has ranged from approximately 30% to 80% (Linley & Joseph, 2004). Examples of posttraumatic growth include improved relationships with others and greater empathy and personal strength (Calhoun & Tedeschi, 2006). In an earlier study, the same researchers gave college students a posttraumatic growth inventory and the NEO-PI personality inventory (Tedeschi & Calhoun, 1996). Correlation analyses conducted on the five factors of the personality inventory and the five factors of the Posttraumatic Growth Inventory suggested that extraversion was the personality

trait most strongly correlated with the Posttraumatic Growth Inventory score.

In a more recent study, university students who experienced a recent romantic breakup were given positive and negative emotions and behaviors scales and were divided into high versus low breakup distress groups (Field, Diego, Pelaez, Deeds, & Delgado, 2010e). The high breakup distress group had higher scores on the negative emotions scales including depression, anxiety and anger and on the negative behaviors including poor academic performance, drinking and disorganized behavior, and they reported feeling less forgiveness. The two groups had the same scores on posttraumatic growth and positive activities including reading, playing music, watching T.V., and internet use. Surprisingly, also, the (high and low distress breakup) groups were similar on personality traits including optimism, extraversion and spirituality.

It is not surprising that the high distress group had higher depression, anxiety and anger scores given the previous literature on depression (Monroe et al, 1999), anxiety (Davis et al, 2003) and anger (Sbarra, 2006) following romantic breakups. These data are also consistent with previous data on university students who experienced depression, anxiety and anger (Field et al, 2009). It is not clear whether the greater distress led to these negative emotions or whether a predisposition for these moods resulted in greater breakup distress. The co-morbidity of these mood states is consistent with data on depressed women (Field, Diego, Hernandez-Reif, Schanberg, Kuhn, Yando, & Bendell, 2003) and, in at least one study, sadness decreased the prob-

ability of recovering from anger (Sbarra, 2006).

Forgiveness or the tendency to forgive was probably lower in the high distress individuals because of their high levels of depression, anxiety and anger, forgiveness being negatively correlated with depression, anxiety and anger (Thompson, Snyder, Hoffman, Michaeli, Rasmussen, Billings, et al 2005). Forgiveness was, in turn, associated with less alcohol use in that study. Excessive alcohol use was reported by the high distress group in the present study.

Disorganized behavior and inferior academic performance were other negative experiences for the high distress students. Disorganized behavior might be expected given its association with depression, and poor academic performance is one of the most frequent complaints at campus mental health services (Oliveria, Dentas Cde, Azevedo & Banzato, 2008). Breakup distress also explained a significant amount of the variance on academic performance in an earlier study (Field, Diego, Pelaez, Deeds & Delgado, 2010b).

Posttraumatic growth surprisingly did not differ across groups. These findings are inconsistent with those reported earlier on college students possibly because our sample had experienced a recent breakup while their sample had experienced a severe trauma within the last year (Tedeschi & Calhoun, 2004). Posttraumatic growth may occur less often following less severe trauma and/or when less time has transpired since the traumatic event.

Although personality traits were correlated with posttraumatic growth in other studies including extraversion (Tedeschi

& Calhoun, 2004) and optimism (Helgeson, Reynolds & Tomich, 2006), they did not differentiate the high and low distress groups, again perhaps because of the less severe or more recent trauma in our sample. Personality traits might be too robust to change following less severe trauma. Daily activities did not differ across groups, perhaps because they are robust habits that are not altered by breakup distress (an hour per day on average for reading, playing music and watching TV and two hours for internet use).

Thus, negative emotions and behaviors accompanied high breakup distress in this sample of university students. Fortunately, the positive activities were not affected, but at the same time they apparently were not compensating for the negative emotions and behaviors accompanying breakup distress. Interventions might need to focus on something other than these activities to reduce the negative emotions and behaviors following breakup distress.

Other significant variables

Closeness and the duration of the broken relationship were important variables in an original study (Field et al, 2009). In addition, the closeness of the relationship, duration of the relationship and ease of finding an alternative partner predicted the intensity and duration of emotional distress following breakups in another sample (Simpson, 1987). And, greater love was associated with a decreased probability of recovering during another study (Sbarra, 2006).

The amount of time since the breakup has been inversely related to the amount of breakup distress, such that greater distress

occurred when the breakups were more recent (Knox et al, 2000; Moller, Fouladi, McCarthy, & Hatch, 2003). In the Knox et al (2000) study, the most helpful factors in getting over a broken heart were time and a new partner.

Finding a desirable new partner was a significant variable as already mentioned in at least two studies (Knox et al, 2000; Simpson, 1987). These findings are consistent with the importance attributed to relationships by attachment theorists (Shear & Shair, 2005) and those who view relationships as regulators for daily activities and mood states (Field, 1985; Hofer, 1984).

Continuing contact with the former partner has had disorganizing effects (Sbarra & Emery, 2005) even when the partner is viewed from photos (Kross, Egner, Ochsner, Hirsch & Downey, 2007). It is counterintuitive then that equal numbers of university students reported either remaining friends or not seeing their previous partners in at least one study (Knox et al, 2000).

Gender differences in breakup distress are rarely measured. But, in one study, male students reported more difficulty recovering (Knox et al, 2000). In another study, women were more distressed (Fisher, 2004), a finding that would be expected given that women are typically more depressed by stressful events (Nolen-Hoeksema, 2000).

Effects on Academic Performance

Relationship break-ups and poor academic performance are among the most frequent complaints at campus counseling centers (Oliveira, Dentas Cde, Azevedo & Banzato, 2008). Others are depression,

anxiety and relationship problems (Holm-Hadulla & Soeder, 1997). Depression has been associated with as much as half-a-letter grade decreases in grade point averages, with treatment producing a protective effect of almost a half-letter grade (Hysenbegasi, Hass, & Rowland, 2005). In another study, sleep problems accounted for the largest amount of variance in grade point averages (Trockel, Barnes & Egget, 2000). Actively restricting or optimizing sleep has revealed a worsening and improvement in academic performance respectively (Curcio, Ferrara & Gennaro, 2006).

In one study, university students with high breakup distress scores had problems with concentration, homework and test scores/grades (Field et al, 2010b). Breakup Distress Scale scores, less time since the breakup and no new relationship significantly contributed to 16% of the variance on academic performance. Variables that were related to academic performance in previous studies did not enter the regression equation including depression (Hysenbegasi, Hass & Rowland, 2005), anxiety (Holm-Hadulla & Soeder, 1997) and sleep disturbances (Curcio, Ferrara & Gennaro, 2006; Trockel, Barnes & Egget, 2000). Given that these variables were significantly related to Breakup Distress Scale scores in a previous study (Field et al, 2009), it may be that they were covaried out of the regression equation on academic performance by the more significant breakup distress variables.

The breakup distress variables that contributed to the variance, i.e. the Breakup Distress Scale scores, time since the breakup and a new relationship, should be

considered somewhat tenuous given the limited amount of variance they explained (16% total). Although students' concentration, homework, test performance and grades were affected by their breakup experience, empirical validation is needed using more objective measures such as GPAs, attendance and in-class participation.

Breakup Reasons

Reasons for breakups have received less attention than breakup effects. Fewer studies have been conducted on the reasons for romantic breakups. In a longitudinal study, the primary reason for breakup among college students was unequal involvement in the relationship (Hill, Rubin, & Peplau, 1976). This phenomenon may be similar to the "romantic disengagement" preceding breakups reported by others (Barry, Lawrence, & Langer, 2008). In that study, romantic disengagement, in turn, was negatively related to intimacy, suggesting the breakdown of intimacy as a reason for the breakups. In the only study we could find on reasons for breakups, high school students provided a written response to the question "What was the most important reason why your last romantic relationship ended?" (Connelly & McIsaac, 2009). The breakup reasons were then coded using a categorical-content qualitative analysis method (Lieblich, Tuval-Mashiach & Zibler, 1998) for the hypothesized content categories of intimacy, affiliation, sexuality, identity and autonomy. The authors found that problems with affiliation (44%) and intimacy (36%) were more prevalent in adolescents' breakup accounts than problems with sexuality (20%). This study was limited in that the students were only asked

to give the most important reason for the breakup when in fact the breakup may have occurred for several reasons. In addition, the qualitative method limits the power of the data analysis. Nonetheless, the results are highly suggestive and were used as the foundation for a study conducted on university students (Field, Diego, Pelaez, Deeds & Delgado, 2010a).

A Breakup Reasons Scale was created based on the Connelly and McIsaac (2009) findings and was given to university students. The Breakup Distress Scale was also given, and the sample was divided into high and low distress groups based on a median split on that scale. The groups were then compared on the Breakup Reasons Scale total score and the subscale scores labeled affiliation, intimacy, sexuality and autonomy. Potential confounding variables were assessed on other scales including the Relationship Rating Scale, the Missing the Partner Scale, the Ideal Relationship Rating Scale and the Contact with Friends Scale. Only the intimacy items differentiated the high versus low breakup distress groups including distrust, unreciprocated love, diminishing empathy, diminishing caring behavior, infidelity and hypersensitivity. These data highlight the importance of the loss of intimacy as a reason for breakup distress.

That decreasing intimacy contributed to breakup distress was not surprising given that intimacy was a primary reason for breakups in at least one other sample (Connelly & McIsaac, 2009). In that study, 36% of the adolescents' reasons for breakup were intimacy-related. The high distress group also had higher levels on the Relationship Rating Scale and the Missing the

Partner Scale. These findings are consistent with previous research reporting greater distress following break-ups of closer relationships (Simpson, 1987) and relationships with “greater levels of love” (Sbarra, 2006).

Another expected finding was that a significantly greater number of female than male students were in the high distress group, a finding that was consistent with data on another university student sample (Field et al, 2009). Women are more reactive to interpersonal stress and more likely to become depressed reputedly following an interpersonal stressor (Rudolph, 2002). As those authors suggested, women may place more importance on harmonious relationships (Rudolph & Connelly, 2005). Women are also twice as likely as men to be depressed (Nolen-Hoeksema & Girgus, 1994), which may relate to different cognitive styles and greater chronic stress in women (Nolen-Hoeksema, Grayson, & Larson, 1999).

Breakup Behaviors

In a further attempt to determine contributing factors leading to breakups and breakup distress, a group of university psychology students were asked to list behaviors that led to their recent romantic breakups (Pelaez, Field, Diego, Deeds & Delgado, 2010). The group reached consensus on 16 behaviors that led to breakup. These were categorized as insecurity, controlling and loss of interest behaviors which then comprised the Breakup Behaviors Scale that was, in turn, given to a larger sample of students. The Breakup Distress Scale was used to divide the breakup sample into high and low breakup distress

groups. These groups were then compared on the Breakup Behaviors Scale to determine which breakup behaviors contributed to greater distress after the breakup. The high breakup distress group scored significantly higher on 80% of the insecurity items, 40% of the controlling items and 17% of the loss of interest items.

The insecurity and controlling items on the Breakup Behaviors Scale might be characterized as a kind of rejection sensitivity defined as a tendency to anxiously anticipate, readily perceive and overreact to rejection (Downey & Feldman, 1996). Others have called this behavior excessive reassurance seeking (Starr & Davila, 2008). Both rejection sensitivity and excessive reassurance seeking have been related to insecurity, interpersonal rejection and depression, often leading to a self-fulfilling prophecy in which the expectation of being rejected leads to behavior that results in rejection (Ayduk, Downey & Kim, 2001; Downey, Freitas, Michaelis & Khouri, 1998). Those who had high breakup distress scores endorsed items that sounded like rejection sensitivity issues such as not being a priority, being taken for granted, being put down by the partner and putting more into the relationship than the partner. Several studies have reported this phenomenon in adult relationships reflected in their paper titles including “Through the looking glass darkly? When self-doubts turn into relationship insecurities” (Murray, Holmes, MacDonald & Ellsworth, 1998) and “‘Walking on eggshells’ how expressing relationships insecurities perpetuates them” (Lemay & Clark, 2008).

Still another model that has been advanced for the problems reported on the Breakup Behaviors Scale is a phenomenon called relationship-contingent-self-esteem (Knee, Canevello, Bush & Cook, 2008). Analogizing this to being at sea, these authors suggested that “being involved in a romantic relationship can sometimes be like riding the waves of the open sea. Partners can negotiate the steering of the boat, the height and direction of the sails and how long they remain aboard, but rough waters may still affect one partner more than the other. Indeed, some partners seem devastated by a few small ripples, whereas others may seem relatively unscathed by a tidal wave. The degree to which one is affected by one’s relationship may involve the tendency to depend on that relationship for personal validation. If one is tied to the bow of the ship, for example, even small ripples may feel like tidal waves. The degree to which one’s sense of self is contingent on one’s relationship may transform everyday angulations into seemingly more major crests and troughs.” (Knee et al, 2008, pg. 608).

Paradoxically, the same behaviors the students selected as reasons for breakup contributed to breakup distress. Further research is needed to determine the degree to which insecurity, controlling behaviors and loss of interest contribute to the breakups themselves as opposed to the breakup distress.

Potential underlying mechanisms for breakup distress

Different approaches have been taken to researching potential underlying mechanisms for breakup distress including

measuring physiological and biochemical reactions and conducting fMRIs. For example, in one fMRI study, (Najib, Lorberbaum, Kose, Bohning & George, 2004) women who were grieving the loss of a romantic relationship and were experiencing intrusive thoughts were monitored for regional brain activity during intrusive versus neutral thoughts. They also rated their mood states including sadness, anxiety and anger during their intrusive thoughts. Women were selected because of gender differences in brain correlates of sadness (George, Ketter, Parekh, Herscovitch & Post, 1996) and because they frequently ruminate more than men following breakups (Nolen-Hoeksema, Grayson & Larson, 1999). Their ratings on intrusive thoughts were higher for sadness, anger and anxiety and for happiness. The fMRI scans also suggested that grieving about a breakup is a mixed emotional state of sadness, anger and anxiety.

Therapies for complicated grief

The high incidence of breakups in university students and their breakup distress highlight the importance of finding effective therapies. The similarity of breakup distress to complicated grief syndrome further suggests the need for considering breakup distress as a DSM-V diagnosis. Therapies that have been effective with depression and with complicated grief and may be appropriate for breakup distress include Interpersonal Psychotherapy and Cognitive Behavioral Therapy. Although randomized control trials have not yet been conducted on psychotherapies with complicated grief, when Cognitive Behavioral Therapy was compared to supportive coun-

seling, Cognitive Behavioral Therapy produced more improvement in complicated grief than supportive counseling (Boelen, de Keijser, van den Hout & van den Bout, 2007). Manualized psychotherapy has been developed specifically for complicated grief (Stroebe & Schut, 1999). Complicated Grief Therapy addresses the symptoms by retelling the story of the loss. This retelling procedure is called "revisiting." In a study comparing that form of treatment to Interpersonal Psychotherapy, both treatments significantly reduced complicated grief symptoms, but the response rate was greater for Complicated Grief Therapy than for Interpersonal Psychotherapy (51% versus 28%). In addition, the time to respond was shorter for Complicated Grief Therapy (Stroebe & Schut, 1999).

These results might not generalize to other university student populations as the majority of students in the samples studied were Hispanic female psychology students (78%). Further research is needed to investigate breakup distress in this population. Exploring cultural differences in breakup distress among participants of Latin/Hispanic origin would be important in light of the research findings showing different love attitudes and patterns of Cuban-Americans, Mexicans and Spaniards (Rodriguez, Montgomery, Pelaez, & Salas, 2003). Rodriguez et al. (2003) found that in a Hispanic sample in Miami, on average, breakups were more frequent among Cuban-American than Mexican and Spanish students who tended to be more pragmatic in their approach to relationships. That group has already been identified as having more breakups

(Rodriguez et al, 2003), highlighting the special need for intervention for this group of university students. Other university student groups also need further study inasmuch as romantic breakups are the most frequently reported problem at student health centers and are notably detrimental to academic performance and emotional well-being (Field et al, 2010b).

Summary

In this paper, several different studies using the Breakup Distress Scale adapted from the Inventory of Complicated Grief were reviewed. In the first study, 37% of the variance in Breakup Distress Scale scores was explained by depression, feelings of betrayal, having less time since the breakup and higher relationship ratings. In a second study, intrusive thoughts contributed to 28% of the variance in breakup distress. Depression and sleep disturbances were also related to breakup distress in this sample of university students. Other negative emotions and behaviors associated with breakup distress included anxiety, anger, disorganized behavior and inferior academic performance. Studies on reasons for breakups revealed that insecurity and loss of intimacy were the most significant problems in those experiencing greater breakup distress. Although female students typically reported greater breakup distress, the studies are limited in their generalizability because they sampled primarily Hispanic female psychology students. Nonetheless, the data highlight the negative effects of breakup distress for university students.

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