



# Pursuing Sex with an Ex: Does It Hinder Breakup Recovery?

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## Abstract

The present research used longitudinal methods to test whether pursuing sex with an ex-partner hinders breakup recovery. Participants completed a month-long daily diary immediately following a breakup, as well as a two-month follow-up (Study 1). Daily analyses revealed positive associations between trying to have sex with an ex-partner and emotional attachment to the ex-partner, but not other aspects of breakup recovery, such as distress, intrusive thoughts, or negative affect. Longitudinal changes from day to day, and over 2 months, revealed that pursuing sex with an ex was not a predictor of breakup recovery over time. To address the limitation that Study 1 only assessed attempted sexual pursuits, Study 2 explored associations between pursuit of, and actual engagement in, sexual activities with ex-partners. Results revealed that most sexual pursuits were successful, and success rates were not associated with breakup recovery. Findings challenge common beliefs about potential harm of pursuing sex with an ex.

**Keywords** Breakups · Ex-partners · Sex · Longitudinal methods

## Introduction

If you are trying to move on from your old relationship, why would you want to make the task even harder? That's like walking through the desert and then deciding to carry a backpack with a 50 lb weight in it. Having sex with your ex makes breaking the emotional bond you share 10 times harder.

- Nina Appleby (2010), HealHeartbreakNow.com

Conventional wisdom suggests that people should avoid pursuing sexual activity with ex-partners following a breakup. Popular media outlets, blogs, and advice columns dole out such advice with regularity. A common theme in these recommendations is that pursuing sex with an ex will make it more

difficult to recover from a breakup. Indeed, our own pilot work has revealed that more than three-quarters of college-aged participants believe that having sex with an ex would hinder emotional recovery following a breakup (Spielmann, 2016). However, despite the commonplace beliefs which imply that pursuing sex with an ex has a causal impact on breakup recovery, no empirical research has tested the veracity of this claim.

If lay theories are correct that pursuing sex with an ex directly impacts breakup recovery, this is important to know. Difficulty moving on after the end of a relationship is typically associated with negative outcomes, such as difficulties in emotional adjustment (e.g., Davis, Shaver, & Vernon, 2003; Frazier & Cook, 1993; Sbarra & Ferrer, 2006) and risk of longer-term mental health issues such as depression and suicide (e.g., Fordwood, Asarnow, Huizar, & Reise, 2007; Monroe, Rohde, Seeley, & Lewinsohn, 1999). Therefore, improved knowledge of risk factors for hindered breakup recovery may have important implications for emotional and mental health.

The potential costs of pursuing sex with an ex are of broad interest because sexual experiences with ex-partners are quite common. In a study of ex-spouses who had separated on average 4 months prior, Mason, Sbarra, Bryan, and Lee (2012) found that approximately 22% reported having sex after separating. With regard to nonmarital separations, approximately 27% of young adults ages 17–24 reported having sex with an ex within the past 2 years (Halpern-Meehin, Manning, Giordano, & Longmore, 2012) and 14% reported their most recent casual

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sexual encounter had been with their ex-partner (Lewis, Granato, Blayney, Lostutter, & Kilmer, 2012). Documenting this phenomenon across age groups, approximately 40% of sexually active 7th, 9th, and 11th graders reported engaging in sexual activity with an ex-partner within the past year (Manning, Giordano, & Longmore, 2006). Indeed, continued sexual access is a key motivation for staying friends with an ex-partner (Mogilski & Welling, 2017). In their relationship development model of sexual desire, Birnbaum and Finkel (2015) suggest that following romantic breakup, ex-partners enter the “fiery limbo” stage of their relationship, where they may continue to experience sexual desire for one another despite no longer having a committed relationship. Moreover, Birnbaum (2018) elaborates that feelings of sexual desire for the ex-partner may be even stronger during this post-breakup stage than they were when the relationship was intact, due to increased levels of relational uncertainty and perhaps reduced sexual access to the ex-partner. Taken together, it is clear that sexual pursuit of ex-partners occurs regularly and is a common consideration for new singles as they redefine their post-dissolution relationship.

Yet we do not know whether pursuing sex with an ex-partner is indeed a factor in breakup recovery. From a theoretical perspective, there are a number of reasons why continuing to pursue a sexual relationship with an ex-partner could harm breakup recovery. For one, sexual activity more generally (not specifically with ex-partners) is thought to promote emotional attachment (e.g., Hazan & Zeifman, 1994). Many people believe that sex promotes closeness and emotional bonds (e.g., Birnbaum & Gillath, 2006), and indeed, sexual activity is often reported to be motivated by desires for emotional closeness and relationship enhancement (Impett, Peplau, & Gable, 2005; Meston & Buss, 2007). More importantly, experimentally priming sexual arousal has been shown to increase motives to form and maintain relationships and to engage in relationship-enhancing behaviors such as self-disclosure, sacrifice, and positive conflict resolution strategies (Birnbaum et al., 2017; Gillath, Mikulincer, Birnbaum, & Shaver, 2008). Therefore, pursuing sexual activity with an ex-partner could potentially hinder breakup recovery by continuing to foster emotional connections and desires to reinstate the relationship. Indeed, a recent study exploring reasons for pursuing post-dissolution friendship demonstrated that motivations to maintain sexual contact with an ex-partner loaded onto the same latent factor as unresolved romantic desires for the ex-partner (Griffith, Gillath, Zhao, & Martinez, 2017), suggesting that sexual pursuit and romantic pursuit of ex-partners may be addressing similar goals.

Those pursuing sexual activity with ex-partners in the wake of a breakup could also experience poorer breakup recovery in the form of more generalized negative affect or distress due to potential conflict between desires for connection and desires for closure. In the wake of a breakup, people may strive to achieve a sense of closure, acceptance, or finality regarding the end of the relationship. Acceptance is an important component of breakup

recovery, associated with improved emotional recovery and mental health outcomes (e.g., Kitson, 1982; Sbarra, 2006). On the other hand, the change in one’s social support structure that occurs with the end of a relationship likely also activates desires for connection and renewed sense of belonging. Indeed, the need to belong theory (Baumeister & Leary, 1995) suggests that people should actively seek out connection when feelings of belonging are low. For instance, experimental experiences of exclusion often motivate desires for connecting with others (Maner, DeWall, Baumeister, & Schaller, 2007). Specific to desires for reconnection following breakup experiences, people often reinvest in their friendships and family relationships during the process of relationship dissolution (e.g., Vaughan, 1986). Importantly, desires for connection can be directed toward ex-partners. Longitudinal research tracking individuals in relationships over the course of 6 months found that declines in relationship quality with one’s current partner promoted increased emotional attachment to an ex-partner (Spielmann, Joel, MacDonald, & Kogan, 2013a). This research suggests that we may attempt to bolster unsatisfied needs for belonging by returning to connections with former partners. In this way, those going through a breakup may at times find it helpful to satisfy belonging needs through the ex-partner. However, satisfying belonging needs with sexual activity with an ex may be at odds with breakup acceptance or closure. In general, goal conflict or ambivalence between important goals has been shown to be a source of distress that can negatively impact psychological well-being (Emmons & King, 1988; Kelly, Mansell, & Wood, 2011). Therefore, pursuing sex with an ex could potentially produce more generalized distress and negative affect due to conflicting goals.

Whether pursuing sex with an ex is indeed associated with breakup recovery is an exploratory question. While there is theoretical rationale to suggest there may be a directional effect, other findings suggest there may not. For instance, one of the only studies empirically exploring the association between sex with an ex and breakup recovery used a cross-sectional study design and found that those having the most difficulty accepting a recent divorce exhibited better psychological adjustment when they continued sexual activity with their ex-spouse compared to those who did not (Mason et al., 2012). Furthermore, among those who were more accepting of the divorce, adjustment did not differ between those having sex or not having sex with their ex-spouse. While this research further highlights the complex interplay between desires for closure and connection when it comes to sex with an ex, it suggests that sex with an ex does not necessarily hinder breakup recovery, and may, at times, even be beneficial.

There are likely multiple pathways through which sexual pursuit of ex-partners could impact breakup recovery, if it does at all. The present research cannot necessarily speak to these specific pathways, but rather first aims to explore whether there is indeed a directional link between sexual pursuit of ex-partners and breakup recovery. In the present research, we conducted a

prospective breakup study (Study 1), in which individuals in relationships were tracked on a weekly basis; those who broke up then participated in a longitudinal study consisting of an initial post-breakup survey, a 27-day daily experience study, and a two-month follow-up survey. This intensive longitudinal design allowed us to assess directional effects of pursuing sex with an ex on breakup recovery. Specifically, by examining changes from day to day and over 2 months, we tested two competing directional hypotheses: The first hypothesis is that pursuing sex with an ex hinders breakup recovery. Alternatively, the competing hypothesis is that worse breakup recovery increases the likelihood of pursuing sex with an ex.

The operationalization of breakup recovery is an important consideration in addressing the potentially nuanced effects of pursuing sex with an ex. In our investigation, we assessed multiple facets of breakup recovery, including: (1) a partner-specific measure of emotional attachment, as a face-valid metric of love and longing for the ex (e.g., Spielmann, MacDonald, & Wilson, 2009); (2) breakup-specific emotional distress (e.g., Field, Diego, Pelaez, Deeds, & Delgado, 2009; Frazier & Cook, 1993; Simpson, 1987); (3) general positive and negative emotions, as such broad-based emotional experiences are associated with well-being, resilience, and satisfaction with life (e.g., Cohn et al., 2009; Diener, Emmons, Larsen, & Griffin, 1985; Lyubomirsky, Tkach, & DiMatteo, 2006); and (4) intrusive thoughts and rumination about the breakup, since the frequency with which the breakup comes to mind without intention has been associated with negative affect, distress, and lower breakup acceptance (e.g., Field et al., 2009; Saffrey & Ehrenberg, 2007), and can contribute to anxiety and depressive symptoms (e.g., Nolen-Hoeksema, 2000). Taken together, the methodological feature of assessing general as well as partner- and breakup-specific emotional and cognitive processes allowed us to explore whether certain breakup recovery processes are more strongly associated with sexual pursuit of ex-partners than others.

Finally, a key strength of the present research is the timing with which participants were recruited: on average 8.55 days post-breakup. This is important because prior research on breakup recovery shows that most people recover from feelings of sadness and anger within 1 month of their breakup (Sbarra, 2006). Therefore, in order to truly capture how breakup recovery processes are associated with pursuing sex with an ex, we need to assess people within this critical window of recovery.

Taken together, Study 1 used an innovative longitudinal, prospective design allowing us to test directional associations between pursuing sex with an ex and multiple facets of breakup recovery in the immediate wake of a breakup. Specifically, we explored whether sexual pursuit of ex-partners was associated with breakup recovery on a daily basis, and explored changes from day to day and over 2 months. We tested the possibility that pursuing sex with an ex would hinder breakup recovery over time, as well as the alternative possibility that worse breakup

recovery would increase the likelihood of pursuing sex with an ex over time. Additionally, Study 2 was a cross-sectional follow-up study conducted to elucidate the association between pursuing sex with an ex and actual engagement in sexual activities.

## Study 1

### Method

#### Participants

This sample represents the final group of participants who began the study in a relationship, were tracked weekly until they experienced a breakup, and then participated in an initial post-breakup survey, a 27-day daily diary survey, and a two-month follow-up survey. The present analyses focus only on the post-breakup measures. However, methodological and demographic information for the relationship phase and breakup tracking process can be found in Spielmann et al. (2013b) and Spielmann, MacDonald, Joel, and Impett (2016). Participants were recruited through Mechanical Turk and the undergraduate participant pool at the University of Toronto between 2011 and 2013. The final sample included 113 participants (57 men, 50 women, 6 unidentified), ages 18 to 55 ( $M = 27.04$ ,  $SD = 9.18$ ). Participants had been in their past relationship between 1 month and 21 years ( $M = 15.06$  months,  $SD = 26.11$ ). Twenty participants had been in a long-distance relationship prior to breaking up. Before the end of the relationship, 23 participants defined their relationship as casually dating, 76 as exclusively dating, 6 as an open relationship, 1 as common law, and 2 as married (5 unreported). The response rate for the diary study ranged from 2 to 27 days ( $M = 17.34$  days,  $SD = 6.91$ ). Participants completed the breakup survey an average of 8.55 days post-breakup ( $SD = 6.11$ ). Seventy-seven participants also completed the two-month follow-up. There were no significant differences in age, gender, emotional attachment, or pursuing sex with an ex,  $.06 < ps < .61$ , between those who did versus did not complete the follow-up survey.

Sample size was determined based on the goal to collect data from as many participants as possible, assuming attrition at every phase. Multilevel power simulations (see Lane & Hennes, 2018) based on the within-day models presented below suggest that the present study is sufficiently powered to detect between-person predictive effects of pursuing sex with an ex at moderate effect sizes and within-person effects at small effect sizes (see Table 1 for simulation results).

#### Procedure

Immediately following the breakup, participants reported via email whether the breakup was partner-initiated ( $n = 45$ ), mutual

**Table 1** Results of power simulations in Study 1

	<i>b</i> values used in simulations		Estimated power to predict effects on each dependent variable from attempted sex with ex-partner				
	Between-person	Within-person	Emotional attachment	Breakup distress	Positive affect	Negative affect	Intrusive thoughts
Between-person effects	.2	.2	.18	.20	.21	.18	.23
	.3		.36	.38	.40	.35	.38
	.4		.56	.61	.62	.57	.59
	.5		.76	.78	.80	.77	.78
Within-person effects	.2	.2	.83	.64	.70	.61	.63
		.3	.97	.89	.91	.88	.88
		.4	.999	.96	.99	.97	.98
		.5	.999	.996	.999	.998	.996

Each power estimate is based on 1000 simulated samples, assuming a population with the same variance structure as the present dataset. Dependent measures were standardized across all observations for the sake of these power simulations, such that a *b* value of .2 represents daily scores that are approximately .2 SD higher (a small effect size) and a *b* value of .5 represents daily scores that are approximately .5 SD higher (a moderate effect size) as a function of attempting sex with an ex

( $n = 32$ ), or self-initiated ( $n = 34$ ), with two unreported. Participants were then invited to complete an initial online survey, followed by a daily survey completed at the end of each day for 27 days. This procedure was inspired by Sbarra and Emery's (2005) foundational research on post-dissolution trajectories using daily diary methodology. Participants then completed a final online survey 2 months after completing the initial post-breakup survey. The focus of our analyses was on the following variables.

### Post-breakup Phase

**Emotional Attachment to Ex-partner** In the first survey completed following their breakup, participants reported their current feelings of emotional attachment to their ex-partner (Spielmann et al., 2009; Wegner & Gold, 1995), responding on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) to four items such as, "I am still in love with him/her" ( $M = 3.01$ ,  $SD = 1.18$ ,  $\alpha = .86$ ).

### Daily Diary Phase

**Attempted Sexual Activity** Participants reported their daily attempts to engage in sexual activity with their ex-partner by providing yes/no responses to the questions, "I tried to have sex with my ex-partner," and "I tried to touch, kiss, or be physically affectionate with my ex-partner." These two items were combined, such that responding "yes" to either one reflected attempted sexual activity on a given day.<sup>1</sup> Sexual attempts were

reported on 77 diary days (out of 1931), from 28 different participants. While daily frequency of sexual attempts was low, the between-person rate of 24.8% of our sample replicates prior research on frequencies of sex with an ex. Of those who pursued sex with an ex, the frequency ranged from 1 to 14 attempts ( $M = 2.75$ ,  $SD = 2.80$ ).

**Emotional Attachment to Ex-partner** Participants completed a daily measure of emotional attachment to their ex-partner, using the same scale as above ( $M = 2.45$ ,  $SD = 1.20$ , reliability of within-person change  $R_C = .75$ ).

**Breakup Distress** Daily distress over the breakup was assessed using four items created by the authors. Participants responded on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) to the questions, "I felt very distressed about the breakup," "I generally found it difficult to cope with the breakup," "I experienced a lot of pain over the breakup," and "I found it difficult to accept the breakup" ( $M = 1.91$ ,  $SD = 1.15$ ,  $R_C = .89$ ).

**Positive and Negative Affect** Each day, participants indicated the extent to which they experienced clusters of emotions on a scale from 1 (*not at all*) to 7 (*a lot*), adapted from Impett et al. (2010). The five positive emotion clusters included happy/cheerful/joyful, caring/concerned, grateful/appreciative/thankful, compassionate/sympathetic, relieved/free ( $M = 3.64$ ,  $SD = 1.39$ ,  $R_C = .74$ ). The eight negative emotion clusters included lonely/isolated, sad/depressed/down, angry/irritable/frustrated, disappointed/let down, embarrassed/ashamed, put down/rejected, guilty/regretful/apologetic, miserable/heartbroken ( $M = 2.51$ ,  $SD = 1.43$ ,  $R_C = .88$ ).

**Intrusive Thoughts** Daily intrusive thoughts about the breakup were assessed using an adapted version of the Impact of Events

<sup>1</sup> Participants also indicated whether their ex-partner attempted these activities. However, issues of multicollinearity between own- and ex-partner's sexual attempts limited our ability to analyze them together.

**Table 2** Within-day outcomes predicted from attempted sexual activity in Study 1

	<i>b</i>	SE	<i>p</i>	CI <sub>95%</sub>
Model 1: emotional attachment to ex-partner				
Attempted sex with ex (within-person)	.13	.04	.001	[.048, .203]
Attempted sex with ex (between-person)	.43	.11	<.001	[.209, .649]
Model 2: breakup distress				
Attempted sex with ex (within-person)	-.01	.05	.82	[-.111, .089]
Attempted sex with ex (between-person)	.13	.10	.22	[-.078, .333]
Model 3: positive affect				
Attempted sex with ex (within-person)	.40	.06	<.001	[.283, .507]
Attempted sex with ex (between-person)	-.17	.12	.17	[-.405, .071]
Model 4: negative affect				
Attempted sex with ex (within-person)	-.13	.06	.04	[-.256, -.005]
Attempted sex with ex (between-person)	.06	.13	.67	[-.205, .317]
Model 5: intrusive thoughts				
Attempted sex with ex (within-person)	-.03	.05	.58	[-.122, .069]
Attempted sex with ex (between-person)	.08	.10	.39	[-.109, .278]

Scale (Horowitz, Wilner, & Alvarez, 1979) by Lepore and Greenberg (2002) to refer to breakup experiences. Participants responded on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) to seven items such as “I thought about the breakup when I didn’t mean to” ( $M = 2.00$ ,  $SD = 1.09$ ,  $R_C = .88$ ).

**General Contact with Ex** Participants were asked to report on a daily basis whether or not they had been in contact with their ex (over the phone or in person) that day. Contact with an ex was reported on 477 diary days and was reported by 91 different participants.

### Two-Month Follow-Up Phase

**Emotional Attachment to Ex-partner** Participants again reported their emotional attachment to their ex-partner ( $M = 2.09$ ,  $SD = 1.10$ ,  $\alpha = .84$ ).

## Results and Discussion

### Within-Day Analyses

Multilevel modeling was conducted due to the hierarchical nature of the data, using SPSS 25. Each dependent variable (emotional attachment to the ex-partner, positive affect, negative affect, breakup distress, and intrusive thoughts) was tested in a separate model. A within-person variable representing daily attempted sex with an ex (1 = *yes*, -1 = *no*) was entered uncentered as a Level 1 predictor, and—in order to parse the within- and between-person effects of sexual pursuits (Bolger & Laurenceau, 2013; Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2011; Zhang, Zyphur, & Preacher, 2009)—a between-person variable representing whether or not one had attempted sex with an ex during the study (1 = *yes*, -1 = *no*)

was entered uncentered as a Level 2 predictor.<sup>2</sup> As given in Table 2, results revealed a significant between-person association with emotional attachment. Specifically, those who pursued sex with an ex throughout the study reported feeling more attached to their ex-partners than participants who had not pursued sex. There was also a significant within-person association, suggesting that participants felt more emotionally attached to their ex-partner on days when they pursued sex with them than on days when they did not.

Sexual pursuit was not generally associated with worse outcomes on other breakup recovery variables. Specifically, as given in Table 2, there were no significant within- or between-person associations of attempted sex on breakup distress or intrusive thoughts. In some cases, there were even positive outcomes: On days when participants pursued sex with an ex, they experienced greater positive affect and weaker negative affect.

### Lagged-Day Analyses

We next tested two possible explanations of directionality for the above associations. First, does pursuing sex with an ex increase emotional attachment from one day to the next? Alternatively, do people seek out sex with their ex when they are experiencing stronger emotional attachment to them? Furthermore, while sex with an ex was not associated with worse recovery on other breakup measures on a daily basis, it is possible that there is a lingering effect from one day to the next. For this reason, we conducted lagged-day analyses for

<sup>2</sup> Analyses in which this aggregated Level-2 variable reflected the number of times a participant pursued sex with an ex throughout the study yielded similar results as effects coding.

**Table 3** Lagged-day analyses of attempted sexual activity in Study 1

	<i>b</i>	SE	<i>p</i>	CI <sub>95%</sub>
Model 1: today's emotional attachment to ex-partner				
Yesterday's emotional attachment (within-person)	.07	.02	< .001	[.035, .099]
Yesterday's attempted sex with ex (within-person)	.04	.04	.33	[− .041, .122]
Attempted sex with ex (between-person)	.47	.11	< .001	[.239, .696]
Model 2: today's breakup distress				
Yesterday's breakup distress (within-person)	.34	.02	< .001	[.299, .389]
Yesterday's attempted sex with ex (within-person)	−.008	.05	.87	[− .105, .089]
Attempted sex with ex (between-person)	.14	.11	.19	[− .073, .362]
Model 3: today's positive affect				
Yesterday's positive affect (within-person)	.27	.02	< .001	[.217, .314]
Yesterday's attempted sex with ex (within-person)	.15	.06	.02	[.029, .264]
Attempted sex with ex (between-person)	−.13	.13	.32	[− .388, .127]
Model 4: today's negative affect				
Yesterday's negative affect (within-person)	.38	.02	< .001	[.335, .424]
Yesterday's attempted sex with ex (within-person)	.03	.06	.58	[− .087, .156]
Attempted sex with ex (between-person)	.01	.14	.93	[− .256, .283]
Model 5: today's intrusive thoughts				
Yesterday's intrusive thoughts (within-person)	.10	.02	< .001	[.061, .140]
Yesterday's attempted sex with ex (within-person)	−.03	.05	.52	[− .133, .067]
Attempted sex with ex (between-person)	.10	.10	.34	[− .106, .303]

all breakup recovery variables, not only those with significant within-day associations.

**Sex with an Ex Predicting Breakup Recovery** We first tested whether pursuing sexual activity with an ex-partner hindered breakup recovery from one day to the next. This analysis would shed light on whether sex with an ex plays a causal role in daily breakup recovery processes. We conducted lagged-day models (one for each breakup recovery variable) which included within-person predictors of the previous day's level of breakup recovery (to reflect day-to-day change) and the previous day's attempted sex with an ex ( $1 = \text{yes}$ ,  $-1 = \text{no}$ ), and between-person sexual attempts as in previous analyses. Results suggest that the only lingering effect of yesterday's sexual pursuit was heightened positive affect (see Table 3). In other words, there did not appear to be repercussions for breakup recovery the day following a sexual attempt.

**Breakup Recovery Predicting Attempted Sex with an Ex** Another possibility is that perhaps it is when people are distressed or longing for their ex-partners that they are particularly vulnerable to seeking out sexual contact with their ex. We conducted lagged-day analyses using HLM 7 predicting attempted sexual activity from yesterday's breakup recovery. Each model included today's attempt to pursue sex with an ex-partner as a binary dependent variable ( $1 = \text{yes}$ ,  $0 = \text{no}$ ), predicted by yesterday's attempt to pursue sexual activity and yesterday's score on the particular breakup recovery variable at Level 1, and the between-person aggregate of the breakup recovery

variable at Level 2 (grand mean centered). Results revealed that yesterday's breakup recovery was not significantly associated with today's attempt to pursue sexual activity with the ex-partner, regardless of the breakup recovery variable used (see Table 4). In other words, it does not seem that breakup recovery processes on one day influenced pursuit of sex with an ex the following day.

### Two-Month Trajectories

Perhaps the day-to-day effects of pursuing sex with an ex tested above are relatively minor, but their accumulated effects contribute to poorer breakup recovery over the longer term. Therefore, we next examined how breakup recovery proceeded over a longer timeframe: from the time when participants had just experienced a breakup to two months later. A multilevel model tested whether the dependent variable of emotional attachment to the ex-partner was subject to change over time ( $-1 = \text{post-breakup}$ ,  $1 = \text{follow-up}$ ) and whether change over time was moderated by sexual pursuit during the daily diary phase ( $-1 = \text{no attempted sex}$ ,  $1 = \text{attempted sex}$ ). Results revealed a main effect of time,  $b = -.44$ ,  $SE = .06$ ,  $p < .001$ ,  $CI_{95\%}[-.562, -.313]$ , such that emotional attachment to the ex-partner declined over 2 months. There was also a main effect of sexual pursuit,  $b = .37$ ,  $SE = .10$ ,  $p < .001$ ,  $CI_{95\%} [.171, .568]$ , such that those who attempted sex with their ex reported stronger emotional attachment than those who did not. However, the interaction between time and sex was not significant,  $b = .01$ ,  $SE = .06$ ,  $p = .84$ ,  $CI_{95\%}[-.112, .137]$ . This nonsignificant interaction is

**Table 4** Lagged-day analyses predicting today's attempted sexual activity from yesterday's breakup recovery variables in Study 1

	<i>b</i>	SE	<i>p</i>	Odds Ratio	CI <sub>95%</sub>
<b>Model 1</b>					
Yesterday's attempted sex (within-person)	.78	.25	.002	2.17	[1.325, 3.560]
Yesterday's emotional attachment (within-person)	.06	.14	.66	1.06	[.805, 1.409]
Emotional attachment (between-person)	.82	.19	<.001	2.26	[1.552, 3.293]
<b>Model 2</b>					
Yesterday's attempted sex (within-person)	.81	.26	.002	2.25	[1.356, 3.744]
Yesterday's breakup distress (within-person)	-.13	.18	.46	.88	[.617, 1.246]
Breakup distress (between-person)	.21	.21	.34	1.23	[.805, 1.873]
<b>Model 3</b>					
Yesterday's attempted sex (within-person)	.79	.26	.002	2.20	[1.327, 3.636]
Yesterday's positive affect (within-person)	.09	.15	.55	1.09	[.814, 1.468]
Positive affect (between-person)	-.05	.18	.77	.95	[.660, 1.360]
<b>Model 4</b>					
Yesterday's attempted sex (within-person)	.81	.26	.002	2.24	[1.335, 3.764]
Yesterday's negative affect (within-person)	-.16	.10	.12	.85	[.697, 1.040]
Negative affect (between-person)	.04	.17	.81	1.04	[.747, 1.448]
<b>Model 5</b>					
Yesterday's attempted sex (within-person)	.82	.26	.002	2.27	[1.354, 3.822]
Yesterday's intrusive thoughts (within-person)	.001	.21	.995	1.00	[.664, 1.510]
Intrusive thoughts (between-person)	.13	.22	.57	1.14	[.729, 1.774]

important, because it suggests that attempted sex with an ex does not appear to speed or slow the rate of change in emotional attachment to an ex-partner.

We next wondered whether those who pursued sex throughout the study initially began the study with stronger emotional attachment to their ex. We conducted a logistic regression with the dependent variable of whether or not participants pursued sex during the diary phase predicted by their immediate post-breakup emotional attachment to the ex-partner (grand mean centered). The logistic regression revealed that those with stronger emotional attachment to their ex-partner in the immediate wake of their breakup were 1.74 times more likely to pursue sex with their ex over the next month,  $b = .55$ ,  $SE = .19$ ,  $p = .003$ , odds ratio = 1.74,  $CI_{95\%} [1.207, 2.494]$ . This analysis sheds further light on the previously documented association between pursuing sex with an ex and emotional attachment to the ex; specifically, it seems that this association reflects the fact that those having more trouble letting go of their ex-partner are those most likely to seek out sexual contact.

### Auxiliary Analyses

Exploratory analyses tested whether any of the above associations were moderated by participant gender or breakup initiator status. While moderations should be interpreted with caution since there was a small sample of days on which sex was pursued and moderation analyses further parse apart these days, results largely suggested that gender and breakup initiator

did not moderate effects (see Supplemental Material for full results).

We conducted additional exploratory analyses to determine whether the results of pursuing sex with an ex were confounded with general contact (over the phone or in person) with the ex-partner. Contact with an ex has been shown to be associated with poorer breakup recovery trajectories (Sbarra & Emery, 2005), and sexual pursuit likely typically involves some form of contact with the ex. Therefore, we aimed to test whether the present results are unique to sexual pursuit, or whether they are representative of mere contact with the ex-partner. Participants were asked to report on a daily basis whether they had been in contact with their ex (over the phone or in person) that day. Therefore, we were able to test our models of attempted sex with an ex only among those reporting some form of contact with their ex that day. Among the 477 days involving contact with the ex, 75 days also involved reports of trying to have sex with the ex (among 28 different participants). We therefore ran the same within-day predictive model of attempted sex with an ex on breakup recovery variables as above, but including *only* participants reporting contact with their ex that day. This analysis allowed us keep contact with the ex constant, while examining differences between days on which there was also sexual pursuit or not. Importantly, all results from the original model held when tested only among those reporting contact (see Supplementary Material for full results). In other words, it does not appear that the pattern of results reported in our original analyses can be explained by differences in contact with the ex-partner more generally.

The primary limitation of Study 1 was the assessment of attempted sexual activity with an ex-partner rather than actual engagement. While our results suggest that pursuit of sexual activity does not seem to hinder breakup recovery, it remains possible that actual engagement in sex with an ex does. Therefore, an important question remains regarding how meaningful of a construct pursuit of sexual activity is when it comes to understanding actual sexual behaviors. We aimed to shed light on the validity of the measure of sexual pursuit within the context of actual sexual activity and breakup recovery in Study 2. Study 2 also explored different types of sexual activities, in order to assess the generalizability of various forms of sexual contact with an ex on breakup recovery. To this end, participants reported on actual and attempted engagement in specific sexual activities with their ex-partner, as well as their current emotional attachment to their ex-partner.

## Study 2

### Method

#### Participants

Participants were recruited via Mechanical Turk and the Psychology pool at Wayne State University in 2015. Participants were eligible to participate if they had experienced a breakup within 4 months. A total of 459 eligible participants completed the survey. Sixty-nine participants were excluded for failing attention checks and 18 were excluded for reporting a current relationship lasting longer than their reported time since breakup (suggesting inattention, or possible nonmonogamy, infidelity, or reunited relationships). The final sample included 372 participants ( $N_{\text{Mturk}} = 217$ ,  $N_{\text{undergrad}} = 155$ ), consisting of 214 women, 155 men, and 3 unreported. Ages ranged from 18 to 65 ( $M = 25.90$ ,  $SD = 8.10$ ). Eighty-three percent reported they were currently single, and 91% identified as heterosexual.

#### Procedure and Measures

In an online survey, as part of a larger study testing separate hypotheses, participants completed the following measures.

**Breakup Details** Participants were asked about their most recent breakup. They reported time since the breakup, ranging from 0 to 4 months ( $M = 2.55$ ,  $SD = .96$ ), and length of the relationship, ranging between 1 month and 24 years ( $M = 22.69$  months,  $SD = 30.59$ ). Ninety participants reported that prior to their breakup they would have classified their relationship as casually dating, 233 as seriously dating, 13 as engaged, 18 as cohabiting/common law, 15 as married, and 3 unreported. Participants reported breakup initiator status on a continuous measure from

1 (*entirely my decision*) to 3 (*completely mutual*) to 5 (*entirely my partner's decision*;  $M = 3.00$ ,  $SD = 1.36$ ).

**Actual Sexual Activity with Ex-partner** Participants reported sexual activity with their ex-partner with the question: "Since our breakup, I have at least once engaged in the following activities with my ex-partner (check all that apply):" with available response options of kissing ( $n = 104$ ), sexual touching/petting ( $n = 67$ ), oral sex ( $n = 43$ ), sexual intercourse ( $n = 65$ ), and none of the above ( $n = 234$ ). In total, 37.1% of the sample reported engaging in at least one of these activities with their ex-partner.

**Attempted Sexual Activity with Ex-partner** Participants reported their attempted sexual pursuits, responding to questions such as "Regardless of whether you actually did it or not, have you tried to kiss your ex-partner since your breakup?" Participants indicated Yes/No to questions about kissing ( $n_{\text{yes}} = 71$ ), sexual touching/petting ( $n_{\text{yes}} = 52$ ), oral sex ( $n_{\text{yes}} = 39$ ), and sexual intercourse ( $n_{\text{yes}} = 44$ ).<sup>3</sup> In total, 23.4% of the sample reported attempting to engage in at least one of these activities with their ex-partner.

If participants indicated that they had tried to engage in one of the sexual activities above, they were also asked to indicate the number of times in which they had tried and were successful (i.e., actually engaged in the activity) and the number of times in which they tried and were unsuccessful. Means and standard deviations of the frequencies of successful versus unsuccessful attempts, as well as success rates, are presented in Table 5.

**Emotional Attachment to Ex-partner** Participants reported their continued emotional attachment to the ex-partner using the same scale as Study 1 ( $M = 2.52$ ,  $SD = 1.17$ ,  $\alpha = .85$ ).

### Results and Discussion

A primary goal of Study 2 was to better understand the association between trying to engage in, and actually engaging in, sexual activity with an ex-partner. Therefore, we first conducted chi-square tests of independence between attempted sexual activity and actual engagement in that sexual activity. For each activity, chi-square tests of independence were significant [kissing:  $\chi^2(1) = 61.91$ ,  $p < .001$ ; sexual touching/petting:  $\chi^2(1) = 86.92$ ,  $p < .001$ ; oral sex:  $\chi^2(1) = 66.68$ ,  $p < .001$ ; intercourse:  $\chi^2(1) = 76.83$ ,  $p < .001$ ], suggesting a strong association between attempting sexual activity with an ex-partner and actual engagement. To further quantify the nuance of this relationship,

<sup>3</sup> It is likely that "yes" responses to attempted sexual activities were lower than reports of actual engagement in sexual activities because actual engagement would take into account both one's own and one's ex-partners' attempts.

**Table 5** Frequency of successful versus unsuccessful sexual attempts in Study 2

	Number of successful attempts		Number of unsuccessful attempts		Success rate (%)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Kissing	5.99	13.62	1.70	8.44	84.00	29.66
Sexual touching/ petting	7.00	14.43	2.42	10.33	85.69	27.99
Oral sex	4.03	5.05	1.13	4.26	88.82	24.23
Intercourse	4.52	5.29	.89	3.80	88.61	25.36

**Table 6** Zero-order correlations between attempted sexual activities and emotional attachment to the ex-partner and actual sexual activities and emotional attachment to the ex-partner in Study 2

	Emotional attachment	Kissing	Touching	Oral sex	Intercourse
Emotional attachment	–	.10 <sup>+</sup>	.16*	.16*	.16*
Kissing	.28**	–	.64**	.58**	.58**
touching	.28**	.67**	–	.74**	.74**
Oral sex	.28**	.58**	.76**	–	.75**
Intercourse	.26**	.53**	.72**	.75**	–

Correlations presented below the diagonal represent *attempted* sexual activities, while correlations presented above the diagonal represent *actual* sexual activities

<sup>+</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .001$

we tabulated the reported success rates of attempted sexual pursuits. As given in Table 5, the proportion of sexual pursuits that resulted in actual sexual activity was quite high, with success rates ranging from 84 to 89%. In other words, of all of the times that participants tried to engage in a sexual activity with their ex-partner, most of those times resulted in actual sexual activity.

Another objective of Study 2 was to examine whether attempted and actual sexual activities with ex-partners were differentially associated with breakup recovery. Table 6 presents correlations between attempted sexual activities (1 = yes, – 1 = no) and emotional attachment, as well as actual engagement in sexual activities (1 = yes, – 1 = no) and emotional attachment. All sexual activities, both attempted and actual, were positively associated with emotional attachment.

Our final analysis examined whether emotional attachment was associated with whether a sexual attempt was accepted or rebuffed by the ex-partner. To test this, we ran zero-order correlations between the success rate for a sexual activity and emotional attachment. Results revealed that success rates for attempted sexual activities were not significantly associated with emotional attachment to the ex-partner (kissing:  $r[70] = -.08$ ,  $p = .54$ ; sexual touching/petting:  $r[51] = -.11$ ,  $p = .45$ ; oral sex:  $r[39] = .008$ ,  $p = .96$ ; intercourse:  $r[44] = .25$ ,  $p = .10$ ). This analysis is limited by smaller sample sizes since only those reporting sexual attempts answered these questions. However, the consistent results across sexual activities shed light on the phenomenon of sexual pursuit of an ex-partner and breakup recovery. These results suggest that emotional attachment to the ex-partner does not seem to be associated with whether the ex-partner was receptive to a sexual attempt or not.

One limitation of Study 2 was that breakup recovery was operationalized only via emotional attachment to the ex-partner. A key strength of Study 1 was the multifaceted approach to understanding breakup recovery, and indeed, we found in Study 1 that emotional attachment had different associations with the pursuit of sex with an ex than did other aspects of breakup recovery, such as distress, affect, and intrusive thoughts. Study 2 is limited, therefore, in the nuance with which we can speak to the differences between actual and attempted sexual activities with ex-partners and their associations with breakup recovery more generally. However, despite this limitation, Study 2 does shed light on the validity of asking how attempted sexual pursuits are associated with breakup recovery. While it would no doubt have been ideal to document both attempted and actual sex with an ex in Study 1, the results of Study 2 suggest that findings would likely not have differed significantly between the two measures. The present results reveal that the majority of attempts at sexual activity with an ex tend to be successful. Taken together, the results of Study 2 add important contextual information for the interpretation of results in Study 1 and lend support for the measure of attempted sexual activity as a meaningful construct, despite its limitations.

## Discussion

Lay theories typically suggest that sex with an ex is a hindrance to breakup recovery. We tested this claim in the present research and did not find empirical support that pursuing sex with an ex impacts breakup recovery. The results of Study 1 suggest that

while there are within-day and between-person associations between pursuing sex with an ex and emotional attachment to the ex, pursuing sex with an ex does not seem to hinder breakup recovery day to day or over 2 months. This research highlights the importance of studying breakup processes longitudinally, because it appears the association between sex with an ex and emotional attachment is driven by the fact that those pining after an ex are also most likely to seek out sexual contact with their ex. In line with research suggesting that sexual pursuits are often motivated by desires for closeness and relationship enhancement (e.g., Birnbaum & Gillath, 2006; Meston & Buss, 2007), those pining after their ex-partner may seek out sexual activity with their ex to foster closeness and connection.

The present research also highlights the multifaceted nature of breakup recovery. While pursuing sex with an ex was associated within day with emotional attachment, it was not associated with other breakup recovery variables in Study 1, such as distress, intrusive thoughts, and negative affect. Moreover, pursuing sex with an ex was associated with greater positive affect within days and across days. Choices in operationalization of breakup recovery may shed light on why the present research found some significant cross-sectional associations between recovery and sex with an ex when prior research has not. For instance, Mason et al. (2012) operationalized breakup adjustment in terms of emotional intrusions and physiological hyperarousal. We similarly found nonsignificant associations between pursuing sex with an ex and comparable measures of distress and intrusive thoughts. Therefore, perhaps the association between pursuing sex with an ex and breakup recovery is exclusive to partner-focused feelings of love and longing, and not emotional and psychological adjustment more generally. More research is needed to better understand why certain aspects of breakup recovery are associated with sex with an ex while others are not. Additional nuance to the present findings may come from testing for moderation by individual differences in larger samples. For instance, the impact of pursuing sex with an ex may be moderated by one's sociosexual orientation, marked by the extent to which casual sex outside of a committed relationship is viewed favorably (e.g., Simpson & Gangestad, 1991; Vrangalova & Ong, 2014).

While the present research aimed to address several shortcomings of prior research on sex with an ex by implementing an intensive longitudinal design assessing multiple facets of breakup recovery immediately following a breakup, it is important to consider that all hypotheses were exploratory, rather than confirmatory. While most of our key findings speak to nonsignificant results, the majority of significant effects would hold even when correcting for multiple comparisons (e.g., corrected  $\alpha = .003$  in Study 1). However, there is certainly a need for further research aimed at validating these novel findings. Additionally, the goal of our study was primarily to explore whether there was indeed a directional effect of sex with an ex on breakup recovery. However, the studies were

not designed to test possible mechanisms. Indeed, while we proposed some theories about why pursuing sex with an ex may be detrimental to breakup recovery, our conclusions were limited by the fact that we did not empirically assess many of the variables specific to these theories. For instance, we suggested that conflicting goals for connection and closure may produce negative affect or distress among those pursuing sex with an ex. However, because we did not measure active goals or goal conflict in the present research, it is unclear whether the null effect finding that sexual pursuit does not seem to hinder breakup recovery implies that those pursuing sex with an ex do not actually have goals for connection and closure simultaneously active, or perhaps do not experience conflict between them. Perhaps those who opt to pursue sex with an ex are less motivated to obtain closure regarding the breakup and thus do not experience conflict with goals for connection. For these individuals, satisfying connectedness goals by pursuing sexual activity with an ex-partner may be a globally positive experience. Indeed, Mason et al.'s (2012) finding that those with less acceptance of their divorce benefited from sex with their ex supports this hypothesis. Future research assessing goal pursuit and possible goal conflict would be better positioned to test the reasons why sexual pursuit of ex-partners does not affect breakup recovery.

While the exploratory findings of this research should be considered as preliminary, this initial research suggests that our common lay theories of the implications of pursuing sex with an ex may not be accurate. In fact, these findings suggest that for those experiencing a breakup, pursuing sex with an ex may actually have positive outcomes in terms of boosts to positive affect during an otherwise trying period of time. While the present research does not necessarily advocate for pursuing sex with an ex following the breakup—and indeed, we do not know what the longer-term implications could be of continued sexual pursuit of ex-partners, particularly once one or both partners seek out new relationships or among those who continue to pine after ex-partners for an extended period of time—there may in fact be some benefits to continued sexual pursuit in the short-term. Indeed, Birnbaum (2018) suggests that ex-partners may respond to one another with even greater sexual desire than they did before the breakup, because of the greater levels of excitement and novelty following time apart. Therefore, despite the breakup, an ex-partner may actually continue to be a source of sexual fulfillment.

## Limitations and Future Directions

While the present research provides preliminary insight into the implications of pursuing sex with an ex following a breakup, there are several limitations to keep in mind. A primary limitation was that Study 1 assessed only sexual pursuit of ex-partners, without additional assessment of whether or not the sexual pursuit was successful. Indeed, little is known about the general

success rates of pursuing sexual activities with ex-partners. While Study 2 cannot fully remedy this important limitation of Study 1, the data do shed some light on the dynamics of pursuing sexual activity with ex-partners after the breakup and suggest that sexual pursuits are interpreted as successful the majority of the time. However, without the assessment of actual sexual activity in Study 1, our conclusions can only be interpreted with regard to pursuing sex with an ex, and there may be meaningful differences in outcomes depending on whether or not one's sexual pursuits were successful.

While Study 2 aimed to document typical success rates of sexual pursuits with ex-partners, it is important to note that this method relied on participant recall of events since the breakup, which in some cases was up to 4 months prior. It is possible that responses reflected memory errors or systematic biases in which participants recall or report their sexual pursuits in motivated ways. For instance, perhaps people experience memory errors by drawing on current sexual feelings toward their ex-partner to make an inference regarding how they likely behaved toward their ex-partner since the breakup (e.g., McFarland & Ross, 1987). Additionally, perhaps those who are most struggling to let go of emotional attachments to their ex-partners recall ambiguously sexual interactions with ex-partners as more sexually charged and thus are more likely to classify them as sexual pursuits. Or perhaps, in order to save face or protect their self-perceptions, people primarily recall or report sexual pursuits which were successful, leading to inflated reports of success rates. We are unable to quantify in the present study the extent to which participants' recalled reports were biased. However, it is interesting to note that 23.4% of the sample in Study 2 recalled attempting sexual activity with their ex-partner since their breakup, and this maps on closely to the 24.8% of participants in Study 1 who reported their sexual attempts with their ex-partner on a daily basis (and whose reports were arguably less susceptible to recall errors given the immediacy of reporting). In other words, while we cannot quantify the extent to which responses in both studies may have been limited by misperceptions of what classifies as a sexual attempt or which attempts they choose to report, there is not compelling evidence that participants in Study 2 were experiencing memory errors regarding the frequency with which they pursued sexual activities with their ex.

Finally, it is also important to note that the operationalization of sexual activity in the present research included only activities involving direct physical contact (e.g., kissing and intercourse) with the ex-partner. However, there may be several other ways in which ex-partners pursue sexual activity that does not necessitate physical contact, such as sending sexual text messages or sexually explicit photographs, or engaging in sexual communication over the phone or via video. Expanding the definition of sexual pursuit of ex-partners to such noncontact activities would shed further light on the complex ways in which ex-partners might engage sexually following a breakup.

## Conclusions

Sex with an ex happens regularly, but is typically disparaged as a hindrance to breakup recovery. The present research suggests that societal handwringing regarding trying to have sex with an ex may not be warranted. Rather, sex with an ex is most eagerly pursued by those having difficulty moving on, suggesting that we should perhaps instead more critically evaluate people's motivations behind pursuing sex with an ex. The present research highlights the importance of examining the directionality of breakup dynamics using longitudinal methods, as cross-sectional associations alone can be misleading.

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## Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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