SOCIAL MEDIA SURVEILLANCE AND ATTACHMENT STYLE IN BREAKUP

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A Dissertation

Submitted to the Faculty of Immaculata University

by

Daniel M. Yost
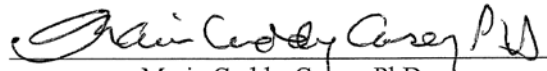

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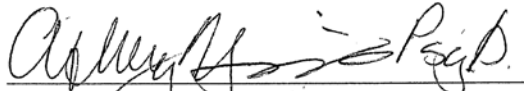
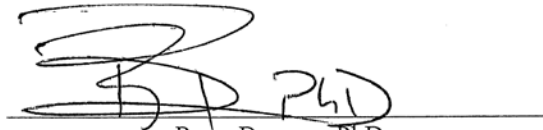SOCIAL MEDIA SURVEILLANCE AND ATTACHMENT STYLE IN BREAKUP DISTRESS

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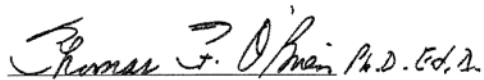Dissertation Chair

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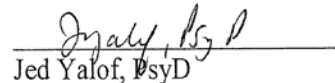Assistant Professor, Department of Psychology & Counseling

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DISSERTATION ABSTRACT

SOCIAL MEDIA SURVEILLANCE AND ATTACHMENT STYLE IN BREAKUP

DISTRESS

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M.A., Immaculata University, 2010

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Directed by Maria Cuddy-Casey, Ph.D.

The purpose of this exploratory study was to examine whether there is a relationship

between individuals' attachment style and their experience of breakup distress as well as

their use of interpersonal electronic surveillance (IES) following a breakup. This study

also sought to explore the relationship between IES use and breakup distress. A total of

128 adults completed this online survey. Participants responded to the Experiences in

Close Relationships-Revised (ECR-R) Scale, which measures participants' attachment

style in romantic relationships; as well as The Interpersonal Electronic Surveillance

Scale; the Breakup Distress Scale, a modified Facebook Breakup Distress Scale, and

demographic questions. Participants were divided into four attachment categories based

on their ECR-R results: Secure, Fearful, Dismissing, and Preoccupied. The data were

analyzed using one-way MANOVA and Pearson correlation. Data analysis suggested that

individuals' use of IES and experience of breakup distress is significantly higher for

Preoccupied- and Fearful-attached individuals than Dismissing- and Secure-attached

ones. Results also support that that IES behavior and breakup distress are positively

correlated.

Acknowledgments

I would like to thank my family, especially my mother and stepfather, for encouraging me to pursue my doctoral degree. I am also grateful for my friends who have provided me with support throughout my education. Finally, I would like to thank my dissertation committee, especially Dr. Cuddy-Casey, for providing me with guidance and reassurance throughout the entire process.

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Chapter I

Literature Review

Introduction

With over two billion active monthly Facebook users, over 700 million monthly Instagram users, and nearly 200 million daily Snapchat users, social media use is more prevalent than ever, and continues to grow (Constine, 2017; Fiegerman, 2017; Instagram: Active users, 2018). Social media use serves many functions; many people use social media to gather and monitor information on other people (Joinson, 2008), especially to learn current information about former romantic partners (Chaulk & Jones, 2011). The excessive checking of another's social media profile has been referred to as interpersonal electronic surveillance (IES) or more colloquially, "Facebook/Instagram/etc. stalking" or "creeping" (Marshall, 2012; Tokunaga, 2011). This behavior following a breakup, as defined as the termination of a romantic relationship by the choice of one or more partners, has been linked with the obstruction of healing and moving on from the past relationship (Marshall, 2012; Morris, Reiber, & Roman, 2015). While IES of a former partner after a breakup can be harmful, protective factors such as one's attachment style, defined as one's pattern of interactions in interpersonal relationships, usually based on one's early interactions with their primary caregiver may mediate or exacerbate the negative effects of IES (Bowlby, 1982). This study endeavored to investigate if there is a significant difference in IES behavior and the experience of breakup distress depending on one's attachment style. Additionally, this study investigated if there is a significant relationship between the use of IES and the experience of breakup distress. With this

greater understanding, people can make better informed decisions about IES behavior following a breakup.

Sources for the literature review were collected primarily between September 2017 and March 2018, with supplemental sources gathered in October 2018. Search terms included "social media," electronic," "surveillance," "stalking," "romantic," "breakup," "breakup distress," attachment," and "attachment style." Sources were found primarily in the PsycINFO, PsycARTICLES, and PsycBOOKS databases.

Review of Related Literature

Attachment. John Bowlby's attachment theory (1982) is one of the most prominent conceptualizations of close relationships. He believed that, starting in infancy, most people develop emotional attachments to one or more primary caregiver, who they rely on for support, comfort, and protection. The sense of security infants feel with their primary caregiver influences their ability to explore their world and socialize, as it provides a "secure base." If infants lack that sense of security, which can happen if the attachment figures are insensitive or unresponsive, they will feel distress and seek ways to feel secure with the caregiver. The quality of the bond infants develop with their caregiver provides an internal model for how, as adults, they interact with romantic partners and various life situations. According to Bowlby's theory, the attachment system can be activated by a physical threat, a threat to the relationship to the caregiver/attachment figure, and situations that motivate an individual to use the attachment figure as a secure base for exploration. After early childhood, interactions with the attachment figure are stored in one's memory as a mental representation, which influence affect regulation, coping with negative feelings, and conflict management

(Feeney, 2008; Günaydin, Zayas, Selcuk, & Hazan, 2012; Selcuk, Zayas, Günaydin, Hazan, & Kross, 2013).

Using the Experiences in Close Relationships-Revised Scale (ECR-R), individuals can be categorized into four attachment styles based on where they fall on an anxiety scale and an avoidance scale: secure (low avoidance and low anxiety), preoccupied (low avoidance and high anxiety), dismissive (low anxiety and high avoidance), and fearful (high anxiety and high avoidance; Farley, Waller, & Brennan, 2000). Individuals with a secure attachment style usually have low levels of anxious or avoidant behavior. The individuals with a preoccupied attachment have a strong desire for closeness, excessively worry about abandonment, and generally ruminate about relationships of all types (Karantzas, Feeney, Goncalves, & McCabe, 2014). The individuals with a dismissing style attachment often feel uncomfortable with emotional intimacy, feels distrustful, and are more likely to avoid emotional investment in another person (Birnbaum, 2007). Fearful-attached individuals rate high in both anxiety and avoidance, and are sometimes called fearfully avoidant-attached in literature (Bartholomew & Horowitz, 1991).

In a study of how attachment style affects daily life, Sheinbaum et al. (2015) found that compared to people with other attachment styles, those with a secure attachment style have been found to report greater feelings of happiness, more positive self-appraisals, feeling more cared for by others, feeling closer with the people they are with, and a more positive view of their situation.

In a study by Sheinbaum et al. (2015), research suggested individuals with anxious attachment experience stronger negative affect, stronger subjective distress,

greater fear of losing control, decreased positive affect, and more varied negative affective experience than those of different attachment styles. They also experienced less positive self-appraisal and more negative appraisal of their current situation. They reported feeling less cared for by others, less close to the people in their life, feeling unwanted when alone, more mistreated, and more suspicious of others. The research suggests they are especially sensitive towards rejection and very vigilant to interpersonal threats. It was also found that as their perceived interpersonal closeness with someone increases, their affective states, situational appraisals, coping skills, and social functioning improved. While they reported feeling lonely and unwanted, they also reported a greater desire to be alone when with others, perhaps due to the anxiety they experience in their interactions with others. Feeling unwanted and distant from partners can also cause physical distress, as research has shown an association between perceived responsiveness by a partner and mortality risk (Selcuk & Ong, 2012).

Individuals with avoidant attachment displayed the strongest desire to be alone. Like the anxious-attached group, these individuals also experienced decreased happiness and unfavorable views of themselves and their situation, felt neglected by others, and less close to others. Also like the anxious-attached group, their functioning improved in the same areas as they felt closer to others, possibly due to perceived closeness bringing temporary feelings of security which provides them with the self-validation they yearn for. (Sheinbaum et al., 2015).

Different attachment styles have different affect regulation strategies, as summarized by Davis, Shaver, and Vernon (2003). Those who are securely attached are capable of open and empathic communication of their needs and desires. They are

generally the best communicators and caregivers. Compared to people of other attachment styles, securely-attached individuals are more emotionally and functionally independent, have higher self-esteem, and are less lonely (Leondari & Kiosseoglou, 2000). When they have a relationship that feels supportive, they report feeling calm when anticipating a stressor (Simpson, Rholes, & Nelligan, 1992), show smaller physiological reactivity to stress, and experience faster emotional recovery (Collins & Ford, 2010). In the termination of a relationship, they would be better able to understand their partner's point of view and respond more calmly.

Arnett's (2000) emerging adulthood developmental theory posits that young adults (approximately 18 through their mid-20s) move through an intense period of change as they work to form a stable sense of identity and explore meaningful relationships. Additionally, a growing body of research supports the idea of attachment style having a central role in the development of emerging adults (Jenkins-Guarnieri et al., 2013). Research has shown that attachment style significantly influences interpersonal competence and relationships, particularly romantic relationships throughout the lifespan, and can even be used to predict the perceived and observed quality of romantic relationships (Collins & Sroufe, 1999; Holland & Roisman, 2010; Ross & Fuertes, 2010; Zimmerman, 2004). Young adults with higher levels of insecure attachment showed lower levels of extraversion, less developed interpersonal skills, and higher levels of neuroticism (Jenkins-Guarnieri, Wright, & Johnson, 2013). Even prior to a breakup, they are more likely to have more conflict in relationships and feel less satisfied in them (Gilbert & Sifers, 2011). Individuals with anxious attachment have more

difficulty managing conflicts in relationships and disagreements with partners (Creasey & Hesson-McGinnis, 2001).

Attachment style also plays a role in the development of mental health problems; anxious attachment has been associated with higher levels of positive symptoms in patients with schizophrenia (Ponizovsky, Vitenberg, Baumgarten-Katz, & Grinshpoon, 2013). Avoidant attachment has been shown to be associated with both positive and negative symptoms in individuals with schizophrenia (Ponizovsky, Nechamkin, & Roska, 2007) and paranoia in both individuals with psychosis (Berry, Barrowclough, & Wearden, 2008). Both avoidant- and anxious-attachment have an association with early-onset schizophrenia (Ponizovsky et al., 2007). Attachment also effects psychological treatment, as individuals with lower levels of insecure attachment at the start of a 12-month treatment study showed greater improvement than those with higher levels (Quijada, Kwapil, Tizón, Sheinbaum, & Barrantes-Vidal, 2015).

While attachment style is strongly linked to interactions with early caregivers, those formative experiences do not always predict one's attachment style. Some with insecure attachment as children are able to form secure adult attachments (called "earned secure") and some securely attached children can develop into adults with insecure attachments (called "earned insecure"; Gilbert & Sifers, 2011). However, research has indicated that individuals who have lifelong secure attachment enjoyed greater benefits in some areas than "earned secure" individuals, such as in experiencing less distress after a breakup (Moller, McCarthy, & Fouladi, 2002). Additionally, other models of attachment propose that individuals have multiple attachment patterns depending on the type of relationships, and that attachment to romantic partners more closely resemble attachment

patterns with friends rather than with parents (Caron, Lafontaine, Bureau, Levesque, & Johnson, 2012; Furman, Simon, Shaffer, & Bouchey, 2002).

In romantic relationships, those who are anxious-attached take a coercive strategy involving coy attempts to elicit what they need or angry or unrealistic demands, often alternating when the first strategy does not work (Karantzas et al., 2014). These strategies develop in early childhood as ways to get an inconsistent caregiver's attention. In a breakup, these aggressive or passive-aggressive behaviors may be used to try to repair the relationship. Individuals who are avoidant-attached attempt to minimize their attachment-related distress and try to rely on themselves instead of others after learning in early childhood that their attachment figures cannot or will not meet their needs. These individuals tend to be less expressive and more likely to avoid emotional engagement. They also are more likely to use coping strategies that can be done in isolation, such as alcohol or drug use.

Breakups and breakup distress. Rogers (1959) stated that receiving love was crucial to feeling happy and well-adjusted. Most people enter and exit multiple romantic relationships throughout their lifetimes (Fisher, 2006). The termination of a once-loving relationship can thus be distressful both for the rejecter and the rejected, and can be one of life's most painful experiences; it is also one of the most common reasons emerging adults seek psychological treatment (Gilbert & Sifers, 2011; Maciejewski, Prigerson, & Mazure, 2001). Breakups have been associated with anxiety, depression, psychopathology, loneliness, immune suppression, illness, accidents, suicide, and homicide (Gottman, 1994). The rejected partner in particular reports greater distress in the form of greater grief, sadness, anxiety, confusion, and jealousy (Kellas, Bean,

Cunningham, & Cheng, 2008). Individuals who already have experience with depression and anxiety often exhibit stronger emotional problems after a breakup compared to those without preexisting mental health problems, especially in young adulthood and late adolescence (Boelen & Reijntjes, 2009; Monroe, Rohde, Seeley, & Lewinsohn, 1999).

Multiple models of post-breakup experiences have been proposed. Fisher (2004) found that the rejected party can often become obsessed with reconciling with their ex-partner; he or she will experience severe separation anxiety, and may experience feelings of rage from being abandoned (especially in males). The researcher concluded that being rejected while in love is one of the most painful experiences an individual can undergo. Baumeister, Wotman, and Stillwell (1993) outline three responses to romantic rejection. The first response to rejection is *protest*, which includes the expression of emotional distress and refusal to accept rejection. The next response is *despair*, in which the rejected describes feeling sad, depressed, and hurt. The third response is *defensive detachment*, in which the rejected may disconnect entirely from the rejecter in order to spare his or her own feelings and move on.

The rejecter likely also feels negatively about rejecting a partner (Baumeister et al., 1993). The rejecter may feel guilty for allowing a former partner to maintain hope for reconciliation. However, they generally recover more quickly, and report less grief and increased adjustment compared to the rejected (Kellas et al., 2008). For instance, in research by Baumeister et al. (1993), which collected retrospective written narratives about people romantically rejecting someone or being rejected, almost none of the rejecter narratives (1.4%) suggested lower self-esteem, whereas almost half (49.2%) of the rejected narratives did. The researchers also found that 42.2% of the narratives by the

rejected contained self-enhancing statements, and only 7.1% of the narratives by the

rejecters did, indicating that being rejected triggers a need to rebuild one's self-esteem to

recover.

After the end of a romantic relationship, people commonly experience distress,

which can take the form of intrusive thoughts, distressing longing for another, feeling

alone, sleep troubles, loss of interest in activities, and pangs of strong emotion (Field,

Diego, Palaez, Deeds, & Delgado, 2009). The familiar script for heartbreak caused by

rejection is to express the grief, assign blame, accept failure, and move on (Baumeister et

al., 1993; Morris, et al., 2015). However, the "moving on" has become more difficult and

complicated with the advent of social media and constant connectivity (Tokunaga, 2011).

Breakup distress can be compared to grief, in that it is associated with one's

ability to alter self-identify following the loss (Boelen, van den Hout, & van den Bout,

2006). Separating from a partner after a breakup forces people to change their

expectations for their functioning in the present and future as they begin considering their

life without the partner.

Individuals who felt a stronger sense of interconnection with their ex-partner after

a breakup, as opposed to those who experienced weaker sense of connection, experienced

greater distress symptoms, such as yearning for the ex-partner and difficulty accepting

the breakup (Boelen & van den Hout, 2010; Davis et al., 2003). Those with more

emotional involvement with their ex-partner exhibit greater physical and emotional

distress, decreased interest in sex, self-blame, and guilt (Davis et al., 2003). Individuals

who reported greater love for an ex-partner had poorer self-concept recovery than those

who reported less love for an ex (Mason, Law, Bryan, Portley, & Sbarra, 2012).

Individuals who want their partner back appeared more hostile and aggressive than those who do not (Davis et al., 2003). Research by Mason et al. (2012) showed that continued romantic feelings for an ex-partner and self-concept recovery remained statistically significant even after controlling for psychological well-being, indicating that it is not only those with preexisting mental health problems who exhibit greater breakup distress. Continued contact with an ex-partner is associated with more negative psychological outcomes (Sbarra & Emery, 2005).

The progression of time can decrease the intensity of breakup distress, as individuals who were further removed from the breakup or were in a new romantic relationship exhibited less feelings of interconnectedness with their ex-partner (Aron et al., 2004). Research by Gilbert and Sifers (2011) shows that how students view time and perceive their personal history influences how they respond to a breakup. Those who have a positive view of their past experience lesser breakup distress than those who viewed their personal history negatively, regardless of attachment style. This is notable for therapists, as working through a patient's personal history narrative may prove less difficult than through their attachment style.

Research suggests that men and women cope with breakup distress in different ways. Some suggest that women experience more negative feelings after a breakup (Gilbert & Sifers, 2011; Perilloux & Buss, 2008), while others suggest men experience strong negative feelings (Choo, Levine, & Hatfield, 1996; Sprecher, 1994; Sprecher, Felmlee, Meets, Fehr, & Vanni, 1998). Women may report more personal growth following a breakup (Bevvino & Sharkin, 2003; Perilloux & Buss, 2008). Women tend to

report higher levels of emotional response to a breakup and unwanted weight loss or gain (Morris et al., 2015).

Individuals who are insecurely attached react to breakups in a variety of unhealthy ways; they are more likely to experience significant distress over breakups, feel less willing to start dating others, and are more willing to resume the terminated relationship (Gilbert & Sifers, 2011; Madey & Jilek, 2012). Bowlby (1980) posited that individuals with anxious attachment were more likely to fall into chronic mourning, while individuals with avoidant-attachment were more likely to avoid mourning. These individuals are more likely to seek out an immediate replacement for the lost partner (Davis et al., 2003). Both individuals who are avoidant-attached and anxious-attached are more likely than those who are secure-attached to avoid their ex-partner after a breakup, going as far as moving and changing jobs to do so. Anxious-attached individuals especially have a tendency to keep track of their romantic partner's activities, and are more likely to engage in surveillance behaviors (Marshall, 2012).

Individuals who have a strong desire for romantic relationship commitment, which is most common in individuals with anxious-attachment, experience greater distress after a breakup. Individuals who focus less on finding a partner and who focus more on the present, such as individuals who are securely-attached, generally experience less breakup distress (Gilbert & Sifers, 2011).

Interpersonal electronic surveillance. Social media services allow users to create a public or semi-public profile and identify and connect with other users, including people they know off-line, people connected to the people they know, and even complete strangers (Boyd & Ellison, 2007). Information is easily accessible through social media

sites; information is comprised of multiple forms of media, including videos, pictures, and text; social media sites often archive personal information and media, which can be retrieved at will; data may be gathered in secret, as it can be done from afar and without interacting with the target of the IES. Social media use has become so prevalent that research has shown that among young adults, computer-mediated communication is just as popular as face-to-face communication for relationship maintenance and development (McGee, 2014). Indeed, social media makes IES a nearly effortless experience, and in fact, one that is difficult for many to abstain from, especially in regards to former romantic partners (Marshall, Bejanyan, Di Castro, & Lee, 2013; Tokunaga, 2011).

Additional reasons to engage in IES include relational uncertainty; while the rejector of a former relationship may feel certain the relationship is over, the other former partner may hope for reconciliation, and continue to monitor the former partner's social media. If the terminator of the relationship does not dissolve the Facebook connection, for example, it may be perceived that reconciliation is possible (Fox & Warber, 2014). Research has indicated that the individuals most upset by a relationship's termination are most likely to engage in IES of their ex-partners (Fox & Tokunaga, 2015).

Facebook stalking and breakup distress. Breakup distress can consist of numerous unpleasant symptoms, including depression, anxiety, intrusive thoughts, disorganized behavior, pangs of severe emotions, feeling excessively alone and empty, sleep disturbance, anhedonia, and in students, poorer academic performance (Field et al., 2009). Lukacs and Quan-Haase (2015) found that multiple aspects of Facebook use contributed to breakup distress, with the most common factor being the IES of an ex-partner's profile. They collected data from 107 participants (70% female, mean age of 23

years), primarily from Southwestern Ottawa, Canada, using a close-ended, multiple choice online survey and one-on-one semi-structured interviews. Their survey consisted of an abbreviated version of Tokunaga's (2011) IES scale, Field et al.'s (2009) Breakup Distress Scale, a modified version of Ellison et al.'s (2007) scale to assess Facebook engagement intensity, scales by Lannutti and Cameron (2002) to measure hope for romantic renewal and how much subjects like their ex-partner , and a Facebook Breakup Distress scale developed by Lukacs and Quan-Haase (2015), which measured activity-based distress and emotional-based distress caused by content related to one's ex-partner.

Some participants in the Lukacs & Quan-Haase (2015) study lamented the ease of being able to access an ex-partner's profile, even when they know it will cause them distress. Additionally, even when participants were not actively seeking out information on their ex-partner, posts by their ex-partner would often appear in their newsfeed, which is a constantly updating list of photos, videos, activity, and news ("How News Feed Works," n.d.). This experience by itself could be distressing, and also often led to participants subsequently viewing their profile. The relationship status posted by the ex-partner can also cause distress, as seeing the ex-partner leaving "in a relationship up," changing it to "single," or removing the relationship status altogether could cause rejected partners distress. Lastly, shared content between the participant and the ex-partner, such as photos or videos, also caused distress. Sixty-four percent of participants reported re-reading or over-analyzing interactions with their ex-partner, 62% reported being asked about their breakup on Facebook after they changed their relationship status, and 51% shared they deleted pictures of their ex-partner on Facebook. Eighty-eight

percent of participants admitted to electronic internet surveillance via Facebook of their ex-partner after their breakup, and 74% admitted to "creeping" on an ex-partner's new partner's (confirmed or suspected) profile.

An independent samples t-test indicated that, in regards to breakup distress, participants who engaged in high levels of Facebook IES of an ex-partner ($M = 2.53$, $s = .81$) compared to those who engaged in low levels ($M = 2.00$, $s = .80$) experienced significant greater general breakup distress [$t(59) = -.253$, $p < .05$]. There was also a significant difference in participant scores for those engaged in high IES ($M = 1.83$, $s = .92$) than low IES ($M = 1.02$, $s = 1.02$) in Facebook activity-based distress [$t(55) = 2.52$, $p < .05$). Finally, there was also a significant different in scores for those engaged in high IES ($M = 2.85$, $s = .85$) than low IES ($M = 1.98$, $s = .89$) in Facebook emotional-based distress [$t(55) = -3.72$, $p < .001$) in Facebook emotion-based distress. The research indicates that the more individuals engaged in surveillance of an ex-partner, the more breakup distress they experience, both generally and caused by content pertaining to one's ex-partner on Facebook.

Lukacz and Quan-Haase (2015) developed a scale that builds upon previous measures of breakup distress to include how Facebook use factors into breakup distress. The scale measures two types of Facebook-related distress; the first is distress from engaging in Facebook activities related to the ex-partner (such as reading old messages or viewing the ex-partner's profile) and the second is emotional distress (e.g., jealousy, anger, and paranoia, over the ex-partner's Facebook content). The results of their study using this scale indicated that individuals who did not remain Facebook friends with their ex-partner experienced more distress than those who did. Qualitative data showed that

some of those with the greatest breakup distress and who participated in the most IES of an ex-partner also deleted an ex-partner to try to stop their distressing IES behavior. While not mentioned by the researchers, there are still ways to participate in IES of an ex-partner even after deleting them from Facebook, and the participants could still see content related to the ex-partner in posts by mutual friends. Although some research indicated that deleting an ex-partner may be the best way to cope with a breakup (Holmes, 2010), this study's results indicate that this may not be the case.

Individuals who had a greater liking of an ex-partner and greater hope for romantic renewal were more likely to engage in IES of an ex-partner and more likely to experience greater breakup distress (Marshall, 2012). The concept of positive feedback in systems theory may be evident here, in which the subject wishes to renew the relationship, engages in IES of the ex-partner, which then increases hope for renewal and positive feelings of the ex-partner.

IES and attachment. In a study by Fox and Warber (2014), researchers found that attachment style can partially predict IES by current and romantic ex-partners. Individuals with preoccupied-style or fearful-style attachment, likely due to high levels of anxiety they feel regarding relationships, experience the highest levels of relationship uncertainty and engage in the highest level of IES, significantly greater individuals of the other attachment styles ($p < .001$), especially when these anxious individuals are out of a relationship ($M = 3.15$, $s = 1.13$), instead of currently in one ($M = 1.76$, $s = 0.84$).

Fox and Tokunaga (2015) found that anxious-attached individuals have higher levels of commitment to relationships than avoidant-attached, and subsequently feel greater emotional distress after a breakup, and then engage in more IES of the ex-partner

both immediately following and at the time of the study. They also experienced greater

distress when the partner initiated the breakup, rather than if they did or if it was

perceived as a mutual termination. The researchers suggest that those experiencing high

levels of distress after a breakup might benefit from disconnecting from their ex-partner's

social media accounts.

　　While this study had a greater sample size than many of the others in this

literature review ($n = 431$), the overwhelming majority of the population was

White/Caucasian and heterosexual. Another limitation is that it is based on retrospective

self-report data, which may produce different results than if subjects were evaluated

immediately after a breakup (Fox & Tokunaga, 2015).

　　In a dissertation study on attachment style and IES of ex-partners on Facebook,

results suggested that individuals with a fearful attachment style (high anxiety, high

avoidance; $M = 35.54$, $s = 10.84$) and a preoccupied attachment style (high anxiety, low

avoidance; $M = 32.85$, $s = 10.54$) scored significantly higher in breakup distress than

those with a dismissing attachment style (low anxiety, high avoidance; $M = 26.69$, $s =$

8.08) and a secure attachment style (low anxiety, low avoidance ($M = 24.56$, $s = 7.50$)

(Quinn, 2014). It was also found that individuals with a preoccupied attachment style (M

$= 6.08$, $s = 4.462$) checked their ex-partner's Facebook page with significant greater

frequency than those with a secure attachment style ($M = 2.56$, $s = 3.03$).

　　Regarding breakup distress and frequency of checking on an ex-partner's

Facebook page, a significant, though weak, positive correlation was found between these

two factors when the checking was measured in the last week ($r = .331$, $p = .002$) and the

last month ($r = .283$, $p = .010$), and in checking the ex-partner's friends' Facebook pages in the last week ($r = .314$, $p = .004$) (Quinn, 2014).

The results suggest that there were no significant differences in the ways that people with secure, fearful, or dismissing attachment styles conduct IES of ex-partners on Facebook. However, subjects with a preoccupied attachment style showed a trend close to significance, encouraging future researchers to investigate this further with a larger sample size. Additionally, the data found a significant difference in the rate that males check their ex-partner's Facebook page in the last week ($M = 3.69$, $s = 3.96$) and their ex-partner's friends' Facebook pages in the last week ($M = 3.25$, $s = 3.94$) than females check an ex-partner's Facebook page in the last week ($M = 1.47$, $s = 2.04$; $t = 2.169$, $p < .05p < .001$) and their ex-partner's friends' Facebook pages ($M = 1.00$, $s = 1.56$; ; $t = 2.240$, $p < .001$; Quinn, 2014).

This study used Craigslist to solicit responses from participants, allowing a more geographically diverse population than previous similar studies. However, this risks the validity of the study, as there was no way to confirm the truthfulness of responses. The population was also rather small, with only 82 participants being used in the data analysis after eliminating individuals who did not match study criteria or did not complete at least 50% of the questionnaire. There was also an uneven gender distribution, with 78% of the population being female. This means that the data on males came from only 19 participants. Data on ethnic background was not provided.

IES and post-breakup recovery. Staying in contact with an ex-partner can trigger pain caused by the termination, increase the desire to resume the relationship, and rekindle feelings of love and affection towards the ex-partner (Madey & Jilek, 2012), and

thus inhibit breakup recovery (Stefanone, Lackaff, & Rosen, 2011). Marshall (2012) examined how remaining Facebook friends with an ex-partner and engaging in IES of the ex-partner influences the post-breakup adjustment. The findings suggest that frequent monitoring of the ex-partner's Facebook page, even if they have stopped being "Facebook friends", was associated with increased breakup distress, sexual desire, negative feelings, longing for the ex-partner, and decreased personal growth. Interestingly, individuals who stayed Facebook friends with their ex-partner tended to have decreased negative feelings, sexual desire, and longing for the ex-partner than individuals who did not remain Facebook friends.

Marshall (2012) hypothesizes that "weak tie" contact intensifies breakup distress, as the ex-partner may have triggered greater desirability due to an "alluring mystique" from not being able to know what's happening in their lives (p. 525). Meanwhile, people who remain Facebook friends with their ex-partner are continuously exposed to mundane status updates on the ex-partner's life, removing the mystique and decreasing residual attraction. Alternatively, people who remain Facebook friends with their ex-partner may experience less breakup distress because their feelings for the ex-partner were not strong enough to make them want to un-friend the ex-partner.

One of the strengths this study has over similar ones is that its greater ability to generalize its results to a greater population, as participants were drawn from online sources all over the world, rather than from one university or geographic location (Marshall, 2012). A limitation of this study is that ethnic background information on the participants is not given, but since many other studies cited in this literature review have the limitation of having mostly Caucasian participants, and since the majority of this

study's population is North American, one might be able to assume it also has a sizable

Caucasian majority.

Summary

Attachment style enormously influences adult romantic relationship development

and behavior. It also influences how people respond to the termination of romantic

relationships, with some attachment-types experiencing more difficulty than others in

healthily moving on from a dissolved relationship. Many people engage in IES of former

romantic partners for a variety of reasons and have difficulty refraining from engaging in

it.

Problem

While some studies have been completed exploring the relationship between

Facebook use and breakup distress, little research is available on other social media

services, such as Instagram, Snapchat, Twitter, or Tumblr. Though much research has

been conducted on the official termination of a relationship, relatively little has been

conducted on how the relationship continues afterwards. Especially in this time of social

media, rarely is the end of a romantic relationship ever the end of the interaction between

two people (Kellas et al., 2008). As such, many people may not know how to cope with

the ending of a romantic relationship while still being connected with a former partner

online, and there is little in the way of instruction for treatment providers in how to

counsel these individuals.

Research Questions/Hypotheses

The research asks:

1. Is there a significant difference in interpersonal electronic surveillance (IES) use and breakup distress for different attachment styles?

2. Does a relationship exist between IES use and the experience of breakup distress?

The researcher hypothesized that individuals who are Preoccupied-attached will engage in IES behavior and experience breakup distress at a significantly greater level than other attachment styles. The researcher also hypothesized that there would be a positive correlation between IES of a former romantic partner and breakup distress.

Chapter II

Methods

Participants

Immaculata University Research Ethics Review Board approval was obtained for this study (see Appendix I). Participants were recruited through a collection of online research websites, including the Social Psychology Network (socialpsychology.org), Psychology Research on the Net (psych.hanover.edu/research/exponnet.html), and the Sample Size Subreddit (reddit.com/r/SampleSize). Participants were also recruited from Immaculata University undergraduate students during the Summer and Fall 2018 semesters via email.

After participants read the information letter (see Appendix A) and the Consent Form (see Appendix B), demographic information was gathered at the start of the questionnaire (see Appendix C). This included age, gender of the subject and of their partner, ethnicity, who the initiator of the breakup was, whether or not the subject has contact with their ex-partner, how long the subject's last relationship was, and how long it was before the subject started dating again.

Measures

Attachment was assessed using the Attachment Anxiety and Attachment Avoidance subscales of the Experiences in Close Relationships-Revised Scale (ECR-R; Farley et al., 2000), composed of 18 items each, for a total of 36 items (see Appendix D). For each item, participants respond on a 7-point Likert scale ranging from 1 ("*Strongly Disagree*") to 7 ("*Strongly Agree*"). Avoidance subscale items focused on avoidant behaviors in close relationships, and anxiety subscale items focused on the participants'

anxiety related to being abandoned in relationships. High scores on the test indicate insecure attachment and low scores indicate more secure attachment. This measure allows subjects to be divided into four attachment styles: Secure, Dismissing, Fearful, and Preoccupied. The authors report internal reliability tends to be at least .90.

Social Media Surveillance was measured using a revised version of The Interpersonal Electronic Surveillance (IES) Scale (Tokunaga, 2011; see Appendix E), changed to assess ex-partner monitoring rather than current partner monitoring. This measure provides a score to illustrate how engaged in IES of an ex-partner the subject is in. This is measured on a 7-point Likert scale (Cronbach's α = .93).

General breakup distress was measured using the Breakup Distress Scale (Field et al., 2009; see Appendix F). Breakup distress in relation to social media use was measured using a modified version of the Facebook Breakup Distress scale, adjusted to include all social media services, not just Facebook (see Appendix G). This is measured on a 7-point Likert scale (Cronbach's α = .87; Lukacs & Quan-Haase, 2015).

Procedure

Data for this study were collected via SurveyMonkey. Potential participants were sent an information letter via forum posting or email explaining the purpose of the study and asking for volunteers to complete the web questionnaire, along with criteria for participating and instructions for completing the questionnaire (see Appendix A). Instructions included the request that they answer these highly personal questions in private, not under the influence of drugs or alcohol, and on their own behalf, rather than asking someone else how they would respond. There was also a warning about how these questions about past relationships may cause distressful feelings, and a recommendation

to seek help if necessary via the Substance Abuse and Mental Health Services

Administration Treatment Referral Line. This letter was repeated in the first page of the

online questionnaire as well. Then, subjects were given the Informed Consent form

online, which gave them the option to acknowledge they have read the form and consent

to testing, or that they do not wish to participate in testing (see Appendix B). Next,

subjects answered a demographics questionnaire (see Appendix C). Then, subjects

completed the measures described in the section above. Finally, subjects had the option to

answer an open-ended question, describing their reasons for monitoring (or not

monitoring) ex-partners online (see Appendix H).

Research Design

This study was conducted using a quantitative methodology. It used a survey

comprised of measures aimed at gathering a collection of information that includes

subjects' attachment style, utilization of social media surveillance, post-breakup distress,

breakup initiation, and demographic information, such as age, gender, and ethnicity.

Participants were asked to not provide identifying information. The survey concluded

with one open-ended question for participants to answer, describing why they do or do

not continue to monitor former romantic partners on social media.

Chapter III

Results

The current research was designed for two purposes: to investigate if there is a significant difference in interpersonal electronic surveillance (IES) of a former romantic partner through social media and breakup distress for different interpersonal attachment styles and to investigate if there is a relationship between an individual's IES use and the experience of breakup distress.

Participant Demographic Results

Of the 195 participants who began the survey, 67 responses had to be eliminated, leaving 128 responses to be analyzed. Twelve respondents identified themselves as an age under 18, so they had to be removed. Fifty-five more started the survey but did not complete all of the measures, so their data was not be used.

Participant mean age was 26.63 (SD = 9.283) and ranged from 18 to 50 years old. The majority of the sample was young adults, as over half of the sample (50.8%) was between 18 and 23 years old, and participants between 35 and 68 comprised only 10.5% of the sample.

Of the 128 participants, 100 identified as female (78.1%), 27 identified as male (21.1%), and one participant did not identify a gender (.8%) (See Table 1). Participants were also asked to identify the gender of their last romantic partner. Ninety respondents were females who last had a male partner (78.13%), 10 were females who last had a female partner (7.81%), 22 were males who last had a female partner (17.19%), 10 were males who last had a male partner (7.81%), and one was a person who did not identify their own or their partner's gender (0.78%).

Table 1

Gender of Participants

Participant Gender	Frequency (*n*)	Percentage
Male	27	21.1%
Female	100	81.1
Unanswered	1	.8%

n = 128

The majority of the sample identified as White/Caucasian with 99 participants (77.4%). Individuals identifying as Black or African American comprised of nine individuals (7%), nine identified as Hispanic/Latinx/Mexican (7%), and three identified as Asian (2.4%). Other responses included mixed ethnicities, Filipino, Canadian, and Dutch.

Length of previous romantic relationship ranged from two months to 154 months, with a mean of 25.791 months (*SD* = 26.55). Initiator of the breakup was spread across five choices: "Me" (26.6%), "Mostly Me" (14.1%), "Mutual" (18.5%), "Mostly Them" (14.8%), and "Them" (26.6%). In regards to whether a participant still had offline/in person communication or contact with their former partner, 60.9% did not and 38.3% did. Just over a third (34.4%) of respondents reported having not started dating since their last breakup. Of those who have started dating since their last breakup, the mean amount of months that passed before dating again was 6.837 (*SD* = 7/13) and ranged from zero months to 42 months.

Assessment Descriptive Statistics

The first measure was the Interpersonal Electronic Surveillance (IES) Scale, with questions modified to focus on ex-romantic partners rather than current partners, which measures how engaged in IES of an ex-partner the respondent is through 11 questions (Cronbach's α = .93). The minimum score of the scale is 11 and the maximum score is 77. The mean IESS score was 33.36 (SD = 14.48) and respondent scores ranged from 11 to 77 (see Table 2).

The second measure was the Breakup Distress (BD) Scale, which measures the distress one feels after the respondent's most recent romantic relationship termination through 16 questions. The minimum score of the scale is 16 and the maximum is 112. The mean Breakup Distress score was 44.73 (SD = 23.22) and respondent scores ranged from 16 to 111 (see Table 2).

The third measure was the Social Media Breakup Distress (SMBD) Scale, which measures breakup distress in relation to social media use through 10 questions (Cronbach's alpha = .87). The minimum score of the scale is 10 and the maximum is 70. The mean SMBD score was 29.87 (SD = 15.16) and respondent scores ranged from 10 to 63 (see Table 2).

Table 2		
IES, BD, and SMBD Scores		
Measure	Mean	Std. Deviation
IES	33.6	14.48
BD	44.73	23.22
SMBD	29.87	15.16
$n = 128$		

The final measure was the Experiences in Close Relationships – Revised Scale (ECR-R), which measures one's attachment style along two dimensions: Anxiety and Avoidance, comprised of 18 questions each. The minimum score for each scale is one and the maximum is seven. The mean Anxiety scale score was 3.5132 ($s = 1.36$, $\tilde{x} = 3.64$) and ranged from 1 to 7. The mean Avoidance scale score was 2.9136 ($s = 1.16$, $\tilde{x} = 2.81$) and ranged from 1 to 4.33. To split people into four attachment style groups (Secure, Dismissing, Fearful, Preoccupied) for analysis, Fraley recommended dividing the sample along the Anxiety and Avoidance scale medians. So, participants fall into the Secure category if both their Anxiety scale and Avoidant scale scores are below the median (3.64 and 2.81, respectively). Likewise, people fall into the Dismissing category if their Anxiety score is below the median and if their Avoidant score is above the median, Preoccupied if their Anxiety score is above the median and their Avoidant scale is below it, and Fearful if both Anxiety and Avoidant scores are above the median. Using this criterion, 40 (31.3%) of participants fall into the Secure category, 23 (18%) fall into

Dismissing, 23 (18%) fall into Preoccupied, and 42 (32.8%) fall into Fearful (see Table

3).

Table 3		
Attachment Style		
Type	Frequency (*n*)	Percent
Secure	40	31.3%
Dismissing	23	18.0%
Preoccupied	23	18.0%
Fearful	42	32.8%
n = 128		

Analysis Results

Hypothesis 1 investigated if there was a significant difference in monitoring of a

former partner over social media and in breakup distress depending on one's attachment

style (Secure, Dismissing, Preoccupied, or Fearful). A one-way MANOVA was

conducted to examine if the two dependent variables of the individual's breakup distress

and use of interpersonal electronic surveillance of their most recent ex-romantic partner

differed depending on one's attachment style. A Box's M test revealed that homogeneity

of variance was violated in this study, necessitating the use of the Pillai's V statistic and

the Tamhane T2 posthoc test. MANOVA results revealed significant differences with a

moderate effect size among attachment styles categories on the dependent variables

[Pillai's V = .382, $F(6, 248) = 9.769$, $p < .001$, $\eta2 = .191$]. Univariate ANOVA and

Tamhane post hoc tests were conducted as follow-up tests. ANOVA results indicate that

both IESS [$F(3, 124) = 5.811$, $p = .001$, $\eta2 = .123$] and breakup distress [$F(3, 124) =$

24.242, $p < .001$, $\eta2 = .370$] significantly differ for attachment style (see table 4).

The Tamhane post hoc results for IES score indicate that Dismissing-attached

individuals significantly differ from Fearful- ($p = .049$) and Preoccupied-attached *(p =*

.039), Fearful-style and Secure-style individuals significantly differ ($p = .018$), and

Preoccupied-style and Secure-style individuals significantly differ ($p = .022$).

The Tamhane post hoc results for BD score indicate that Dismissing-style

individuals significantly differ from Fearful- ($p < .001$) and Preoccupied-style ($p = .003$),

Fearful-style and Secure-style individuals significantly differ ($p < .001$), and

Preoccupied-style and Secure-style individuals significantly differ ($p < .001$).

Table 4

IES and Breakup Distress by Attachment Style

Measure	Attachment Style	Mean	Std. Deviation	Frequency (n)
IES Score	Dismissing	26.74	14.713	23
	Fearful	38.67	20.132	42
	Preoccupied	40.57	17.952	23
	Secure	27.45	11.927	40
BD Score	Dismissing	36.22	15.297	23
	Fearful	57.33	19.932	42
	Preoccupied	59.91	25.094	23
	Secure	27.65	14.197	40
$n =128$				

The second hypothesis examined whether there was a relationship between interpersonal electronic surveillance of an ex-partner and breakup-related distress regarding that previous romantic relationship. To assess this relationship, a Pearson correlation was computed to assess the relationship between Interpersonal Electronic Surveillance Scale (IESS) score and Breakup Distress Scale (BDS) score. There was a moderate positive correlation between these two variables ($r = .484$, $n = 128$, $p < .001$).

A Pearson correlation was also computed to assess the relationship between IESS score and Social Media Breakup Distress Scale (SMBD) score. There was a strong positive correlation between these two variables ($r = .714$, $n = 128$, $p < .001$).

Open-Ended Responses

The online survey gave participants the opportunity to write why they do or do not choose to monitor their ex-partners through social media. Responses describing reasons for choosing not to engage in IES included, "I blocked them so I wouldn't be able to monitor them, because I know looking at their social media makes me upset" and "I know it could bother me." Others appear to not engage in it once they feel they have moved on, as one stated, "I do not anymore because I have gotten to a place of personal acceptance and growth and realized that I don't need to worry about the past. I used to check more often out of jealousy, but now if I were to check, it would probably be just to check on her family and how well she is doing for herself." A frequent response for secure-attached individuals was that they simply were not interested in what their ex-partner was doing or that they feel no need to check on an old partner because they are happy with their life. Some do not abstain from checking voluntarily, as multiple

responses cited being blocked by the ex-partner as the primary reason why they do not

monitor them.

Responses describing why people do engage in IES of ex-partners included

looking out of curiosity, wanting to know if they are still single, wanting to know if they

are doing well, wanting some sort of connection with the ex-partner, desiring

reunification with the ex-partner, missing the ex-partner, wanting to see if they are "doing

better" than their former partner, wanting information about them without talking to

them, feeling nostalgic, or wanting to see if the ex-partner is talking about them. Often,

respondents noted they "knew" continued monitoring was unhealthy, but they felt

compelled to do it regardless. Others cite reasons such as "safety," indicating they want

to be aware of their ex's behavior in order to protect themselves.

Chapter IV

Discussion

Review of the Study

In an age of constant Internet connectivity, contact between two people often continues after the end of a romantic relationship (Kellas et al., 2008; Tokunaga, 2011). Previous research on romantic relationships mostly conceptualized the termination of the romantic relationship as the end of the interpersonal relationship. However, with the introduction of the Internet and the popularity of social media, interconnectivity between former partners often continues after the termination of the romantic relationship, which is often painful for both former partners (Sbarra & Emery, 2005). Little has been written about how to navigate these post-breakup relationships and simultaneous social media use, leaving individuals without guidance and clinicians without evidence-based approaches for helping individuals deal with modern breakup distress. This study sought to develop a greater understanding of the relationship between monitoring of an ex-partner through social media and the experience of breakup distress. Additionally, this study endeavored to see if there was a relationship between one's attachment style and their interpersonal electronic surveillance (IES) of their ex-partner and their experience of breakup distress.

Previous studies have investigated the relationship between breakup distress and interpersonal electronic surveillance of ex-partners through Facebook (Lukacs & Quan-Haase, 2015; Marshall, 2012). However, in recent years, competing social media platforms such as Instagram or Snapchat have grown in popularity, especially among younger users, and very little research exists in regard to these services and breakup

distress (Solon, 2018). This study hypothesized that interpersonal electronic surveillance of an ex-romantic partner will have a significant positive relationship with the experience of breakup distress. Overall, there was a moderate positive correlation found between IES and breakup distress and a strong positive correlation between IES and social media breakup distress. Therefore, evidence suggests that greater surveillance of a former romantic partner on social media contributes to greater distress related to the dissolution of the relationship.

Previous research has found that individuals with high ratings of anxious attachment experience greater breakup distress than those with high ratings or avoidant attachment or those with low ratings of both anxious and avoidant attachment (Bowlby, 1980; Gilbert & Sifers, 2011; Madey & Jiley, 2012). Anxious-attached individuals are more likely to track their former partner's activities, despite the distress this may cause (Marshall, 2012; Marshall et al., 2013). One study found that 88% of respondents admitted to participating in IES of their ex-partner following a breakup, even though greater IES behavior was positively correlated with breakup distress (Lukacs & Quan-Haase, 2015).

This study hypothesized that there would exist a relationship between one's attachment style and their utilization of IES of former romantic partners and their experience of breakup distress. More specifically, it was hypothesized that those who fall into the Preoccupied-attached (high anxiety and low avoidance) category of Farley's (2000) Experience of Close Relationships - Revised Scale would engage in more IES of former romantic partners and experience greater breakup distress than those in the Secure

(low avoidance and low anxiety), Dismissing (low anxiety and high avoidance), or Fearful (high anxiety and high avoidance) categories.

The hypothesis was partially confirmed. MANOVA results suggested there are significant differences with a moderate effect size depending on attachment style on breakup distress and IES behavior. Post hoc results indicated the Preoccupied-attached individuals significantly differed in IES and breakup distress from Dismissing-attached and Secure-attached individuals, but not from Fearful-attached individuals. Additionally, Dismissing-attached and Secure-attached individuals significantly differed from both Fearful- and Preoccupied-Attached individuals, but not from each other. These results suggest that those who score higher on the Anxiety scale of the ECR-R experience significantly greater breakup distress and engage in more IES than those who score lower on the scale. These results are consistent with previous studies regarding IES (Farley et al., 2000), breakup distress (Fox & Tokunaga, 2015), and both (Quinn, 2014).

Ethical Issues

This study presented with very few ethical issues. Informed consent was required before participating in the online survey. Verification of being at least 18 was also required; however, some participants who identified as under 18 continued to take the survey, though their responses were deleted. There was no deception used in the study, as the information letter was transparent in what this study was investigating. To maximize privacy, all responses were anonymous. Respondents were also urged to complete the survey in a private setting. The survey was also predicted to have minimal risk of harming participants, and in the event that any significant distress was caused by the

survey, participants were directed to call the Substance Abuse and Mental Health Services Administration Treatment Referral Line.

Strengths and Limitations

One strength of this dissertation study was the selection of measures. The ECR-R, Breakup Distress Scale, and the Interpersonal Electronic Surveillance Scale all have strong reliability and validity. The ECR-R attachment style categorization directions, in which attachment style placement is based on the mean scores of participants rather than on an arbitrary score, also contribute to a relatively even distribution across the four categories. Another strength was the recruitment of participants from online research sites. This allowed for people from different geographic areas to participate in the study, which helps the results' generalizability.

A weakness of the study, however, was that it did not ask for the participants' location, so it us unknown how geographically diverse the sample is. Aother limitation was the uneven distribution in gender of the participants, as women comprised of over 78% of the sample. Additionally, like many previous studies, the majority of the participants identify as White or Caucasian (77.4%), and members of different non-white groups such as Black/African American, Hispanic/Latino, or Asian ranged in the single digits. Furthermore, the majority of the relationships examined were opposite-gender relationships, and same-gender relationships comprised of only 15.625% of the sample. All of this limits the generalizability of the results beyond white, female, opposite-sex dating women. However, a strength was the inclusion of non-heterosexual relationships in this study, which are excluded or underrepresented in previous research.

While the length of the survey averaged between 10 and 15 minutes in length, for some, this may have been too long, as evident by the number of participants who quit the survey after the demographic questions or before and during the ECR-R portion, which was the final and longest part of the survey. Some demographic questions and the Social Media Breakup Distress survey could have been eliminated, as these questions were asked for potential future research and not directly related to the dissertation's hypotheses. Their elimination may have increased the survey completion rate.

While the survey's anonymity and electronic administration was a strength in some respects, it can also be a limitation. There is no way to confirm if a participant answered honestly, and as these questions were highly personal in nature, participants may have been tempted to respond less than truthfully. Additionally, participants can potentially be poor reporters of their own history, and my unintentionally answer in ways that portray themselves in a more favorable light, so this study suffered the weakness similar studies did regarding using retrospective responses.

Another limitation was the unequal distribution of the four attachment styles. There were nearly double the amount of Fearful-attached (42) and Secure-attached (40) individuals than Dismissing- and Preoccupied-attached (23 each). This contributed to homogeneity of covariance being violated ($p = .001$). However, this was accounted for by using Pillai's V rather than Wilks' Λ when testing for significance and using the Tamhane post hoc test (Mertler & Vannatta, 2013).

Some terms used in this study are difficult to define operationally, such as "romantic relationship," "breakup," "romantic partner," and "dating." One respondent who did not complete the survey wrote in the open-answer section that they considered

an "ex-partner" and "someone I was in a relationship with" as different terms and did not

know how to answer the questions accordingly. So, the lack of operational definitions of

these terms may have been a source of confusion for participants.

Finally, as previous research has indicated, many additional factors beyond those

analyzed in this study can influence both breakup distress and IES behavior. These

factors include gender (Choo et al., 1996; Gilbert & Sifers, 2011; Perilloux & Buss, 2008;

Sprecher, 1994; Sprecher et al., 1998), length of the previous relationship, length of time

since the relationship ended (Aron et al., 2004; Gilbert & Sifers, 2011), whether or not

the participants are in a new relationship (Aron et al., 2004), sense of interconnection

with the ex-partner (Boelen & van den Hout, 2010), continued contact with the ex-partner

(Sbarra & Emery, 2005) who ended the relationship (Baumeister et al., 1993; Kellas et

al., 2008), preexisting mental health problems (Boelen & Reijntjes, 2009), and continued

romantic affection for the ex-partner (Mason et al., 2012).

Clinical Implications

Clinicians working with individuals experiencing breakup distress could guide

their treatment with this study's findings. Using the ECR-R, clinicians could identify a

client's attachment style, then assess how much interpersonal electronic surveillance of

an ex-partner the client is engaging in. Clinicians could provide psychoeducation on the

relationship between anxious attachment styles, IES behavior, and the experience of

breakup distress. Treatment planning could incorporate the reduction or cessation of IES

behavior in order to decrease breakup distress. The clinician could also validate clients'

feelings by helping them understand IES behavior is commonplace and difficult for

people to navigate following a breakup.

Recommendations for Future Research

Future research could examine the relationship the variables not explored in this study, mentioned above, have with one's attachment style, IES behavior, and experience of breakup distress. A greater understanding of how these variables interact with what this study explored can provide greater guidance for the treatment of modern breakup distress.

Since the results of this study suggests that one's anxious-attachment level relates to their use of IES and their experience of breakup distress, but not their avoidant-attachment level, future research could investigate the role of anxiety disorders on the dependent variables, rather than just anxious attachment style.

Most studies involving social media and breakup distress or IES focus mainly on Facebook, the most popular social media platform. However, as Facebook use is decreasing among teenagers (Solon, 2018), future studies could focus on the platforms younger people prefer to use, such as Instagram or Snapchat. Since breakups are one of the most common reasons young adults seek therapy in university counseling centers (Gilbert & Sifers, 2011), more knowledge is needed about how their use of social media services other than Facebook relate to their breakup distress and IES behavior.

This study supported the idea that there is a correlation between the experience of breakup distress and the utilization of IES of ex-partners, and future studies could look further into whether greater IES behavior increases breakup distress or if greater breakup distress leads to increased IES behavior. A greater understanding of this relationship can help shape treatment to reduce breakup distress.

The final question on the survey of why someone does or does not monitor their former partner on social media showed a large variety of reasons for their behavior. Future research could focus on individuals' reasons for monitoring ex-partners, as better understanding of the various motivations for doing so could help individualize treatment of breakup distress.

Summary and Conclusion

This doctoral dissertation research project was designed to designed for two purposes: to investigate if there is a significant difference in interpersonal electronic surveillance (IES) of a former romantic partner through social media and breakup distress for different interpersonal attachment styles and to investigate if there is a relationship between an individual's IES use and the experience of breakup distress.

The study first asked if there is a relationship between an individual's attachment style (Preoccupied, Fearful, Dismissing, or Secure) and their experience of breakup distress and their use of interpersonal electronic surveillance (IES) through social media. Results partially confirmed the researcher's hypothesis that there is a significant difference in breakup distress and IES behavior depending on one's attachment style, and that Preoccupied-attached individuals will experience greater breakup distress and engage in more IES than Dismissing- and Secure-attached individuals. However, Preoccupied-attached individuals did not significantly differ in results from Fearful-attached individuals. This suggests that individuals with greater Anxiety scale ratings engage in more IES and experience greater breakup distress than those with lower Anxiety scale ratings, and regardless of Avoidance Scale ratings.

The second question asked if there is a relationship between interpersonal electronic surveillance of an ex-romantic partner and the experience of breakup distress. The hypothesis that there would be a positive correlation between IES behavior and breakup distress was supported by the results of this study, as a moderate positive correlation was found.

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APPENDIX A

INFORMATION LETTER FOR WEB QUESTIONNAIRE

Appendix A

Information Letter for Web Questionnaire

Date

Social Media Surveillance and Attachment Style in Breakup Distress

This study is being conducted by Daniel Yost as part of my dissertation under the supervision of Maria Cuddy-Casey, Ph.D. of Immaculata University. We are conducting a research study about the relationship between one's attachment style in relationships and use of social media surveillance of an ex-partner on the duration and severity of post-breakup distress.

In response to these observations, we are asking for your participation in the study. To participate in this study, you should be at least 18 years old, have experienced a breakup from a romantic relationship, and have used at least one social media service (Facebook, Twitter, Snapchat, etc). This study will attempt to describe how people of different attachment styles engage in social media surveillance of ex-partners and how this affects the severity and duration of post-breakup distress.

If you decide to volunteer, you will be asked to complete an online questionnaire. Your participation in the study should take approximately 15 minutes. Participation in this study is voluntary. You may decline to answer any questions that you do not wish to answer and you can withdraw your participation at any time by not submitting your survey. Some of the questions in the survey may be very personal and could bring up negative feelings, and it is recommended you answer the questions in private. If the survey causes you discomfort and you need therapeutic assistance, please contact the SAMHSA Treatment Referral Helpline (877-726-4727). It is also requested you answer these questions on your own behalf, rather than asking someone else how they would respond. Finally, it is requested that you not be under the influence of any recreational drugs or alcohol while answering these questions.

It is important for you to know that any information that you provide will be confidential. All of the data will be summarized, and no individual could be identified from these summarized results. Furthermore, the web site (surveymonkey.com) is programmed to collect responses on the questionnaire alone and will not collect any information that could potentially identify you.

The data collected from this study will be accessed only by the researcher named above and will be maintained on an encrypted computer database. Any physical data will be secured in a locked safe. After five years, electronic data will be deleted and physical data will be shredded.

Should you have any questions about the study, please contact Daniel Yost (dyost@mail.immaculata.edu, 267-368-4587) or Dr. Maria Cuddy-Casey (mcuddycasey@immaculata.edu, 610-647-4400 x3158). Further, if you would like to receive a copy of the results of this study, please contact either researcher.

I would like to assure you that this study has been reviewed and approved by the Research Ethics Review Board at Immaculata University. However, the final decision about participation is yours. If you have any comments or concerns regarding the ethics of this study, please feel free to contact Thomas O'Brien, Ph.D., Research Ethics Review Board Chair at 610-647-4400 x3210) or by email at tobrien@immaculata.edu.

Thank you for considering participation in this study.

Sincerely,
Daniel Yost

APPENDIX B

CONSENT FORM

Appendix B

Consent Form

I agree to participate in a study being conducted by Daniel Yost of the Graduate Department of Psychology and Counseling, Immaculata University. I have made this decision based on the information I have read in the Information Letter and have had the opportunity to receive any additional details I wanted about the study. I understand that I may withdraw this consent at any time by exiting the survey.

By agreeing to participate in this study, I am attesting that I am at least 18 years old, have experienced a breakup from a romantic relationship, and have used at least one social media service (Facebook, Twitter, Snapchat, etc).

By clicking on the "Continue" button below, I indicate that I also understand that this project has been reviewed and approved by the Research Ethics Review Board at Immaculata University, and that I may contact this office if I have any concerns or comments resulting from my involvement in the study.

If you do not agree with or understand these terms, please exit the survey at this time.

Should you have any questions about the study, please contact Daniel Yost (dyost@mail.immaculata.edu, 267-368-4587) or Dr. Maria Cuddy-Casey (mcuddycasey@immaculata.edu, 610-647-4400 x3158). If you would like to receive a copy of the results of this study, please contact either researcher.

I would like to assure you that this study has been reviewed and approved by the Research Ethics Review Board at Immaculata University. However, the final decision about participation is yours. If you have any comments or concerns regarding the ethics of this study, please feel free to contact Thomas O'Brien, Ph.D., Research Ethics Review Board Chair at 610-647-4400 x3210) or by email at tobrien@immaculata.edu. If the survey causes you discomfort and you need therapeutic assistance, please contact the SAMHSA Treatment Referral Helpline (877-726-4727).

Additionally, if you would like consent to your written responses being anonymously quoted, please check the box below.

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

Appendix C

Demographic Questions

1. What is your age in years?
2. What is your gender?
   □ Male
   □ Female
   □ Non-Binary
   □ Other (write in)
3. What is the gender of your last romantic partner?
   □ Male
   □ Female
   □ Non-Binary
   □ Other (write in)
4. What is your ethnicity?
5. Who initiated the breakup?
   □ Me
   □ Mostly Me
   □ The breakup was mutually initiated
   □ Mostly Them
   □ Them
6. Do you have any form of offline (in person) communication or interaction with your former romantic partner?
   □ Yes
   □ No
7. How long (in months) was your last romantic relationship? (Prior to your current one, if applicable)
8. How long (in months) after your last relationship was it before you started dating again?
   □ I have not started dating again.
   □ I started dating again after this number of months:

APPENDIX D

EXPERIENCES IN CLOSE RELATIONSHIPS-REVISED SCALE

Appendix D
Experiences in Close Relationships-Revised Scale
Please answer the following questions about yourself in terms of your current
relationship, or, if not in a relationship currently, how you felt in your last relationship.
Answer choices:

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree Nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

1. I often worry that my partner will not want to stay with me.
2. I often worry that my partner doesn't really love me.
3. I am afraid that I will lose my partner's love.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for them.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, they won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I'm angry.
19. I prefer not to show a partner how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
26. I find it relatively easy to get close to my partner.
27. It's not difficult for me to get close to my partner.
28. I usually discuss my problems and concerns with my partner.

29. It helps to turn to my romantic partner in times of need.
30. I tell my partner just about everything.
31. I talk things over with my partner.
32. I am nervous when my partners get too close to me.
33. I feel comfortable depending on romantic partners.
34. I find it easy to depend on romantic partners.
35. It's easy for me to be affectionate with my partner.
36. My partner really understands me and my needs.

APPENDIX E

THE INTERPERSONAL ELECTRONIC SURVEILLANCE SCALE

Appendix E
The Interpersonal Electronic Surveillance Scale (modified)
Please answer the following questions about your social media surveillance of ex-romantic partners.
Answer choices:
- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree Nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

1. When visiting my ex's social media profile(s), I read the new posts or comments by their friends.
2. I peruse my ex's social media profile(s) to see what they're up to.
3. I explore my ex's social media profile(s) to see if there is anything new or exciting.
4. I notice when my ex updates their social media profile(s).
5. I am generally aware of the relationships between my ex and their social media friends/followers.
6. I visit my ex's social media profiles often.
7. I pay particularly close attending to news feeds or posts that concern my ex.
8. If there are messages or comments on my ex's profile that I don't understand, I try to investigate it through others' social media profiles.
9. I know when my ex hasn't updated their social media profile in a while.
10. I often spend time looking through my ex's pictures on their social media account(s).
11. I try to monitor my ex's behaviors through their social media account(s).

APPENDIX F

BREAKUP DISTRESS SCALE

Appendix F
Breakup Distress Scale
Please answer the following questions regarding your ex-partner.
Answer choices:
- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree Nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

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.

APPENDIX G

FACEBOOK BREAKUP DISTRESS SCALE

Appendix G
Facebook Breakup Distress Scale (modified)
Please answer the following questions regarding your ex-partner.
Answer choices:

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree Nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

1. Looking at my ex's profile or friendship history page upsets me.
2. Re-reading old messages or comments my ex sent me upsets me.
3. I over-analyze old messages, posts, or photographs of me and my ex together.
4. I feel drawn to my ex's social media profile(s).
5. I can't help feeling angry about content my ex posts on social media.
6. I feel distracted when I talk to my ex on social media.
7. I feel paranoid that people commenting on my ex's social media account(s) are potential romantic interests.
8. I feel jealous when other people post on my ex's social media account(s).
9. Looking at my ex's social media account(s) is self-destructive.
10. I am envious of others who do not have an ex on social media.

APPENDIX H

OPEN-ENDED QUESTION

Appendix H
Why do you (or do you not) monitor your ex-partner through social media?

APPENDIX I

RERB APPROVAL FORM

IMMACULATA UNIVERSITY RESEARCH ETHICS REVIEW BOARD
REQUEST FOR PROTOCOL REVIEW--REVIEWER'S COMMENTS FORM
(R1297)

Name of Researcher: Daniel Yost

Project Title: Social Media Surveillance and Attachment Style in Breakup Distress

Reviewer's Comments

Your proposal is **Approved**. You may begin your research or collect your data.

PLEASE NOTE THAT THIS APPROVAL IS VALID FOR ONE YEAR **(365 days)** FROM DATE OF SIGNING.

Reviewer's Recommendations:

_____ Exempt	__X__	**Approved**
_____Expedited	_____	Conditionally Approve
_____Full Review	_____	Do Not Approve

Thomas F. O'Brien   June 15, 2018
_____
Thomas F. O'Brien, Ph.D., Ed.D.   DATE
Chair, Research Ethics Review Board