South Dakota State University Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange

Electronic Theses and Dissertations

2018

#Rest in Digital Peace: Examining Attachment Dimensions' Relationship to Grief Messages on Facebook

Kendall Uhrich South Dakota State University

Follow this and additional works at: https://openprairie.sdstate.edu/etd Part of the <u>Communication Technology and New Media Commons</u>, and the <u>Social Media</u> <u>Commons</u>

Recommended Citation

Uhrich, Kendall, "#Rest in Digital Peace: Examining Attachment Dimensions' Relationship to Grief Messages on Facebook" (2018). *Electronic Theses and Dissertations*. 2477. https://openprairie.sdstate.edu/etd/2477

This Thesis - Open Access is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

#REST IN DIGITAL PEACE: EXAMINING ATTACHMENT DIMENSIONS' RELATIONSHIP TO GRIEF MESSAGES ON FACEBOOK

BY

KENDALL UHRICH

A thesis submitted in partial fulfillment of the requirements for the

Master of Science

Major in Communication Studies and Journalism

Specialization in Communication Studies

South Dakota State University

2018

#REST IN DIGITAL PEACE: EXAMINING ATTACHMENT DIMENSIONS' RELATIONSHIP TO GRIEF MESSAGES ON FACEBOOK KENDALL UHRICH

This thesis is approved as a creditable and independent investigation by a candidate for a Master of Science Communication Studies and Journalism and is acceptable for meeting the thesis requirements for this degree. Acceptance of this does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Jøshua Westwick, Ed.D. Thesis Advisor

.

Date

Joshua Westwick, Ed.D. Head, Department of Communication Date

Dean, Graduate School Date

١

1

ii

This thesis is dedicated to those who I, myself, have posted about on Facebook following their deaths. My step-father, Jeremy Brunner, and my grandfather, Bill Lorenz, both of whom taught me the value of hard work, perseverance, and how to have a smile through it all. May you rest in peace, and of course, rest in digital peace.

ACKNOWLEDGEMENTS

Although my name is on of this finalized copy of my Master's Thesis, I alone could not take full credit for the finished product for it was because of the work, support, and encouraging words of many to which I owe acknowledgement. I first would like to thank my wonderful thesis advisor, Dr. Josh Westwick. Your knowledge and personality is the reason I came the South Dakota State, but your compassion, support, and positivity is why I am finishing my degree at SDSU because without you, that would not have been possible. Thank you, Josh, for the encouragement you provided throughout the seemingly endless (at the time) rounds of edits. I would also like to extend a thank you to the others who served on my thesis committee, Dr. Liz Tolman, and Dr. Joseph Santos, who provided me with helpful feedback and made the process of a proposal and defense more enjoyable than I ever would have imagined.

I would also like to thank the faculty at SDSU who made me realize the vast scope of Communication Studies and provided me the skills to dive even further into the research. I would like to say a special thank you to Dr. Kelli Chromey for the tremendous amount of support she provided me. Whether that was answering my thesis related questions or going out to dinner so I can get a break from my computer screen, you were my personal mentor throughout my Master's Program.

I would be remised to not thank the person who encouraged me to attend graduate school in the first place, my undergraduate advisor, Dr. Rich Murphy. It was your belief in me that made me believe I could tackle the mountain that is graduate school. I forever am thankful for your encouragement throughout the years and owe you more than I can ever repay for making me a life-long learner and confident in my own abilities. I've had wonderful help within academia, but I could not have come this far without the encouragement of my family. I felt that one quote described them best. "You all may be crazy, but even if I got to choose, I'd still choose to be with you." My family is the best cheerleaders I could ask for. If I saw myself the way that they do, my confidence would be unsurpassed. Thank you for believing in me, even in the times I did not believe in myself.

Lastly, I would like to thank Brad. You supported me in my decision to go to graduate school, no matter where I went. For two years, you patiently listened to me talk about my thesis, cleaned the house when I did not have time, and encouraged me when I felt that I could never finish graduate school. Thank you for staying through two hectic years of my Master's program and I cannot wait for the years to come.

While serving as a Teaching Assistant, the other TA's encouraged me to watch *The Office* and in that show, I feel that one quote encompasses my feelings completing my Master's Degree. "Now I'm exactly where I want to be. I have my dream job... and I'm still thinking about my old past... I wish there was a way to know that you are in the good ol' days before you've actually left them."

TABLE OF CONTENTS

LIST OF TAI	BLES	viii
ABSTRACT.		viiii
I.	Introduction	1
	Statement of the Problem	2
	Background of the Problem	3
	Definitions	6
	Value of the Study	8
II.	Review of Literature	11
	Grief and Grief Theories	11
	Attachment Theory	17
	Communicating with the Deceased Online	
	Research Question and Hypotheses	
III.	Methodology	
	Participants	
	Instrumentation/Operationalization	
	Analysis	
IV.	Results	40
	Demographic Information	40
	Instrumentation	40
	Summary	
V.	Discussion	55
	Limitations and Future Directions	65

VI.	References	71
VII.	Appendices	77
	Appendix A	77
	Appendix B	78
	Appendix C	80
	Appendix D	83

LIST OF TABLES

I.	Attachment Styles of Participants41
II.	Likelihood Questions Mean and Standard Deviation42
III.	Description of Scenario and Assigned Variable Number for Table 4 and 5
IV.	Correlation Matrix of Variables
V.	Kruskal-Wallis Test Results53

ABSTRACT

#REST IN DIGITAL PEACE: EXAMINING ATTACHMENT DIMENSIONS' RELATIONSHIP TO GRIEF MESSAGES ON FACEBOOK KENDALL D. UHRICH

2018

Grief is a natural reaction to loss that can include behaviors and thoughts that are emotional, physical, and spiritual (DeSpelder & Strickland, 2015). With the rise of social media, grief is now performed in a different and more public manner. The current literature has established the connection between how one grieves and their attachment dimension of either attachment anxiety or attachment avoidance (Bowlby, 1980; Schenck, Eberle, & Rings, 2016; Waskowic & Chartier, 2003; Worden, 1983). Attachment dimensions have also been correlated with social media usage, primarily the use of Facebook (Hart, Nalling, Bizer, & Collins, 2015; Lin, 2015). Findings from a series of Pearson correlations (n = 257) indicate a relationship between attachment anxiety and the likelihood to post a status update following the death of a friend and posting a status update following the death of a celebrity. Additionally, results indicate a relationship between attachment anxiety and the likelihood to post on the deceased's wall following the death of a community member. In the case of attachment avoidance, a relationship is found with posting a status update following the death of a family member and an acquaintance. A series of Kruskal-Wallis tests found that those with preoccupied attachment are more likely than those with secure attachment to post on a deceased friend's wall, post on a deceased community member's wall, direct message deceased family members, and direct message a deceased friend.

Chapter 1

Introduction

In the near future, the number of Facebook accounts for those who have died will outnumber the Facebook accounts of the living in what some would call a "digital graveyard" (Ambrosino, 2016). In the year of 2016 alone, an estimated 972,000 Facebook users died leaving Facebook with numerous accounts for deceased individuals. Although this number is high, it is unsurprising considering 58% of Americans have a Facebook page (Weise, 2015) and there are 1.5 million active Facebook users (Cuthbertson, 2016). Facebook has developed a solution for the surplus of unattended pages, but their memorialization account practices appear flawed (McCallig, 2013). Through the memorialization policies, Facebook users have the option of changing their account into a memorialization account once they die (Facebook, 2016a). This option allows Facebook users to continue to have a Facebook presence after death, but the account will no longer allow posts onto the page if these privacy settings were in place prior to the account holder dying (Facebook, 2016a). The second option allows deceased users to keep their account active (Facebook, 2016a). However, by keeping the page active, rather than transitioning the account, individuals could be faced with receiving birthday reminders from the deceased or having the deceased show up in the "people you may know" section (Facebook, 2016a). These practices have left some users feeling that social media accounts may need to be considered a digital asset that may need to be legally counseled in a similar fashion to physical assets (DeSpelder & Strickland, 2015).

When deceased users have an active Facebook account, the bereaved who access these active accounts can experience symptoms such as confusion, discomfort, sadness,

and tension that has made some people feel as though the deceased person is still alive (Rossetto, Lannutti, & Strauman, 2015). Through empirical data that illustrates the likelihood to post grief messages, Facebook could devise a policy that would fit the needs of the bereaved. Furthermore, by exploring attachment dimensions and their relationship to grief and social media usage, we can better understand how these differences in attachment connect specifically to grief messages on Facebook.

Results from this study may help practitioners like therapists, grief counselors, and applied communication experts provide individualized advice for posting grief messages to the bereaved on Facebook based on the attachment dimension of the bereaved. Individualized advice is vital for the bereaved because grief is unique to each individual (Dennis, 2012; Zisook & Shear, 2009). Psychiatrists may not be ready to handle the complicated results of grief that may arise (Zisook & Shear, 2009). Therefore, studying attachment dimensions can shed light onto the individuality among those grieving and examining grief message patterns can help psychiatrists better care for their patients. For communication experts, studying grief messages on Facebook based on attachment dimensions will expand the current literature on these topics. Additionally, this study may show the need for additional research into studying attachment and grief on other social media platforms as well such as Twitter, Instagram, and Tumblr etc.

Statement of the Problem

For many bereaved individuals in today's technological world, grief messages are shown online using blogs (Degroot & Carmack, 2013) and Facebook posts (Ambrosino, 2016; Degroot, 2012; Degroot 2014; Kern, Forman, & Gil-Egu, 2012; Klastrup, 2015; Marwick & Ellison, 2012; McCalling, 2014; Pennington, 2013; Rossetto et al., 2015). These public displays of mourning have made internal feelings of grief turn into computer-mediated messages to the deceased. Researchers examining grief messages thus far have mostly used content analysis (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) to observe the types of mourning behaviors online. These behaviors include sharing memories (Brubacker & Hayes, 2011; Williams & Merten, 2009), posting updates (Brubacker & Hayes, 2011, Williams & Merten, 2009), maintaining relationships with the deceased (Brubacker & Hayes, 2011; Degroot, 2012, making memorial pages (Kern et al., 2012; Klastrup, 2015), and sharing religious beliefs (Williams & Merten, 2009). However, some negative behaviors can be observed as well such as individuals who purposely mock other Facebook users. Other negative behaviors can be impression management (Marwick & Ellison, 2012), and the phenomenon of strangers posting on deceased persons' pages (DeGroot, 2012; Marwick & Ellison, 2012; Rossetto et al., 2015).

While the current literature has examined communicative behaviors associated with posting online following death, what remains to be discovered is the intention behind these social media posts. I argue that the connection between what type of post is made and who that post is made about lies in one's attachment dimension of either attachment anxiety or attachment avoidance. Both attachment anxiety and attachment avoidance are telling factors in how one grieves (Bowlby, 1980; Schenck et al., 2016; Waskowic & Chartier, 2003; Worden, 1983) and how one posts on social media (Hart et al., 2015; Lin, 2015), but current studies have yet to link the two constructs.

Background of the Problem

While the interaction between grief messages and social media is a relatively new realm of communication-related research, the study of grief messages is not. Grief is a natural response to loss that includes thoughts and feelings that are physical, behavioral, and spiritual (DeSpelder & Strickland, 2015). The definition of grief is purposely broad for two primary reasons. First, DeSpelder and Strickland (2015) found that by narrowing grief "it reduces our chances of accepting all of the reactions to loss we may experience" (p. 345). Additionally, experiencing loss can come after many life-changing events such as a breakup, losing a pet, quitting a job, etc. For the purpose of this study, grief is defined as the loss of a human being. Some feelings that are associated with this type of loss are sadness and discomfort (Schenck, Eberle, & Rings, 2016) along with disbelief, painful emotions, thoughts of the deceased, and difficulty accepting loss (Shear & Mulhare, 2008). Although many of these reactions to grief are negative, one positive reaction to grief is personal growth (Hogan, Greenfield, & Schmidt, 2001). These feelings include feeling stronger after grief, becoming more compassionate, and being more loving. These feelings were also shown to emerge later in the grief process after the initial sadness has subsided (Hogan et al., 2001).

Another factor that may lend some to better acceptance of loss is a relational maintenance with the deceased. Klass, Silverman, and Nickman (1996) found that coping with grief often meant continuing a relationship with the deceased in what they coined the continuing bonds model. In this model, the communication between the bereaved and the deceased continues despite the absence of one member of the party (Sigman, 1991). This continuing bonds model is often observed in the continuing relationships that the bereaved maintains online with the deceased's Facebook account, specifically the deceased's Facebook page. When individuals comment on Facebook posts, the majority of these posts directly addressed the deceased, showing relational continuity (DeGroot, 2012; Kern et al., 2012; Klastrup, 2015; Williams & Merten, 2009). Futhermore, some people have used Facebook as a tool to talk to the deceased about their current lives and remain connected with the deceased through these mediated updates (DeGroot, 2012; Williams & Merten, 2009).

While much of the current literature is primarily focused on relational maintenance between the deceased and the bereaved, (DeGroot, 2012; Kern et al., 2012; Klastrup, 2015; Williams & Merten, 2009), scholars have yet to focus on the intentions of the bereaved for continuing a relationship with the deceased through Facebook. This study aimed to identify a relationship between attachment dimensions and electronic grief messages posted to Facebook.

Attachment theory and its related dimensions emerged during Bowlby and Ainsworth's study of infants and their separation behaviors with their parents (Bretherton, 1992). Individuals' attachment dimensions carry over into adult romantic relationships and help to explain how individuals coped when separated from their romantic partners (Hazan & Shaver, 1987). Brennan, Clark, and Shaver (1998) found that individuals typically displayed two dimensions of attachment, anxiety and avoidance. Attachment anxiety is observed in those who are wary of those they feel may be untrustworthy or possibly reject them. Conversely, attachment avoidance is characterized by an avoidance of intimate relationships and a tendency to be dismissive in relationships (Oldmeadow, Quinn, & Kowert, 2012). Attachment theory has been linked to both grief and social media usage. For example, attachment dimensions have been utilized to study how one will adjust after loss (Bowlby, 1980; Schenck et al., 2016; Worden, 1983). Individuals with secure attachment, those who have neither attachment anxiety nor attachment avoidance, have been shown to promote a better adjustment to grief after the passing of a spouse. However, persons with high attachment avoidance and anxiety have been found to have more feelings of anger, despair, guilt, death anxiety, depersonalization, social isolation, and rumination when compared to their securely attached counterparts (Waskowic & Chartier, 2003).

Attachment dimensions' relationship to social media usage has also been researched. Hart et al. (2015) found that individuals high in attachment anxiety care deeply about self-presentation. Thus, the ability for people to decide what their Facebook friends see and do not see fits well with their personality traits. Individuals exhibiting the anxiety dimension were more likely to use Facebook as a beneficial tool, because it helped reduce anxiety about social interactions. Furthermore, individuals who are attachment avoidant were found to avoid social interactions on Facebook, especially when it came to needing emotional support (Lin, 2015). However, those with attachment avoidance can also benefit from social media usage because they can still communicate with other individuals, but without physical proximity. Thus, as a result of the lack of physical proximity, it becomes easier for people with this tendency to remain disconnected (Hart et al., 2015). Because attachment theory helps describe the behaviors of those with attachment avoidance and anxiety, examining the connection between attachment dimensions and grief messages on Facebook helps to fill the gap in the current literature and creates a better understanding of individuals' grief patterns online.

Definitions

For clarification, the following terms that are used throughout this study will be defined: posting a status update, posting on someone else's wall, and direct messaging. The following definitions reflect Facebook settings standards in 2017. First, posting a status update indicates that the owner of the Facebook page is posting to their own wall and shows up on their timeline (Facebook, 2017a). This post shows up on their Facebook friend's newsfeed, but does not appear on anyone else's wall. The only time that a Facebook user's status update would appear on another person's Facebook wall is if that person was tagged in the status (Facebook, 2017a). Facebook users have the ability to screen posts before they go onto their own wall, but must adjust their settings to do so. If the user with these settings was tagged in a post, Facebook will send them a notification asking if they would like the post to appear on their wall. In the case of the deceased, if they do not have these settings, the post would still appear on their wall. If they have the security settings so that they can screen the posts, the post will not be displayed on the deceased's wall unless another person is running their page and has accepted the tagged post request.

Next, Facebook users can post to someone else's wall. This means that a Facebook user would go onto a Facebook friend's page and post on their wall. This post may show up on the newsfeed of those who are mutual friends with both Facebook users. The post does not show up on the Facebook user's wall who posted, but only on the friend's wall that they posted to. Lastly, direct messaging is a feature that allows Facebook users to communicate privately, but through the social networking site. These do not appear on anyone's timeline or newsfeed (Facebook, 2017b) Direct messaging works similarly to text messaging in that messages can only be seen by those who are messaging each other. Facebook users can create groups to direct message as well. Messages can be sent between users who are friend and users who are not Facebook friends. If a stranger direct messages a Facebook user, that user can either accept or reject the message (Facebook, 2017b).

Other important terms to discuss are grief, bereavement, and mourning. Current literature uses these terms inconsistently (Zisook & Shear, 2009). For the purpose of this study, Zisook and Shear's (2009) definitions will be used. Bereavement is the term associated with the fact of loss (Zisook & Shear, 2009), therefore making the bereaved the person whom is coping with the fact of the loss of another individual. Grief is used to describe the emotional, physical, cognitive, functional, and behavioral responses to death (Zisook & Shear, 2009). While the current literature often uses the term mourning interchangeably with grief and bereavement (Zisook & Shear, 2009), this study will specifically address mourning as the behavioral responses to the death of another individual.

Value of the Study

Prior to recent death studies, grief was seen as a systematic process of moving on and letting go of the deceased. Now seen as unhealthy, this traditional method of grieving may still be taught to the bereaved (Dennis, 2012). However, within this past decade, grief theorists have begun to posit grief as a continuing bond, meaning a continuing relationship between the deceased and the living (Klass, Silverman, & Nickman, 1996). Although the communication channels are different following death, this new model suggests that communication still exists despite one party being deceased (Klass et al., 1996; Silverman, 1991).

Previous self-help books often discuss grief as a step-by-step process. Dennis (2012) analyzed the advice given in 21 of these self-help texts to discover the differences in each era of grief therapy. One book from each era (pre 1990's, 1990's to 1999's, and post 1999) was analyzed and a distinction in the old ways of viewing death as an event to move on from, to the current belief of relational continuity with the deceased was found. Specifically, he discovered that grief self-help books paralleled grief studies during the era in which they were written. While the pre 1990's work discussed many Freudian beliefs of forgetting the deceased and moving on, the post 1999's work focused on sustaining the love once felt for the deceased (Dennis, 2012). The switch in grief advice parallels grief studies' findings that relational maintenance is preferable to grief stages. Dennis's (2012) work suggested that even non-academic grief literature discussed continuing bonds and relational maintenance, even if the previous scholarship did not call these theories by name. If those individuals who are grieving are turning towards selfhelp books, social media could become a primary mode of continuing that relationship because social media can make one feel more connected with the deceased (DeGroot, 2012; Kern et al., 2012; Klastrup, 2015; Williams & Merten, 2009).

However, research on whether or not people are using Facebook to continue a relationship with the deceased is slim. With Facebook continually changing, studies exploring grief online are crucial to discover if Facebook's current platform is delivering

the right aid to those grieving. The most current literature on relational maintenance with the deceased on Facebook dates back to 2014 and is focused on what people are saying online to and about the deceased (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009). By providing practitioners and researchers in grief, psychology, and communication fields current data behind who is posting and how they are posting on Facebook could help other scholars further study their audience. Through data which will explore who the bereaved are posting about, scholars and practitioners alike are able to see which relationships are being maintained or not being maintained. Additionally, by observing which types of posts are made could provide scholars and practitioners an opportunity to observe what modes of communication are preferred when communicating with the deceased on Facebook. Through the examination of coupled studies on grief and attachment styles and adding grief messages, this study has interdisciplinary value. Furthermore, this study brings together psychology, sociology, computer mediated communication and grief communication and goes beyond academia to have a real-world application for practitioners, psychologists, and communication experts.

The following chapter examines the current literature on grief, attachment theory, and Facebook. Moreover, the literature review provides the context and necessity for this study and provides a rationale for exploring attachment theory's relationship to grief messages on Facebook.

Chapter 2

Review of Literature

This study focused on the relationship between the attachment dimensions of anxiety and avoidance to an individual's likelihood to post on Facebook (status update, posting on another's wall, and direct messaging) following the death of a known or unknown individual. The following literature review examines grief, attachment theory, and grief in the online context as a framework for the study. Additionally, an examination of the current Facebook policies for a deceased member's account is outlined.

Grief and Grief Theories

Although grief messages may lean towards the study of communication, the basis for these messages has its origins in the psychology of grief. To understand the interdisciplinary nature of this study, an explanation of grief and the changing perceptions of how to manage grief reactions is provided. Next, a discussion explaining how attachment theory can bridge the gap in current research on the concepts of grief messages and social media, specifically Facebook.

Grief in brief. Grief is a natural response to loss that includes thoughts and feelings that are physical, behavioral, and spiritual (DeSpelder & Strickland, 2015). Grief may be experienced in a variety of contexts, but this study will focus on grief following the loss of another human being. Although people cope with death differently, feelings of sadness or discomfort are to be expected (Schenck, Eberle, & Rings, 2016). These feelings may include a disbelief of the passing, painful emotions, thoughts of the deceased, and difficulty accepting loss (Shear & Mulhare, 2008). DeSpelder and Strickland (2015) added that grief could also include anxiety, tension, disorganization,

and depression. Physical symptoms of grief could include sighing, shortness of breath, tightness of the throat, muscle weakness, chills, tremors, hyperactive nervous system, insomnia or other sleep disturbances, and changes in appetite (DeSpelder & Strickland, 2015). The scope of grief is vast and while some may try to define grief more specifically, DeSpelder and Strickland (2015) reminded us that the definition is purposely left wide because narrowing grief "reduces our chances of accepting all of the reactions to loss we may experience" (p. 345). Bowlby (1980) explained that although these feelings of grief are normal to experience, healthy mourning is a transition that exists when an individual sees changes in his/her external world and accepts this into his/her internal world.

Beginning in the late 1960's, grief was thought to contain five stages which included; denial, anger, bargaining, depression, and acceptance (Kübler-Ross, 1969). These grief stages have been commonly used recognitions of the grieving process. Bowlby (1980) noted that grief can be experienced differently and some individuals may go between stages or progress in the stages in a different order. Stroebe, Schut, and Boerner (2017) found that while the stage theory is highly recognized, stages may be problematic for those grieving and for those assisting the bereaved in their grieving process, such as therapists, psychologists, etc. Stroebe et al. (2017) believed that the stage theory needs to change because of a lack of theoretical depth, misrepresentation of grief, lack of empirical evidence, the ability for alternative models, and consequences of using stage theory that include the bereaved being hindered in their grieving process by the belief of correct stages (Stroebe et al., 2017). The hypothesis of systematic stages of grief means that individuality in grieving is seen as null. However, the reality of different people, means different mourning and the stage theory does not fit many grieving individuals, including adolescents (Williams & Merten, 2009). Dennis (2012) urged that this type of thinking of grief is a "one-size-fits-all model of grieving that is now being debunked" (p. 414).

Because of the issues surrounding stages of grief, additional theoretical perspectives have been offered. One particular theory that is now more accepted than the five stages of grief is the empirically derived Hogan Grief Reactions (Hogan, Greenfield, & Schmidt, 2001). These grief reactions include despair, panic behavior, anger, detachment, disorganization, and personal growth. Feelings of despair are derived from separation stress because of losing a loved one. Panic behavior includes post-traumatic stress reactions. More typically, panic behaviors develop in those who have lost someone traumatically and suddenly such as a parent losing their child in a car accident (Hogan et al., 2001). Detachment behaviors are identified as isolation reactions that can include withdrawal from others and change in personal identity (Hogan et al., 2001). Anger is commonly paired with blame in Hogan et al.'s (2001) findings. The study of families coping with death found that the largest group with anger were parents who have lost their children to homicide (Hogan et al., 2001).

While Hogan et al. (2001) found detachment, anger, panic, and despair common in the first three years after a loved one's death, all behaviors subsided three to six years following the death. Hogan et al. (2001) also measured disorganization by asking about day-to-day functioning to see if individuals had difficulty with seemingly everyday tasks and also by assessing their cognitive functions like remembering information or concentrating on tasks. Through their analysis, they discovered that disorganization was more common in the first three years after death; however, disorganization did not vary based on the cause of the loved one's death (Hogan et al., 2001).

Finally, personal growth is measured by hope for the future and seeing that some good may come out of grief. Personal growth behaviors included feeling stronger after grief, more compassion, and more loving, and in the parent study, these feelings appeared to come later in the grief process after the initial sadness has subsided (Hogan et al., 2001). Personal growth has been found to be the strongest in individuals who openly communicate about their grief, especially in the death of a family member (Carmon, Western, Miller, Pearson, & Fowler, 2010). Carmon et al. (2010) found that an open conversation orientation was the highest contributing factor in personal growth following a death of a family member, making communication an important variable to study when observing grief messages.

As a result of the issues with the five stage theory and a discovery of more accepted grief reactions, the continuing bonds model and the two-track model of bereavement will be utilized to discuss grief patterns as they relate heavily to maintaining a relationship with the deceased, a behavior observed in grief on Facebook. The continuing bonds model and the two track model of bereavement both primarily focus on the relationships that the living continues to have with the deceased and as illustrated in the review of literature, both are models that are currently being utilized to study grief communication.

Continuing bonds model. The continuing bonds model is a contemporary view of grief established by Klass, Silverman, and Nickman (1996) who suggested that the bereaved continue relationships with the deceased. This continuing bond does not cease because one person is no longer living, but continues as long as the bereaved continues this relationship (Klass et al., 1996). Klass (2006) explained that the continuing bond can be subtle and may change over time.

Klass (2006) analyzed researchers who used continuing bonds incorrectly, because researchers often see the model as a prescription of how bereaved should act, rather than a study of the phenomena. This mistake of viewing continuing bonds as a prescription has caused some studies to posit that those who continue relationships with the deceased will have a healthier adjustment, but Klass (2006) stated that this causality is inaccurate. Klass (2006) stated he and his colleagues did not intend continuing bonds to be a "there or not there" phenomenon when they originated the concept of continuing bonds (p. 844). Klass (2006) also stated that the continuing bonds construct was not meant to be seen as a healthy or unhealthy grieving tactic, but one that can be used in varying degrees to connect with the deceased. However, Klass (2006) warned that those continuing the relationship with the deceased must accept the positive and negative outcomes associated with the continuation.

One of these continuation outcomes is trying to re-establish physical proximity with the deceased (Bowlby, 1980). Re-establishment can come in the form of hallucinations or illusions of the deceased or the bereaved seeking out places that the deceased once frequented (Field, 2006). Although the need to constantly seek out physical proximity can be negative, visiting a gravesite can be seen positively. A common grieving practice can be visiting the grave and possibly leaving flowers, a practice that can be helpful for the bereaved so they can feel connected to the deceased knowing they are there (Klass, 2006). Going to the grave is also viewed as a family activity because going to the gravesite of a deceased family member is a grief act that families take part in together (Klass, 2006). Even if a family member goes alone, gravesites often have multiple members of a family in a similar location, so they can feel connected with more than just one deceased family member when visiting the grave (Klass, 2006).

Klass (2006) also argued that many scholars do not see the societal and communal implications of continuing bonds. Field (2006) discussed the bond as a purely internal process, but Klass (2006) posited that the continuation of the relationship involves more than just the dyad of the bereaved individual and the deceased, which is especially observed in the grave visiting context.

The tendency to perceive continuing bonds as an intrapersonal concept may be derived from an individualistic culture (DeSpelder & Strickland, 2015; Klass, 2006), because grief is experienced uniquely by each culture. While individualistic people see the bond as a place in their mind and heart, those from collectivistic cultures may participate in family-oriented continuation of the bond such as the Japanese custom of making a shrine in their home or the Hispanic custom of honoring the deceased on Dia de los Muertos (DeSpelder & Strickland, 2015).

Two-Track Model of Bereavement. Like the continuing bonds model, relational maintenance with the deceased is a large aspect of the two-track model of bereavement (Rubin, 1999). The two-track model illustrates the complicated aspects of grief. The first track shows the general biopsychosocial functioning that helps an individual readapt to life after loss. It contains physical, interpersonal, and intrapersonal aspects such as

anxiety, quality of interpersonal relationships, self-esteem, and investment in life tasks (Rubin, 1999).

The second track of bereavement concerns the ongoing relationship with the deceased and in some cases can ease the difficult parts associated with the first track (Malkinson, Rubin, & Witztum, 2006). The second track is typically characterized by the transformation of the relationship and the acceptance of death (DeSpelder & Strickland, 2015). The view the living has about the deceased changes as the grieving progresses (Bowlby, 1980; Malkinson et al., 2006; Rubin, 1999). Some of the aspects included in this track are the narrative construction of the relationship, idealization, imagery, and memory (Rubin, 1999). This continuation of the relationship found in the second track makes the two track model one that lends itself to the continuing bonds model, as well as attachment theory because the loss of the attachment figure is managed with relational maintenance with the deceased.

Bowlby (1980) found that attachment styles relate to the likelihood of an individual continuing a relationship with the deceased because the root of attachment theory focuses on how individuals cope with separation. Although studies are linking attachment theory with the continuing relationship some people maintain with the deceased (Bowlby, 1980; Schenck et al., 2016; Waskowic & Chartier, 2003; Worden, 1983) a research gap remains. Specifically, scholars have yet to identify how the continued relationships that the living has with the deceased on Facebook differ based on the living's attachment anxiety or avoidance dimension. To better illustrate this connection, the following section describes attachment theory and explains the attachment dimensions of anxiety and avoidance. This section also outlines why these dimensions are appropriate for grief-related research when compared to other relationship theories.

Attachment Theory

Attachment Theory originated as collaborative work between Bowlby and Ainsworth (Bretherton, 1992), but later became Bowlby's primary work after publishing multiple works exploring attachment theory and attachment's relationship to loss (Bowlby, 1969; Bowlby, 1980). Originally, Bowlby (1969) studied children's attachment to their parents as this relationship is the first relationship one builds in infancy (Bowlby, 1969). Bowlby's (1969) seminal work examined children who were taken away from their parents and then reunited with them with their parents in order to explore their behaviors upon separation from the parental figure (Bowlby, 1969). Bowlby also examined this behavior in baboons, gorillas, and monkeys to test whether their attachment behavior is similar to human attachment and discovered that in both primates and humans, attachment behavior is defined by seeking and maintaining physical proximity to an attachment figure (Bowlby, 1969).

Attachment theory posits that individuals seek closer proximity to others when they need to feel secure and protected (Bowlby, 1980). Found in both primates and humans, when the attachment figure, typically the mother, leaves the room or puts down the child, the child cries and reaches their arms out to try to maintain physical proximity (Bowlby, 1969). Bowlby (1969) found that in order to develop mentally healthy, infants must have a warm and continuous relationship with at least one parent.

Bowlby mentioned that this attachment continues into adolescence and adult life, but attachment extends beyond the family to include romantic partners, friends, coworkers, religious groups etc., and that loss from these attachment figures can induce anxiety, sadness, and anger. However, Bowlby's primary research focused on infants until Hazan and Shaver (1987) further explored attachment in the adult relational context. Hazen and Shaver (1987) found that adults tend to carry over their childhood attachment dimensions into their adult romantic relationships, further confirming Bowlby's (1969) hypotheses on attachment in adults.

Adult attachment includes the two dimensions of attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver 1998). It should be noted that individuals who are low in both attachment anxiety and attachment avoidance are considered to have a secure attachment dimension (Brennan, Clark, & Shaver 1998). Insecure attachment, or those who identify as having attachment anxiety or avoidance is common as two billion adults worldwide identify with either attachment anxiety or avoidance (Ein-Dor, Mikulincer, Doron, & Shaver, 2010). Furthermore, this same study suggested that there were not many cultural differences related to attachment anxiety or attachment avoidance (Ein-Dor et al., 2010).

Attachment Dimensions and Communication. The dimensions of attachment anxiety and attachment avoidance are commonly used in studying attachment dimensions' relationship to communication behaviors (Hart et al., 2015; Lin, 2015; Oldmeadow et al., 2012). Attachment can be broken down into four categories based on the dimensions of anxiety and avoidance that include secure, preoccupied, dismissive and fearful.

Anxious attachment includes those who desire closeness, but fear rejection from a partner (Smith, Murphy, & Coats, 1999). Those high in attachment anxiety have a

hyperactive attachment system and are wary of those they feel may be untrustworthy or possibly reject them (Oldmeadow, Quinn, & Kowert, 2012). Additionally, these individuals are acutely aware of self-presentation and seek regular affirmation from others (Oldmeadow et al., 2012). This affirmation can come in the form of selfdisclosure, which these individuals tend to engage in too frequently and often too soon (Ein-Dor et al., 2010). High attachment anxious dimensions correspond with the fearful or preoccupied styles (Smith et al., 1999).

Avoidant attachment in the adult context is characterized by a lack of striving towards dependency on a partner that can come from rejection of closeness in the past (Smith et al., 1999). Those high in attachment avoidance have a deactivated attachment system and avoid situations that would require any attachment such as intimate relationships (Oldmeadow et al., 2012). Additionally, individuals high in attachment avoidance do not typically self-disclose, but instead deal with stress by ignoring it (Ein-Dor et al., 2010). High attachment avoidant styles correspond with the dismissive and fearful styles (Smith et al., 1999).

Although many characteristics used to describe attachment anxiety and attachment avoidance seem negative, these personality traits used in times of need have been shown to also have positive outcomes (Ein-Dor et al., 2010). For example, those with high attachment avoidance have been shown to react quickly to dangerous situations and are able to warn others about this upcoming danger (Ein-Dor, Mikulincer, & Shaver, 2011). In a research laboratory setting, non-toxic smoke was filled into a room to induce a scenario that replicated potential danger, and in this study those with higher attachment anxiety were able to detect this smoke more quickly than those without attachment anxiety (Ein-Dor et al., 2011). Additionally, individuals higher in attachment avoidance were able to leave the room more quickly (Ein-Dor et al., 2011). Although the lab scenario was concentrated on how these individuals react to dangerous situations, attachment anxiety characteristics show that while these individuals have maladaptive tendencies, their fearful tendencies can be helpful in dire situations.

These differences in social interactions make attachment dimensions an interesting way to view how individuals high in avoidance or anxiety communicate, and in this study's case, specifically on Facebook. In addition, the way in which these individuals deal with being separated from lends a natural association with attachment theory to begin studying the dimensions of attachment alongside grief. These aspects of attachment theory will be explained further in the following sections.

Attachment theory and grief. Attachment dimensions have been utilized to study how one will adjust after loss (Schenck et al., 2016) and have been found to be an important mediator in how people respond to the loss of an attachment figure (Bowlby, 1980; Worden, 1983). Individuals with secure attachment have been shown to promote a better adjustment to grief after the passing of a spouse (Waskowic & Chartier, 2003). In addition, Waskowic and Chartier (2003) found that individuals who had a secure attachment to their spouse during the deceased's life, would continue that attachment when their partner died. This finding supports the idea of a continuing bond that is held when a person dies.

Conversely, those with insecure attachment tendencies, like those with high attachment avoidance and anxiety, have been found to have more feelings of anger, despair, guilt, death anxiety, depersonalization, social isolation, and rumination (Waskowic & Chartier, 2003). Bowlby (1980) also found that those who are insecure in attachment have a harder time adjusting to loss of an attachment figure. More specifically, those with high attachment anxiety have low self-efficacy during times of loss and usually demonstrate clinging and help-seeking behaviors (Worden, 1983). Individuals who demonstrate high attachment avoidance also do not adjust well to grieving situations. After losing an attachment figure, individuals may show limited symptoms, but may experience reactions later on (Worden, 1983).

Most of the previous research assesses attachment and grief by analyzing the loss of an attachment figure (Bowlby, 1980; Waskowic & Chartier, 2003; Worden, 1983), but Klass (2006) argued that attachment is more than an attachment figure as we mature. Our identities are made up of additional attachments beyond parents and romantic partners and can include many individuals from our social lives (Klass, 2006). Klass (2006) suggested that differences in viewing attachment figures could be a cultural difference. More individualistic cultures may have weaker attachment systems with others, therefore making the loss of an attachment figure a focal point of current bereavement research (Klass, 2006). This study supplements the current literature by addressing the loss of attachment figures, but also adds insight into the loss of other individuals that may not be viewed as directly associated with the bereaved.

Attachment theory and social media usage. Attachment theory has been used to study grief and social media usage. Hart et al. (2015) explained that Facebook offers advantages to those with attachment anxiety and avoidance. Since those high in attachment anxiety care deeply about self-presentation, they are able to decide what their Facebook friends see and do not see (Hart et al., 2015). Those who are high in attachment avoidance also benefit from social media usage because they can still communicate with others, but without physical proximity (Hart et al., 2015).

The disconnected tendency for attachment avoidant individuals was also observed by Lin (2015) who found that individuals with attachment avoidance dislike social interactions on Facebook, especially when it came to needing emotional support. Yaakobi and Goldenburg (2014) found similar findings when asking participants (N=14) if they would post messages online that varied from low threat to high threat messages. They found that those individuals high in avoidance were not willing to post high threat messages on Facebook. Nonetheless, those Facebook interactions did help those with attachment anxiety, who were more likely to use Facebook as a beneficial tool, because it helped reduce anxiety about social interactions (Lin, 2015). However, similar findings may not be the case when the messages are deemed high threat. Yaakobi and Goldenburg (2014) found that when a potential message was deemed a high threat, those with attachment anxiety are not willing to share these high threat messages on Facebook. However, if the message is neutral, they are more willing than those without attachment anxiety to share. These studies examined in this section illuminate the need for additional research on grief messages on Facebook. Several advantages of Facebook include being able to interact with others online without physical proximity, the option to decide what other Facebook users do and do not see, the ability to assess if a message is high threat or low threat prior to posting can all be aids to grieving for those with attachment anxiety or avoidance. The unique social media advantages may assist in bereavement; however, with little academic scholarship around the topic the bereaved may face additional

challenges in coping with their grief. This study aims to help individual communication with the deceased online.

Communicating with the Deceased Online

Communication with known individuals. Social media has been shown to make one feel that they still have a connection with those who have died by not ceasing communication (DeGroot, 2012; Rossetto et al., 2015). This interpersonal connection aligns with the two-track model of bereavement's second track which discussed a need for an ongoing relationship with the deceased (Koblenz, 2016; Malkinson et al., 2006; Rubin, 1999). When individuals commented on posts, the majority of posts were directly addressing the deceased, showing relational continuity (DeGroot, 2012; Kern et al., 2012, Klastrup, 2015; Williams & Merten, 2009). Furthermore, Sigman (1991) discovered that communication only stops when both parties cease the communication, even if one person is not physically present, the communication can continue; a concept further illustrated through the continuing bonds model (Klass, Silverman, & Nickman, 1996).

Posting on Facebook is a way to continue this communication by posting on people's walls, direct messaging them, and posting a status about them. The ongoing communication has been observed as a benefit of not deleting an account as friends and family can maintain a sustained connection and have a way to say good-bye (Rossetto et al., 2015). Ongoing communication can continue through Facebook by providing an opportunity for the bereaved to post updates about important life events, memories, or current feelings the bereaved may be experiencing with the deceased (DeGroot, 2012; Williams & Merten, 2009).

Communication with strangers. Previous research has established that one of the main disadvantages of communicating about the deceased on Facebook was the act of bandwagon mourners (Rossetto et al., 2015), grief tourists (Marwick & Ellison, 2012) or as DeGroot (2012) coined them, emotional rubberneckers. These types of people were not necessarily connected to the deceased during their life, but take part in posting about the deceased and are able to watch the emotions of others posting on the deceased's page. Marwick and Ellison (2012) observed that those who did not know the deceased posted about having some sort of connection to the person such as "being a mother, losing someone in a similar fashion, or being from the same town" (p. 388).

Rossetto et al. (2015) found that emotional rubberneckers actions are perceived as unhelpful to those grieving and these people are viewed as trying to get undeserved attention and sympathy. Additionally, they found that in some messages, it is hard to tell if the person actually knows the deceased because a majority of people will post "RIP" or another combination of the stock phrase (Rossetto et al., 2015). As a result, the memorial page serves the function of a "candle or flower left by a stranger, never to return to the site again" (p. 161). Although these digital comments are not negative in nature, they are seen as adverse by those who were close to the deceased (Klastrup, 2015). However, there are also instances of intentionally nasty comments left on memorial pages, especially if the death was extensively covered by the media such as a tragic accident or homicide (Kern et al., 2012). Although this phenomenon of posting on a deceased stranger's page may seem out of the ordinary to some, the emotional connection to the deceased continues to be a factor in posting (Marwick & Ellison, 2012). **Celebrity deaths on Facebook**. The emotional connection that would lead one to posting on a deceased stranger's page is also seen in deaths of celebrities via their parasocial relationships. In Horton and Wohl's seminal 1956 work, they define parasocial relationships as the type of relationship that is built when people interact with media figure as if they were in an actual interpersonal relationship with that individual (as cited in Derrick, Gabriel & Tippin, 2008). These parasocial relationships may be with fictional characters, news anchors, or other types of celebrities and are often seen to mimic real relationships (Derrick et al., 2008). People tend to respond to parasocial relationships in the same way they would a real relationship (Derrick et al., 2008), but with little to no face-to-face interaction, there is little risk of rejection associated with these interactions. In the case of those with attachment anxiety who often fear rejection (Smith et al., 1999), parasocial relationships could prove beneficial and may lead to a significant relationship between attachment anxiety and posting after the death of a celebrity.

Memorial pages on Facebook. Creating a memorial page is an option for users who wish to create an online tribute to the deceased. A memorial page can create a place for the bereaved to share messages, photos, and memories of the deceased (Marwick & Ellison, 2012). The memorial page could also serve as a way of news dissemination about the funeral, or any other memorial events, which is seen as a primary benefit of creating a memorial page (Marwick & Ellison, 2012; Rossetto et al., 2015). The memorialization pages may also be set up so that the page itself can be liked by others. However, this type of page does pose problems because people are likely to associate the number of likes with the impact the person had on others during their life (Marwick & Ellison, 2012). Pages can be created on Facebook or through another site such as a blog and are seen as

the "go-to" places for those affected by the death (Klastrup, 2015). One explanation for the popularity of memorial pages could be because posting is focused on the written word, it is a way to express feelings without physically showing visible distress (i.e. crying) and could lend itself to more unguarded communication (Kern, Forman, & Gil-Egui, 2012).

Although individual subjects make up the majority of memorial pages, they are also popular for collective subjects, victims of violent deaths, animals, fictional characters, and celebrities (Kern et al., 2012). Memorial pages have their advantages, because if the deceased member has their Facebook page deleted, people may still be looking for online memories. Memorialization pages have been seen as helpful for many individuals because they have a digital place to remember the deceased, and they provide people who cannot be in attendance at the funeral a chance to honor the deceased (Rossetto et al., 2015). Carroll and Landry (2010) observed that the highest frequency of visiting a deceased person's Facebook page was right after death. When participants in Carroll and Landry's (2010) study were asked what they would do if a friend was in a car accident over Spring Break, 85% said they would likely or certainly join a memorial group.

Facebook policies for the deceased's accounts. Social media has created a new context in which users grieve. While grief is a taboo topic, Facebook users are still posting about the deceased (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Elison, 2012; McCallig, 2014; Rosetto et al., 2015). This change in grieving trends has lead Facebook to change its policies on what happens to our pages once we die. On their Help Center, Facebook mentions that there are a few possibilities

for the deceased's accounts. First is a memorialized account which is decided by the individual prior to their passing (Facebook, 2016a). If this option is selected, a legacy contact must be selected and this person is responsible for notifying Facebook that the account should be changed to a memorial account. Any profile without a legacy contact cannot be turned into a memorialized account, but people under 18 years of age cannot select a legacy contact until they are of legal age. This means that the Facebook page of the deceased would remain active unless family members contacted Facebook to change those settings. Additionally, the legacy contact will not be able to log into the account or post (Facebook, 2016b). After someone passes away, "remembering" will be shown next to their name on the profile. Any content that they shared including statuses, videos, and pictures will remain on the page. Depending on the settings, others could still post on the memorialized page's timeline. Any pages that the deceased was an administrator on will no longer show that they are managing that page and pages where the sole administrator was the deceased can be removed from Facebook with a valid request. Once the account is memorialized, it will no longer show in people you may know or birthday reminders (Facebook, 2016a). Second, users could simply leave their page active after they have died (Facebook, 2016a). However, this means that those who are Facebook friends with the deceased will still receive reminders such as birthday reminders or friendship anniversaries. Additionally, those who remain Facebook friends with the deceased can still post on the deceased's wall. Besides a lack of activity from the user, the deceased's Facebook page would still look as though it did when the user died.

Although Facebook is trying to come up with the best solution to deal with the deceased's profiles, some have criticized the memorialization policy saying that counting

on the public to notify Facebook can lead to accounts being memorialized before the person is dead (McCallig, 2013). For example, if a woman chooses her husband as her legacy contact and the two divorce, the husband could get revenge by telling Facebook she has died. After this, the account would turn into a memorialized account. As a result, not one person could log into the account once it had been changed. Thus, the woman would have to contact Facebook to have her account re-activated. This may be an atypical situation, but one that is plausible under the current Facebook memorialized account policy. McCallig (2013) mentioned there are many problems with the current policy, but one positive aspect is that the legacy contact system empowers people because while they are alive they can choose what happens to their accounts once they die. McCallig (2013) believes that the policies will most likely be a debate of lawyers and estate planners who may take Facebook to court over the memorialization policy to make accounts be seen as digital assets that would require the same legal counsel as other assets (McCallig, 2013). DeSpelder and Strickland (2015) agree that this is a complicated situation for digital assets ownership. DeSpelder and Strickland (2015) add:

Families and online companies may find themselves on opposite sides in a battle for access to digital assets: social media accounts, online photos, and other records...Whereas a safe deposit box at the bank becomes part of the deceased's estate and whoever controls the estate can open the box, the situation with online assets is less clear. (p. 43)

Although social media is not currently seen as a digital asset, this is an important area to study. If one chooses not to have a memorialized account, the account can be deleted if the user chooses this option in the settings before they die. However, a legacy contact still must be chosen to alert Facebook of the passing (Facebook, 2016a). If friends and family still wish to use Facebook to memorialize the deceased, Facebook suggests creating a memorial page to share memories. A request for memorialization or deletion of the account can be requested by friends and family if the individual had not changed the settings while they were alive, but they must go through a requesting process if they wish to do so (Facebook, 2016a).

Studying attachment dimensions and examining how different types of people would react online to a death could help Facebook and its users create an online space that would assist those grieving. For example, if more people want to post online, memorial pages could become more commonplace so that those who want to post have a place to do so. Conversely, if results from this study indicate that a majority of people do not like posting online once someone has died, the memorialization feature on Facebook could be more heavily promoted.

Although these features currently exist, many do see Facebook's policies as flawed (McCallig, 2013). One solution that this study poses is to examine Facebook user's preferences of posting after the death of a known or unknown individual. By examining those with attachment avoidance and attachment, we can see a variety of respondents with different personality traits, to better understand how a variety of people would react on Facebook following a death. Since Facebook is the primary site used for posting grief messages, (Ambrosino, 2016; Degroot, 2012; Degroot 2014; Kern, Forman, & Gil-Egu, 2012; Klastrup, 2015; Marwick & Ellison, 2012; McCalling, 2014; Pennington, 2013; Rossetto et al., 2015) Facebook will also be used in this study to assess likelihood to post online.

The current literature not only illustrates that Facebook is the best social media outlet for this study, but that attachment theory is the appropriate fit to study grief messages. Moreover, the current literature proves that the way in which people grieve is different than once believed and social media, specifically Facebook is adding to the change in the grief process.

In summary, grief is no longer seen as a systematic process (Dennis, 2012). The bereaved can experience reactions to grief that may include personal growth, detachment, disorganization, despair, and anger; these symptoms are not seen as stages, but one may experience the reactions in different orders or some symptoms not at all (Hogan, 2001). One way in which people cope is through a maintained relationship with the deceased known as a continuing bond, where although one party is absent, the relationship continues (Klass et al., 1996; Klass, 2006; Field, 2006). Futhermore, this relationship has been seen to continue on Facebook (Degroot, 2012; Degroot 2014; Kern, Forman, & Gil-Egu, 2012; Klastrup, 2015; Marwick & Ellison, 2012; McCalling, 2014; Pennington, 2013; Rossetto et al., 2015).

The continued attachment to the deceased is been studied using attachment theory (Bowlby, 1980; Schenck et al., 2016; Waskowic & Chartier, 2003; Worden, 1983). The basis of attachment theory is the separation from an attachment figure (Bowlby, 1969) making studying grief and attachment an ideal fit. Individuals with the attachment dimensions of anxiety and avoidance have been shown to exhibit more feelings of anger, despair, guilt, death anxiety, depersonalization, social isolation, and rumination while grieving (Waskowic & Chartier, 2003). Studying the reactions of those identifying with

these attachment dimensions gives researchers a look into how attachment affects grief specifically on Facebook.

Researchers have examined grief messages on Facebook thus far utilizing content analysis (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) to observe the types of mourning behaviors online. This study will examine these online grief behaviors through quantitative research which allows for data on more respondents than previous scholarship. Based on the review of literature and to extend understanding of grief messages on Facebook based on attachment dimensions, this study proposes the following hypotheses and research questions.

Research Question and Hypotheses

H1a: As attachment anxiety increases among participants, the likelihood of posting a status update following the death of an individual increases.

H1b: As attachment anxiety increased among participants, the likelihood of posting on the deceased's wall following the death of that individual increases.

H2a: As attachment avoidance increases, the likelihood of posting a status update following the death of an individual decreases.

H2b: As attachment avoidance increases, the likelihood of posting on the deceased's wall following the death of that individual decreases.

RQ1: Are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction to a death on Facebook (status update, posting on the deceased's wall, direct messaging) in the following scenarios?

- A. Posting a status update on your Facebook page if a family member died.
- B. Posting a status update on your Facebook page if a friend died.
- C. Posting a status update on your Facebook page if an acquaintance died.
- D. Posting a status update on your Facebook page if a celebrity you are familiar with died.
- E. Posting a status update on your Facebook page if someone from your community that you did not know died.
- F. Posting a status update on your Facebook page if someone you do not know at all died.
- G. Writing on a deceased family member's Facebook page.
- H. Writing on a deceased friend's Facebook page.
- I. Writing on a deceased acquaintance's Facebook page.
- J. Writing on a deceased celebrity's Facebook page that you were familiar with.
- K. Writing on a deceased person's Facebook page from your community that you do not know personally.
- L. Writing on a deceased person's Facebook page that you do not know at all.
- M. Direct messaging a deceased family member on Facebook Messenger.
- N. Direct messaging a deceased friend on Facebook Messenger.
- O. Direct messaging a deceased acquaintance on Facebook Messenger.
- P. Direct messaging a deceased celebrity that you are familiar with on Facebook Messenger.
- Q. Direct messaging a deceased community member that you do not know personally on Facebook Messenger.

R. Direct messaging a deceased person you did not know at all on Facebook

Messenger.

Chapter 3

Methodology

The current literature established the connection between attachment theory and grief (Bowlby, 1980; Schenck, Eberle, & Rings, 2016; Waskowic & Chartier, 2003; Worden, 1983) and recent studies have added attachment theory scholarship to computer mediated communication studies (Hart, Nalling, Bizer, & Collins, 2015; Lin, 2015). Thus, additional research is needed which explores how attachment dimensions relate to grief messages on Facebook. Based on the knowledge gained from previous scholarship, hypotheses are able to be deduced, yet another research question must be addressed to fully understand this phenomenon. In this study, the following hypotheses and research question was explored.

Research Question and Hypotheses

H1a: As attachment anxiety increases among participants, the likelihood of posting a status update increases.

H1b: As attachment anxiety increases among participants, the likelihood of posting on the deceased's wall increases.

H2a: As attachment avoidance increases, the likelihood of posting a status update decreases.

H2b: As attachment avoidance increases, the likelihood of posting on the deceased's wall decreases.

RQ1: Are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction

to a death on Facebook (status update, posting on the deceased's wall, direct messaging) in the following scenarios?

- A. Posting a status update on your Facebook page if a family member died.
- B. Posting a status update on your Facebook page if a friend died.
- C. Posting a status update on your Facebook page if an acquaintance died.
- D. Posting a status update on your Facebook page if a celebrity you are familiar with died.
- E. Posting a status update on your Facebook page if someone from your community that you did not know died.
- F. Posting a status update on your Facebook page if someone you do not know at all died.
- G. Writing on a deceased family member's Facebook page.
- H. Writing on a deceased friend's Facebook page.
- I. Writing on a deceased acquaintance's Facebook page.
- J. Writing on a deceased celebrity's Facebook page that you were familiar with.
- K. Writing on a deceased person's Facebook page from your community that you do not know personally.
- L. Writing on a deceased person's Facebook page that you do not know at all.
- M. Direct messaging a deceased family member on Facebook Messenger.
- N. Direct messaging a deceased friend on Facebook Messenger.
- O. Direct messaging a deceased acquaintance on Facebook Messenger.
- P. Direct messaging a deceased celebrity that you are familiar with on Facebook Messenger.

- Q. Direct messaging a deceased community member that you do not know personally on Facebook Messenger.
- R. Direct messaging a deceased person you did not know at all on Facebook
 Messenger.

This study is positivistic as quantitative data was gathered from surveys. Current research in this area primarily uses content analysis (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) to gather data. Therefore, quantitative, positivistic research has not yet been fully utilized by researchers when studying messages of grief online. Rossetto, Lannutti, and Stauman (2015) and Carroll and Landry (2010) used a positivistic methodology which demonstrates the usefulness of this method for studying grief messages on Facebook.

Frey, Botan, and Kreps (2000) stated that positivistic research can be useful and that the findings can be more persuasive than naturalistic research. The findings from this quantitative study emerged through the use of surveys. Because of the delicate nature of the study, a questionnaire proved useful as surveys allow participants to answer the questions when they are ready and surveys obtain responses from people who may not be willing to talk with researchers about this topic (Frey et al., 2000). Participants were asked to complete an online QuestionPro survey that first assessed their attachment dimensions using the Experiences in Close Relationships – Short Form (Wei et al., 2007) scale and addressed issues specific to grief messages and their intent to post a status update, post on the deceased's wall, or direct message the deceased, with the deceased varying from a known individual to a stranger.

Participants

A volunteer sample was taken from the researcher's Facebook page urging the researcher's Facebook friend group to take the survey. This proved helpful because volunteers tend to "have greater intellectual ability, interest, and motivation" (Frey et al., 2000). Snowball sampling was utilized by encouraging participants to share the post with their Facebook friends so that the optimum amount of survey responses can be gathered. This allowed a larger amount of responses (Frey et al., 2000). This sampling method proved useful in gaining participants that varied in age, location, and educational backgrounds. The total number of participants was 257.

This study utilized the nondirective questionnaire method because participants must have a Facebook page and be over 18 years of age to be considered eligible for the study. The first two questions of the survey assessed eligibility and if participants answer no to either they were not taken onto the next question. Once participants answer the initial questions, the rest of the questions will be directive. This directive method for the questions was utilized since this method allows researchers to easily gather information from many people to compare (Frey et al., 2000).

Instrumentation/Operationalization

The previously-established twelve-question Experiences in Close Relationships Scale – Short Form (Wei et al., 2007) will be utilized in this survey as the primary instrumentation. Previous reliability for the ECR-S is .78 for anxiety and .84 for avoidance. For this survey, reliability of the ECR-S was $\alpha = .78$. For the anxiety subscore $\alpha = .78$ and for avoidance $\alpha = .79$. The ECR-S questionnaire was chosen because the questions assess attachment dimensions dimensionally based on levels of attachment anxiety and attachment avoidance. Wei et al. (2007) asked respondents to assess how closely they relate with a given statement on a 7-point Likert-type scale with one being disagree strongly and seven being agree strongly. The higher the number and more strongly participants agree, the closer they are to identifying with that attachment anxiety or avoidance based on the question. The scale uses statements such as "It helps to turn to my romantic partner in times of need" and "I need a lot of reassurance that I am loved by my partner." Half of the questions assess attachment anxiety and the other half attachment avoidance. This questionnaire can be found in its entirety in Appendix A. Questions that assess attachment avoidance are noted in bold text.

Other adaptations of the scale such as the Experiences in Close Relationships full survey (Brennan et al., 1998) assess attachment by using 36 questions, but the short version was chosen for length. Frey et al. (2000) say mortality in participants can occur due to loss of interest when taking a survey that may be too long. Having participants complete the Experiences in Close Relationships (Brennan et al., 1998) would require participants to answer the 36 questions in addition to the questions regarding their likelihood to post online following the death of a loved one or stranger and this could lead to mortality in participants who lose interest in the survey. They also could experience fatigue effect after answering many questions and not provide accurate information in later items (Frey et al., 2000) which is important to avoid in this survey since the questions pertaining to grief messages are at the end of the survey.

Since the previously-established Experiences in Close Relationships – Short Form (Wei et al., 2007) attachment questionnaire uses a 7-point Likert-type scale, the remainder of the questions use this format for consistency. After analyzing their

attachment tendencies, participants will be asked questions pertaining to what they would post online following the death of a known individual or a stranger with varying degrees of knowing the individual. Additionally, the questions ask participants if they would post a status update, post in the deceased's wall, or direct message each of the varying levels of knowing the deceased. These questions are ordered in a tunnel format with demographic information at the end which will allow for a consistency in the coding of responses (Frey et al., 2000). The questions ask participants to rate scenarios such as "What is your likelihood of posting a status update on your Facebook page if a family member died?" and "What is your likelihood of direct messaging a deceased community member you did not personally know on Facebook Messenger?" A complete list of questions can be found in Appendix B. By asking questions about attachment, degree to which the person is known, and how they would post, the researcher can analyze interaction effects. This is a common method used to study complex ways that variables are related (Frey et al., 2000).

Results of this survey should be interpreted based on the possible sample population of college students. Although not all participants will be among this age group, since the majority are predicted to be, the age demographic should be a consideration in the interpretation of survey results. This young audience is not necessarily representative of every age group, but due to the high volume of college students using social media and the convenience of sampling them, this target population was chosen to study.

Analysis

Hypotheses: Hypothesis one stated, as attachment anxiety increases among participants, the likelihood of posting publically (status update or posting on the deceased's wall) increases. This hypothesis was tested using a correlation. Results were analyzed to see if the direction of the relationship is positive or negative and to determine the strength of that association. A correlation of .4 and above is ideal to show a strong relationship between the variables. Additionally, the *p* value was analyzed to see if the value is significant at less than .05.

Hypothesis two stated, as attachment avoidance increases, the likelihood of posting publically (status update or posting on the deceased's wall) decreases. This hypothesis was also tested by using a correlation. Results were analyzed to see if the direction of the relationship is positive or negative and to determine the strength of that association. A correlation of .4 and above would be ideal to show a strong relationship between the variables. Additionally, the p value was analyzed to see if it is significant at less than .05.

Research Question. Research question one states, are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction to a death on Facebook (status update, posting on the deceased's wall, direct messaging)? Various degrees of knowing the individual were presented family, friend, acquaintance, celebrity, community member, and stranger. This question was analyzed using an independent samples Kruskal-Wallis test because of the uneven number of participants in each of the four attachment style groups. The data was analyzed using a confidence level of 95%, so if the p value is less than .05 the results will be significant.

Chapter 4

Results

This study examined the relationship between attachment dimensions and the likelihood to post on Facebook following the death of individuals with varying degrees of relationships with the poster. To test the hypotheses and address the research question, a volunteer sample was collected using Facebook as the medium for survey distribution. A post containing the survey link was posted onto Facebook and shared by others, utilizing the snowball sampling method. In total, 257 participants completed the survey. The data collection began on January 16, 2018 and ended on February 12, 2018. The completion rate for the data was 65.49% with each participant taking about four minutes to complete the survey. This chapter analyses the likelihood for individuals with secure, preoccupied, dismissive, and fearful avoidant attachment styles to post on Facebook following the death of a family member, friend, acquaintance, community member, celebrity, and a stranger.

Demographic Information

Participants included 257 individuals. Females made up 77.8% (n = 207) of the sample, males 15.4% (n = 41), 1.9% (n = 5) were gender variant/non-conforming and .4% (n = 1) preferred not to say. The mean age of participants was 35.01 (SD = 13.280). A majority of participants identified themselves as Caucasian (91.4%), 2.3% identified as Hispanic or Latino, 1.1% identify with Asian/Pacific Islander, .8% identify with Native American or American Indian and the remainder 1.1% selected other. Nine participants (3.4%) did not respond to the question.

Instrumentation

Each survey participant was asked a series of demographic questions, as well as completed the Experiences in Close Relationships Scale – Short Form (Wei et al., 2007). This scale established which of the attachment styles best-matched participant's relationship experiences, secure, preoccupied, dismissing avoidant, or fearful avoidant. The mean and standard deviation was found for both attachment anxiety and avoidance (M = 3.64, SD = 1.21) and avoidance (M = 2.44, SD = 1.00). Moreover, the survey allowed for the identification of a specific attachment style for each participant. Table one depicts the attachment styles of the participants.

Table 1

Attachment Style	Frequency	Percent
Secure	152	57.1
Preoccupied	89	33.5
Dismissing	8	3.0
Avoidant		
Fearful Avoidant	10	3.8
Total	266	100

Attachment Styles of Participants

After the ECR-S, participants responded to a series of questions of 18 questions relating to their likelihood to post on their page, post on the deceased's page, or direct message the deceased followed the previously established attachment dimensions' scale. Table two depicts the mean and standard deviation for each likelihood question.

Table 2

Likelihood Question	Mean	Standard Deviation
Status Update		
Family Member	4.91	1.966
Friend	4.82	1.908
Acquaintance	2.96	1.755
Celebrity	2.94	1.926
Community Member	2.07	1.436
Stranger	1.33	.730
Deceased's Facebook Page		
Family Member	3.50	2.132
Friend	3.55	2.175
Acquaintance	2.09	1.471
Celebrity	1.50	1.077
Community Member	1.33	.743
Stranger	1.12	.396
Direct Messaging		
Family Member	2.04	1.724
Friend	1.96	1.655

Likelihood Questions Mean and Standard Deviation

Acquaintance	1.27	.726
Celebrity	1.10	.402
Community Member	1.09	.359
Stranger	1.07	.316

The following hypotheses and research questions were proposed for the study.

H1a: As attachment anxiety increases among participants, the likelihood of posting a status update increases.

H1b: As attachment anxiety increases among participants, the likelihood of posting on the deceased's wall increases.

H2a: As attachment avoidance increases, the likelihood of posting a status update decreases.

H2b: As attachment avoidance increases, the likelihood of posting on the deceased's wall decreases.

RQ1: Are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction to a death on Facebook (status update, posting on the deceased's wall, direct messaging) in the following scenarios?

A. Posting a status update on your Facebook page if a family member died.

B. Posting a status update on your Facebook page if a friend died.

C. Posting a status update on your Facebook page if an acquaintance died.

D. Posting a status update on your Facebook page if a celebrity you are familiar with died.

- E. Posting a status update on your Facebook page if someone from your community that you did not know died.
- F. Posting a status update on your Facebook page if someone you do not know at all died.
- G. Writing on a deceased family member's Facebook page.
- H. Writing on a deceased friend's Facebook page.
- I. Writing on a deceased acquaintance's Facebook page.
- J. Writing on a deceased celebrity's Facebook page that you were familiar with.
- K. Writing on a deceased person's Facebook page from your community that you do not know personally.
- L. Writing on a deceased person's Facebook page that you do not know at all.
- M. Direct messaging a deceased family member on Facebook Messenger.
- N. Direct messaging a deceased friend on Facebook Messenger.
- O. Direct messaging a deceased acquaintance on Facebook Messenger.
- P. Direct messaging a deceased celebrity that you are familiar with on Facebook Messenger.
- Q. Direct messaging a deceased community member that you do not know personally on Facebook Messenger.
- R. Direct messaging a deceased person you did not know at all on Facebook
 Messenger.

Attachment anxiety and likelihood of posting a status update

Hypothesis 1a. stated that "As attachment anxiety increases among participants, the likelihood of posting a status update following the death of an individual increases." This hypothesis was partially supported and is further detailed with each scenario below. A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of a family member. A significant correlation was not found (r(256) = .106, p >.05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of a friend. A weak, but positive relationship was found (r(256) = .144, p < .05) indicating a statistically significant correlation between the two variables. A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of an acquaintance. A significant relationship was not found (r(256) = .019, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of a celebrity. A weak, but positive relationship was found (r (256) = .139, p < .05) indicating a statistically significant correlation between the two variables. A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of a community member the participant did not know. A significant relationship was not found (r (256) = .077, p > 0.077.05). Finally, a Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post a status update following the death of someone the participant did not know. A significant relationship was not found (r (256) = .110, p > .05). In summary, significant correlations were found between attachment anxiety and the likelihood to post a status update after the death of a friend

and the death of a celebrity. However, significant correlations were not found between participant attachment anxiety and their likelihood to post a status update following the death of a family member, an acquaintance, community member, and stranger.

Attachment anxiety and likelihood of posting on the deceased's wall

Hypothesis 1b. stated that "As attachment anxiety increases among participants, the likelihood of posting on the deceased's wall following the death of that individual increases." This hypothesis was partially supported and is further detailed with each scenario below. A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of a family member. A significant relationship was not found between the variables (r(256) = .068, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of a friend. A significant relationship was not found (r(256) = .093, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of an acquaintance. A significant relationship was not found (r(254) = .013, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of a celebrity they are familiar with. A significant relationship was not found (r(254) = .079, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of a community member that they did not know personally. A weak, but statistically

significant correlation was found (r (253) = .126, p < .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment anxiety and their likelihood to post on the deceased's wall following the death of someone they did not know at all. A significant relationship was not found (r (254) = .075, p > .05). In summary, significant correlations were found between attachment anxiety and the likelihood to post on the deceased's wall in the case of a community member. Significant correlations were not found with attachment anxiety and posting on the deceased's wall in the case of a family member, friend, acquaintance, celebrity, or stranger.

Attachment avoidance and likelihood of posting a status update

Hypothesis 2a. stated that "As attachment avoidance increases among participants, the likelihood of posting on a status update following the death of on individual decreases." This hypothesis was partially supported and is further detailed with each scenario below. A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a status update following the death of a family member. A significant relationship was found (r (255) = -.161, p < .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of a friend. A significant relationship was not found (r (255) = -.096, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of a friend. A significant relationship was not found (r (255) = -.096, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of an acquaintance. A weak, but statistically significant relationship was found between the stated variables (r (255) = -.128, p < .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of a celebrity they are familiar with. A significant relationship was not found between the variables (r (255) = -.002, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of someone from their community. A significant relationship was not found between the variables (r (255) = -.065, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post a status update following the death of someone they did not know at all. A significant relationship was not found between the variables between the variables (r (255) = .080, p > .05). In summary, significant correlations were found between attachment avoidance and their likelihood to post a status update in the case of a family member and an acquaintance. Significant correlations were not found between attachment avoidance and participants' likelihood to post a status update in the case of a friend, celebrity, community member, or stranger.

Attachment avoidance and likelihood of posting on the deceased's wall

Hypothesis 2b. stated that "As attachment avoidance increases among participants, the likelihood of posting on the deceased's wall following the death of that individual decreases." The hypothesis was not supported. A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased family member's wall. A significant relationship was not found between the variables (r (257) = -.088, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased friend's wall. A

significant relationship was not found between the variables (r(257) = -.029, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased acquaintance's wall. A significant relationship was not found between the variables (r(256) = -.045, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased celebrity's wall. A significant relationship was not found between the variables (r(255) = .020, p > .05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased community member's wall. A significant relationship was not found between the variables (r(254) = -.015, p >.05). A Pearson correlation coefficient was calculated for the relationship between participants' attachment avoidance and their likelihood to post on a deceased stranger's wall. A significant relationship was not found between the variables (r (255) = .031, p > .05). In summary, significant correlations were not found between attachment avoidance and the likelihood to post on the deceased's wall in any of the given relationships of family member, friend, acquaintance, celebrity, community member, or stranger.

Attachment styles and Facebook reactions

Research Question one asked "Are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction to a death on Facebook (status update, posting on the deceased's wall, direct messaging) in various situations? To answer this question, a series of independent samples Kruskal-Wallis tests were conducted for each scenario. Four of the eighteen likelihood scenarios yielded significant results. The significant results are further discussed below. Table five includes the test statistic and level of significance for all 18 scenarios.

The Kruskal-Wallis test was conducted to compare the four attachment styles and the participant's likelihood to post on the deceased's wall following the death of a friend. A significant result was found (H(3) = 10.280, p < .05), indicating that the four groups of attachment styles differed from each other. Follow-up pairwise comparisons indicated that those individuals who identify as secure are less likely to post on a deceased friend's wall than those individuals with a preoccupied attachment style. Additionally, the pairwise comparisons indicated that those with preoccupied attachment are more likely to post on a deceased friend's wall than their dismissing avoidant counterparts.

Another Kruskal-Wallis test conducted compared the four attachment styles and the likelihood to write on a deceased person's Facebook page from their community that the participant did not know personally. A significant result was found (H(3) = 9.660, p <.05), indicating that the four groups differed from each other. Follow-up pairwise comparisons indicated that preoccupied attachment individuals are more likely than secure attachment individuals to write on a deceased community member's Facebook page.

Additionally, significant results were found when a Kruskal-Wallis test was conducted comparing attachment styles and the likelihood to direct message a deceased family member on Facebook messenger (H(3) = 9.865, p < .05). Follow-up pairwise comparisons indicate that preoccupied attachment individuals were more likely than secure attachment individuals to direct message deceased family members. Lastly, significant results were found when a Kruskal-Wallis test was conducted comparing the four attachment styles and the likelihood to direct message a deceased friend on Facebook Messenger (H(3) = 10.755, p < .05). Follow-up pairwise comparisons indicated that those with a preoccupied attachment style were more likely than those individuals with secure attachment to direct message a deceased friend.

Table 3

Scenario Description	Number in Table 4 & 5
Status Update	
Family	1
Friend	2
Acquaintance	3
Celebrity	4
Community Member	5
Stranger	6
Deceased's Wall	
Family	7
Friend	8
Acquaintance	9
Celebrity	10
Community Member	11
Stranger	12
Direct Messaging	
Family	13
Friend	14
Acquaintance	15
Celebrity	16
Community Member	17
Stranger	18

Description of Scenario and Assigned Variable Number for Table 4 and 5 Descriptions

Table 4

Correlation Matrix of Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	-																			
2	.217	-																		
3	.106	161	-																	
4	.144	096	.863	-																
5	.019*	128	.561	.584	-															
6	.139	002*	.288	.355	.453	-														
7	.077.1	065	.285	.323	.556	.456	-													
8	10	.080	.107	.134	.335	.308	.526	-												
9	.068	088	.397	.440	.450	.219	.265	.100	-											
10	.093	029*	.362	.469	.405	.274	.275	.081	.867	-										
11	.013*	045	.294	.315	.517	.269	.327	.192	.625	.656	-									
12	.079	.020*	.178	.231	.302	.413	.294	.312	.291	.339	.563	-								
13	.126	015*	.150	.159	.218	.220	.368	.274	.249	.280	.493	.549	-							
14	.075	.031	.074	.075	.132	.054	.319	.330	.147	.160	.293	.264	.634	-						
15	.192	074	.207	.180	.187	.020*	.112	005*	.438	.400	.314	.000*	.086	.101	-					
16	.198	038*	.149	.199	.127	.030*	.080	.004*	.386	.439	.284	.022*	.080	.109	.888	-				
17	.129	029*	.094	.065	.218	.060	.096	.136	.282	.276	.432	.171	.281	.334	.519	.523	-			
18	.073	.069	.025*	.018*	.184	.070	.146	.228	.115	.138	.304	.282	.400	.510	.191	.200	.590	-		
19	.043	.003*	.039*	.029*	.169	.009*	.195	.254	.132	.134	.269	.188	.433	.609	.233	.236	.583	.858	-	
20	.051	.031*	.035*	.021*	.161	.041	.198	.259	.114	.117	.273	.202	.446	.645	.181	.177	.527	.863	.940	

*Denotes significant results _____

Table 5

Likelihood Scenario	Н	р
1	2.916	.405
2	5.769	.123
3	2.584	.460
4	5.417	.144
5	2.180	.536
6	6.957	.073
7	7.239	.065
8	10.280	.016*
9	2.894	.408
10	2.453	.484
11	9.620	.022*
12	1.679	.642
13	9.865	.020*
14	10.755	.013*
15	1.766	.622
16	2.199	.532
17	0.897	.826
18	1.471	.689

Kruskal-Wallis Test Results

*Denotes significant results

Summary

This chapter discussed the results of the four hypotheses using correlations and the research question using an independent samples Kruskal-Wallis test. Three of the hypotheses yielded partially significant results. The research question also produced partially significant results depending on the scenario. Significant differences in attachment styles were shown in individuals when writing on a deceased friend's Facebook page, writing on a deceased's community member's Facebook page, direct messaging a deceased family member and direct messaging a deceased friend on Facebook. Further explanation of the results are elaborated upon in chapter five.

Chapter 5

Discussion

This study investigated attachment styles and their relationship to grief messages on Facebook. Previous studies analyzed grief on Facebook mostly through the use of content analysis (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) to observe mourning behaviors online. However, this study evaluated these behaviors through the use of surveys to assess the following hypotheses and research question.

H1a: As attachment anxiety increases among participants, the likelihood of posting a status update increases.

H1b: As attachment anxiety increases among participants, the likelihood of posting on the deceased's wall increases.

H2a: As attachment avoidance increases, the likelihood of posting a status update decreases.

H2b: As attachment avoidance increases, the likelihood of posting on the deceased's wall decreases.

RQ1: Are there any differences between the four levels of attachment styles (secure, preoccupied, dismissing avoidant, fearful avoidant) and an individual's reaction to a death on Facebook (status update, posting on the deceased's wall, direct messaging) in the following scenarios?

A. Posting a status update on your Facebook page if a family member died.

B. Posting a status update on your Facebook page if a friend died.

C. Posting a status update on your Facebook page if an acquaintance died.

- D. Posting a status update on your Facebook page if a celebrity you are familiar with died.
- E. Posting a status update on your Facebook page if someone from your community that you did not know died.
- F. Posting a status update on your Facebook page if someone you do not know at all died.
- G. Writing on a deceased family member's Facebook page.
- H. Writing on a deceased friend's Facebook page.
- I. Writing on a deceased acquaintance's Facebook page.
- J. Writing on a deceased celebrity's Facebook page that you were familiar with.
- K. Writing on a deceased person's Facebook page from your community that you do not know personally.
- L. Writing on a deceased person's Facebook page that you do not know at all.
- M. Direct messaging a deceased family member on Facebook Messenger.
- N. Direct messaging a deceased friend on Facebook Messenger.
- O. Direct messaging a deceased acquaintance on Facebook Messenger.
- P. Direct messaging a deceased celebrity that you are familiar with on Facebook Messenger.
- Q. Direct messaging a deceased community member that you do not know personally on Facebook Messenger.
- R. Direct messaging a deceased person you did not know at all on Facebook
 Messenger.

Attachment anxiety and status update about a friend

Results from this study found a weak, but positive relationship between attachment anxiety and the likelihood to post a status update following the death of a friend. This finding suggests that as individuals' attachment anxiety increases so too does their likelihood to post a status following the death of a friend. One possible explanation for this result can be explained by how those with attachment anxiety cope with grief. Worden (1983) found that those with attachment anxiety display help-seeking behaviors. These behaviors include clinging and low self-efficacy (Worden, 1983). During the time of Worden's (1983) study, grief on Facebook was not yet an issue, but in this digital age, help-seeking behaviors could possibly include posting a status about a deceased friend. The act of posting a status is public, with all of your friends being able to see the post (Facebook, 2016a). Thus, a status update about a deceased friend could be a method that those with attachment anxiety are utilizing to seek the help they need to cope.

Attachment anxiety and status update about a celebrity

A weak, but significant result was found in the relationship between attachment anxiety and an individual's likelihood to post a status update following the death of a celebrity. A likely contributor to this significant result is the parasocial relationship between the celebrity and the poster. With parasocial relationships involving little to no possible rejection (Derrick et al., 2008), those with attachment anxiety may have a strong parasocial relationship with the celebrity in which they posted a status update about. Parasocial relationships closely reflect how one acts in real relationships (Derrick et al., 2008), therefore making those with attachment anxiety likely to post status update just like they would in the case of a real friend, and making attachment avoidance individuals not likely to post as a result of the celebrity's death.

Attachment anxiety and posting on a community member's wall

A weak, but significant result was found in the Pearson correlation between attachment anxiety and the likelihood to post on a deceased community member's wall. Additionally, the Kruskal-Wallis test revealed a significant result when comparing the four attachment styles and their differences in posting on a deceased community member's page. Follow-up pairwise comparisons showed that preoccupied attachment individuals are more likely than secure attachment individuals to post on a community member's page. These results align with one another in that preoccupied individuals are high in attachment anxiety. Two factors could be at play in this specific scenario. First, as Marwick and Ellison (2012) discussed in the case of posting about strangers, often times the poster feels a connection to the deceased. They explain that "being from the same town" can be one of those connections (Marwick & Ellison, 2012). Secondly, while experiencing grief, individuals are known to try to re-establish physical proximity (Bowlby, 1980). An activity that is often done by visiting the gravesite and often with family (Klass, 2006). Since the community member may be close enough to the individual to feel grief at their passing, but not in their family or close friend group, posting online may serve as a way to reestablish proximity, at least in the digital capacity. Rossetto et al. (2015) found that for strangers posting online it may serve the purpose of leaving a candle or flower at the gravesite and in the case where one might not attend the funeral or visit the gravesite, a Facebook page might be serve the purpose of showing their condolences.

Attachment avoidance and status update about a family member

A significant relationship was found between participants' attachment avoidance and their likelihood to post a status update following the death of a family member. This relationship suggests that as one's attachment avoidance increases, their likelihood to post a status update about a family member decreased. One possible explanation behind this result is that those with attachment avoidance may experience the symptoms of grief, but not show signs until further after the loss of the attachment figure (Worden, 1983). Therefore, leaving the possibility that although they may not post right after the death of a family member, they would experience grief, but in a less public manner. An additional explanation is the experience of detachment, which those with attachment avoidance could be susceptible to based on the isolation behaviors those with attachment avoidance already face. Detachment behaviors are a type of isolation that can include withdrawal from others (Hogan et al., 2001). With Facebook being a widely popular social media platform, many of the individual's social groups may be on the site, and as a result, those with attachment avoidance may choose to detach themselves from the social media site.

Attachment avoidance and status update about an acquaintance

A weak, but significant result was found for the relationship between participant's attachment avoidance and their likelihood to post a status update following the death of an acquaintance. One factor that could attribute to these results is the tendencies that those with attachment avoidance have in their relationships with others. Attachment anxiety is characterized by those who avoid intimate relationships (Oldmeadow et al.,

2012). As a result, those with attachment anxiety could be more disconnected from acquaintances in comparison to those with secure and anxious attachment individuals. In addition, those with attachment anxiety socially isolate themselves in times of grief (Waskowic & Chartier, 2003) and a public post about that would be seen by their Facebook friends would open the door for communication, not hinder the communication like social isolation.

Likelihood to post on a deceased friend's wall

The Kruskal-Wallis test compared the four attachment styles and the likelihood to write on a deceased friend's wall and found that there were significant differences between attachment styles. Follow up pairwise comparisons indicated that those with preoccupied attachment were more likely to post on a deceased friend's wall than those with secure attachment and those with dismissing avoidant attachment. This means that those who lean more heavily towards attachment anxiety were seen to be more likely to post on a deceased friend's wall. One contributing factor in these findings could be that those with attachment anxiety seek affirmation from others (Oldmeadow et al., 2012). This affirmation could come in the form of communication via Facebook. A post on a friend's wall would not only be seen by the poster's friend group on Facebook, but the deceased's Facebook friends. This large audience could lead to a larger group of individuals who will interact with the post on the deceased's wall. Therefore, the act of posting on a deceased friend's wall could be beneficial for those with attachment anxiety, but the action could be one that those with attachment avoidance would avoid. Lin (2015) found that those with attachment anxiety avoid social interactions, especially when it came to needing emotional support, making the kind of public post that is as public as

posting on deceased friends wall one that would not be comfortable for dismissing avoidant individuals.

Likelihood to direct message a deceased family member or friend

Hypotheses were not made concerning the differences in direct messaging and attachment dimensions because of a gap of literature related to direct messaging. However, the current study adds to the literature on direct messaging through Facebook and found telling differences in attachment styles when direct messaging deceased family members and deceased friends. The Kruskal-Wallis test revealed significant results in comparison of attachment styles and likelihood to direct message a family member and the likelihood to direct message a friend. Follow-up pairwise comparisons found that for both direct messaging family members and friends that preoccupied attachment individuals were more likely than secure attachment individuals to direct message the deceased. One plausible reason behind this higher likelihood to direct message friends and family members from preoccupied individuals could be that the content of these messages is deemed a higher threat. Yaakobi and Goldenburg (2014) found those with attachment anxiety are not likely to post high threat messages. As a result of friends and family often being one's closest relationships, the messages could be more emotionally charged, and therefore could be deemed a higher threat message (Yaakobi & Goldenburg, 2014). There is also the likelihood that as a result of attachment anxious individuals being more likely to self-disclose information (Oldmeadow et al., 2012), the content of the messages to the deceased could be highly personal, which could be seen as high threat. This is further amplified by anxious attachment individuals caring highly about their selfpresentation (Oldmeadow et al., 2012) and a highly emotional message could reflect poorly on the individual.

Another contributing factor for individuals with preoccupied attachment's likelihood to direct message family members and friends could be the presence of a continuing bond with those individuals. Posting a status update and posting on the deceased's wall both could lead to communication with others that are grieving, but direct messaging is a unique and personal connection with only the deceased. Sigman (1991) posited that communication does not cease although one party is no longer present meaning that direct messaging these individuals continues the bond (Klass, Silverman, & Nickman, 1996). Direct messaging can show relational continuity with the deceased and could aid in the grieving process (DeGroot, 2012; Kern et al., 2012, Klastrup, 2015; Williams & Merten, 2009). Carmon et al (2010) found that personal growth is strongest when there is open communication about grief, especially in the death of a family member. Those with secure attachment more easily continue this communication and therefore continue the bond (Bowlby, 1980). Since attachment anxious individuals have a harder time adjusting to loss (Waskowic & Chartier, 2003), direct messaging family members and friends could prove beneficial.

Attachment anxiety and likelihood to post. The Pearson correlations yielded significant results for attachment anxiety and the likelihood to post a status update about a friend or celebrity. However, significant results were not found for attachment anxiety and the likelihood to post a status update about a family member, acquaintance, community member, stranger. Although the current research shows that a connection should exist between attachment anxiety and a higher likelihood to post a status update

66

after a death, in the majority of scenarios, this is not the case. One important distinction to note is that for the three categories of knowing an individual (family member, friend, acquaintance), friend is the one category where attachment anxiety individuals are more likely to post. Where family members may be close to the individual, it is possible that the individual has a closer connection to their friends and are therefore, more likely to post a status update in the event of the friend's death.

Significant results were also found in attachment anxiety and the likelihood to post on a deceased community member's wall; yet, significant results were not found in attachment anxiety and the likelihood to post on a family member, friend, acquaintance, celebrity, or stranger. It should be noted that celebrity's pages typically do not allow for posts on their wall. Instead, celebrity's pages are able to be "liked," but celebrities cannot be added as friends. The wording of the question may have led to a lack of significant results. For the other categories of family member, friend, acquaintance, and stranger, one possible explanation for these results is the popularity of legacy contacts and memorial pages. With memorialized pages, Facebook users are not able to post on the page of the deceased (Facebook, 2016b), with more Facebook users discovering this option, participants in the study may not have thought posting on the deceased's wall was an option. Though for memorialized accounts, posts cannot be made on the page, if the page has not been memorialized, posts can be made (Facebook, 2016b), however, this distinction may not be well known (McCallig, 2013).

Attachment avoidance and likelihood to post. The Pearson correlations yielded significant results for attachment avoidance and the likelihood to post a status update about a deceased family member or acquaintance, meaning that the higher an individual's

attachment avoidance, the less likely they are to post in those scenarios. However, a significant relationship was not found for attachment avoidance and the likelihood to post a status update about a friend, celebrity, community member, or stranger. Although current literature suggests that those with attachment avoidance would be less likely to post in all scenarios, the results from this study indicate otherwise.

Interestingly, out of the three categories of knowing an individual on some degree (family member, friend, and acquaintance), friend was the only category that attachment avoidant individuals were not found to be less likely to post a status update. These findings suggest that while attachment avoidant individuals tend to avoid intimate relationships, the friends who have crossed the boundary from acquaintance to friend could have a profound effect on individuals with attachment avoidant tendencies. Attachment avoidant individuals may not post in the death of a family member because they have avoided intimacy with their family members, but their friends, those they have chosen to have an intimate relationship with, may have enough of an effect on the individual to make attachment avoidant individuals more likely to post as a result of the friend's death. One connection worth elaborating upon is that for both attachment anxious and attachment avoidant individuals, they are both likely to post in the event of the death of a friend, meaning that attachment dimensions may not play a role, even with friends being a close attachment figure. Further research in the area of posting on Facebook after the death of a friend could further examine this phenomenon.

Attachment styles comparison. In the Kruskal-Wallis tests, differences were found in how one posts on the deceased's wall of a friend and a community member and in how individuals direct message a family member and a friend. The remainder of the scenarios yielded non-significant results. Interestingly, there were no differences in attachment style and posting a status update in any scenario. One possible contributor is that a status update does not contribute to the continued bond between the poster and the deceased. Although the deceased party cannot reply, the communication continues (Klass, 2006). In both cases of posting on the deceased wall and direct messaging, communication is between the poster and the deceased. In the case of a status update, the communication is between the poster and the poster's Facebook friends. Thus, posting a status update does not continue the bond with the deceased. This may contribute to why attachment does not play as significant role in posting status update as previously predicted in this study.

In addition, the Kruskal-Wallis tests found a significant difference in the four attachment styles and how individuals post on the deceased's wall for friends and community members. This difference could also be attributed to continued bonds. Klass (2006) found that in the case of family members, going to the grave is often a way of continuing the bond, but with friends and community members, the continued bond may still be present, but visiting the grave may not be an activity the bereaved participate in. This reasoning could lead to no difference in attachment styles for posting on a deceased family member's page because the continued bond is seen in their real life by visiting the grave (Klass, 2006) rather than continuing the bond online. Additionally, this reasoning could be why non-significant results were found in the case of celebrities and strangers, because there was no real life relationship, therefore leaving no need to continue the bond once the stranger has died.

In the case of direct messaging, there was a significant difference in the four attachment styles in direct messaging a family member and a friend. A contributing factor to these significant results could be the intimacy of direct messaging. Whereas status updates and posting on the deceased's wall both have the ability to be seen by others, direct messaging is purely between the bereaved and the deceased, this form of intimate communication has the possibility for the bereaved to write messages they may not want to be publically posted. With attachment avoidant individuals avoiding intimacy in relationships (Oldmeadow et al., 2012), direct messaging could be a form of communication that is not preferred. This explanation could also suggest why no significant difference was found in direct messaging acquaintances, celebrities, community members, and strangers. Individuals may not have information they do not feel comfortable sharing publically in the form of a status update or writing on the deceased's wall, because they may not have the type of intimate relationship with those individuals that would require the one-on-one communication form of direct messaging. The current study starts to examine direct messaging the deceased on Facebook, but further research is needed. Hypotheses were not able to be deduced from the previous research, however with the results of this study, future hypotheses could be made in the area of direct messaging the deceased.

Limitations and Future Directions

Limitations

Experiences in Close Relationships Scale Short-Form. One factor that could have contributed to the results not showing a difference in attachment and posting on Facebook following a death is the questions in the Experiences in Close Relationships

Scale Short-Form (Wei et al., 2007). The questions specifically address how one acts in romantic relationships. Though romantic relationships are a large part of attachment, they are not the only attachment figures (Klass, 2006). This scale measured participant's attachment in romantic relationships, but it is possible that their attachment may be different for other relationships.

Internal Validity Threats. A threat to internal validity in this particular study is the participant's history. First, respondents may have a personal history with grief and/or posting about the deceased on Facebook. Because researchers do not know a participant's history without asking additional questions pertaining to their past (Frey et al., 2000), this could cause issues with respondents answering questions based on their history with the subject.

External Validity Threats. Threats to external validity includes snowball sampling and the spectrum of attachment. Although having volunteer participants means that they will be more likely to have higher "intellectual ability, interest, motivation, need for approval, and sociability" (Frey et al., 2000) this could pose a threat to generalizing results to a wider population.

A threat to external validity could be the spectrum of attachment dimensions. Brennen et al. (1998), advised seeing attachment as a spectrum, meaning that nobody is 100% one attachment style, but just lean more heavily towards one style. This issue can be a threat to external validity because generalizing that all people who lean towards one category would behave a certain way on Facebook after a death would be false, but rather the results from this survey should be read that they would be more likely, but that is not necessarily true for all who fall under one attachment style. **Measurement Validity Threats.** Threats to measurement validity are due to issues with the Experiences in Close Relationships – Short Form (Wei et al., 2007) and the questions asking about respondent's tendencies to post about death on Facebook. First, the Experiences in Close Relationships – Short Form (Wei et al., 2007) and the developed likelihood questionnaire both used the 7-point Likert-type scale which includes a neutral option, but having a true mid-point poses an issue. Since offering a neutral option increases the proportion of respondents who chose the mid-point by 10 to 20% (Frey et al., 2000), respondents may choose neutral on all of the questions, leading them to not lean towards one attachment style or to give answers on this study's questionnaire that would not show which option they would truly choose.

Second, the measurement issue with the questionnaire about likelihood of posting on Facebook after a death is the use of self-reports. Although self-reports are able to ask about people's beliefs, participants may provide inaccurate information when they are asked about subject they do not normally think about (Frey et al., 2000). This may pose issues since this may be the first time participants have thought about their grief reactions and how they would or would not post on Facebook. Another issue with this scale is social desirably bias that may have respondents choose what they believe would be most acceptable to others (Frey et al., 2000).

Additionally, a threat to the measurement validity of the questions on respondent's likelihood to post on Facebook following a death is question order effects. The aspects of consistency effect, fatigue effect, and redundancy effect may play a role in how participants answered the questions. The consistency effect refers to respondents feeling their answers to previous questions must be consistent with later questions (Frey et al., 2000). In this specific survey, an example of this happening could be if a participant says they are not likely to post a status about a deceased family member, but they report that they would likely post on the deceased family member's wall, they may feel that these answers are inconsistent and subsequently change their response.

Next, the fatigue effect where respondents grow tired of answering questions and do not give accurate responses (Frey et al., 2000) could happen since they are asked to complete two sets of questions, totaling at 35 questions. To try to combat this possible measurement validity treat, the Experiences in Close Relationships – Short Form (Wei et al., 2007) questionnaire was chosen.

Lastly, the redundancy effect occurs when respondents do not closely examine questions because they look similar to previous questions (Frey et al., 2000). The wording of questions begins similarly for each section. For example, all questions that are asking about status updates are grouped together and begin with "What is your likelihood of posting a status update on your Facebook page if..." with this phrase being followed with the relationship to the respondent (i.e. if a family member died).

Attachment style categories. This study had 257 participants, however, a majority of those participants had secure attachment (n = 152) leaving the other three groups of attachment (preoccupied, dismissing, and fearful) with a small number of participants. These uneven groups mean that the other three attachment styles were not as equally represented in their responses to the likelihood questions. To account for the unequal cell sizes, the independent samples Krusal-Wallis test was chosen.

Future Directions

While the current study adds to the literature of grief messages on Facebook and attachment theory, future research can further expand the topic. First, additional research could assess attachment theory and grief messages on Facebook using a different methodology. Although content analysis has been used (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) and this study adds a positivistic approach, a naturalistic study could further add to the literature and further deepen our understanding of the reasoning behind one would choose or not choose to react to grief on Facebook. Second, this current study examined six types of relationships (family member, friend, acquaintance, celebrity, community member, and stranger). Although this covers a variety of relationships, there are more to be discovered. Some of these types of relationships could include coworkers, pets, classmates, bosses, etc. Additionally, a further look into the differences in gender and grieving may prove differences in how grief messages on Facebook, therefore, future studies should examine gender differences as it relates to the findings of this study. Finally, this research can be applied to Facebook and possibly other social media outlets' policies on the deceased's accounts. Facebook pages that are memorialized on Facebook currently, may or may not allow for posts to be made onto the page (Facebook, 2016a). By not allowing posts to be made on the deceased's page, this may make the grieving process harder on those who wish to post on the deceased's page. The current study found that those with preoccupied attachment style are likely to react to grief on Facebook in this manner. An act that should be taken into consideration by Facebook.

Conclusion

The current study adds to the literature on grief theory and attachment dimensions. The findings of this study indicate that some correlations exist between attachment dimensions and participant's likelihood to write grief messages on Facebook. Specifically, the study found correlations between attachment anxiety and the likelihood to post a status update about a

friend. This act of posting may be a form of help-seeking behavior which is a grief reaction those with attachment anxiety are known to face (Worden, 1983). Additionally, a correlation was found between attachment anxiety and the likelihood to post on a deceased community member's wall and to post a status update about a celebrity. These results add to Marwick and Ellison's (2012) work that found that those who post about stranger's death feel some sort of connection to the deceased. They cited "being from the same town" (Markwick & Ellison, 2012) as one likely contributor and the current study adds to those findings. Additionally, in the case of celebrities, those with attachment anxiety likely feel a connection to those individuals through the parasocial relationship they built with said celebrity.

Significant correlations were also found between attachment avoidance and participants' likelihood to post a status update about a family member or acquaintance. The findings indicate that the higher one's attachment avoidance the less likely they are to post in the case of a family member or acquaintance. These findings suggest that while attachment avoidance individuals do not prefer intimacy with others, the individuals who make their way from acquaintance to friend could have profound effect on those with attachment avoidance; one effect that could make them more likely to post on Facebook in the event of the friend's death.

The series of Kruskal-Wallis tests also indicate differences between the four attachment styles. Pairwise comparisons indicate that those with preoccupied attachment are more likely than individuals with secure attachment to react to grief on Facebook by posting on the wall of a deceased friend and a deceased community member and also, more likely to direct message a deceased family member or friend. These findings indicate the presence of a continuing bond with the deceased on Facebook. All four significant results are an example of the bereaved directly addressing the deceased and in the more intimate relationships like family members and friends. The bereaved are having private one-on-one conversations and proving that the communication does not stop after one party is deceased (Klass, 2006).

Although previous studies analyzed grief on Facebook through the use of content analysis (Degroot, 2012; Degroot, 2014; Kern et al., 2012; Klastrup, 2015; Marwick & Ellison, 2012; Williams & Merten, 2009) the current study indicates that studying grief messages through the use of surveys may prove beneficial in discovering more about the types of grief messages that are preferred on Facebook. Attachment theory proved a framework for this study that assisted in finding an understanding as to why individuals choose to post certain messages with varying degrees of relationships to the deceased. While this framework was beneficial in this study, more research should be done in the area of attachment theory, grief, and social media messages to better understand their relationships to one another.

References

- Ambrosino, B. (2016, March 14). Facebook is a growing and unstoppable digital graveyard. BBC. Retrieved from http://www.bbc.com/future/story/20160313-theunstoppable-rise-of-the-facebook-dead
- Bartholomew, K., & Horowitz, L. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226-244. doi:10.1037/0022-3514.61.2.226
- Bowlby, J. (1969). Attachment and loss, Vol. 1. New York, NY: Basic Books.
- Bowlby, J. (1980). Attachment and loss, Vol. 3: Loss, sadness and depression. New York, NY: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.
- Carmon, A., Western, K., Miller, A., Pearson, J., & Fowler, M. (2010) Grieving those we have lost: An examination of family communication patterns and grief reactions. *Communication Research Reports*, 27(3), 253-262.
- Carroll, B., & Landry, K. (2010). Logging on and letting out: Using online social networks to grieve and to mourn. *Bulletin of Science, Technology & Society*, 30(5), 341-349. doi:10.1177/0270467610380006
- Craig, E., & Wright K. (2012). Computer-mediated relational development and maintenance on Facebook. *Communication Research Reports*, 29(2), 119-129. doi:10.1080/08824096.2012.667777

- Cuthbertson, A. (2016, March 8). Dead Facebook users will outnumber the living by 2098. *Newsweek*. Retrieved from http://www.newsweek.com/dead-facebook-users-will-outnumber-living-2098-434682
- Degroot, J. (2012). Maintaining relational continuity with the deceased on Facebook. *Omega Journal of Death and Dying*, 65(3), 195-212. doi:10.2190/OM.65.3.c

Degroot, J. (2014). "For whom the bell tolls": Emotional rubbernecking in Facebook memorial groups. *Death Studies*, 38(2), 79-84. doi:10.1080/07481187.2012.725450

- Dennis, M. (2012). Do grief self-help books convey contemporary perspectives on grieving? *Death Studies, 36,* 393-418. doi: 10.1080/07481187.2011.553326
- Derrick, J., Gabriel, S., & Tippin, B. (2008). Parasocial relationships and selfdiscrepancies :Faux relationships have benefits for low self-esteem individuals.
 Personal Relationships, 15. 261-280. doi:10.1111/j.1475-6811.2008.00197
- DeSpelder, L., & Strickland, A. (2015). *The last dance: Tenth edition*. New York, NY: McGraw Hill.
- Ein-Dor, T., Mikulincer, M., Doron, G., & Shaver, P. R. (2010). The attachment paradox: How can so many of us (the insecure ones) have no adaptive advantages? *Perspectives on Psychological* Science, *5*, 123–141. doi: 10.1177/1745691610362349

Ein-Dor, T., Mikulincer, M., & Shaver, P. R. (2011). Attachment insecurities and the processing of threat-related information: Studying the schemas involved in insecure people's coping strategies. *Journal of Personality and Social Psychology*, *101*, 78–93. doi:10.1037/a0022503 Eroglu, Y. (2015). Interrelationship between attachment styles and Facebook addiction.*Journal of Education and Training Studies*, 4(1), 150-160.doi:10.11114/jets.v4i1.1081

Hogan, N. S., Greenfield, D. B., & Schmidt, L. A. (2001). Development and validation of the Hogan Grief Reaction Checklist. *Death Studies*, 25, 1–32.

Facebook. (2016a). What will happen to my Facebook account if I pass away? *Facebook Help Center*. Retrieved from

https://www.facebook.com/help/103897939701143?helpref=related

Facebook. (2016b). What is a legacy contact on Facebook? *Facebook Help Center*. Retrieved from

https://www.facebook.com/help/1568013990080948?helpref=faq_content

- Facebook. (2017a). How do I post to my timeline? *Facebook Help Center*. Retrieved from https://www.facebook.com/help/170116376402147?helpref=faq_content
- Facebook. (2017b). Can people see my private messages on my timeline? *Facebook Help Center*. Retrieved from

https://www.facebook.com/help/479261838773908?helpref=uf_permalink

Field, N. (2006). Unresolved grief and continuing bonds: An attachment perspective. *Death Studies*, 30, 739-756. doi:10.1080/07481180600850518

Fraley, C. (2010). A brief overview of adult attachment theory and research. Retrieved from https://internal.psychology.illinois.edu/~rcfraley/attachment.htm

Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.

- Frey, L., Botan, C., & Kreps, G. (2000). Investigating Communication: An introduction to research methods (2nd ed). Boston, MA: Allyn & Bacon.
- Hart, J., Nailling, E., Bizer, G. Y., & Collins, C. K. (2015). Attachment theory as a framework for explaining engagement with Facebook. *Personality and Individual Differences*, 77, 33-40. doi:10.1016/j.paid.2014.12.016
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511-524.
- Hogan, N., Greenfield, D., & Schmidt, L. (2001) Development and validation of the Hogan grief reaction checklist. *Death Studies*, 25, 1-32. doi:10.1080/07481180125831
- Kern, R., Forman, A., & Gil-Egui, G. (2012, March). R.I.P: Remain in perpetuity: Facebook memorial pages. *Telematics and Informatics*, 30, 2-10. doi:10.1016/j.tele.2012.03.002
- Klass, D. (2006). Continuing conversations about continuing bonds. *Death Studies*, *30*(9), 843-858. doi: 10.1080/07481180600886959
- Klastrup, L. (2015). "I didn't know her, but...": Parasocial mourning of mediated deaths of Facebook RIP pages. *Hypermedia and Multimedia*, 21, 146-164. doi: 10.1080/13614568.2014.983564
- Koblenz, J. (2016). Growing from grief: Qualitative experiences from parental loss. *Journal of Death and Dying*, *73*(3), 203-230. doi:10.1177/0030222815576123.
- Kübler-Ross, E. (1969). On death and dying. New York, NY: Macmillan.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K., (2010). Social media & mobile internet use among teens and young adults. *Pew Internet*. 1-6.

- Malkinson, R., Rubin, S., & Witztum, E. (2006). Therapeutic issues and the relationship to the deceased: Working clinically with the two-track model of bereavement.
 Death Studies, 30, 787-815. doi:10.1080/07481180600884723
- Marwick, A., & Ellison, N. (2012). "There isn't wifi in heaven!" Negotiating visibility on Facebook memorial pages. *Journal of Broadcasting & Electronic Media*, 56(3), 378-400. doi:10.1080/08838151.2012.705197
- McCallig, D. (2014). Facebook after death: An evolving policy in a social network.
 International Journal of Law and Information Technology, 22(2), 107-140.
 doi:10.1093/ijlit/eat012
- Rossetto, K., Lannutti, P., & Strauman, E. (2015). Death on Facebook: Examining the roles of social media communication for the bereaved. *Journal of Social and Personal Relationships*, *32*(7), 974-994. doi:10.1177/0265407514555272
- Rubin, S. (1999). The two-track model of bereavement: Overview, retrospect, and prospect. *Death Studies*, *23*, 681-714. doi:10.1080/074811899200731
- Sellnow, D. (2014). *The rhetorical power of popular culture: Considering mediated texts*. Thousand Oaks: CA: Sage Publications, Inc.
- Schenck, L., Eberle, K., & Rings, J. (2016). Insecure attachment styles and complicated grief severity: Applying what we know to inform future directions. *Omega: Journal of Death & Dying*, 73(3), 231-249. doi:10.1177/00302228155576124

Shear, M. K., & Mulhare, E. (2008). Complicated grief. Psychiatric Annals, 38, 662–670.

Sigman, S. J. (1991). Handling the discontinuous aspect of continuous social

relationships: Toward research of the persistence of social forms. Communication

Theory, 1, 106-127. doi:10.1111/j.1468-2885.1991.tb00008.x

- Smith, E. R., Murphy, J., & Coats, S. (1999). Attachment to groups: Theory and management. *Journal of Personality and Social Psychology*, 77(1), 94-110. doi:10.1037/0022-3514.77.1.94
- Stroebe, M., Schut, H., & Boerner, K. (2017). Cautioning health-care professionals: Bereaved persons are misguided through the stages of grief. *Omega: Journal of Death & Dying*, 74(4), 455-473. doi:10.1177/0030222817691870
- Waskowic, T., & Chartier, B. (2003) Attachment and the experience of grief following the loss of a spouse. *Omega: Journal of Death and Dying*, 47(1), 77-91. doi:10.2190/0CMC-GYP5-N3QH-WEH4
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in close relationship scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, 88(2), 187-204. doi:10.1080/00223890701268041
- Weise, E. (2015, January 9). Your mom and 58% of Americans are on Facebook. USA Today. Retrieved from http://www.usatoday.com/story/tech/2015/01/09/pewsurvey-social-media-facebook-linkedin-twitter-instagram-pinterest/21461381/
- Williams, A., & Merten, M. (2009). Adolescents' online social networking following the death of a peer. *Journal of Adolescent Research*, 24(1), 67-90.
 doi:10.1177/0743558408328440
- Worden, J. W. (1983). Grief counseling and grief therapy. New York: Springer Publishing Company.

Yaakobi, E. & Goldenburg, J. (2014). Social relationships and information dissemination

in virtual social network systems: An attachment theory perspective. *Computers in Human Behavior*, *38*, 127-135. doi:10.1016/j.chb.2014.05.025

Zisook, S. & Shear, K. (2009). Grief and bereavement: What psychiatrists need to know. *World Psychiatry*, 8, 67–74. doi:10.1002/j.2051-5545.2009.tb00217.x

APPENDIX A



Office of Research Assurance and Sponsored Programs

Box 2201, SAD 200 SDSU Brookings, SD 57007-1998 Phone: 605-688-5051 FAX: 605-688-5530

Dianne.Nagy@sdstate.edu

Го: К	endall Uhrich, Department of Communication Studies

Date: January 12, 2018

Project Title: R.I.D.P Rest in Digital Peace: Examining attachment dimensions relationship to grief messages on Facebook

Approval #: IRB-1801013-EXM

Thank you for bringing your project to the Human Subjects Committee. Your project is approved as exempt from the Common Rule because it fits the following category (from 45 CFR 46.101 (b)):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

If there are any unanticipated problems involving risks to subjects or others or changes in procedures during the study, please contact the SDSU Research Compliance Coordinator. Please inform the committee when your project is complete.

If I can be of any assistance, don't hesitate to let me know.

Sincerely,

Dianne Nagy Acting IRB Coordinator

APPENDIX B

Cover Letter with Implied Consent

Dear Participant:

I, Kendall Uhrich, am conducting a research project entitled "R.I.D.P Rest in digital peace: Examining attachment dimensions relationship to grief on Facebook" as part of my master's thesis at South Dakota State University.

The purpose of the study is to examine one's likelihood to post on Facebook after the death of individuals, both known and unknown to you. This includes direct messaging, posting on your wall, and posting on the deceased's wall. The purpose of the study is also to examine how one's personality traits of anxiety and avoidance may have a relationship to their likelihood to post on Facebook following a death.

You are invited to participate in the study by completing the following survey that includes the Experiences in Close Relationships Scale Short Form (Wei et al., 2007) and questions pertaining to your likelihood to post grief messages on Facebook following the death of an individual, both ones you know and do not know. We realize that your time is valuable and have attempted to keep the following questionnaire as brief and concise as possible. It will take you approximately 15 - 20 minutes of your time. Your participation in this project is voluntary. You may withdraw from the study at any time without consequence.

Please be advised that there are some possible risks to you for participating in this study. As previously stated, the following survey asks questions about death. For those who have experienced grief this survey may cause unwanted or triggering emotions.

There are no direct benefits to you for participation in this study.

Your confidentiality is only as secure as your equipment; no guarantees can be made regarding the interception of data sent via the Internet. Your IP addresses will not be collected or stored. However, data from the results of this survey will be stored for seven years on a private account and then destroyed. I, Kendall Uhrich, am the only researcher with access to this data.

The following survey's platform, QuestionPro, guarantees their confidentiality and security in their site. Their privacy is TRUSTe certified. Those owning the surveys must use usernames and passwords to get onto the site, and Question Pro encrypts those passwords.

Your consent is implied by the completion of this online survey. If you have any questions, now or later, you may contact me at the number below. Thank you very much for your time and assistance. If you have any questions regarding your rights as a research participant in this study, you may contact the SDSU Research Compliance Coordinator at 605-688-6975, SDSU.IRB@sdstate.edu.

Participants in this survey must be 18 years of age or older and must be a Facebook user. By clicking next you are affirming that you are of age and have a Facebook account.

Sincerely,

Kendall Uhrich Communication Studies and Theatre SDSU Pugsley Continuing Education Center Box 2218 Brookings, SD 57007 kendall.uhrich@jacks.sdstate.edu (308) 765-2318

This project has been approved by the SDSU Institutional Review Board, Approval No.:

APPENDIX C

Experiences in Close Relationships Scale – Short Form (ECR-S) Wei, Russell, Mallinckrodt & Vogel (2007)

Instruction: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating your level of agreement with it. Mark your answer using the following rating scale:

1. It helps to turn to my romantic partner in times of need.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
2. I need a lot of	reassurance	that I am l	loved by m	y partner.		
1	2	3	4	5	6	7
Strongly Disagree	Disagree S D	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

3. I want to get close to my partner, but I keep pulling back.

1	2	3	4	5	6	7
Strongly Disagree	U	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

4. I find that my partner(s) don't want to get as close as I would like.

1	2	3	4	5	6	7
Strongly	Disagree	Slightly	Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

5. I turn to my partner for many things, including comfort and reassurance.

1	2	3	4	5	6	7
Strongly	U		Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

6. My desire to be very close sometimes scares people away.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

7. I try to avoid getting too close to my partner.

1	2	3	4	5	6	7
Strongly	U		Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

8. I do not often worry about being abandoned.

1	2	3	4	5	6	7
Strongly	Disagree	Slightly	Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

9. I usually discuss my problems and concerns with my partner.

1	2	3	4	5	6	7
Strongly Disagree	U	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

10. I get frustrated if romantic partners are not available when I need them.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

11. I am nervous when partners get too close to me.

1	2	3	4	5	6	7
Strongly Disagree	U	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

12. I worry that romantic partners won't care about me as much as I care about them.

1	2	3	4	5	6	7
Strongly	Disagree	Slightly	Neutral	Slightly	Agree	Strongly
Disagree		Disagree		Agree		Agree

Scoring Information: Anxiety = 2, 4, 6, 8 (reverse), 10, 12 Avoidance = 1 (reverse), 3, 5 (reverse), 7, 9 (reverse), 11

APPENDIX D

For clarification of terms used within this survey, please use the following

definitions for friend, family, and acquaintance when responding to questions.

Friend: A person who you know and have mutual affection towards.

Family: A person who is in your more immediate family (parents, grandparents,

children, siblings, aunts, uncles, first cousins)

Acquaintance: A person who you are familiar with, but do not have a mutual affection towards.

- 1. Are you over 18 years of age? *
 - o Yes
 - o No
- 2. Do you have a Facebook account? *
 - o Yes
 - o No
- 3. What is your likelihood of posting a status update on your Facebook page if a family member died?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyLikelyLikelyLikely

4. What is your likelihood of posting a status update on your Facebook page if a friend died?

1	2	3	4	5	6	7
Very	Most	Somewhat Unlikely	Noutral	Somewhat	Most	Very
Unlikely	Unlikely	Unlikely	neutral	Likely	Likely	Likely

5. What is your likelihood of posting a status update on your Facebook page if an acquaintance died?

1234567Very
Most Somewhat
UnlikelyMost Somewhat
UnlikelySomewhat Most
LikelyVery
Likely

6. What is your likelihood of posting a status update on your Facebook page if a celebrity you are familiar with died?

1	2	3	4	5	6	7
Very	Most	Somewhat Unlikely	Noutral	Somewhat	Most	Very
Unlikely	Unlikely	Unlikely	incuitai	Likely	Likely	Likely

- 7. What is your likelihood of posting a status update on your Facebook page if someone from your community that you did not know personally died?
 - 1234567Very
Most
UnlikelyMost
UnlikelySomewhat
NeutralSomewhat
LikelyMost
LikelyVery
Likely

8. What is your likelihood of posting a status update on your Facebook page if someone you do not know at all died?

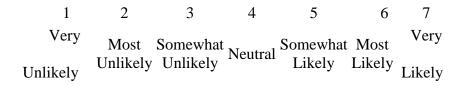
1234567VeryMostSomewhatSomewhatVeryVeryUnlikelyUnlikelyUnlikelyLikelyLikelyLikely

9. What is your likelihood of writing on a deceased family member's Facebook page if that family member died?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyLikelyLikelyLikely

10. What is your likelihood of writing on a deceased friend's Facebook page if that

friend died?



11. What is your likelihood of writing on a deceased acquaintance's Facebook page if

that acquaintance died?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyNeutralLikelyLikelyLikely

12. What is your likelihood of writing on a deceased celebrity's Facebook page the celebrity you were familiar with died?

1234567Very
UnlikelyMost Somewhat
UnlikelyNeutral
LikelySomewhat Most
LikelyVery
Likely

13. What is your likelihood of writing on a deceased person's Facebook page from

your community that you do not know personally?

1234567Very
Most
UnlikelyMost
UnlikelySomewhat
NeutralMost
LikelyVery
LikelyUnlikelyUnlikelyNeutral
LikelyLikely
LikelyLikely

14. What is your likelihood of writing on a deceased person's Facebook page that you do not know at all?

1234567VeryMostSomewhatSomewhatVeryUnlikelyUnlikelyUnlikelyLikelyLikelyLikelyLikelyLikelyLikely

15. What is your likelihood of direct messaging a deceased family member on

Facebook Messenger?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyLikelyLikelyVery

16. What is your likelihood of direct messaging a deceased friend on Facebook

Messenger?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyNeutralLikelyLikelyLikely

17. What is your likelihood of direct messaging a deceased acquaintance on Facebook

Messenger?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyNeutralLikelyLikelyLikely

18. What is your likelihood of direct messaging a deceased celebrity you are familiar with on Facebook Messenger?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyNeutralLikelyLikelyLikely

19. What is your likelihood of direct messaging a deceased community member you did not personally know on Facebook Messenger?

1 2 3 4 5 6 7

Likely

Very	Most Somewhat Neutrol	Somewhat]	Most Very	
Unlikely	Most Somewhat Unlikely Unlikely	Likely L	Likely Likely	,

20. What is your likelihood of direct messaging a deceased person you did not know

at all on Facebook Messenger?

1234567VeryMostSomewhatNeutralSomewhatMostVeryUnlikelyUnlikelyUnlikelyLikelyLikelyLikely

21. What is your age? (Fill in the blank)

22. What is your ethnicity?

- o White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- o Asian/Pacific Islander
- o Other
- 23. What is your gender?
 - o Male
 - o Female
 - o Non-binary/third gender

- Prefer to self-describe _____
- Prefer not to say

*If the respondent does not have a Facebook account or is not over 18 years of age they will not be prompted to the next questions.