THE IMPACT OF FACEBOOK USE ON ROMANTIC RELATIONSHIPS

OFFLINE

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Abstract

Given the prevalence of social networking site (SNS) use, it is important to understand the ways in which online experiences can affect offline relationships. The purpose of this study was to shed light on how the SNS Facebook can affect romantic relationships offline. In particular, the focus of this study was on relational happiness and jealousy as a result of Facebook use. A comprehensive literature review was done on the social networking site Facebook and an online survey was created. A total of 124 Canadian participants who met the criteria for the study completed the online survey. Results showed that Facebook use can affect romantic relationships offline. A large number of participants reported experiencing both happiness and jealousy as a result of Facebook use. The things that contributed to those feelings were identified along with the ways in which romantic relationships were affected. Correlations among variables were also explored, providing underlying variables associated with both SNS happiness and jealousy. Overall, age was not found to be an important factor in the experience of Facebook happiness and jealousy. It is therefore important for professionals such as counsellors to be knowledgeable of SNS such as Facebook and the implications it can have on wide rage of individuals.

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Chapter 1: Introduction

The Internet has grown in popularity in industrialized countries over the past

decade (Arnett, 2010). It is not only used as a source of information, but also for

communicating and interacting with others. According to Brown and Bobkowski (2011),

new media provides opportunities for both selection and interaction. Individuals can

select between various types of media to interact with others in a variety of ways. Since

its introduction, electronic media has redefined the way people communicate with each

other. Emails, forums, and instant messaging allow people to communicate easily and

quickly with a wider range of individuals. Computer-mediated communication is

becoming more common (Vrocharidou & Efthymiou, 2012). One of the newest forms of

computer-mediated communication is social networking. Social networking sites (SNS)

like Facebook facilitate communication between individuals and groups of people

through a combination of synchronous tools that allow instant communication between

individuals such as instant messaging and asynchronous tools that allow for

communication between individuals at different times such as message boards.

Statement of the Problem

With the emergence of SNS and the prevalence of use among young adults, it is

important to understand the impact that SNS can have on the lives of those who use it.

Over the last few years, SNS have been found to be an essential part of daily

communication for many (Vrocharidou & Efthymiou, 2012). Raacke and Bonds-Raacke

(2008) found that a vast majority of college students use friend-networking sites for a

significant portion of their day (as cited in Vrocharidou & Efthymiou, 2012).

To date, there is relatively little research on the effects of SNS on romantic relationships. The intent of this study is to shed light on the effects that Facebook has on romantic relationships offline. Specifically, this study looks at relational jealousy and happiness as a result of Facebook use. Social networking sites can be used in several ways when it comes to romantic relationships- including using Facebook to display one's relationship status, post pictures and to communicate with and about their partner (Utz & Beukeboom, 2011). These activities on SNS have the ability to greatly affect romantic relationships. For many, romantic relationships are the most meaningful element in their lives. Therefore, relationship distress has the ability to affect an individual's emotional and physical well-being. With the amount of time individuals are spending on SNS and how important these sites are becoming for communication, it is important to understand the ways in which individuals feel that SNS have affected their romantic relationships.

Purpose of the Study

This study explores the question: How does Facebook use affect romantic relationships offline?

The purpose of this study was to determine the ways in which the SNS Facebook affects romantic relationships offline. Specifically, the focus of this study will be on the potential of Facebook to evoke feelings of relationship happiness and jealousy. Studies have found that SNS can contribute to feelings of relationship happiness and romantic jealousy (Mod, 2010; Muise, Christofides & Desmarais, 2009). SNS use has grown and therefore so has the potential for SNS to alter dynamics of romantic relationships offline (Mod, 2010). Because there is a lack of research on individuals in North America, this study will use a survey method approach and will focus on individuals who are at least 18

years of age or older, who live in Canada, and who are currently in a romantic relationship or who can speak to a past romantic relationship. Due to the variety of SNS and the ever-changing nature of SNS this study will only look at Facebook which allows individuals to post pictures and comments, and has a relationship status option. This study will go beyond previous research by examining happiness and jealousy as well as other possible negative aspects of social networking sites like inappropriate disclosure and online behaviour, and the ways in which participants feel that social networking sites have affected their romantic relationship.

It is expected that individuals in North America will compare to the individuals in the study by Helsper and Whitty (2010) in that there will be expectations within a relationship on what is considered to be acceptable online behaviour and that users will take action and monitor their partner's behaviour if they feel that their partner is engaged in online activities they are uncomfortable with. It is also expected that the individuals in North America will compare to the individuals in the studies by Utz and Beukeboom (2011) and Mod (2010) in that some participants will experience relationship happiness from SNS use and that relationship happiness will be positively related to relationship satisfaction and SNS use for grooming. It is expected that a large number of participants will experience SNS jealousy and this will be positively related to SNS use for grooming, trait jealousy, monitoring behaviour, and the need for popularity. Social networking sites expose partners to information or pictures that they would have not been exposed to otherwise and this could result in feelings of jealousy (Muise et al., 2009; Utz & Beukeboom, 2011).

Background

One of the most important innovations pertaining to the Internet is the creation of social networking sites (SNS) such as Facebook. While Facebook is not particularly unique (Mod, 2010) compared to other social networking sites, it is the largest and most well known (Utz & Beukeboom, 2011). This has set it apart from others. With the introduction of an iPhone application for Facebook in July of 2008, its popularity has since grown. As of December 2015 the Facebook newsroom reported 1.59 billion active monthly users and 1.04 billion active daily users (http://newsroom.fb.com/company-info/). The mobile user statistics were a large portion of those numbers. As of December 2015 a total of 1.44 billion active monthly users and 934 million active daily users were reported to use Facebook mobile products (http://newsroom.fb.com/company-info/). Electronic communication is now with us at all times (Steinfield, 2009 as cited in Mod, 2010) blurring the boundaries between Internet and real life communication.

The focus of previous research on SNS has mainly been on why individuals use SNS (Gil de Zúñiga, Jung, & Valenzuela, 2012; Helsper & Whitty, 2010; Steinfield, Ellison, & Lampe, 2008; Tokunaga, 2011; Tosun, 2012; Valenzuela, Park, & Kee, 2009), how individuals present themselves online (Hum et al., 2011; Krämer & Winter, 2008; Mehdizadeh, 2010; Walther, Van Der Heide, Kim, Westerman & Tong, 2008; Zhao, Grasmuck, & Martin, 2008), and the social and psychological impact the Internet has on individuals (Mod, 2010; Muise, Christofides, & Desmarais, 2009; Utz & Beukeboom 2011). How offline characteristics and personality affect SNS use (Lee, Moore, Park, & Park, 2012) and information disclosure and information control (Nosko, Wood, & Molema, 2010) on SNS are also areas of research.

It has been found that social networking sites can have positive effects (SNS relationship satisfaction) on romantic relationships (Utz & Beukeboom, 2011). However, there are also studies that have found that social networking sites can have negative effects on romantic relationships (Helsper & Whitty, 2010; Mod, 2010; Marshall, Bejanyan, Castro, & Lee, 2013; Muise, Christofides, & Desmarais, 2009; Utz & Beukeboom, 2011). To date, there is some evidence that social networking sites such as Facebook can contribute to feelings of jealousy (Marshall et al., 2013; Muise et al., 2009). Within Facebook, the relationship status option, posting pictures, and public displays of affection have been found to alter relationship dynamics offline. These activities have been found to cause feelings of happiness as a result of the certainty and assurance it can bring to a relationship. They have also been found to heighten themes of possession and territory (Mod, 2010). Certain online behaviours such as sharing intimate details about one's self or relationships with partners can also cause feelings of unhappiness within a romantic relationship (Helsper & Whitty, 2010). Helsper and Whitty (2010) have noted that a "netiquette" is often developed and negotiated between couples. Netiquette is defined as the agreement (spoken and unspoken) made between couples about acceptable online behaviour (Helsper & Whitty, 2010). Certain characteristics were found to predict the experience of Facebook jealousy. Self-esteem was found to moderate the effects of social networking site use and the need for popularity, on SNS jealousy and SNS happiness (Utz & Beukeboom, 2011). When taking self-esteem into consideration, the need for popularity predicted both jealousy and relationship happiness for individuals with low self-esteem. For individuals with high self-esteem, the use of social networking sites for "grooming" (presenting oneself on the

profile and maintaining contacts) was the cause of both jealousy and relationship happiness (Utz & Beukeboom, 2011). Trait jealousy and the time spent on Facebook were found to be predictors of Facebook jealousy (Muise et al., 2009). Anxiety was found to be associated with Facebook jealousy and surveillance, and this was mediated in part by lower trust.

Key Terms

Key terms are defined throughout the paper. However, it may be helpful to have the key terms that are used throughout the paper described here.

Romantic relationships. Romantic relationships are defined as any intimate and emotional relationships built between two individuals (same-sex or heterosexual). Due to changing norms on what a romantic relationship is, the definition was left up to the discretion of the participants for the purpose of this study.

Social networking sites (SNS). A web based service that allows individuals to "construct a public or semi-public profile within a bounded system" (Boyd & Ellison, 2007, p. 211), to "articulate a list of other users with whom they share a connection" (Boyd & Ellison, 2007, p. 211), and to view and go over "their list of connections and those made by others within the system" (Boyd & Ellison, 2007, p. 211).

Facebook. Facebook is an online social networking service which allows individuals to create a personal profile after registering with the site. Users are able to post pictures and comments, share life events and app activity, and share basic information such as name, email, phone number and relationship status. According the the Facebook newsroom, users can add other individuals as friends and receive

personalized newsfeeds "based on their interests and the sharing activity of their friends" (http://newsroom.fb.com/company-info/).

Relational happiness. Feelings of happiness that resulting from a romantic partner displaying some type of behaviour (Utz & Beukeboom, 2011).

Relational jealousy. The emotional reaction to the threat of a relationship (Pfeiffer & Wong, 1989).

Statement of Interest

My interest in how SNS affect the lives of individuals began during my undergraduate degree while working on an independent research study where the focus was on the use of technology by children and adolescence. My interest in how SNS affect romantic relationships offline was personal. And, in talking with others, many of the same issues were coming up surrounding how the use of SNS affect romantic relationships. Because SNS have now been integrated into the daily lives of many individuals, it is my hope that this study will help to educate professionals about how Facebook use can affect romantic relationships offline.

There is a considerable amount of research on the SNS Facebook, however a gap still remains on how Facebook affects our lives offline, in particular how it affects our romantic relationships offline. It is important to be aware of the implications that SNS such as Facebook can have on the lives of the individuals that use them. This knowledge will help professionals such as counsellors to better support those who experience personal or relationship issues as a result of the negative emotions that can result from SNS use.

In the next chapter, the nature of SNS and the ability of SNS to alter certain dynamics of romantic relationships offline will be explored by discussing current perspectives on social networking site use and how it can result in romantic happiness and jealousy. This will include a discussion on the traditional uses and benefits of social networking site use such as maintaining relationships, creating new relationships, civic engagement and self expansion, as well as a discussion on romantic happiness and jealousy and the ways in which SNS can cause these feelings. Specifically, Chapter 2 will explore the literature regarding social networking sites and how individuals feel that social networking sites have affected their offline romantic relationship.

Chapter 2: Literature Review

Social networking sites are an important research area for scholars who are interested in online technology and the effects it has on society (Steinfield et al., 2008). Much of the current research seeks to understand the positive and negative aspects of social networking sites, how and why individuals use them, and the effects that social networking sites have on the personal and social lives of individuals.

This focus of this study and therefore of this chapter is on the SNS Facebook. Facebook is the largest and most well known SNS (Utz & Beukeboom, 2011). A 2015 study conducted by Forum research, which is a qualitative and quantitative market research firm located in Toronto, Canada, reported Facebook to be the top SNS used in Canada followed by LinkedIn, Twitter and Instagram (McKinnon, 2015). Overseas growth has been reported slow and for many countries did not catch on until Facebook was made available in different languages (McCarthy, 2010). ComScore, an American Internet analytics company reported that by October of 2011, Facebook reached more than half of the world's global audience (55%) (comScore, 2011). The popularity of Facebook is growing and according to comScore SNS are not just used by young people anymore, it is "everyone" (comScore, 2011, p. 12). Social networking site use has now caught up "to the point where it's now quite similar across age groups" (comScore, 2011, p.12).

In this chapter, traditional uses of SNS will be discussed. Next, the positive aspects of using SNS will be discussed, and other uses of SNS will be listed. The chapter will conclude with a review of the literature on how SNS can influence romantic relationships.

Traditional Uses of Social Networking Sites

      Social capital, civic engagement and political engagement. Social capital has

been defined as the resources that are available to an individual through their social

interactions (Lin, 2001; Putnam, 2004, as cited in Valenzuela et al., 2009). Bridging

social capital refers to developing and maintaining weak ties with others who may

expand the resources available to an individual (Granovetter, 1983). These weak ties may

provide useful information or new perspectives but not typically emotional support,

which can be found in close relationships (Granovetter, 1983, as cited in Steinfield et al.,

2008). It is possible then, that individuals with few weak ties are at a disadvantage in

society as they are deprived of information from "distant parts of the social system"

(Granovetter, 1983, p. 202) and are confined to the information and resources from their

closest relationships. Steinfield et al. (2008) found Facebook intensity in year one to be a

significant predictor of bridging social capital in year two. A significant relationship

between Facebook use and self-esteem was also found. Individuals with low self-esteem

were found to bridge more social capital than individuals with high self-esteem. It was

found that Facebook provided the "technical support needed for social interaction to

occur" (Steinfield et al., 2008, p. 443). Not only does Facebook provide users with a

variety of ways to message others, it also facilitates face-to-face communication and

communication through other media through the contact information that can be found on

an individual's profile (Steinfield et al., 2008).

      According to Scheufele and Shah (2000), social capital is a multidimensional

concept that can be seen as a three-way relationship between interpersonal trust, life

satisfaction and civic engagement. These three domains can be seen as interpersonal,

intrapersonal, and behavioural (Scheufele & Shah, 2000; Hum, Chamberlin, Hambright, Portwood, Schat, & Bevan, 2011). The interpersonal domain is social trust or the interaction an individual has with his or her social network; the intrapersonal domain describes an individual's emotions and self-satisfaction; and the behavioural domain involves an individual's involvement in civic and political activities (Scheufele & Shah, 2000; Hum et al., 2011). Scheufele and Shah (2000) found support for the relationship among these the three variables and that these variables are affected by demographic, dispositional and informational variables. They found personality strength to have a strong direct impact on all three domains beyond demographic and informational variables and informational variables to have only a weak effect on civic engagement.

Valenzuela et al. (2009) studied Facebook use and social capital. They recruited college students from across Texas to participate in an online survey studying the relationship between Facebook use and college students' life satisfaction, social trust, and civic and political participation. From the total number of completed surveys, the sample size was reduced to 2,603 participants. Facebook use was measured using the Facebook Intensity Scale developed by Ellison, Steinfield and Lampe (2007). Intensity of Facebook group use was also explored. Questions included "how much time they spent reading and posting messages on the profiles of the online groups" (Valenzuela et al., 2009, p. 887). Valenzuela et al. (2009) found Facebook use had a small but statistically significant relationship with life satisfaction and social trust. This could be due to Facebook visually reminding users of the positive aspects of their life such as their social connections, which in turn could raise self esteem and enhance subjective well being (Kim & Lee, 2011) and life satisfaction. Also, the intensity of Facebook use was related to civic

participation and the intensity of Facebook group use was positively related to political participation (Valenzuela et al., 2009). These findings can be linked to previous research in that Facebook can provide individuals with a wealth of information, which was found by Scheufele and Shah (2000) to have a weak effect on civic engagement. Individuals with stronger personalities may also use Facebook groups more to connect with others. Scheufele and Shah (2000) found personality strength to be related to all aspects of social capital including political participation. Facebook use could then be said to be associated with students' life satisfaction, social trust, civic engagement, and political participation (Valenzuela et al., 2009).

Overall, the findings, while small, suggest that Facebook has positive effects on life satisfaction, social trust, civic engagement and political participation (Valenzuela et al., 2009). As the Internet (or SNS) grows in popularity more studies will have to look at these positive findings and see if they are sustainable.

Gil de Zúñiga et al. (2012) also studied social networking sites and how they contribute to social capital, civic participation, and political participation both on and offline. Social networking site use for news surveillance was found to increase social capital and predict civic participation. Social networking site use for news was also found to be positively related to both online and offline political participation. Gil de Zúñiga et al. (2012) noted that the inherent structure of social networking sites allows for easy acquisition of information as well as for the discussion of certain topics and their importance.

Because social networking sites are incorporated into the daily lives of many individuals, it is expected that the content on social networking sites and the content accessed on them is diverse (Gil de Zúñiga et al., 2012). Individuals use social networking sites for various things like entertainment, social relationships, and identity construction. They allow individuals to create meaningful content online (Hilbert, 2009). As explained by Hilbert (2009), individuals who are interested in public affairs can use social networking sites to contribute to, use, and share public-oriented information (as cited in Gil de Zúñiga et al., 2012). "Opinion expressions on predefined issues" (Hilbert, 2009, p.89) can easily be shared. These opinions can then be "analyzed, categorized and reorganized" (Hilbert, 2009, p.107) as needed, and argumentation can easily occur.

Steinfield et al. (2008) investigated the relationship between the intensity of Facebook use, measures of psychological well being, and bridging social capital. Steinfield et al. (2008) found that overall Facebook has increasingly become an important part of many students' lives. Two surveys were conducted a year apart and it was found that the intensity of Facebook use in year one strongly predicted bridging social capital outcomes in year two, even after even after controlling for measures of self-esteem and satisfaction of life.

Relationship management. Studies have found a variety of motives for Facebook use. Tosun (2012) found motives for using Facebook included: friendship formation and maintenance, romantic purposes, entertainment, photo sharing, organizing activities and passive observations. Tosun (2012) expanded upon this research and created a new scale to study the motives that young adults have for Facebook use. Tosun (2012) found the majority of individuals use Facebook to maintain long distance

relationships. The second most reported reason was for entertainment. Photo-related activities and organizing social activities were the third and fourth most reported motives for Facebook use (Tosun, 2012). It was also found that individuals who were more comfortable in expressing their "true selves" online were more likely to use Facebook to establish new relationships, manage romantic relationships, and were more likely to use it for passive observations such as reading profiles. According to Tosun (2012), these findings provide empirical evidence that supporting relationships and keeping individuals in contact are the main uses for Facebook.

Friending. "Friending" is used to describe the action of establishing friends on Facebook. This occurs when one individual sends a friend request to another individual by clicking the "add" button, and the other party accepts that request (Tong et al., 2008, as cited in Lee et al., 2012). Steinfield et al. (2008) also found that the act of "friending" in Facebook had allowed participants "to keep in touch with a wide network of individuals who might be called upon to provide 'favours' in the future" (Steinfield et al., 2008, p. 442). Facebook acted like an address-book for many, enabling them to contact people and schedule communication and interactions offline. It can be easier or more convenient for individuals to send a message online (Steinfield et al., 2008). Even individuals with low self-esteem were able to bridge social capital, or gain and maintain contacts without having to have "awkward phone calls" or face-to-face interactions.

Lee et al. (2012) studied "friending" on Facebook and the role that self-esteem and self-consciousness play in how active individuals were in making friend requests and/or in accepting large numbers of friend requests from others in order to increase the number of Facebook friends. Lee et al. (2012) hypothesize that individuals who have low

self-esteem will more actively engage in friending compared to individuals with high-self esteem, and that the relationship between self-esteem and number of Facebook friends would depend upon levels of self-consciousness. It was thought that individuals who are higher in public self-consciousness are concerned with public display of the self and how others view them. Therefore, they are more likely to actively engage in friending to maintain a positive public image (Lee et al., 2012).

Compensatory friending. Lee et al. (2012) define "compensatory friending" as a behavioural tendency to engage in "friending" more actively in order to expand the number of one's SNS friend connections to compensate for a deficiency in self-esteem. Lee et al. (2012) found that individuals with low self-esteem engage in friending more actively than individuals with high self-esteem. There was a negative relationship found between self-esteem and number of Facebook friends, and this relationship was significant for individuals who were high in public self-consciousness (Lee et al., 2012).

The study suggested that a desire to compensate for low self-esteem could be present (Lee et al., 2012). This pursuit of self-esteem could affect one's relationship with others as it can interfere with one's learning, autonomy, relatedness, self-regulation, and mental and physical health (Crocker & Park, 2004). Compensatory friending is also thought to cause feelings of loneliness for some, if they find themselves surrounded by "friends" who are not supportive and who are an unreliable source of companionship (Kim & Lee, 2011, as cited in Lee et al., 2012). These findings show how different individual traits can affect SNS use and how SNS use in turn can affect an individual's well being.

Impression. Forming and managing impressions has been changed with the emergence of new communications technologies (Walther et al., 2008). Developments in internet-hosted technologies such as Facebook allow individuals to create an online identity by choosing what to post and to gather information about others in other ways other than "direct online give-and-take" (Walther et al., 2008, p. 29). Impression formation and management is difficult on Facebook because individuals other than the individual the profile is focused on can also contribute to the impression of a profile owner. This can be done through their posts, which may or may not contain information on, or descriptions of the profile owner.

Walther et al. (2008) studied social capital and observers' impressions of the profile owner. They studied how cues from social partners on an individual's social networking profile can affect impressions of the profile owner. For example, the level of attractiveness of one's friends could influence the perceptions that others have about them (Walther et al., 2008). Greater physical attractiveness of friends that were displayed on wall postings raised participants' perceptions of the physical attractiveness and social evaluations of the profile owner. Task attractiveness, which is the degree to which an individual is seen as a valued and respected task partner, and credibility were not affected at all by the attractiveness of friends (Walther et al., 2008). Positive statements about the participants that are left by friends on their walls were found to improve the social evaluations of others, as well as their task attractiveness and credibility (Walther et al., 2008). A Facebook profile is therefore a combination of information generated by an individual and the inferences made from indirect sources of online communication (Hum et al., 2011).

Krämer and Winter (2008) surveyed StudiVZ users and found that individuals who were concerned with impression management were more active on social networking sites. StudiVZ is a German SNS that was launched in 2005 by two students with the purpose of being a student community (Krämer and Winter, 2008). Similar to Facebook, StudiVZ has highly standardized profiles, which are made "public" to other users unless the profile owner changes this option.

Efficacy of self-presentation. Efficacy of self-presentation refers to the degree to which individuals see themselves as capable of presenting certain images to others or ability to create positive impressions (Krämer & Winter, 2008). Krämer and Winter (2008) measured efficacy of self-presentation and found that self-efficacy is related to the number of friends or contacts, the profile detail, and style of profile picture. A high degree of self-efficacy was positively related to the number of friends, number of completed fields, number of words used, and group membership in the categories of parties and events (Krämer & Winter, 2008). Those with moderate and high degrees of impression management self-efficacy were found to use more experimental types of profile pictures (Krämer & Winter, 2008). They also found a positive relationship between extraversion and a profile picture that is more experimental or in a different style such as a picture that is altered in colour, or where the individual is making a face or striking a pose. Self-esteem was not related to profile style or online self-presentation (Krämer & Winter, 2008).

Individuals have been found to spend a considerable amount of time trying to form and manage impressions, especially when engaging in or anticipating new interactions (Berger & Calabrese, 1975; Goffman, 1959, as cited in Walther et al., 2008). It is possible that the findings by Krämer and Winter (2008) would also apply to the SNS Facebook. Facebook is similar to StudiVZ in that it also has a search function and there is the possibility of unacquainted individuals viewing one's profile and the possibility of engaging in new interactions. Individuals concerned with impression management would be expected to spend more time on Facebook and individuals with a high degree of self-efficacy would be expected to have more detail in their profile, a higher number of Facebook friends and more experimental types of profile pictures.

Identity construction. Initial research on online self-presentation focused on identity constructions in anonymous online environments such as role-playing games. More recently, the focus has been on self-presentation in less anonymous settings. Zhao et al. (2008) studied identity construction on Facebook, and reported that the identities constructed in this environment differed from those constructed in anonymous online environments. Facebook users claim their identities more implicitly than explicitly, and group and consumer identities are stressed more than personally narrated ones (Zhao et al., 2008).

Social Networking sites such as Facebook are more limiting than more anonymous online environments in that they can place constraints on the types of identity claims made by users (Mehdizadeh, 2010). However, unlike more anonymous online environments, they are less limiting in that they enable users to present themselves in a number of ways. This includes posting pictures, describing themselves, and listing their

friends and social networks (Zhao et al., 2008). It was found that the majority of participants preferred to show who they were through pictures and wall posts and listing interests and hobbies rather than writing verbal descriptions of self. All of the participants also attempted to "project a self that is socially desirable" (Zhao et al., 2008, p. 1827). According to Zhao et al. (2008), the participants were "not projecting pessimistic, apprehensive, unspontaneous or narrowly focused personas" (p. 1829). It is important to note that some individuals create identities on their Facebook profiles that can be seen as outside or marginal to dominant social norms. Deviances from dominant social norms were found in sexually provocative statements, quotes and words that were used on their profiles to describe themselves. Some participants also presented a self on their Facebook profile that was different than what was observed during the interview. These findings suggest that identity construction is a social product as opposed to being an individual characteristic expressing what is innate in a person (Zhao et al., 2008).

A limitation of these findings would be that participants could have felt uncomfortable during the interview, and as a result this may have influenced how they acted or what they said, therefore affecting the results. Also, researchers only had access to what was made available by the participants for them to see. Due to the smaller sample size, the findings may not be generalizable to a larger population. Therefore, caution should be used when analyzing the findings. Regardless of the limitations, however, the research does provide a picture as to how people use social networking sites such as Facebook to present themselves.

Identity construction involves both "identity announcement" and "identity placement" (Mehdizadeh, 2010). Identity announcements are the identity claims made by

an individual and identity placement is the identity endorsed by others. Facebook

provides a good place for both identity construction and self-presentation. Although users

cannot control what others post and although there are some constraints on the types of

identity claims being made, users can control the type of information projected about

themselves on their profile. Mehdizadeh (2010) studied Facebook as a tool for online

personality and identity production. Narcissism and low self-esteem were related to more

time spent on Facebook, greater amounts of activity on Facebook and some self-

promotional Facebook page content. Self-promotion was defined as "any descriptive or

visual information that appeared to attempt to persuade others about one's own positive

qualities" (Mehdizadeh, 2010, p. 359). A significant negative relationship was found

between self-esteem and self-promotion in the main photo section. A significant positive

relationship was found between narcissism and self-promotion in the main photo section,

in the first 20 pictures in the view photos section, in the status updates and in the notes

section. No significant relationship was found between narcissism and self-promotion in

the about me section. Like Zhao et al., (2008) found, participants would rather "show"

their identity than "tell". Mehdizadeh (2010) found that this applied to not only to

individuals with low self-esteem and to narcissistic individuals, but also more to females.

When gender was explored as a moderator of self-promotion on Facebook, significant

interactions were found between gender and self-promotional content in the about me

section, notes section, and the main photos section. Males were found to display more

self-promotional content in the about me section and notes, while females were found to

display more self-promotional content in the main photo section.

Information and privacy. Given the amount of personal information that can be shared on social networking sites, security and privacy issues are of concern. Nosko et al. (2010) found that approximately twenty-five percent of all possible information that can be disclosed on Facebook profiles had been disclosed. Four hundred randomly selected profiles from eight Canadian Facebook networks were examined. Four were community networks (Toronto, Vancouver, Charlottetown and Kitchener) and four were university networks (Mount Allison University, University of Toronto, Memorial University of Newfoundland and Wilfrid Laurier University). To determine the information disclosed on Facebook, independent profile raters created a coding checklist. They found that 15 most commonly disclosed pieces of information that was available on 63 percent of the profiles or more included personally identifying information such as gender, birthdate and pictures, educational information such as the school attended, as well as regular updated information such as status and playful communication such as messages. Fifteen of the least commonly disclosed pieces of information that was available in 9 percent of the profiles or less included key personal information such as zip/postal code, phone numbers and home address. Even though only a small amount of information is shared, these pieces of information can be potentially harmful and are therefore still a cause of concern (Nosko et al., 2010). There is the potential for identity theft or social threat where there is danger to an individual or a group they belong to. Individuals who are looking for a relationship tend to disclose much more information than others and they disclose this information faster. Gender and network membership were not found to have an effect on the type or amount of information disclosure (Nosko et al., 2010).

Social identity. Establishing social connections is positively linked to establishing a social identity (Pempek, Yermolayeva, & Calvert, 2009, as cited in Hum et al., 2011). This is done by identifying with certain subcultures such as music and indicating membership to certain subgroups such as race and gender. To gain an understanding of how young adults utilize social networking sites to create a self-image, Hum et al. (2011) studied the profiles of college students. Participants' current profile picture was the unit of analysis. There were six categories to be coded for each individual's profile picture. The categories were the individual's sex, quantity of profile pictures in the picture albums, levels of physical activity, candidness, levels of appropriateness, and number of individuals in the profile picture. The categories candidness and levels of appropriateness were selected because they reflect the importance of online information in forming impressions (eg., Microsoft, 2010; Watson et al, 2006, as cited in Hum et al., 2011) while levels of physical activity and number of individuals in the pictures reflect elements of social theory (Eagly, 1987; Eagly et al., 2000, as cited in Hum et al., 2011), and number of pictures in one's photo albums could reflect the extent to which individuals are interested in multiple online identities. Hum et al. (2011) found that the majority of individuals had twenty-one or more profile photos in their photo album; the majority of photos were inactive, were posed, and most were found to be appropriate for all ages to view. The majority of pictures only contained the subject. Also, no significant gender differences were found for any of the categories. According to Hum et al. (2011), these findings suggest that for the majority of participants, a significant amount of thought goes into what profile picture they use and they are careful in constructing their identity.

Benefits to Using Social Networking

        Social capital. Facebook use has been found to positively affect an individual's stock of social capital, which "includes intrapersonal, interpersonal and behavioural elements" (Valenzuela et al., 2009, p. 892). Positive relationships were found between the intensity of Facebook use and intensity of Facebook group use in college students and life satisfaction, social trust, civic engagement and political participation. Although the relationship was not large, the findings show that Facebook use can positively affect social capital alongside other factors that have been identified in previous research such as life experiences and personality (Valenzuela et al., 2009).

        Participating in SNS is also a way to maintain contact with friends or long distant romantic partners. Research has found positive effects on bridging social capital (Steinfield et al., 2008), which refers to developing and maintaining weaker ties with individuals, as well as positive effects on bonding capital, which refers to developing and maintaining stronger ties with individuals (Ellison et al., 2007). This can include strengthening romantic relationships (Utz & Beukeboom, 2011).

        Self-expansion and self-expression. SNS has also been found as a way to expand the self. The self-expansion model states that individuals are motivated to grow and improve the self to enhance one's ability to achieve goals (Aron & Aron, 1986, 1997; Aron, Aron, & Norman, 2001, 1998, as cited in Mattingly & Lewandowski, Jr., 2013). According to the self-expansion model growth is achieved by acquiring new identities, developing new perspectives, gaining resources, and enhancing capabilities. It has been found that individuals broaden the self through close-relationships and with novel content (Aron, McLaughlin-Volpe, Mashek, Lewandowski, Wright & Aron, 2004; Trump &

Brucks, 2012). Psychologist William James (James, 1980, as cited in Trump & Brucks, 2012) speculated that the self consists of many things including family, social relationships, and material possessions. SNS like Facebook not only allow individuals to connect and identify with various brands, they also provide a way in which individuals can maintain existing relationships and establish new relationships. This allows individuals to include many more resources, perspectives, and identities in his or her self to some extent (Aron et al., 2004). According to Aron et al. (2004), the useful resources can facilitate the achievement of goals and include material, social assets, and knowledge (conceptual/informational/procedural).

Sense of group. Aron et al. (2004) speculated that the outcome of ongoing interactions with individuals across varied social domains results in a sense of group membership. They speculate that this could lead to improved intergroup relations. They also found a significant negative within-subject correlation between closeness and prejudice. Participants had less prejudice in groups where they had closer interaction partners.

By helping individuals to stay connected to others and providing an area where individuals create new relationships, social networking sites can provide opportunity for self-expansion. Building and maintaining relationships with others expands the number of resources one can access. Social networking sites also provide an area for self-expression, allowing individuals to present themselves in a variety of ways.

Benefits of social networking sites should be "considered alongside emerging reports of relational problems that occur with their use" (Muise et al., 2009; Phillips, 2009, as cited in Tokunaga, 2011, p. 706). For instance, SNS use has been found to create

feelings of jealousy. Interpersonal electronic surveillance is often triggered by interpersonal jealousy or distrust, which can then provoke individuals to monitor their partners online and offline behaviour through their profiles on social networking sites (Phillips, 2009, as cited in Tokunaga, 2011).

After discussing the benefits, reported issues that occur with Facebook use will now be explored. First romantic jealousy and interpersonal electronic surveillance will be discussed. Then, the negative and positive effects of Facebook use on romantic relationships will be explored including the impact that specific Facebook rituals have on romantic relationships.

Romantic Jealousy

Romantic jealousy has been defined as the emotional reactions to a threat of a valued romantic relationship (Hupka, 1981, as cited in Pfeiffer & Wong, 1989). Specifically, jealousy includes the thoughts, feelings, and coping behaviours of individuals (White, 1981, as cited in Pfeiffer & Wong, 1989). According to the self-expansion model, the formation of a relationship can create a positive effect due to enhancement of the self by another (Aron et al., 2004). In light of this model, a perceived sense of the loss of a relationship would therefore create a negative effect on individuals. Negative emotions can occur when aspects of the self that were previously defined through association with another are lost. Threats to personal identity can therefore cause many negative emotions to the extent that other was included in the self.

Predictors of jealousy experience and expression. Guerrero and Andersen

(1999, as cited in Aylor & Dainton, 2001) proposed that there are antecedent factors that

affect the perception of threat, which leads to the experience of both emotional and

cognitive jealousy, further leading to communicative responses to jealousy and relational

consequences. Relational type, biological sex, and psychological gender were examined

as the antecedent factors or predictors of jealousy experience and jealousy expression.

Aylor and Dainton (2001) found jealousy experience and expression were influenced by

the sex of an individual. According to Carroll, Gilroy, and Ryan (2002), sex can be

defined as "the cluster of biological, chromosomal, and anatomical features associated

with maleness and femaleness in the human body" (p. 139). Men were found to be more

likely than women to experience cognitive jealousy. Women were found to be more

likely to respond to jealousy with negative affect, active distancing, distributive

communication, violent communication, and manipulation. Gender was found to

influence jealousy expression. According to Carroll et al. (2002), gender can be defined

as "a complicated set of sociocultural practices whereby human bodies are transformed

into 'men' and women'" (p.138). Gender refers to the things a society deems as being

"masculine" and "feminine" (Carroll et al., 2002). Femininity/expressiveness was

negatively correlated with manipulation, avoidance, distributive communication, violent

communication, active distancing, relationship threats, and was positively correlated with

integrative communication. Masculinity/instrumentality was positively associated with

antisocial responses including distributive communication, manipulation, signs of

possession, violence against objects, and contacting the rival. Sex was found to be

superior in predicting jealousy experience and gender was found to be a stronger

predictor for the responses to jealousy for which significant relationships were found for both sex and gender (Aylor & Dainton, 2001). Aylor and Dainton (2001) also found that relationship type can influence jealousy experience and expression as well as jealousy related goals. Compared to casual daters, respondents who were married reported less jealousy, reported expressing jealousy less often, and reported fewer jealousy-related goals such as maintaining the primary relationship (Aylor & Dainton, 2001). Commitment and longevity of relationships were associated with less uncertainty about the primary relationship and about potential rival relationships, and reassessing the relationship with their partner.

The study conducted by Aylor and Dainton (2001) suggests that sex, gender and relational type can influence the experience of romantic jealousy, how it is expressed and the goals of individuals. In addition, age surfaced as a potential factor in the study of romantic jealousy. It was unexpected to find that women used more anti-social strategies than men. Aylor and Dainton (2001) speculated that age might explain the sex differences found in the experience and expression of jealousy. The average age of individuals in this study was twenty-two as opposed to mid to late thirties (Guerrero et al., 1993, as cited in Aylor & Dainton, 2001). Therefore, Aylor and Dainton (2001) suggest that future research on romantic jealousy look at age as an antecedent factor to jealousy experience, expression, and jealousy-related goals.

Interpersonal Electronic Surveillance

Interpersonal electronic surveillance (IES) is defined as a mindful and goal oriented behaviour that uses electronic communication technologies to gain awareness of other's online and offline activities (Tokunaga, 2011). Stern and Taylor (2007) found that

IES is becoming more common. They found that over 60% of college students were found to use Facebook to check up on their significant others, see what others are doing on the Internet, and check people out.

The popularity of social networking sites and the way they are founded on the premise of surveillance gives rise to concerns about interpersonal electronic surveillance and Internet privacy (Tokunaga, 2011). Facebook not only allows for individuals to easily track others, but it is an expected behaviour. It is expected by users that their profiles will be searched and viewed (Lampe, Ellison, & Steinfield, 2006). Through Facebook, individuals can track the actions, beliefs, and interests of others and of the larger groups to which they may belong (Lampe et al., 2006). The convenience of acquiring information, along with anonymity, can motivate the need for surveillance (Tokunaga, 2011). Joinson (2008) found that the most important uses of Facebook tended to be related to social searching and surveillance functions.

Tokunaga (2011) studied the relationship among social networking site surveillance and demographic, relational, Internet use, and Internet efficacy variables. It was found that interpersonal surveillance over social networking sites is influenced by age, the time individuals spend on their partner's profiles, the integration of social networking sites into daily routines, and Internet self-efficacy. Younger adults were found to be more likely to use surveillance strategies on social networking sites than older adults. The amount of time spent on a partner's profile was found to be proportional to IES and those who acknowledged that social networking sites were an important part of their daily lives were found to be more likely to engage in IES (Tokunaga, 2011). The study also found that Internet self-efficacy was related to IES, however, it was in the

opposite direction than expected--participants who felt less confident in using the Internet were found to be more likely to engage in IES. It is possible that the perception of surveillance on SNS as being easy and safe draws new users and that more internet savvy individuals turn to other, more sophisticated means of technological surveillance (Tokunaga, 2011).

Given the high prevalence rates of individuals using social networking sites to monitor their partner and the negative effects this can have on the relationship (jealousy), more studies are needed on the practice of interpersonal electronic surveillance and the ways in which they can negatively affect romantic relationships.

Helsper and Whitty (2010) studied married couples in the UK and the ways they perceive Internet use in their relationship. An online survey was used to determine whether partners have similar agreements as to acceptable online behaviour (netiquette) and if there were differences between partners regarding online surveillance. Netiquette is defined as the rules, both spoken and unspoken, about acceptable and unacceptable online activities (Helsper & Whitty, 2010).

The survey was adapted from another that was conducted in the US by an online matchmaking company eHarmony to measure marital happiness. The original survey included questions related to marital satisfaction and psychological characteristics of the participants (Helsper & Whitty, 2010). Questions were added to measure Internet use and the role of the Internet in marital satisfaction. Surveillance and netiquette related to general Internet use and specific online behaviours were measured. Helsper and Whitty (2010) found that overall, partners seem to share similar ideas about the behaviours that are considered unacceptable online. The highest percentage agreement between partners

was found for activities labeled "infidelity". Both partners reported that they would be unhappy if the other partner engaged in activities such as falling in love with someone else online, flirting online, and disclosing personal information about themselves online. The highest percentage of disagreement about the level of acceptability of online behaviours was found for potentially addictive activities such as looking at sexual material online, online gaming, and online shopping. They also found that women were more likely to monitor their partner's online activities, as they were more concerned about their own and their partner's behaviour. According to Helsper and Whitty (2010), it is clear that when individuals suspect their partner is undertaking in unacceptable behaviours online, they do not shy away from monitoring their partner online. These behaviours were found to include reading emails and instant message logs, checking browsing history, and reading text messages.

The Negative and Positive Effects of Facebook Use on Romantic Relationships

Facebook use and jealousy. Muise et al. (2009) studied the role of Facebook on the experience of jealousy to determine whether increased Facebook use predicts jealousy above and beyond personal and relationship factors. Three hundred and eight undergraduate students completed an anonymous online survey, which addressed demographic factors, personality factors, and their use of Facebook. The Facebook Jealousy scale was created and used for the study to "assess the experience of jealousy in the specific context of Facebook" (Muise et al., 2009, p.442). The majority of the participants were in some type of relationship. Most (50.5%) reported seriously dating one person, while 8.3 percent reported casually dating one or more partners, 3.7 percent reported being in an open relationship, 3.0 percent reported living with a partner but not

married, 0.7 percent reported being married, and 0.3 reported being divorced or separated. They reported spending an average of 38.93 minutes a day on Facebook. Trait jealousy and the time spent on Facebook were found to be significant predictors of Facebook jealousy (Muise et al., 2009). Four themes emerged relating to the experience of jealousy on Facebook from the analysis of the open-ended question. The first theme was accessibility of information. This includes statements about the increased availability of information regarding the relationships one's partner has with other individuals. The second theme was relationship jealousy. This explicitly linked the experience of jealousy to Facebook use. The third theme identified was Facebook as an addiction. This included participants having difficulty in limiting the amount of time they spent on Facebook. The fourth theme identified was lack of context. This included the ambiguous nature of Facebook and the role it can play in creating feelings of jealousy (Muise et al., 2009). The findings of this study show that Facebook use can predict the experience of jealousy above and beyond personal and relationship factors. There are aspects of the SNS that can stir up certain emotions and affect an individual's life and romantic relationship offline.

While Muise et al. (2009) found an association between the amount of time spent on Facebook and feelings of jealousy, it is unclear if more time spent on Facebook causes feelings of jealousy or if the feelings of jealousy caused by the increased amount of information available on one's partner causes them to spend more time on Facebook. The authors hypothesized both are true, as the "findings are most likely due to dual causation" (Muise et al., 2009, p.443). The study did not specify where the participants lived, and

the smaller number of participants who completed the survey makes it difficult to generalize the findings to a larger population.

Facebook surveillance and jealousy. Marshall et al. (2013) examined Facebook surveillance and jealousy within romantic relationships. They conducted two studies that looked at insecure attachment styles and their relationship to Facebook surveillance and jealousy. The first study used an online survey that measured attachment style, self-esteem, relationship quality, Facebook jealousy, Facebook surveillance, and the time spent actively using Facebook. Of the 225 participants who completed the survey, just over half (66%) were from North America. Marshall et al. (2013) found anxiety to be positively associated with both Facebook jealousy and surveillance, and the association between anxiety and Facebook jealousy to be mediated by lower trust. Trust was found to be "the only relationship quality component that predicted Facebook jealousy over and above the control and attachment variables" (Marshall et al., 2013, p. 7). Avoidance was found to be negatively associated with Facebook jealousy and surveillance. They also found that Facebook jealousy was higher in women, for individuals reporting lower self-esteem, and individuals reporting lower commitment. It is possible that anxious individuals may have experienced greater Facebook jealousy because they trusted their romantic partner less.

The second study collected information from both partners in a heterosexual romantic relationship over a 1-week period. Dyads were the unit of analysis for this study, not individuals. Data was collected from 108 heterosexual couples living in the United Kingdom who were part of a larger study. After filling out an intake questionnaire, participants were then asked to keep a journal every day for 1 week using

an online diary record. The intake questionnaire measured demographic characteristics, time spent on Facebook, frequency of Facebook use, attachment style, global relationship quality, self-esteem, neuroticism, and Facebook jealousy. The daily diary record measured Facebook surveillance, the amount of time individuals spent communicating with their partner over Facebook, relationship quality, the amount of jealousy experienced that day, and daily variation in mood. Marshall et al. (2013) found Facebook jealousy to be positively predicted by attachment anxiety, and negatively predicted by trust, partner intimacy, and frequency of Facebook use. It was unexpected by Marshall et al. (2013) to find frequency of Facebook use to negatively predict Facebook jealousy. Marshall et al. (2013) noted that this finding should be interpreted cautiously and speculated that people who use Facebook more frequently see less jealousy provoking information in one session than those using Facebook less frequently. Trust and partner intimacy were found to mediate the association of anxiety with increased Facebook jealousy. As was found in study 1, study 2 found attachment anxiety to be related to greater Facebook jealousy in part because anxious individuals trusted their partners less. These findings by Marshall et al. (2013) were consistent with the findings of Muise et al. (2009) who found trust to be the only relational factor to predict Facebook jealousy.

Study 2 also revealed that individuals engage in greater Facebook surveillance if they were male, if they used Facebook on a daily basis, if they spent more time on Facebook, and if their partner spent more time on Facebook. Attachment-anxious individuals were found to engage in greater Facebook surveillance, while attachment-avoidant individuals appeared to avoid looking at their partner's profile on Facebook. There were also quality components of relationships that were found to predict both

Facebook jealousy and Facebook surveillance over and above attachment style. An individual's intimacy and commitment were found to be negatively associated with Facebook jealousy and surveillance. Partner's global love, women's global love, and men's passion were found to be positively associated with Facebook jealousy and surveillance.

This study shows that regardless of attachment style, there are relationship variables such as commitment and intimacy that could affect both Facebook jealousy and Facebook surveillance. Marshall et al. (2013) found that Facebook jealousy and surveillance were not only found for individuals who were anxious, jealous or feeling like their partner was lacking in commitment, it was also found in loving and passionate partners.

Facebook use, relationship happiness and social networking site jealousy. Utz and Beukeboom (2011) focused on both the negative (social networking site jealousy) and positive (social networking site relationship happiness) consequences of social networking site use. One hundred and three students at a Dutch university completed an online survey designed to measure relationship characteristics, social networking site use, social networking site use for profile maintenance and grooming, social networking site jealousy, social networking site happiness, monitoring behaviour, social networking site monitoring behaviour, trait jealousy, need for popularity, and self esteem. Utz & Beukeboom (2011) created a scale similar to the Facebook jealousy scale that assessed the likelihood of participants feeling happy after their partner engaged in certain activities on the SNS. They found that respondents were more likely to experience relationship happiness than social networking site jealousy. Both relationship satisfaction and SNS

use predicted higher SNS relationship happiness. Half of the participants also reported that they were likely to engage in social networking site monitoring behaviours at least every now and then, while 70-80% reported to never or almost never searching through their partner's bags or reading their text messages or emails to someone else. This indicates that social networking sites might be a more common and accepted form of monitoring their partner's behaviour (Utz & Beukeboom, 2011).

Although low self-esteem individuals were found to experience more social networking site jealousy than high-self esteem individuals (Utz & Beukeboom, 2011), individuals with high self-esteem sill experience jealousy as a result of social networking site use. Self-esteem was found to moderate the effects of social networking site use and the need for popularity on social networking site jealousy and social networking site relationship happiness (Utz & Beukeboom, 2011). "For low-self-esteem individuals, the need for popularity predicted jealousy and relationship happiness" (Utz & Beukeboom, 2011, pg. 511). Zywica and Danowski (2008) found individuals compensate for a lack of self-esteem by striving for popularity and by being more popular on Facebook. A higher percentage of individuals with low self-esteem admitted to doing things on Facebook to look popular and think that this is important. Because individuals with low-self esteem try to enhance their self image on Facebook, they may be more sensitive to negative cues on social networking sites such as comments or pictures that are relationship threatening. Public discovery of a violation of the implicit or explicit rules of the relationship was found to be more severe than private disclosure (Afifi, Falato, & Weiner, 2008, as cited in Utz & Beukeboom, 2011). For high-self-esteem individuals, social networking site use for grooming was the main predictor of experiencing jealousy or relationship happiness

(Utz & Beukeboom, 2011). Grooming includes browsing the profiles of friends, which thereby increases the chances of seeing jealousy evoking information (Utz & Beukeboom, 2011). Regardless of self-esteem, there is a chance that individuals may experience romantic jealousy from social networking site use.

SNS are useful for bridging social capital (Steinfield et al., 2008) and bonding capital (Utz & Beukeboom, 2011), which refers to strong ties with close individuals. Although social network site users may experience relationship happiness due to publicly displayed affection of their partner, "the amount of information, the socially accepted way of monitoring the partner, and the public display of potentially jealousy-inducing events can lead to negative experiences" (Utz & Beukeboom, 2011, p. 525), especially for individuals with low self-esteem who have a high desire for popularity.

The Impact Facebook Rituals Have On Romantic Relationships

Mod (2010) expanded on the findings that feelings of jealousy can result from Facebook use, and looked at how specific Facebook rituals can impact romantic relationships offline. Mod (2010) used semi-structured interviews to see whether individuals had emotional attachments to the relationship status option, photographs, and public displays of affection (PDAs) on social networking sites. A total of 11 semi-structured interviews were conducted on third and fourth year undergraduate college students from Dublin. Seven women and four men ranging in age from 21 to 24 were recruited through snowball sampling. Prerequisites included that participants were regular users of Facebook, they have been members for over a year and a half, and are currently in a romantic relationship or had been during the time they were in college. The definition of a romantic relationship changes with the changing norms in society (Bogle,

2008). Because the definition of a romantic relationship is becoming more broad and ambiguous, for the purpose of the study, the definition was left up to the discretion of the participants (Bogle, 2008, as cited in Mod, 2010). The interviews began with a discussion of the participants' general reasons for using Facebook, how long it has been used for, likes and dislikes, as well as who they "tend to converse with on the website" (Mod, 2010, p.66). Questioning then focused on romantic relationships. Since studies have found that jealousy is an issue that comes up with Facebook, certain probing questions were added "which asked the interviewees to focus if they ever had been and to recall incidents which brought feelings of resentment or spite to the relationship" (Mod, 2010, p.66). Due to sample size, although the findings may not have been generalizable to the population using Facebook, the study does reveal specific rituals that may cause relational jealousy.

Passive and active activities. Mod (2010) found that the reasons participants used Facebook were similar to previous research (Gil de Zúñiga et al., 2012; Hum et al., 2011; Steinfield et al., 2008; Tosun, 2012; Valenzuela et al., 2009): to keep in contact with others, to remain up to date with the things that are happening, and to share interests and information. Even though how the romantic relationship was presented was not found to be important, most participants did state that they viewed their partner's page every time they logged on and were interested in their partner's online activities. Participants reported these "stalking" behaviours to be an important part of Facebook use, and done with friends they were closest to offline. Walther (2008, as cited in Mod, 2010) defined stalking as passive activities such as looking at someone's SNS profile without leaving a comment. Mod found that passive activities like "stalking" did not have an

effect on the participants' romantic relationships. It was the active activities such as posting photographs and contacting ex-partners that had more of an effect on feelings and emotions (Mod, 2010). Active activities were reported to not only elicit emotions but to also cause stress (Mod, 2010). As Mod (2010) pointed out, while photographs and letters from an ex partner can be discarded easily offline, doing so online is more likely to be seen as a public statement by others.

According to Mod (2010), dynamics of an individual's offline relationship can be affected by active activities such as changing the relationship status on Facebook. The relationship status allows couples to make their relationship official to others, which for some participants was seen as a step forward in the relationship and resulted in feelings of happiness as a result of the assurance and certainty it brought (Mod, 2010). Reasons for changing the relationship status such as "to scare other guys off" (Mod, 2010, p. 67) suggest that changing the relationship status to "in a relationship with" can also be a form of control (Mod, 2010). Participants who decided to leave their relationship status blank reported discussing this decision with their partner and that the main reason in leaving it blank was for privacy.

Public posts. Public displays of affection include posting photographs, jokes that not everyone will understand and messages such as "I love you". Mod (2010) found that territory and possession was a part of the reason people made public displays of affection. One male participant reported leaving comments on his girlfriend's profile after a stranger had commented on her profile, to show others that he was her boyfriend. Public displays are also a feature that can show a couple's superiority to the general audience.

Photographs were found to be the cause of most relationship problems and to evoke feelings of jealousy more than anything else on Facebook. One participant reported feelings of anger and jealousy when seeing pictures of his girlfriend's ex-partner on her profile. He ended up being successful in getting his girlfriend to take the pictures down. Another participant reported that Facebook was bringing problems to the relationship even though her partner did not have Facebook. Pictures were posted of her boyfriend on another girl's profile page. Seeing the ambiguous pictures of her boyfriend hugging this girl made her question his fidelity.

This study showed that Facebook had the ability to affect relationships offline (Mod, 2010). Although the design and features of Facebook change an individual's emotions offline, the online persona was found to stay the same. One participant said that she did not use the website to do anything after finding pictures of her boyfriend that were posted on another girl's wall because of the belief that no one would do that. According to Mod (2010), Facebook has the ability to bring issues to relationships that couples would not have had to face before, and it offers no solutions or ways to manage these problems. Mod (2010) suggested doing a similar study on working class people of the same age group and on older couples, to see if these groups of people would yield similar results.

As the literature shows, social networking sites have become an important part of many individuals' lives. Although there are many advantages to using social networking sites, these sites also have the ability to negatively affect individuals and the relationships they have with others. Chapter three explores the methodology used to determine how Facebook use can affect romantic relationships offline.

Chapter Three: Methodology

This chapter includes a discussion of the methodology that is used to answer the question: how does Facebook use affect romantic relationships offline? This discussion begins with a review of the research design and a description of how participants were recruited. A detailed description of the instruments and materials follows, along with a discussion of the research procedures used within the study**.**

Methods of Analysis

A quantitative research approach was used to investigate the question: how does Facebook use affect romantic relationships offline? As well, a thematic study of the open-ended questions was used. Quantitative research designs allow for data to be obtained from a larger numbers of participants and are therefore better suited for identifying general trends in populations and generalizing findings to the larger population. This study used descriptive statistics to quantitatively summarize the data that was gathered from the online survey (Gall, Gall, & Borg, 2007). Descriptive statistics, including frequency counts and percentages for each variable was conducted to analyze the data. To determine the association between factors, further analysis was completed using the Kendall tau (τ) coefficient (Gall et al., 2007).

Frequency distribution was used on the open-ended survey questions that allowed for participants to provide their own answers. Each response was analyzed for themes that were organized into categories by the researcher. Specific responses were tabulated.

To determine internal consistency of the survey questionnaire, Cronbach's alpha (α) coefficient was calculated to determine split half reliability (Gliem & Gliem, 2003). Descriptive statistics was run for the entire sample.

The data was separated into two age groups. One group included individuals between the ages of 18 to 29. The second group included individuals who were 30 years of age and older. This separation was done in order to see if age played a part in how individuals use Facebook, in their experiences on the SNS and in how these experiences affect their romantic relationship offline. The groups were chosen on the basis of life stages. Erikson (1950,1968, as cited in Arnett, 2000) believed industrialized societies allow for an extended period of self-exploration. This distinct developmental period has been termed "emerging adulthood" and is typically defined as 18 to 25 years of age. It is characterised by change and exploration in life before gradually arriving at "more enduring choices in love, work, and worldviews" (Arnett, 2000, p. 479). Group I was therefore created to look at individuals who are in this period of change and exploration. Group II was created to look at individuals who have reached "young adulthood," which has been found to intensify in the late twenties for many, and is often reached by age 30 (Arnett, 2000). The data was compared and Mann-Whitney U tests (Gall et al., 2007), Pearson's chi-square tests and Fisher's exact tests were used to determine any significant differences between the two groups.

The software package IBM SPSS statistics was used for statistical analysis of the data. Version 22 of the software for Mac was downloaded from the University of Lethbridge information technology (IT) services IT store.

Participants. This study included men and women who were at least 18 years of age and who were currently in a romantic relationship or could speak to a past romantic relationship. To be part of the study the participant and their partner must currently have, or have had an active account on Facebook in the past. All participants were from

Canada. From the recruitment methods, a large number of the population were from Alberta Canada.

The term romantic relationship can be defined as any intimate and emotional relationships built between two individuals (same sex or heterosexual). However, for this study, romantic relationship will not be defined because it means different things to different people. According to Furman (2006, as cited in Mod, 2010) using a broad definition of romantic relationships may make it difficult to generalize findings, but the norms change regarding what a romantic relationship is. This makes the definition broad and ambiguous (Bogle, 2008, as cited in Mod, 2010). Also, due to the variety of SNS that are available and the changing nature of SNS, this study only used Facebook. Only the data from respondents who met these prerequisites were included in the study. The goal was to get at least 100 participants to complete the online survey. The larger the number of participants, the higher the confidence interval and lower the margin of error. Principles have been created by researchers for determining the minimum number of participants needed for the different research methods (Gall et al., 2007). Seymour Sudman (1976) suggested that for survey research there should be "a minimum of 100 participants in each major subgroup" and a minimum of "20 to 50 participants in each minor subgroup" (as cited in Gall et al., 2007, p. 176).

Selection of participants. Convenience sample methods were used to recruit participants. The recruitment strategy also included snowball sampling in order to gain a more diverse sample. Selection methods are described below.

Email. An invitation to participate in the study was sent to all of the Master of Education students at the University of Lethbridge through the Faculty of Education listserv. The email was sent out through a University of Lethbridge email account and contained a description of the study along with a link on the email. The link took individuals to the adult consent form and the online survey. The email also asked the individual to forward the email to others who are over the age of 18, who has or had an active Facebook account, and who can speak to a current or past romantic relationship where their partner also has or had an active Facebook account while in the relationship. The description of the study and link was also sent out to all of the Master of Education students at the University of Lethbridge through the Faculty of Education listserv in an issue of the School of Gradate Studies Study Guide (SGS), which is emailed out to students from a University of Lethbridge email account.

Posters. Posters were initially approved as a way to recruit members for the study. These posters were to be placed around the University of Lethbridge. They included the purpose of the study, which is to look at social networking site use (Facebook) and its perceived effects on romantic relationships. There was going to be a QR code on the poster that could be scanned by smart phones, which take individuals to the online survey that was created for the purpose of the study. The poster was also going to have the link to the online survey on it in case there were any issues with the QR code or for those who were interested in participating and do not have smartphones. The link was to take participants to the adult consent form and online survey. The poster was to state that all information collected would be kept confidential. The posters (appendix B)

were to only be distributed within the University of Lethbridge. However, due to

conducting the study from outside of the Lethbridge area, posters were not used.

      Social Networking Sites. The survey was also Tweeted on Twitter by my

supervisor Lorraine Beaudin and posted on Facebook.

Instruments and Materials

      This study utilized a self created online self-report questionnaire (appendix C).

Online questionnaires are beneficial in that they are standardized and participants can fill

them out when it is convenient for them to do so. Online questionnaires also allow data to

be collected from a wide, geographic sample. The online questionnaire allows for

widespread distribution, increasing the potential to gather large participant numbers,

which give the results of the study better generalizability.

      The questionnaire had multiple-choice questions, questions where the participant

could put numbers within a text box, Likert-like scales, and check boxes. The multiple-

choice questions used a drop down menu for participants to provide their answer. They

indicated the participant's gender, location of residence, age, if they are a student and/or

are employed, if they have or have had an active account on Facebook, if they are

currently in a romantic relationship or if they can speak to a past romantic relationship, if

their partner or past partner also has or has had an active Facebook account, how long

they are or were in the relationship for, the type of romantic relationship they are in or

were in, and SNS use. The Likert-like scales measured relationship characteristics, SNS

use for maintenance and grooming, SNS jealousy, monitoring behaviour, SNS

monitoring, trait jealousy, the need for popularity, unacceptable online behaviour, and

change in monitoring behaviour. There was a multiple choice question at the end which

asked participants if they have experienced happiness in their romantic relationship after using the SNS Facebook that they and their partner/former partner are both members of. If the answer was yes, this was followed by two questions that both used check boxes. These questions asked what was the cause of the feelings and how has the happiness affected their relationship. There was a multiple-choice question, which asked participants if they experienced jealousy in their romantic relationship after using Facebook, that they and their partner/former partner are both members of. If the answer was yes, this was followed by two questions that both used check boxes. These questions asked what was the cause of the jealous feelings and how has the jealousy affected their relationship.

Online questionnaire. The questionnaire was created using SurveyMonkey, an online survey software and questionnaire tool. SurveyMonkey's online survey format is a secure format, which ensures participant anonymity. It utilizes temporary Internet browser cookies to try to ensure that each participant only completes the survey once. SurveyMonkey's tools allowed for a survey to be created that was easy for participants to use. Skip logic allowed for participants to skip over questions of the survey that did not apply to them based on previous answers. It also disqualified participants who did not meet the required criteria and ensured that participants provided consent. At the beginning of the survey participants were made aware that they could not move forward in the survey without selecting an answer and that by moving forward, they cannot go back and change previous answers.

Instrument. Based on previous research, the internet-based questionnaire included items relating to demographic information, relationship characteristics (Aylor & Dainton, 2001; Utz & Beukeboom, 2011), social networking site use (Ellison et al., 2007; Utz & Beukeboom, 2011), social networking site use for profile maintenance and grooming (Utz & Beukeboom, 2011), social networking site jealousy (Muise et al., 2009), monitoring behaviour (Utz & Beukeboom, 2011), SNS monitoring behaviour (Muise et al., 2009), trait jealousy (Utz & Beukeboom, 2011), need for popularity (Santor, Messervey, & Kusumakar, 2000), unacceptable online activity (Helsper & Whitty, 2010), and changes in monitoring behaviour. There were 5 questions at the end of the questionnaire asking participants if they have experienced happiness and jealousy in their romantic relationship/past romantic relationship after using the social networking site Facebook that they and their partner/former partner use. Participants who chose yes, they were then asked to identify the cause of those feelings and how those feelings affected their relationship/past relationship. A thank you page followed this.

The majority of questions used in the survey were taken with permission or adapted from previous studies. The few that were researcher created were created in order to expand upon previous research.

Consent form. The first two pages of the survey is the participant (adult) consent form (appendix A). The first question ensured that participants were aware that their participation in the online survey indicates that they understand and agree to the conditions within the consent form. If participants chose to start the survey they were directed to question two. If participants chose exit now the survey was then closed.

Demographics. The questionnaire (appendix C) begins with the second question after the participant (adult) consent form on the third page. The second question asked the participant to identify their gender. The third question asked the participant to report their age. The fourth question asked the participant to identify their current country of residence to distinguish between participants recruited from different locations. The fifth and sixth questions asked the participant if they are currently a student and/or employed. Question five was adapted from the SurveyMonkey question bank. The seventh question asked the participant if they have an active Facebook account. If the participant answered no, they were directed to the eighth question, which asked if they had an active Facebook account in the past. The ninth question asked the participant if they are currently in a romantic relationship. If the participant answered no, they were directed to the tenth question, which asked the participant if they could speak to a past relationship. Question eleven asked the participant if their partner has or if their former partner had an active account on Facebook. Question twelve asked the participant how many months they have been in the relationship for or had been in the relationship for. Question thirteen asked the participant to label what type of romantic relationship they are in or were in. The choices are casually dating, serious dating, engaged and married. Aylor and Dainton (2001) used these descriptors in their study. According to Aylor and Dainton (2001), in interpersonal research relationship type has been recognized "as an important contextual element in the relationship development process" (p. 371), accounting for variance in emotional experience and expression (Bringle & Buunk, 1985, as cited in Aylor & Dainton, 2001). Participants were asked to provide their answers for these questions by using a drop down menu.

Relationship characteristics. Question 14 was based on relationship characteristic measures from an online survey created by Utz and Beukeboom (2011). It asked participants how happy they are/were in general with their relationship. Participants were asked to rate their relationship satisfaction on a 5-point scale ranging from 1-not at all happy to 5-very happy. Utz and Beukeboom (2011) have found that relationship satisfaction is positively related to SNS relationship happiness. They found individuals are more likely to experience positive emotions while browsing SNS if they are satisfied with the relationship overall.

SNS use. Question 15 was taken from an online survey created by Utz and Beukeboom (2011). It asks participants "how often they log/logged in (several times a day, daily, several times a week, once a week, several times a month, less often)". Question 16 was researcher created for the study and asked participants approximately how many hours a day they spend on Facebook.

SNS intensity. Questions 17-19 measured SNS intensity. The Likert items were adapted from the Facebook intensity scale by Ellison et al., (2007), which was created to "obtain a better measure of Facebook usage than frequency or duration indices" (p.1150). Participants were asked how far they agreed with the statements "Facebook is/was part of my everyday activity," "I would be sorry if Facebook shut down," and "I feel/felt out of touch when I haven't logged onto Facebook for a while" on a 5-point scale (1=strongly disagree, 5=strongly agree).

SNS use for profile maintenance and grooming. Six items assessed what types of activities participants do on social networking sites (Utz & Beukeboom, 2011). Participants indicated how often they engage in various activities on a five-point scale (1=almost never to 5=daily).

Three of the items refer "to self presentation and profile maintenance" (Utz & Beukeboom, 2011, p. 517). Questions 20 and 21 were adapted from Utz & Beukeboom (2011) and included "how often do you/did you upload pictures" and "how often do you/did you change your profile?" Question 22, "how often do you/did you change your status or post things on your page?" was created for the study.

Three of the items refer to grooming. Questions 23 and 24 were adapted from Utz & Beukeboom (2011) and included "how often do you/did you visit the profiles of close friends?" and "how often do you/did you leave messages (wall posts) on the profiles of acquaintances?" Question 25, "how often do you/did you leave messages (wall posts) on your partner's profile" was created for the study.

SNS jealousy. Questions 26 and 27 measured SNS jealousy, which was assessed using the Facebook jealousy scale created by Muise et al. (2009). Participants were asked to indicate on a five-point scale (1=very unlikely to 5=very likely) "how likely are you/were you to become jealous after your partner has added an unknown member of the opposite sex?" and "how likely are you/were you to monitor your partner's activities on Facebook?" (Muise et al., 2009, p. 442). Question 28, "how likely are you to become jealous after seeing that your partner has posted something on the page of a member of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples)?" was researcher created for the study.

Monitoring behaviour. "Three items in the style of Pfeiffer and Wong's (1989) behavioural jealousy subscale" assessed monitoring behaviour (Utz & Beukeboom, 2011, p.518). Question 29, "how often do you look/have you looked through your partner's drawers, handbag, or pockets" was adapted from Pfeiffer & Wong (1989). Questions 30 and 31 were adapted from Utz and Beukeboom (2011) who developed questions to capture socially unaccepted uses of new media. "How often do you secretly read/have you secretly read the text messages on your partner's mobile phone?" and "how often do you secretly read/have you secretly read your partner's emails?" (Utz & Beukeboom, 2011, p. 518) were used. Participants indicated on a five-point scale (1=*never* to 5=all the *time*) how often they engage in each of the behaviours.

SNS monitoring behaviour. Question 32, which asks participants how likely they are or how likely they were to monitor their partner's activities on the SNS was adapted from the SNS jealousy scale created by Muise et al. (2009). Questions 33 and 34 were researcher created for the study. They include "how likely are you/were you to monitor your partner's postings or status updates?" and "how likely are you/were you to monitor who your partner adds?" Participants answered how likely they are to do each item on a five-point scale (ranging from 1=*very unlikely* to 5=*very likely*).

Trait jealousy. Questions 35 and 36 measured trait jealousy and were taken from Utz & Beukeboom (2011). Participants indicated on a five-point scale (ranging from 1=disagree strongly to 5=strongly agree) how much they agree with the statement "jealous" and "mistrustful" describing them. Question 37 was researcher created for the questionnaire. Participants were asked how much they agree with the term "suspicious" describing them.

Need for popularity. Questions 38 to 40 measured the need for popularity using three items from the popularity scale created by Santor et al. (2000). The items used were "it's important that people think I'm popular," "I've bought things because they were the 'in' things to have," and "At times, I've ignored some people in order to be more popular with others". Participants indicated their agreement with each statement using a 5-point scale.

Unacceptable behaviour on SNS. Questions 41 to 44 measured how comfortable individuals are with certain online behaviours using items from Helsper and Whitty (2010). These items included sharing personal information with someone else of the opposite sex (for heterosexual couples) or same sex (for same sex couples), communication with someone else of the opposite sex (for heterosexual couples) or same sex (for same sex couples), flirting online with someone else, and disclosing intimate details to someone else. On a 5-point scale (ranging from 1=very uncomfortable to 5= very comfortable), participants rated how they would feel with their partner engaging in each activity online.

Change in monitoring behaviour. Question 45 was researcher created and checked into any increase in monitoring behaviour due to the idea that one's partner is engaging in activities they are uncomfortable with. Participants rated on a 5 point scale (ranging from 1 to 5) how likely they would be to begin to monitor or to increase monitoring behaviour if they felt their partner was engaging in any activity they felt unhappy with.

How SNS happiness and jealousy has affected the relationship. Questions 46 to 51 were researcher created. Question 46 was a yes/no question asking the participant if

they have experienced happiness in their romantic relationship after using the social networking site Facebook that they and their partner/former partner are both a member of. If they chose yes, they were then asked to provide the cause of the feelings (question 47) and in which ways do they feel that these feelings of happiness have affected their relationship (question 48). Question 49 was a yes/no question asking the participant if they have experienced jealousy in their romantic relationship after using the social networking site Facebook that they and their partner/former partner are both a member of. If they chose yes, they were then asked to provide the cause of the feelings (question 50) and in which ways do they feel that jealousy has affected their relationship (question 51). Questions 46 and 49 were multiple-choice questions. Questions 47, 48, 50 and 51 used check boxes. The last check box allowed participants to provide an answer that is not included in the other boxes.

Statement of Ethical Conduct

This study adhered to the Canadian Psychological Association's (2000) *Canadian Code of Ethics for Psychologists*. Ethical conduct was maintained throughout the course of this study. Approval for the study by the Human Subjects Research Committee (HSRC) at the University of Lethbridge was granted on June 5, 2014. This ensured that this study abided by the Tri-Council Policy Statement (TCPS) regarding ethical conduct for research involving humans that is endorsed by the HSRC at University of Lethbridge.

Procedures

Emails were sent out, tweets were sent out on Twitter, and posts were posted on Facebook. Although posters (appendix C) were created to be placed around the University of Lethbridge (Alberta) for the participants to gain access to the online

questionnaire, they were not used due to the researcher living outside of the Lethbridge area. The online questionnaire was posted from June 9, 2014 to September 11, 2014. Because the desired number of participants (a minimum of 100 participants) was reached within that time period, there was no need to repost the online survey for another month and no need to remind individuals about the study.

Collecting data. Neither SurveyMonkey nor the researcher collected any identifying or private information. Any surveys that did not meet inclusion criteria were deleted. Only those meeting the inclusion criteria were transferred from the SurveyMonkey site to a folder on the researcher's computer that is password-protected for analysis. The data was also stored on a password-protected USB flash drive, which was locked in a filing cabinet only accessible by the researcher to prevent the loss of data in the event of computer failure. The data will be kept for five years after the completion of the study before the information obtained is destroyed.

Instrument Reliability and Validity

Given the nature of the self-reporting questionnaire, there is potential data quality and response validity problems associated with self-report data (Fan et al., 2006). Problems with self-report data include uncertainty about how honest participants are with their answers. The role the audience plays in affecting romantic relationships is also important to consider. There is the potential for participants to be concerned with the way their relationship appears to others. As Zhao et al., (2008) found that all participants attempted to "project a self that is socially desirable" (p. 1827). This may cause some participants under some conditions to answer questions in a more socially desirable direction than they would in other conditions (Richman, Kiesler, Weisband & Drasgow,

1999). This is known as the social desirability distortion. It has been found that distortion can be reduced with assuring confidentiality (Woods & McNamara, 1980 as cited in Richman et al., 1999). To try and limit this from occurring, it was stressed to participants that no identifying information would be collected, that they had the ability to exit the survey at any time and if they choose to do so, the data would not be saved or used in the study.

In order to determine the reliability of the survey's design and factor subscales, Cronbach's alpha (α) was used. As suggested by Cronbach (1951, as cited in Field, 2013), internal consistency was calculated by running separate reliability analyses for all of the subscales within the questionnaire. The items in each of the subscales were taken and drawn from literature. Overall, good reliability of the survey's design and factor's subscales were found.

SNS use (Facebook intensity). Three items (questions 17, 18, and 19) were used to measure the intensity of Facebook use. A coefficient alpha of 0.76 was found, indicating adequate reliability.

Profile maintenance and grooming. Six items were used to measure what people actually do on Facebook. Three items (questions 20, 21, and 22) were used to measure profile maintenance. A coefficient alpha of 0.51 was found for the two items indicating less than adequate reliability. Three items (questions 23, 24, and 25) were used to measure grooming. Less than adequate reliability was also found for these three items as a coefficient alpha of 0.59 was found.

SNS jealousy. Three items (questions 26, 27, and 28) were used to measure SNS (Facebook) jealousy. A coefficient alpha of 0.86 was found indicating good reliability.

Monitoring behaviour. Three items (questions 29, 30, and 31) were used to measure participants' monitoring behaviour. A coefficient alpha of 0.83 was found indicating good reliability.

SNS monitoring. Three items (questions 32, 33, and 34) were used to measure participants' monitoring behaviour on the SNS Facebook. Good reliability was found with a coefficient alpha of 0.87.

Trait jealousy. Three items (questions 35, 36, and 37) were used to measure trait jealousy. A coefficient alpha of 0.82 was found indicating good reliability.

Need for popularity. Three items (questions 38, 39, and 40) were used to measure participants' need for popularity. Less than adequate reliability of the subscale was found with a coefficient alpha of 0.61.

Unacceptable behaviour on SNS. Four items (questions 41, 42, 43, and 44) were used to measure how comfortable individuals are with certain online behaviours using items. A coefficient alpha of 0.78 was found indicating adequate reliability of the subscale.

Frequency distribution was used on the survey questions that allowed for participants to provide their own answers (questions 47, 48, 50 and 51). Each response was analyzed for units of meaning or themes and these themes are presented. Reliability for the survey questions that allowed for participants to provide their own answers was established by having the research supervisor look over the answers independently from the researcher. Any discrepancies were discussed until an agreement was made.

Analysis

Analysis of the variables through the Shapiro-Wilk test and Q-Q plots indicated violations in normal distribution. This means that the individual variables tested were not normally distributed. From the Q-Q plots the variables tested were shown to be not symmetrical (did not have a skew of 0) and did not have a kurtosis of 0. The Shapiro-Wilk test confirmed that the distribution of scores deviates from "a normally distributed set of scores with the same mean and standard deviation" (Field, 2013, p. 184). As a result, nonparametric statistical analyses were used to analyze the data.

In order to determine the differences in data between group I and group II, the Mann-Whitney test and Pearson's chi-square test were used. The Mann-Whitney test is a nonparametric test that was used to compare two independent conditions with ordinal data (Field, 2013). The Pearson's chi-square test (χ^2) was used to test whether two categorical variables are independent (Field, 2013). Fisher's exact test was used for when more than 20% of expected frequencies were below 5 and chi-square test assumptions are violated (Field, 2013). The purpose of these tests were to see if age was a factor in variables such as Facebook usage, experiences of SNS happiness and jealousy and how these feelings have affected romantic relationships.

Correlations Between Variables

Kendall tau (τ) correlations were applied in order to assess the relationship between Facebook jealousy and the other factor scales and subscales, as well as the relationship between Facebook happiness and the other factor scales and subscales. Kendall tau is a non-parametric correlation and is best used when many scores within a

data set have the same rank (Field, 2013). All of the tests were 2-tailed, with a significance level set at $p \leq .05$.

Frequency Distribution of Open-Ended Questions

Participants were given the opportunity to provide their own causes of happiness and jealousy (questions 47 and 50) and to provide their own ways in which happiness and jealousy (questions 48 and 51) impacted their romantic relationship if the option needed wasn't listed in those that were provided for each question. Participants were allowed to fill out a single line of text (50 characters long) for 'other'. Each answer for 'other' was read and analyzed for units of meaning or themes. The number of times each theme occurred in the data set was then presented.

The focus of this chapter was to describe in detail the process of preparing the online survey and gathering participants. The process of gathering data, checking for survey reliability and validity, and data analysis was also described. The results from the online survey and data analysis are presented next in Chapter Four.

Chapter Four: Results

This chapter will focus on presenting detailed results of the online survey. The descriptive results will be presented along with the results of the statistical analyses preformed on the data to answer the survey question: how does Facebook use affect romantic relationships offline? Significant differences between groups I and II are presented to explore the ways in which participants 18 to 39 years of age differ from participants 40 years of age and older particularly in their experiences with Facebook and how Facebook has affected their romantic relationships. Correlations between variables are also presented.

An overview of the participant demographics will be presented. Descriptive statistics including frequency counts and percentages will also be provided for each of the research questions measuring relationship characteristics, Facebook use, Facebook jealousy, monitoring behaviours, trait jealousy, the need for popularity, unacceptable behaviour on Facebook, changes in monitoring behaviour, as well as Facebook happiness and jealousy and the effects of these feelings on romantic relationships.

Data Preparation

Ethical approval for this study was granted from the University of Lethbridge Faculty of Education Human Subjects Research Committee (HSRC) on June 5, 2014. The online survey on Survey Monkey was open on June 9, 2014 and closed on September 11, 2014.

Data Review

After an initial review of the results, the data was reviewed for any missing or incomplete responses. This includes a review of the open-ended responses that were

provided by participants. The responses that were entered in as years by participants were changed to months for the demographics question measuring length of time in the relationship (question 12). After reviewing the questions, which allowed participants to enter in their own responses (questions 47, 48, 50, and 51), changes were made to one of the participant's responses on how their relationship was affected by Facebook based on what they wrote in the 'other' option. The survey design did not allow for participants to only choose the 'other' option. Even though there was space for participants to write a response in 'other', it is possible that not being able to choose only 'other' influenced the participant's responses for how Facebook has affected their current/past romantic relationship. Participants had to choose one of the options listed. Some participants chose responses that were listed but then clarified their choices in 'other'. Therefore, for a more accurate statistical summary of the 'other' options, responses were taken out that did not answer the question such as N/A, nothing, and responses that were written to clarify and/or add to a previous choice.

Descriptive Analysis

General demographics. One hundred and thirty participants answered all the survey questions. From those participants, a total of 127 participants completed the survey and submitted their responses to be used by choosing done at the very end of the survey. Three participants were excluded due to their geographical location being outside of Canada. A total of 124 individuals met the criteria and completed the online survey. From the 124 participants who completed the survey, two groups were created on the basis of age. Group I contained 89 participants who were 18-29 years of age and group II contained 35 participants who were 30 years of age and older. From the total

number of participants 22 (17.7%) were male, 101 (1.5%) were female, and 1 (0.8%)

selected the 'other' category identifying as transmasculine genderqueer. The mean age

was 27.98 (*SD* = 7.27), ranging from 18 years of age to 55 years of age. All 124

participants (100%) were from Canada.

Information on participant education was collected. Eighty-five participants

(68.5%) reported not being in school while the remaining participants reported being

enrolled in school. One participant (0.8%) reported being in high school or equivalent, 1

(0.8%) reported being enrolled part time in a two year undergraduate college/university

program, 8 (6.5%) reported being enrolled full time in a two year undergraduate

college/university program, 1 (0.8%) reported being enrolled part time in a four year

undergraduate college/university program, 10 (8.1%) reported being enrolled full time in

a four year undergraduate/university program, 4 (3.2%) reported being enrolled part time

in graduate school, and 14 (11.3%) reported being enrolled full time in graduate school.

Employment information was collected. Seventy-one participants (57.3%)

reported being employed full time, 29 (23.4%) reported being employed part time, and 16

(12.9%) reported not being employed. No participants reported being retired.

Responses on Facebook accounts and romantic relationships were also collected.

From the total number of participants, 121 (97.6%) reported currently having an active

Facebook account. Three participants (2.4%) reported that they currently do not have an

active Facebook account, but all 3 reported having had an active account in the past,

while in a relationship. From the total number of participants, 104 (83.9%) reported

currently being in a romantic relationship. Twenty participants (16.1%) reported that they

are not currently in a romantic relationship, but all 20 reported having had a past romantic

relationship. All of the 124 participants (100%) reported that their partner also has or has had an active Facebook account. When asked about their past/current relationship status 6 participants (4.8%) reported casual dating, 65 participants (52.4%) reported serious dating, 18 participants (14.5%) reported being engaged, and 35 participants (28.2%) reported being married. The mean relationship length for the total number of participants was 63.9 months ($SD = 63.7$) with a range of 2 to 396 months.

Demographics for group I. A total of 89 participants were 18 to 29 years of age, with a mean age of 24.48 ($SD = 3.63$). From these 89 participants, 14 (15.7%) identified as male, 74 (83.1%) identified as female and 1 (1.1%) selected the 'other' category identifying as transmasculine genderqueer. All 89 participants (100%) were from Canada.

From the total 89 participants aged 18 to 29, 54 (60.7%) reported not being a student. One participant (1.1%) reported being enrolled in high school or equivalent. One participant (1.1%) reported being enrolled part time in a two year undergraduate college/university program, 8 (9.0%) reported being enrolled full time in a two-year undergraduate college/university program, 1 (1.1%) reported being enrolled part time in a four year undergraduate college/university program, 10 (11.2%) reported being enrolled full time in a four year undergraduate college/university program, 2 (2.2%) reported being enrolled part time in graduate school, and 12 (13.5%) reported being enrolled full time in graduate school.

Out of the 89 participants aged 18 to 29, 47 (52.8%) reported being employed full time, 25 (28.1%) reported being employed part time, 5 (5.6%) reported being self employed, and 12 (13.5%) reported not being employed. No participants reported being retired.

From the 89 participants aged 18 to 29, 86 (96.6%) reported currently having an active Facebook account. Three participants (3.4%) reported that they currently do not have an active Facebook account, but all 3 reported having had an active account in the past. Seventy-one participants (79.8%) reported currently being in a romantic relationship. Eighteen participants (20.2%) reported that they are not currently in a romantic relationship, but all 18 reported having had a past romantic relationship. All 89 participants (100%) reported that their partner also has or has had an active Facebook account. When asked about their past/current relationship status, 4 (4.5%) reported casual dating, 57 (64.0%) reported serious dating, 12 (13.5%) reported being engaged, and 16 (18.0%) reported being married. The mean relationship length for the 89 participants aged 18 to 29 was 45.7 months ($SD = 37.6$) with a range of 2 to 156 months.

Demographics for group II. A total of 35 participants were 30 years of age and over. The mean age was 36.86 ($SD = 6.66$), ranging from 30 years of age to 55 years of age. From these 35 participants, 8 (22.9%) identified as male, and 27 (77.1%) identified as female. All 35 participants (100%) were from Canada.

From the total 35 participants aged 30 and above, 31 (88.6%) reported not being a student. Two (5.7%) reported being enrolled part time in graduate school and 2 (5.7%) reported being enrolled full time in graduate school.

Twenty-four (68.6%) of the 35 participants aged 30 and above reported being employed full time, 4 (11.4%) reported being enrolled part time, 3 (8.6%) reported being self-employed, and 4 (11.4%) reported not being employed. No participants reported being retired.

From the 35 participants aged 30 and above, all of the participants (100%) reported currently having an active Facebook account. Thirty-three participants (94.3%) reported currently being in a romantic relationship. Two participants (5.7%) reported that they are not currently in a romantic relationship, but both reported that they have had a romantic relationship in the past. All of the 35 participants (100%) who are aged 30 and above reported that their partner also has or has had an active Facebook account. When asked about their past/current relationship status, 2 (5.7%) reported casual dating, 8 (22.9%) reported serious dating, 6 (17.1%) reported being engaged, and 19 (54.3%) reported being married. The mean relationship length for the 35 participants aged 30 and above was 110.1 months ($SD = 89.2$) with a range of 2 to 396 months.

Table 1

Gender

Demographics	Total		Group I		Group II	
	n	%	n	%	n	%
Gender						
Male	22	17.7	14	15.7	8	22.9
Female	101	81.5	74	83.1	27	77.1
Other	1	0.8	1	1.1	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 2

Age of Participants

	Current Age			
	n	Mean	SD	Range
Total sample	124	27.98	7.27	18-55
Group I	89	24.48	3.63	18-29
Group II	35	36.86	6.66	30-55

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 3

Facebook and Relationship Information

Demographics	Total		Group I		Group II	
	n	%	n	%	n	%
Past/current relationship status						
Casual dating	6	4.8	4	4.5	2	5.7
Serious dating	65	52.4	57	64.0	8	22.9
Engaged	18	14.5	12	13.5	6	17.1
Married	35	28.2	16	18.0	19	54.3

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 4

Length of Relationship

	Relationship Length (Months)			
	n	Mean	SD	Range
Total sample	124	63.9	63.7	2-396
Group I	89	45.7	37.6	2-156
Group II	35	110.1	89.2	2-396

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Relationship characteristics (relationship satisfaction). In order to determine relationship satisfaction, participants were asked how satisfied they are/were with their relationship overall. The data presented for relationship satisfaction can be found in table 5. From the total number of participants (124), 3 (2.4%) reported being not at all happy, 7 (5.6%) reported being less happy, 8 (6.5%) reported being neutral, 46 (37.1%) reported being happy, and 60 (48.4%) reported being very happy. The majority of participants reported being happy or very happy with their relationship.

Relationship characteristics (relationship satisfaction) for group I. From the total 89 participants ages 18 to 29, none reported being not at all happy. Six participants (6.7%) reported being less happy, 8 (9%) reported being neutral, 25 (28.1%) reported being happy, and 50 (56.2%) reported being very happy.

Relationship characteristics (relationship satisfaction) for group II. From the total 35 participants who are 30 years of age and above, 3 (8.6%) reported being not at all happy, and 1 participant (2.9%) reported being less happy. There were no participants in this group who reported being neutral. Twenty-one participants (60.0%) reported being happy, and 10 (28.6%) reported being very happy.

Differences in relationship characteristics (relationship satisfaction). The

Mann-Whitney test was used to determine if there were significant differences in

relationship satisfaction between participants in group I and group II. Relationship

satisfaction for Group I (Mean rank= 66.52) was found to differ significantly from group

II (Mean rank= 52.27) ($U = 1,199.50$, $z = -2.175$, $p = 0.030$). The majority of participants

in group I (56.2%) reported that they are or were very happy within their romantic

relationship while the majority of participants in group II (60.0%) reported that they are

or were happy within their romantic relationship.

Table 5

Frequency Counts and Percentages for Relationship Characteristics (Relationship

Satisfaction)

	Not At All Happy		Less Happy		Neutral		Happy		Very Happy	
Total Responses	f	%	f	%	f	%	f	%	f	%
How satisfied are you/were you with your relationship overall?										
Total	3	2.4	7	5.6	8	6.5	46	37.1	60	48.4
Group I	0	0.0	6	6.7	8	9.0	25	28.1	50	56.2
Group II	3	8.6	1	2.9	0	0.0	21	60.0	10	28.6

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for Facebook use. In order to determine Facebook use, the

following were examined: log in frequency, log in time, Facebook intensity, and

Facebook use for profile maintenance and grooming. The data presented for Facebook

use can be found in Tables 6 to 8.

When asked about log in frequency, 75 participants (60.5%) from the total number of participants who completed the survey reported logging in several times a day. 35 (28.2%) reported logging in daily, 12 (9.7%) reported logging in several times a week, 1 (0.8%) reported logging in once a week, no participants reported logging in several times a month, and 1 (0.8%) reported logging in less often.

When the total number of participants were asked about the daily time spent on Facebook, 41 (33.1%) reported less than one hour, 48 (38.7%) reported one hour, 19 (15.3%) reported two hours, 10 (8.1%) reported three hours, 2 (1.6%) reported four hours, 1 (0.8%) reported five or more hours, and 3 (2.4%) choose does not apply I do/did not log on daily.

To measure Facebook intensity participants were asked how strongly they agreed or disagreed to three statements. The first statement participants were asked about was 'Facebook is/was part of my everyday activity'. From the total number of participants, 3 (2.4%) chose strongly disagree, 7 (5.6%) chose disagree, 13 (10.5%) chose neutral, 63 (50.8) chose agree, and 38 (30.6%) chose strongly agree. 'I would be sorry if Facebook shut down' was the second statement used to measure Facebook intensity. From the total number of participants, 14 (11.3%) chose strongly disagree, 13 (10.5%) chose disagree, 40 (32.3%) chose neutral, 41 (33.1%) chose agree, and 16 (12.9%) chose strongly agree. The third statement was 'I feel/felt out of touch when I haven't logged onto Facebook in a while'. From the total number of participants, 7 (5.6%) chose strongly disagree, 35 (28.2%) chose disagree, 31 (25.0%) chose neutral, 42 (33.9%) chose agree and 9 (7.3%) chose strongly agree.

To measure how participants used Facebook for profile maintenance and grooming, participants were asked how often they engaged in six different behaviours on Facebook. When asked how often they uploaded pictures, 48 (38.7%) reported almost never, 56 (45.2%) reported a few times a month, 18 (14.5%) reported weekly, no participants reported once a day, 1 (0.8%) reported a few times a day, and 1 (0.8%) chose N/A. When asked how often they changed their profile, 89 (71.8%) reported almost never, 29 (23.4%) reported a few times a month, 3 (2.4%) reported weekly, 1 (0.8%) reported once a day, no participants reported a few times a day, and 2 (1.6%) chose N/A. When asked how often they changed their status or post things on their page, 32 (25.8%) reported almost never, 60 (48.4%) reported a few times a month, 19 (15.3%) reported weekly, 8 (6.5%) reported once a day, 4 (3.2%) reported a few times a day, and 1 (0.8%) chose N/A. When asked how often they visit/visited the profile of close friends, 24 (19.4%) reported almost never, 49 (39.5%) a few times a month, 29 (23.4%) reported weekly, 10 (8.1%) reported once a day, 10 (8.1%) reported a few times a day, and 2 (1.6%) chose N/A. When asked how often they leave/left messages (wall posts) on the profiles of acquaintances, 56 (45.2%) reported almost never, 48 (38.7%) reported a few times a month, 14 (11.3%) reported weekly, 4 (3.2%) reported once a day, 1 (0.8%) reported a few times a day, and 1 (0.8%) chose N/A. When asked how often they leave/left messages (wall posts) on their partner's profile, 82 (66.1%) reported almost never, 21 (16.9%) reported a few times a month, 13 (10.5%) reported weekly, 2 (1.6%) reported once a day, 1 (0.8%) reported a few times a day, and 5 (4.0%) chose N/A.

Thus, although participants were divided on whether or not they feel/felt out of touch when they haven't logged onto Facebook in a while, the majority 101 (81.5%) of participants agreed or strongly agreed that Facebook is/was part of their everyday activity, most 97 (78.2%) reported being neutral or agreed that they would feel sorry if Facebook shut down, most 110 (88.7%) log/logged in several times a day or daily, and the majority 89 (71.8%) spent less than an hour or an hour logged on. Although the majority 122 (98.4%) of participants logged on frequently, the majority of participants rarely used Facebook for profile maintenance. The majority of participants reported only uploading pictures 104 (83.9%), changing their profile 118 (95.2%), and changing their status 92 (74.2%) a few times a month or almost never. It was found that Facebook was used more for grooming, particularly visiting profiles. When asked how often they visited the profiles of close friends, the majority of participants 78 (62.9%) reported a few times a month to weekly. When asked how often they left messages (wall posts) on the profiles of acquaintances, the majority104 (83.9%) reported almost never to a few times a month. When asked about leaving messages (wall posts) on their partner's profile, the majority of participants 103 (83.1%) also reported almost never to a few times a month on their partner's profile. Tables 6 to 8 outline the descriptive stats for Facebook use for Group I and Group II.

Differences in Facebook use. The Mann-Whitney test was used to determine if there were significant differences in Facebook use between individuals in group I and group II. No significant differences were found for log in frequency ($U = 1,437.000$, $z = -.77$, $p = 0.44$) and log in time ($U = 1,593.500$, $z = 0.21$, $p = 0.83$). For Facebook intensity, no significant differences were found between groups for 'Facebook is/was part

of my everyday activity' ($U = 1,597.500$, $z = 0.24$, $p = 0.81$) or 'I feel/felt out of touch when I haven't logged onto Facebook in a while' ($U = 1,698.500$, $z = 0.82$, $p = 0.42$). Significant differences were found between group I (Mean Rank= 58.53) and group II (Mean Rank= 72.59) for the statement 'I would be sorry if Facebook shut down' ($U = 1,910.500$, $z = 2.04$, $p = 0.04$). Group I was more divided on how they would feel if Facebook shut down. Although the majority of participants in both groups I and II chose neutral or agree, there were a higher number of individuals who chose strongly disagree and disagree in group I than in group II. No significant differences were found for any of the subscales used to measure Facebook use for profile maintenance and grooming. The results for uploading pictures was ($U = 1,447.000$, $z = -0.67$, $p = 0.51$), results for changing profiles was ($U = 1,495.500$, $z = -0.44$ $p = 0.67$), results for changing one's status or posting things was ($U = 1,697.000$, $z = 0.83$, $p = 0.41$), results for visiting the profiles of close friends was ($U = 1,321.500$, $z = -1.37$, $p = 0.17$), results for leaving messages (wall posts) on the profiles of close acquaintances was ($U = 1,872.000$, $z = 1.90$, $p = 0.06$), and the results for leaving messages (wall posts) on the profile of one's partner was ($U = 1,706.500$, $z = 0.99$, $p = 0.32$).

Table 6

Descriptive Statistics for Facebook Use

	Total		Group I		Group II	
Facebook use	f	%	f	%	f	%
Log in frequency						
Several times a day	75	60.5	52	58.4	23	65.7
Daily	35	28.2	26	29.2	9	25.7
Several times a week	12	9.7	10	11.2	2	5.7
Once a week	1	0.8	0	0.0	1	2.9
Several times a month	0	0.0	0	0.0	0	0.0
Less often	1	0.8	1	1.1		0.0
Time (hours) spent daily on Facebook						
Less than one	41	33.1	29	32.6	12	34.3
One	48	38.7	36	40.4	12	34.3
Two	19	15.3	14	15.7	5	14.3
Three	10	8.1	5	5.6	5	14.3
Four	2	1.6	2	2.2	0	0.0
Five or more	1	0.8	1	1.1	0	0.0
Does not apply. I do/did not log on daily	3	2.4	2	2.2	1	2.9

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 7

Frequency Counts and Percentages for Facebook Use (Facebook Intensity)

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	f	%	f	%	f	%	f	%	f	%
Facebook is/was part of my every day activity										
Total	3	2.4	7	5.6	13	10.5	63	50.8	38	30.6
Group I	2	2.2	6	6.7	9	10.1	45	50.6	27	30.3
Group II	1	2.9	1	2.9	4	11.4	18	51.4	11	31.4
I would be sorry if Facebook shut down										
Total	14	11.3	13	10.5	40	32.3	41	33.1	16	12.9
Group I	13	14.6	10	11.2	28	31.5	30	33.7	8	9.0
Group II	1	2.9	3	8.6	12	34.3	11	31.4	8	22.9
I feel/felt out of touch when I haven't logged on to Facebook in a while										
Total	7	5.6	35	28.2	31	25	42	33.1	9	7.3
Group I	6	6.7	26	29.2	21	23.6	31	34.8	5	5.6
Group II	1	2.9	9	25.7	10	28.6	11	31.4	4	11.4

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 8

Frequency Counts and Percentages for Facebook Use (Facebook Use for Profile

Maintenance and Grooming)

	Almost Never		Few Times A Month		Weekly		Once A Day		Few Times A Day		N/A	
	f	%	f	%	f	%	f	%	f	%	f	%
How often do you/did you upload pictures?												
Total	48	38.7	56	45.2	18	14.5	0	0.0	1	0.8	1	0.8
Group I	32	36.0	43	48.3	13	14.6	0	0.0	0	0.0	1	1.1
Group II	16	45.7	13	37.1	5	14.3	0	0.0	1	2.9	0	0.0
How often do you/did you change your profile?												
Total	89	71.8	29	23.4	3	2.4	1	0.8	0	0.0	2	1.6
Group I	63	70.8	21	23.6	3	3.4	1	1.1	0	0.0	1	1.1
Group II	26	74.3	8	22.9	0	0.0	0	0.0	0	0.0	1	2.9
How often do you/did you change your status or post things on your page?												
Total	32	25.8	60	48.4	19	15.3	8	6.5	4	3.2	1	0.8
Group I	23	25.8	46	51.7	12	13.5	5	5.6	2	2.2	1	1.1
Group II	9	25.7	14	40.0	7	20.0	3	8.6	2	5.7	0	0.0
How often do you/did you visit the profile of close friends?												
Total	24	19.4	49	39.5	29	23.4	10	8.1	10	8.1	2	1.6
Group I	14	15.7	35	39.3	25	28.1	6	6.7	8	9.0	1	1.1
Group II	10	28.6	14	40.0	4	11.4	4	11.4	2	5.7	1	2.9
How often do you/did you leave messages (wall posts) on the profiles of acquaintances?												
Total	56	45.2	48	38.7	14	11.3	4	3.2	1	0.8	1	0.8
Group I	44	49.4	34	38.2	8	9.0	2	2.2	0	0.0	1	1.1
Group II	12	34.3	14	40.0	6	17.1	2	5.7	1	2.9	0	0.0
How often do you/did you leave messages (wall posts) on your partner's profile?												
Total	82	66.1	21	16.9	13	10.5	2	1.6	1	0.8	5	4.0

Group I	61	68.5	15	16.9	8	9.0	0	0.0	1	1.1	4	4.5
Group II	21	60.0	6	17.1	5	14.3	2	5.7	0	0.0	1	2.9

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for SNS (Facebook) jealousy. To measure Facebook jealousy participants were asked to how likely they were to experience jealousy and engage in monitoring behaviour. The data presented for SNS (Facebook) jealousy can be found in table 9. When asked how likely participants were to become jealous after their partner has added an unknown member of the opposite sex, 34 (27.4%) of the total number of participants reported very unlikely, 36 (29.0%) reported unlikely, 21 (16.9%) reported somewhat likely, 14 (11.3%) reported likely, 15 (12.1%) reported very likely, and 4 (3.2%) chose N/A. When asked how likely they were to monitor their partner's activities on Facebook 24 (19.4%) of the total number of participants reported very unlikely, 31 (25.0%) reported unlikely, 33 (26.6%) reported somewhat likely, 18 (14.5%) reported likely, 16 (12.9%) reported very likely, and 2 (1.6%) chose N/A. When asked how likely they were to become jealous after seeing that their partner has posted something on the page of an unknown member of the opposite sex (for heterosexual couples) or same sex (for same sex couples), 32 (25.8%) of the total number of participants reported very unlikely, 30 (24.2%) reported unlikely, 25 (20.2%) reported somewhat likely, 18 (14.5%) reported likely, 15 (12.1%) reported very likely, and 4 (3.2%) chose N/A.

Overall, the majority of participants 91 (73.4%) reported that they would be very unlikely, unlikely or somewhat likely to become jealous after seeing that their partner added someone of the opposite sex on Facebook. Most 87 (70.2%) reported that they

would be very unlikely, unlikely or somewhat likely to become jealous after seeing that their partner posted something on the page of an unknown member of the opposite sex (for heterosexual couples) or same sex (for same sex couples). The majority of participants 88 (71.0%) also reported that they would be very unlikely, unlikely or somewhat likely to monitor their partner's activities on Facebook.

SNS (Facebook) jealousy for group I. When participants 18 to 29 years of age were asked how likely they were to become jealous after their partner has added an unknown member of the opposite sex, 24 (27.0%) reported very unlikely, 25 (28.1%) reported unlikely, 15 (16.9%) reported somewhat likely, 11 (12.4%) reported likely, 12 (13.5%) reported very likely, and 2 (2.2%) chose N/A. When asked how likely they were to monitor their partner's activities on Facebook, 14 (15.7%) reported very unlikely, 25 (28.1%) reported unlikely, 23 (25.8%) reported somewhat likely, 13 (14.6%) reported likely, 14 (15.7%) reported very likely, and no participants chose N/A. When asked how likely they were to become jealous after seeing that their partner has posted something on the page of an unknown member of the opposite sex (for heterosexual couples) or same sex (for same sex couples), 19 (21.3%) reported very unlikely, 19 (21.3%) reported unlikely, 21 (23.6%) reported somewhat likely, 16 (18.0%) reported likely, 11 (12.4%) reported very likely, and 3 (3.4%) chose N/A.

SNS (Facebook) jealousy for group II. When participants 30 years of age and older were asked how likely they were to become jealous after their partner has added an unknown member of the opposite sex, 10 (28.6%) reported very unlikely, 11 (31.4%) reported unlikely, 6 (17.1%) reported somewhat likely, 3 (8.6%) reported likely, 3 (8.6%) reported very likely, and 2 (5.7%) chose N/A. When asked how likely they were to

monitor their partner's activities on Facebook, 10 (28.6%) reported very unlikely, 6 (17.1%) reported unlikely, 10 (28.6%) reported somewhat likely, 5 (14.3%) reported likely, 2 (5.7%) reported very likely, and 2 (5.7%) chose N/A. When asked how likely they were to become jealous after seeing that their partner has posted something on the page of an unknown member of the opposite sex (for heterosexual couples) or same sex (for same sex couples), 13 (37.1%) reported very unlikely, 11 (31.4%) reported unlikely, 4 (11.4%) reported somewhat likely, 2 (5.7%) reported likely, 4 (11.4%) reported very likely, and 1 (2.9%) chose N/A.

Differences in SNS (Facebook) jealousy. The Mann-Whitney test was used to determine if there were significant differences in SNS (Facebook) jealousy between individuals in group I and group II. No significant differences were found between the groups for the likelihood of experiencing jealousy after seeing that their partner has added an unknown member of the opposite sex ($U = 1{,}488.000$, $z = -0.40$, $p = 0.69$). No significant differences were found between the groups for the likelihood of monitoring their partner's activities on Facebook ($U = 1{,}418.500$, $z = -0.79$, $p = 0.43$). Significant differences were found between groups I and II for the likelihood of experiencing jealousy after their partner has posted something on the page of an unknown member of the opposite sex (for heterosexual couples) or same sex (for same sex couples). Group I (Mean rank= 66.80) had more participants that were likely to experience jealousy than those in group II (Mean rank= 51.56) ($U = 1{,}174.500$, $z = -2.18$, $p = 0.030$).

Table 9

Frequency Counts and Percentages for SNS (Facebook) Jealousy

	Very Unlikely		Unlikely		Somewhat Likely		Likely		Very Likely		N/A	
	f	%	f	%	f	%	f	%	f	%	f	%
How likely are you/were you to become jealous after your partner has added an unknown member of the opposite sex?												
Total	34	27.4	36	29.0	21	16.9	14	11.3	15	12.1	4	3.2
Group I	24	27.0	25	28.1	15	16.9	11	12.4	12	13.5	2	2.2
Group II	10	28.6	11	31.4	6	17.1	3	8.6	3	8.6	2	5.7
How likely are you/were you to monitor your partner's activities on Facebook?												
Total	24	19.4	31	25.0	33	26.6	18	14.5	16	12.9	2	1.6
Group I	14	15.7	25	28.1	23	25.8	13	14.6	14	15.7	0	0.0
Group II	10	28.6	6	17.1	10	28.6	5	14.3	2	5.7	2	5.7
How likely are you/were you to become jealous after seeing that your partner has posted something on the page of a member of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples)?												
Total	32	25.8	30	24.2	25	20.2	18	14.5	15	12.1	4	3.2
Group I	19	21.3	19	21.3	21	23.6	16	18.0	11	12.4	3	3.4
Group II	13	37.1	11	31.4	4	11.4	2	5.7	4	11.4	1	2.9

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for monitoring behaviour. To measure monitoring behaviour, participants were asked how often they engage in certain monitoring behaviours outside of Facebook. The data presented for monitoring behaviour can be found in table 10. When asked how often they look or have looked through their partner's drawers, handbag, or pockets, 61 (49.2%) of the total number of participants reported never, 40 (32.3%) reported rarely, 18 (14.5%) reported sometimes, 3 (2.4%) reported

often, and 2 (1.6%) reported all the time. When asked how often they secretly read or have read the text messages on their partner's mobile phone, 56 (45.2%) reported never, 31 (25.0%) reported rarely, 23 (18.5%) reported sometimes, 12 (9.7%) reported often, and 2 (1.6%) reported all the time. When asked how often they secretly read or have read their partner's emails, 78 (62.9%) reported never, 27 (21.8%) reported rarely, 15 (12.1%) reported sometimes, 4 (3.2%) reported often, and no participants reported all the time.

Monitoring behaviour for group I. When participants 18 to 29 years of age were asked how often they look or have looked through their partner's drawers, handbag, or pockets, 44 (49.4%) reported never, 30 (33.7%) reported rarely, 12 (13.5%) reported sometimes, 3 (3.4%) reported often, and no participants reported all the time. When asked how often they secretly read or have read the text messages on their partner's mobile phone, 40 (44.9%) reported never, 24 (27.0%) reported rarely, 15 (16.9%) reported sometimes, 9 (10.1%) reported often, and 1 (1.1%) reported all the time. When asked how often they secretly read or have read their partner's emails, 60 (67.4%) reported never, 19 (21.3%) reported rarely, 7 (7.9%) reported sometimes, 3 (3.4%) reported often, and no participants reported all the time. The majority of the participants reported never or rarely engaging in these monitoring behaviours.

Monitoring behaviour for group II. When participants 30 years of age and older were asked how often they look or have looked through their partner's drawers, handbag, or pockets, 17 (48.6%) reported never, 10 (28.6%) reported rarely, 6 (17.1%) reported sometimes, no participants reported often, and 2 (5.7%) reported all the time. When asked how often they secretly read or have read the text messages on their partner's mobile phone, 16 (45.7%) reported never, 7 (20.0%) reported rarely, 8 (22.9%) reported

sometimes, 3 (8.6%) reported often, and 1 (2.9%) reported all the time. When asked how often they secretly read or have read their partner's emails, 18 (51.4%) reported never, 8 (22.9%) reported rarely, 8 (22.9%) reported sometimes, 1 (2.9%) reported often, and no participants reported all the time.

Differences in monitoring behaviour. Mann-Whitney U tests were used to determine if significant differences exist between groups I and II. No significant differences were found between the groups for any of the monitoring behaviour. Results for looking through drawers, handbags, or pockets was ($U = 1,622.000$, $z = 0.39$, $p = 0.70$). The results for reading text messages was ($U = 1,595.000$, $z = 0.22$, $p = 0.83$), and the results for reading emails was ($U = 1,843.500$, $z = 1.85$, $p = 0.07$).

Table 10

Frequency Counts and Percentages for Monitoring Behaviour

	Never		Rarely		Sometimes		Often		All the Time	
	f	%	f	%	f	%	f	%	f	%
How often do you/have you looked through your partner's drawers, handbag, or pockets?										
Total	61	49.2	40	32.3	18	14.5	3	2.4	2	1.6
Group I	44	49.4	30	33.7	12	13.5	3	3.4	0	0.0
Group II	17	48.6	10	28.6	6	17.1	0	0.0	2	5.7
How often do you secretly read/ have you secretly read the text messages on your partner's mobile phone?										
Total	56	45.2	31	25.0	23	18.5	12	9.7	2	1.6
Group I	40	44.9	24	27.0	15	16.9	9	10.1	1	1.1
Group II	16	45.7	7	20.0	8	22.9	3	8.6	1	2.9
How often do you secretly read/have you secretly read your partner's emails?										
Total	78	62.9	27	21.8	15	12.1	4	3.2	0	0.0
Group I	60	67.4	19	21.3	7	7.9	3	3.4	0	0.0
Group II	18	51.4	8	22.9	8	22.9	1	2.9	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for SNS (Facebook) monitoring. To measure Facebook monitoring behaviour, participants were asked how likely they are/were to engage in certain monitoring behaviours on Facebook. The data presented can be found in table 11. When asked how likely they were to monitor their partner's activities on Facebook (through news feeds), 31 (25.0%) of the total number of participants reported very unlikely, 35 (28.2%) reported unlikely, 27 (21.8%) reported somewhat likely, 20 (16.1%) reported likely, 10 (8.1%) reported very likely, and 1 (0.8%) chose N/A. When asked how likely they were to monitor their partner's postings or status updates, 25 (20.2%)

reported very unlikely, 22 (17.7%) reported unlikely, 30 (24.2%) reported somewhat likely, 27 (21.8%) reported likely, 19 (15.3%) reported very likely, and 1 (0.8%) chose N/A. When asked how likely they were to monitor who their partner adds, 40 (32.3%) reported very unlikely, 39 (31.5%) reported unlikely, 18 (14.5%) reported somewhat likely, 11 (8.9%) reported likely, 13 (10.5%) reported very likely, and 3 (2.4%) chose N/A.

SNS (Facebook) monitoring for group I. When asked how likely they were to monitor their partner's activities on Facebook (through news feeds) 20 (22.5%) of participants 18 to 29 years of age reported very unlikely, 26 (29.2% reported unlikely, 18 (20.2%) reported somewhat likely, 16 (18.0%) reported likely, 8 (9.0%) reported very likely, and 1 (1.1%) chose N/A. When asked how likely they were to monitor their partner's postings or status updates, 15 (16.9%) reported very unlikely, 15 (16.9%) reported unlikely, 22 (24.7%) reported somewhat likely, 21 (23.6%) reported likely, 15 (16.9%) reported very likely, and 1 (1.1%) chose N/A. When asked how likely they were to monitor who their partner adds, 28 (31.5%) reported very unlikely, 29 (32.6%) reported unlikely, 12 (13.5%) reported somewhat likely, 8 (9.0%) reported likely, 10 (11.2%) reported very likely, and 2 (2.2%) chose N/A.

SNS (Facebook) monitoring for group II. When asked how likely they were to monitor their partner's activities on Facebook (through news feeds) 11 (31.4%) of participants 30 years of age and older reported very unlikely, 9 (25.7%) reported unlikely, 9 (25.7%) reported somewhat likely, 4 (11.4%) reported likely, 2 (5.7%) reported very likely, and no participants chose N/A. When asked how likely they were to monitor their partner's postings or status updates, 10 (28.6%) reported very unlikely, 7 (20.0%)

reported unlikely, 8 (22.9%) reported somewhat likely, 6 (17.1%) reported likely, 4 (11.4%) reported very likely, and no participants chose N/A. When asked how likely they were to monitor who their partner adds, 12 (34.3%) reported very unlikely, 10 (28.6%) reported unlikely, 6 (17.1%) reported somewhat likely, 3 (8.6%) reported likely, 3 (8.6%) reported very likely, and 1 (2.9%) chose N/A.

Differences in SNS (Facebook) monitoring. Mann-Whitney U tests were used to determine if significant differences exist between groups I and II. No significant differences were found between the groups for any of the (Facebook) monitoring. The results for monitoring partner's news feeds was ($U = 1{,}358.000$, $z = -1.14$, $p = 0.26$), the results for monitoring partner's postings or status updates was ($U = 1{,}257.500$, $z = -1.70$, $p = 0.09$), and the results for monitoring who is added by their partner was ($U = 1{,}524.000$, $z = -0.19$, $p = 0.85$).

Table 11

Frequency Counts and Percentages for SNS (Facebook) Monitoring

	Very Unlikely		Unlikely		Somewhat Likely		Likely		Very Likely		N/A	
	f	%	f	%	f	%	f	%	f	%	f	%
How likely are you/were you to monitor your partner's activities on the social networking site Facebook (through news feeds)?												
Total	31	25.0	35	28.2	27	21.8	20	16.1	10	8.1	1	0.8
Group I	20	22.5	26	29.2	18	20.2	16	18.0	8	9.0	1	1.1
Group II	11	31.4	9	25.7	9	25.7	4	11.4	2	5.7	0	0.0
How likely are you/were you to monitor your partner's postings or status updates?												
Total	25	20.2	22	17.7	30	24.2	27	21.8	19	15.3	1	0.8
Group I	15	16.9	15	16.9	22	24.7	21	23.6	15	16.9	1	1.1
Group II	10	25.8	7	20.0	8	22.9	6	17.1	4	11.4	0	0.0
How likely are you/were you to monitor who your partner adds?												
Total	40	32.3	39	31.5	18	14.5	11	8.9	13	10.5	3	2.4
Group I	28	31.5	29	32.6	12	13.5	8	9.0	10	11.2	2	2.2
Group II	12	34.3	10	28.6	6	17.1	3	8.6	3	8.6	1	2.9

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for trait jealousy. To measure trait jealousy, participants were asked their level of agreement with three terms describing them. The data presented can be found in table 12. When asked about the term mistrustful describing them, 51 (41.1%) of the total number of participants reported that they strongly disagree, 41 (33.1%) reported that they disagree, 20 (16.1%) reported being neutral, 12 (9.7%) reported that they agree, and no participants reported that they strongly agree. When asked about the term jealous describing them, 31 (25.0%) reported that they strongly

disagree, 29 (23.4%) reported that they disagree, 33 (26.6%) reported being neutral, 29 (23.4%) reported that they agree, and 2 (1.6%) strongly agree. When asked about the term suspicious describing them, 38 (30.6%) reported that they strongly disagree, 39 (31.5%) reported that they disagree, 21 (16.9%) reported being neutral, 24 (19.4%) reported that they agree, and 2 (1.6%) strongly agree. Overall, the majority of participants reported that they strongly disagreed or disagreed with the terms mistrustful and suspicious describing them. Participants were divided on the term jealous describing them.

Trait jealousy for Group I. When asked about the term mistrustful describing them, 40 (44.9%) of participants 18 to 29 years of age reported that they strongly disagree, 30 (33.7%) reported that they disagree, 11 (12.4%) reported being neutral, 8 (9.0%) reported that they agree, and no participants reported that they strongly agree. When asked about the term jealous describing them, 22 (24.7%) reported that they strongly disagree, 22 (24.7%) reported that they disagree, 18 (20.2%) reported being neutral, 25 (28.1%) reported that they agree, and 2 (2.2%) strongly agree. When asked about the term suspicious describing them, 30 (33.7%) reported that they strongly disagree, 28 (31.5%) reported that they disagree, 10 (11.2%) reported being neutral, 19 (21.3%) reported that they agree, and 2 (2.2%) strongly agree.

Trait jealousy for Group II. When asked about the term mistrustful describing them, 11 (31.4%) of participants 30 years of age and older reported that they strongly disagree, 11 (31.4%) reported that they disagree, 9 (25.7%) reported being neutral, 4 (11.4%) reported that they agree, and no participants reported that they strongly agree. When asked about the term jealous describing them, 9 (25.7%) reported that they

strongly disagree, 7 (20.0%) reported that they disagree, 15 (42.9%) reported being neutral, 4 (11.4%) reported that they agree, and no participants reported that they strongly agree. When asked about the term suspicious describing them, 8 (22.9%) reported that they strongly disagree, 11 (31.4%) reported that they disagree, 11 (31.4%) reported being neutral, 5 (14.3%) reported that they agree, and no participants reported that they strongly agree.

Differences in trait jealousy. Mann-Whitney U tests were used to determine if significant differences exist between groups I and II. No significant differences were found between the groups for trait jealousy. The results for mistrustful being used as a term to describe oneself is ($U = 1,844.500$, $z = 1.69$, $p = 0.09$), the results for jealous being used as a term to describe oneself is ($U = 1,423.000$, $z = -0.77$, $p = 0.44$), and the results for suspicious being used as a term to describe oneself is ($U = 1,684.500$, $z = 0.73$, $p = 0.46$).

Table 12

Frequency Counts and Percentages for Trait Jealousy

	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	f	%	f	%	f	%	f	%	f	%
The term mistrustful describes me										
Total	51	41.1	41	33.1	20	16.1	12	9.7	0	0.0
Group I	40	44.9	30	33.7	11	12.4	8	9.0	0	0.0
Group II	11	31.4	11	31.4	9	25.7	4	11.4	0	0.0
The term jealous describes me										
Total	31	25.0	29	23.4	33	26.6	29	23.4	2	1.6
Group I	22	24.7	22	24.7	18	20.2	25	28.1	2	2.2
Group II	9	25.7	7	20.0	15	42.9	4	11.4	0	0.0
The term suspicious describes me										
Total	38	30.6	39	31.5	21	16.9	24	19.4	2	1.6
Group I	30	33.7	28	31.5	10	11.2	19	21.3	2	2.2
Group II	8	22.9	11	31.4	11	31.4	5	14.3	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for the need for popularity. To measure the need for popularity participants were asked their level of agreement with statements relating to popularity. The data presented can be found in table 13. For the statement 'it is important that people think I'm popular,' 40 (32.3%) of the total participants reported that they strongly disagree, 58 (46.8%) reported that they disagree, 19 (15.3%) reported being neutral, 7 (5.6%) reported that they agree, and no participants strongly agreed. For the statement 'I've bought things because they were the in things to have,' 19 (15.3%)

reported that they strongly disagree, 42 (33.9%) reported that they disagree, 32 (25.8%) reported being neutral, 30 (24.2%) reported that they agree, and 1 (0.8%) reported that they strongly agreed. For the statement 'at times I've ignored people in order to be more popular with others,' 42 (33.9%) reported that they strongly disagree, 62 (50.0%) reported that they disagree, 12 (9.7%) reported being neutral, 8 (6.5%) reported that they agree, and no participants reported that they strongly agree. Overall, the majority of participants strongly disagreed or disagreed with the statements 'it is important that people think I'm popular' and statement 'at times I've ignored people in order to be more popular with others'. They were more divided on the statement 'I've bought things because they were the in things to have'.

The need for popularity for group I. For the statement 'it is important that people think I'm popular,' 31 (34.8%) of participants 18 to 29 years of age reported that they strongly disagree, 40 (44.9%) reported that they disagree, 12 (13.5%) reported being neutral, 6 (6.7%) reported that they agree, and no participants strongly agreed. For the statement 'I've bought things because they were the in things to have,' 14 (15.7%) reported that they strongly disagree, 28 (31.5%) reported that they disagree, 24 (27.0%) reported being neutral, 22 (24.7%) reported that they agree, and 1 (1.1%) reported that they strongly agreed. For the statement 'at times I've ignored people in order to be more popular with others,' 29 (32.6%) reported that they strongly disagree, 48 (53.9%) reported that they disagree, 7 (7.9%) reported being neutral, 5 (5.6%) reported that they agree, and no participants reported that they strongly agree.

The need for popularity for group II. For the statement 'it is important that people think I'm popular,' 9 (25.7%) of participants 30 years of age and older reported that they strongly disagree, 18 (51.4%) reported that they disagree, 7 (20.0%) reported being neutral, 1 (2.9%) reported that they agree, and no participants strongly agreed. For the statement 'I've bought things because they were the in things to have,' 5 (14.3%) reported that they strongly disagree, 14 (40.0%) reported that they disagree, 8 (22.9%) reported being neutral, 8 (22.9%) reported that they agree, and no participants reported that they strongly agreed. For the statement 'at times I've ignored people in order to be more popular with others,' 13 (37.1%) reported that they strongly disagree, 14 (40.0%) reported that they disagree, 5 (14.3%) reported being neutral, 3 (8.6%) reported that they agree, and no participants reported that they strongly agree.

Differences in the need for popularity. Mann-Whitney U tests were used to determine if significant differences exist between groups I and II. No significant differences were found between the groups for the need for popularity. The results for feeling that it is important that people think they are popular is ($U = 1,682.500$, $z = 0.75$, $p = 0.45$), the results for buying things because they were 'in' is ($U = 1,475.000$, $z = -0.48$, $p = 0.63$), and the results for ignoring some people to be popular with others is ($U = 1,592.500$, $z = 0.21$, $p = 0.83$).

Table 13

Frequency Counts and Percentages for the Need for Popularity

	Strongly Disagree		Disagree		Neural		Agree		Strongly Agree	
	f	%	f	%	f	%	f	%	f	%
Its important that people think I'm popular										
Total	40	32.3	58	46.8	19	15.3	7	5.6	0	0.0
Group I	31	34.8	40	44.9	12	13.5	6	6.7	0	0.0
Group II	9	25.7	18	51.4	7	20.0	1	2.9	0	0.0
I've bought things because they were the in things to have										
Total	19	15.3	42	33.9	32	25.8	30	24.2	1	0.8
Group I	14	15.7	28	31.5	24	27.0	22	24.7	1	1.1
Group II	5	14.3	14	40.0	8	22.9	8	22.9	0	0.0
At times I've ignored some people in order to be more popular with others										
Total	42	33.9	62	50.0	12	9.7	8	6.5	0	0.0
Group I	29	32.6	48	53.9	7	7.9	5	5.6	0	0.0
Group II	13	37.1	14	40.0	5	14.3	3	8.6	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for feelings with certain behaviours on SNS (Facebook).

To measure how comfortable individuals are with certain online behaviours, participants

were asked to rate their level of comfort if their partner was engaged in 4 different

behaviours. The data presented can be found in table 14. When asked how comfortable

they would be if their partner was communicating with someone else of the opposite sex

(for heterosexual couples) or of the same sex (for same sex couples) online, 27 (21.8%)

of the total number of participants reported that they would be very uncomfortable, 46

(37.1%) reported that they would be uncomfortable, 27 (21.8%) reported feeling neutral, 17 (13.7%) reported that they would be comfortable, and 7 (5.6%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was flirting with someone else online, 85 (68.5%) reported that they would be very uncomfortable, 32 (25.8%) reported that they would be comfortable, 4 (3.2%) reported feeling neutral, 1 (0.8%) reported that they would be comfortable, and 2 (1.6%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 96 (77.4%) reported that they would be very uncomfortable, 24 (19.4%) reported that they would be uncomfortable, 2 (1.6%) reported feeling neutral, no participants reported that they would be comfortable, and 2 (1.6%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 78 (62.9%) reported that they would be very uncomfortable, 33 (26.6%) reported that they would be uncomfortable, 11 (8.9%) reported feeling neutral, no participants reported that they would be comfortable, and 2 (1.6%) reported that they would be very comfortable. Overall, the majority of participants reported that they would feel very uncomfortable, uncomfortable, or neutral if their partner was communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples). The majority of participants also reported that they would feel very uncomfortable if their partner was flirting with someone else online, if their partner was

disclosing intimate details or personal information online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples).

Feelings with certain behaviours on SNS (Facebook) for group I. When asked how comfortable they would be if their partner was communicating with someone else of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online, 20 (22.5%) of participants 18 to 29 years of age reported that they would be very uncomfortable, 34 (38.2%) reported that they would be uncomfortable, 19 (21.3%) reported feeling neutral, 12 (13.5%) reported that they would be comfortable, and 4 (4.5%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was flirting with someone else online, 68 (76.4%) reported that they would be very uncomfortable, 17 (19.1%) reported that they would be uncomfortable, 1 (1.1%) reported feeling neutral, 1 (1.1%) reported that they would be comfortable, and 2 (2.2%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 69 (77.5%) reported that they would be very uncomfortable, 17 (19.1%) reported that they would be uncomfortable, 1 (1.1%) reported feeling neutral, no participants reported that they would be comfortable, and 2 (2.2%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 56 (62.9%) reported that they would be very uncomfortable, 22 (24.7%) reported that they would be

uncomfortable, 9 (10.1%) reported feeling neutral, no participants reported that they would be comfortable, and 2 (2.2%) reported that they would be very comfortable.

Feelings with certain behaviours on SNS (Facebook) for group II. When asked how comfortable they would be if their partner was communicating with someone else of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online, 7 (2.0%) of participants 30 years of age and older reported that they would be very uncomfortable, 12 (34.3%) reported that they would be uncomfortable, 8 (22.9%) reported feeling neutral, 5 (14.3%) reported that they would be comfortable, and 3 (8.6%) reported that they would be very comfortable. When asked how comfortable they would be if their partner was flirting with someone else online, 17 (48.6%) reported that they would be very uncomfortable, 15 (42.9%) reported that they would be uncomfortable, 3 (8.6%) reported feeling neutral, no participants reported that they would be comfortable, and no participants reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 27 (77.1%) reported that they would be very uncomfortable, 7 (20.0%) reported that they would be uncomfortable, 1 (2.9%) reported feeling neutral, no participants reported that they would be comfortable, and no participants reported that they would be very comfortable. When asked how comfortable they would be if their partner was disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples), 22 (62.9%) reported that they would be very uncomfortable, 11 (31.4%) reported that they would be uncomfortable, 2 (5.7%) reported feeling neutral, no

participants reported that they would be comfortable, and no participants reported that they would be very comfortable.

Differences in feelings with certain behaviours on SNS (Facebook). Mann-Whitney U tests were used to determine if significant differences exist between groups I and II. No significant differences were found between groups for feelings if one's partner was communicating with someone else of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online ($U = 1,678.000$, $z = 0.70$, $p = 0.49$). Significant differences were found between the two groups for feelings if one's partner was flirting with someone else online ($U = 1,982.000$, $z = 2.90$, $p = 0.004$). All of the participants 30 years of age and older (Mean rank=74.63) reported being either very uncomfortable, uncomfortable or neutral over their partner flirting with someone else online while a few of those who are 18 to 29 years of age (Mean rank=57.73) reported being comfortable and very comfortable. No significant differences were found between the two groups for feelings if one's partner was disclosing intimate details ($U = 1,560.500$, $z = 0.02$, $p = 0.98$) or personal information online ($U = 1,518.000$, $z = -0.26$, $p = 0.80$) to someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples).

Table 14

Frequency Counts and Percentages for Feelings with certain Behaviours on SNS

(Facebook)

	Very Un-comfortable		Uncomfortable		Neutral		Comfortable		Very Comfortable	
	f	%	f	%	f	%	f	%	f	%
Partner communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online										
Total	27	21.8	46	37.1	27	21.8	17	13.7	7	5.6
Group I	20	22.5	34	38.2	19	21.3	12	13.5	4	4.5
Group II	7	2.0	12	34.3	8	22.9	5	14.3	3	8.6
Partner flirting with someone else online										
Total	85	68.5	32	25.8	4	3.2	1	0.8	2	1.6
Group I	68	76.4	17	19.1	1	1.1	1	1.1	2	2.2
Group II	17	48.6	15	42.9	3	8.6	0	0.0	0	0.0
Partner disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples)										
Total	96	77.4	24	19.4	2	1.6	0	0.0	2	1.6
Group I	69	77.5	17	19.1	1	1.1	0	0.0	2	2.2
Group II	27	77.1	7	20.0	1	2.9	0	0.0	0	0.0
Partner disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples)										
Total	78	62.9	33	26.6	11	8.9	0	0.0	2	1.6
Group I	56	62.9	22	24.7	9	10.1	0	0.0	2	2.2
Group II	22	62.9	11	31.4	2	5.7	0	0.0	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for change in monitoring behaviour. To measure change

in monitoring behaviour, participants were asked the likelihood of increasing their

monitoring or starting monitoring behaviour if they felt that their partner was engaging in

any behaviour online that they were uncomfortable with. The data presented can be found

in table 15. When asked how likely they are or were to begin or increase monitoring

behaviour, 4 (3.2%) of the total number of participants reported that they would be very

unlikely to, 8 (6.5%) reported that they would be unlikely to, 35 (28.2%) reported that

they would be somewhat likely to, 46 (37.1%) reported that they would be likely to, and

31 (25.0%) reported that they would be very likely to.

Change in monitoring behaviour for group I. When asked how likely they are

or were to begin or increase monitoring behaviour, 2 (2.2%) participants 18 to 29 years of

age reported that they would be very unlikely to, 6 (6.7%) reported that they would be

unlikely to, 25 (28.1%) reported that they would be somewhat likely to, 34 (38.2%)

reported that they would be likely to, and 22 (24.7%) reported that they would be very

likely to.

Change in monitoring behaviour for group II. When asked how likely they are

or were to begin or increase monitoring behaviour, 2 (5.7%) participants 30 years of age

and older reported that they would be very unlikely to, 2 (5.7%) reported that they would

be unlikely to, 10 (28.6%) reported that they would be somewhat likely to, 12 (34.3%)

reported that they would be likely to, and 9 (25.7%) reported that they would be very

likely to.

Differences in the likelihood to change monitoring behaviour. Mann-Whitney

U tests were used to determine if significant differences exist between groups I and II. No

significant differences were found between the groups for the likelihood to begin or

increase monitoring behaviour if they felt that their partner was engaging in any

behaviour online that they were uncomfortable with ($U = 1{,}519.000$, $z = -0.22$, $p = 0.82$).

Table 15

Frequency Counts and Percentages for Change in Monitoring Behaviour

	Very Unlikely		Unlikely		Somewhat Likely		Likely		Very Likely	
	f	%	f	%	f	%	f	%	f	%
How likely are you to begin/would you have begun to monitor your partner or increase monitoring behaviour if you felt that your partner was engaging in any behaviour online that you were uncomfortable with?										
Total	4	3.2	8	6.5	35	28.2	46	37.1	31	25.0
Group I	2	2.2	6	6.7	25	28.1	34	38.2	22	24.7
Group II	2	5.7	2	5.7	10	28.6	12	34.3	9	25.7

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for SNS (Facebook) happiness. Participants were first

asked if they experienced happiness within their current/past romantic relationship after

Facebook use. The data presented can be found in table 16. Ninety-three (75%) of the

total number of participants reported that they have experienced happiness in their

relationship after using Facebook, and 31 (25%) reported that they have not experienced

happiness in their relationship after using Facebook.

SNS (Facebook) happiness for group I. When asked if they have experienced

happiness in their romantic relationship after using Facebook, 64 (71.9%) of participants

18 to 29 years of age reported that they have. 25 (28.1%) reported that they have not

experienced happiness in their relationship after using Facebook.

SNS (Facebook) happiness for group II. When asked if they have experienced happiness in their romantic relationship after using Facebook, 29 (82.9%) of participants 30 years of age and older reported that they have. 6 (17.1%) reported that they have not experienced happiness in their relationship after using Facebook.

Differences in experiencing SNS (Facebook) happiness. Using the Pearson's chi-square test, no significant differences were found between the two age groups ($\chi^2 = 1.61$, $df = 1$, $p = 0.21$).

Table 16

Descriptive Statistics for Experiencing Happiness Within a Romantic Relationship After Facebook Use

	Total		Group I		Group II	
	n	%	n	%	n	%
Experienced happiness						
Yes	93	75.0	64	71.9	29	82.9
No	31	25.0	25	21.8	6	17.1

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for the causes of SNS (Facebook) happiness. Participants who reported that they experienced happiness in their current/past romantic relationship after using Facebook were then asked to identify the causes of those feelings. Participants were asked to chose all that applied. The data presented can be found in table. Out of the total number of participants who reported experiencing happiness, 17. 65 (69.9%) reported that seeing comments posted by their partner was the cause of happiness, 76 (81.7%) reported that seeing pictures posted by their partner was the cause of happiness,

46 (49.5%) reported that the status on their partner's profile was the cause of happiness, and 5 (5.4%) chose other. The responses for other included: messages left by their partner (speaking with the partner over messaging, and messages from the partner when someone is on vacation), checking newsfeeds with their partner, seeing others support their relationship on Facebook, posts posted by their partner and having their posts 'liked' by their partner.

Causes of SNS (Facebook) happiness for group I. From the participants who reported experiencing happiness, 46 (71.9%) of the participants 18 to 29 years of age reported that seeing comments posted by their partner was the cause of happiness, 53 (82.8%) reported that seeing pictures posted by their partner was the cause of happiness, 30 (46.9%) reported that the status on their partner's profile was the cause of happiness, and 5 (7.8%) chose other.

Causes of SNS (Facebook) happiness for group II. From the participants who reported experiencing happiness, 19 (65.5%) of participants 30 years of age and older reported that seeing comments posted by their partner was the cause of happiness, 23 (79.3%) reported that seeing pictures posted by their partner were the cause of happiness, 16 (55.2%) reported that the status on their partner's profile was the cause of happiness, and no participants chose other.

Differences in the causes of SNS (Facebook) happiness. Using the Pearson's chi-square test, no significant differences were found between the two age groups and any of the causes of SNS (Facebook) happiness. No significant differences were found between the groups and experiencing SNS (Facebook) happiness caused by seeing comments posted by partner ($\chi^2 = 0.07$, $df = 1$, $p = 0.79$), seeing pictures posted by

partner ($\chi^2 = 0.40$, $df = 1$, $p = 0.53$) or the status on their partner's profile ($\chi^2 = 1.55$, $df = 1$, $p = 0.21$). No significant differences were found between the groups and individuals choosing 'other' as the cause of SNS (Facebook happiness) ($\chi^2 = 2.92$, $df = 1$, $p = 0.09$).

Table 17

Descriptive Statistics for The Causes of Happiness

	Total		Group I		Group II	
	n	%	n	%	n	%
Feelings of happiness caused by:						
Seeing comments posted by partner						
	65	69.9	46	71.9	19	65.5
Seeing pictures posted by partner						
	76	81.7	53	82.8	23	79.3
The status on partner's profile						
	46	49.5	30	46.9	16	55.2
Other	5	5.4	5	7.8	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 18

Frequency Count for 'Other' Cause of Happiness

Cause of Feelings	Total	Group I	Group II
	n	n	n
Sharing content (Checking newsfeeds together)	1	1	0
Posts (Seeing partner's posts or partner "liking" a post)	1	1	0
Messages (messages left in inbox and communicating over instant messaging)	2	2	0
Support from others of the relationship	1	1	0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for how the feelings of happiness after Facebook use have impacted the romantic relationship. The participants who reported experiencing happiness after using Facebook were then asked to identify how the feelings have impacted their current/past romantic relationship. Participants were asked to choose all that applied. The data presented can be found in table 18. From the total number of participants who identified experiencing happiness, 45 (48.4%) reported that they feel/felt more secure in the relationship, 47 (50.5%) feel/felt that they could trust their partner, 41 (44.1%) reported that it brought them and their partner closer together, and 3 (3.2%) participants chose other. The responses provided for other included direct effects such as helping to reinforce shared interests/hobbies, and to explore new ones and indirect effects such as conversations had after seeing posts that strengthen the relationship.

How feelings of happiness after Facebook use have impacted the romantic relationship for group I. From those who identified feeling happiness, 27 (42.2%) of participants 18 to 29 years of age reported that they feel/felt more secure in the relationship, 31 (48.4%) feel/felt that they could trust their partner, 30 (46.9%) reported that it brought them and their partner closer together, and 3 (4.7%) participants chose other.

How the feelings of happiness after Facebook use have impacted the romantic relationship for group II. From those who identified feeling happiness, 18 (62.1%) of participants 30 years of age or older reported that they feel/felt more secure in the relationship, 16 (55.2%) feel/felt that they could trust their partner, 11 (37.9%) reported that it brought them and their partner closer together, and no participants chose other.

Differences in how the feelings of happiness after Facebook use have impacted the romantic relationship. Using the Pearson's chi-square test, a significant difference was found between the two age groups in reporting that the feelings of happiness made them feel more secure in the relationship ($\chi^2 = 4.83$, $df = 1$, $p = 0.03$). Compared to group I (30.3%), a higher percentage of participants in group II (51.4%) reported that happiness made them feel more secure in their relationship. No significant differences were found between the two age groups and reporting that the feelings of happiness made them feel that they could trust their partner ($\chi^2 = 1.26$, $df = 1$, $p = 0.26$) or reporting that it brought them closer to their partner ($\chi^2 = 0.06$, $df = 1$, $p = 0.81$). No significant differences were found between the two age groups and reporting 'other' ways in which the feelings of happiness impacted their past/current romantic relationship.

Table 19

Descriptive Statistics for How the Feelings of Happiness After Facebook Use Have

Impacted the Romantic Relationship

	Total		Group I		Group II	
	n	%	n	%	n	%
How the romantic relationship was impacted by the feelings of happiness						
Feel/felt more secure in the relationship	45	48.4	27	42.2	18	62.1
Feel/felt that I can trust my partner	47	50.5	31	48.4	16	55.2
Brought us closer together	41	44.1	30	46.9	11	37.9
Other	3	3.2	3	4.7	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 20

Frequency Count for 'Other' How Feelings of Happiness Impacted the Romantic

Relationship

Impact on Relationship	Total	Group I	Group II
	n	n	n
Can trust partner	1	1	0
Helped to reinforce shared interests and hobbies and to explore new ones	1	1	0
Indirect impact (causing conversations which resulted in an impact)	1	1	0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for SNS (Facebook) jealousy. Participants were first asked if they experienced jealousy within their current/past romantic relationship after Facebook use. The data presented can be found in table 19. From the total number of participants, 70 (56.5%) reported that they have experienced jealousy within their romantic relationship after using Facebook. Fifty-four (43.5%) reported that they have not experienced jealousy within their romantic relationship after using Facebook.

SNS (Facebook) jealousy for group I. When asked if they have experienced jealousy within their romantic relationship after using Facebook, 54 (60.7%) of participants 18 to 29 years of age reported that they have. Thirty-five (39.3%) reported that they have not experienced jealousy within their romantic relationship after using Facebook.

SNS (Facebook) jealousy for group II. When asked if they have experienced jealousy within their romantic relationship after using Facebook, 16 (45.7%) of participants 18 to 29 years of age reported that they have. Nineteen (54.3%) reported that they have not experienced jealousy within their romantic relationship after using Facebook.

Differences in experiencing SNS (Facebook) jealousy. Using the Pearson's chi-square test, no significant differences were found between the two age groups ($\chi^2 = 2.29$, $df = 1$, $p = 0.13$).

Table 21

Descriptive Statistics for Experiencing Jealousy Within a Romantic Relationship After Facebook Use

	Total		Group I		Group II	
	n	%	n	%	n	%
Experienced Jealousy						
Yes	70	56.5	54	60.7	16	45.7
No	54	43.5	35	39.3	19	54.3

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for causes of SNS (Facebook) jealousy. Participants who reported that they experienced jealousy in their current/past romantic relationship after using Facebook were then asked to identify the causes of those feelings. Participants were asked to chose all that applied. The data presented can be found in table 20. Forty (57.1%) of the total number of participants who reported that they experienced jealousy reported that seeing comments posted on their partner's wall from others was the cause of jealousy, 21 (30.0%) reported that seeing comments posted by their partner was the cause

of jealousy, 33 (47.1%) reported that seeing pictures of attractive individuals on their partner's page was the cause of jealousy, 30 (42.9%) reported that seeing photographs of past relationships on their partner's page was the cause of jealousy, 12 (17.1%) reported that the relationship status on their partner's page was the cause of jealousy, and 10 (14.3%) chose other. The responses for other include messages (messages sent to their partner, messages that their partner sent, and messages that were exchanged between their partner and another individual), pictures on Facebook (seeing pictures posted of attractive individuals with their partner with no description, and seeing pictures posted with their partner in them at events they could not attend), and their partner having exes as Facebook friends.

Causes of SNS (Facebook) jealousy for group I. From the participants who reported experiencing jealousy, 32 (59.3%) of the participants 18 to 29 years of age reported that seeing comments posted on their partner's wall from others was the cause of jealousy, 14 (25.9%) reported that comments posted by their partners was the cause of jealousy, 27 (50.0%) reported that seeing pictures of attractive individuals on their partner's page was the cause of jealousy, 25 (46.3%) reported that seeing photographs of past relationships on their partner's page was the cause of jealousy, 9 (16.7%) reported that the relationship status on their partner's page was the cause of jealousy, and 6 (11.1%) chose other.

Causes of SNS (Facebook) jealousy for group II. From the participants who reported experiencing jealousy, 8 (50.0%) of the participants 30 years of age and older reported that seeing comments posted on their partner's wall from others was the cause of jealousy, 7 (43.8%) reported that comments posted by their partners was the cause of jealousy, 6 (37.5%) reported that seeing pictures of attractive individuals on their partner's page was the cause of jealousy, 5 (31.3%) reported that seeing photographs of past relationships on their partner's page was the cause of jealousy, 3 (18.8%) reported that the relationship status on their partner's page was the cause of jealousy, and 4 (25.0%) chose other.

Differences in the causes of SNS (Facebook) jealousy. Using the Pearson's chi-square test, no significant differences were found between the two age groups and reporting seeing comments posted on their partner's wall from others as the cause of SNS (Facebook) jealousy ($\chi^2 = 1.97$, $df = 1$, $p = 0.16$). No significant differences were found between groups reporting seeing comments posted by partner ($\chi^2 = 0.32$, $df = 1$, $p = 0.57$), seeing pictures of attractive individuals on partner's page ($\chi^2 = 2.24$, $df = 1$, $p = 0.14$), or seeing pictures of past relationships on partner's page ($\chi^2 = 2.61$, $df = 1$, $p = 0.11$) as the cause of jealousy. Using Fisher's exact test, no significant differences were found between groups reporting the relationship status on partner's page ($p = 1.00$) or reporting 'other' ($p = 0.27$) as a cause of jealousy.

Table 22

Descriptive Statistics for the Causes of Jealousy

	Total		Group I		Group II	
	n	%	n	%	n	%
Feelings of jealousy caused by:						
Seeing comments posted on partner's wall from others						
	40	57.1	32	59.3	8	50.0
Seeing comments posted by partner						
	21	30.0	14	25.9	7	43.8
Seeing pictures of attractive individuals on partner's page						
	33	47.1	27	50.0	6	37.5
Seeing photographs of past relationships on partner's page						
	30	42.9	25	46.3	5	31.3
The relationship status on partner's page						
	12	17.1	9	16.7	3	18.8
Other						
	10	14.3	6	11.1	4	25.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 23

Frequency Count for 'Other' Cause of Jealousy

Cause of Jealousy	Total	Group I	Group II
	n	n	n
Messages (seeing private messages their partner sent, seeing messages sent to their partner, and seeing messages exchanged)	6	3	3
Pictures (pictures posted of attractive individuals with no description, seeing pictures of their partner at an event they couldn't attend or didn't know about)	3	3	0
Partner having an ex as a "friend"	1	0	1

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Descriptive analysis for how the feelings of jealousy after Facebook use have impacted the romantic relationship. The participants who reported experiencing jealousy after using Facebook were then asked to identify how the feelings have impacted their current/past romantic relationship. Participants were asked to choose all that applied. The data presented can be found in table 21. From the total number of participants who identified experiencing jealousy, 51 (72.9%) reported that they feel/felt more insecure in the relationship, 13 (18.6%) reported that they feel/felt more anxious when they are/were with their partner, 36 (51.4%) reported that they feel/felt a lack of trust, 13 (18.6%) reported distancing themselves physically from their current/past partner, 16 (22.9%) reported that they give/gave their current/past partner the 'silent

treatment', 15 (21.4%) reported trying to make their current/past partner feel jealous, no participants reported threatening their partner, no participants reported engaging in physical violence, 35 (50.0%), reported that they check/checked up on their current/past partner more frequently, 20 (28.6%) reported that they do/did not feel happy in the relationship, 15 (21.4%) reported tying to do more things for their current/past partner to make them happy, 25 (35.7%) reported that they feel/felt inadequate as a partner, and 4 (5.7%) chose other. The responses provided by participants for other include causing other feelings such as frustration, resulting in conversations, asking partner to remove pictures, and reporting an indirect effect of Facebook.

How the feelings of jealousy after Facebook use have impacted the romantic relationship for group I. From those who identified feeling jealousy, 41 (75.9%) of participants 18 to 29 years of age reported that they feel/felt more insecure in the relationship, 12 (22.2%) reported that they feel/felt more anxious when they are/were with their partner, 24 (44.4%) reported that they feel/felt a lack of trust, 9 (16.7%) reported distancing themselves physically from their current/past partner, 12 (22.2%) reported that they give/gave their current/past partner the 'silent treatment', 11 (20.4%) reported trying to make their current/past partner feel jealous, no participants reported threatening their partner, no participants reported engaging in physical violence, 25 (46.3%) reported that they check/checked up on their current/past partner more frequently, 14 (25.9%) reported that they do/did not feel happy in the relationship, 10 (18.5%) reported tying to do more things for their current/past partner to make them happy, 20 (37.0%) reported that they feel/felt inadequate as a partner, and 4 (7.4%) chose other.

How the feelings of jealousy after Facebook use have impacted the romantic relationship for group II. From those who identified feeling jealousy, 10 (62.5%) of participants 30 years of age or older reported that they feel/felt more insecure in the relationship, 1 (6.3%) reported that they feel/felt more anxious when they are/were with their partner, 12 (75.0%) reported that they feel/felt a lack of trust, 4 (25.0%) reported distancing themselves physically from their current/past partner, 4 (25.0%) reported that they give/gave their current/past partner the 'silent treatment', 4 (25.0%) reported trying to make their current/past partner feel jealous, no participants reported threatening their partner, no participants reported engaging in physical violence, 10 (62.5%), reported that they check/checked up on their current/past partner more frequently, 6 (37.5%) reported that they do/did not feel happy in the relationship, 5 (31.3%) reported tying to do more things for their current/past partner to make them happy, 5 (31.3%) reported that they feel/felt inadequate as a partner, and no participants chose other.

Differences in how the feelings of jealousy after Facebook use have impacted the romantic relationship. Using the Pearson's chi-square test, no significant differences were found between the two age groups and reporting that the feelings of jealousy made them feel insecure in the relationship ($\chi^2 = 3.18$, $df = 1$, $p = 0.08$), made them feel a lack of trust ($\chi^2 = 0.65$, $df = 1$, $p = 0.42$), resulted in them checking up on their partner more frequently ($\chi^2 = 0.003$, $df = 1$, $p = 0.96$), caused them to not be happy in the relationship ($\chi^2 = 0.04$, $df = 1$, $p = 0.85$) or resulted in them feeling inadequate as a partner ($\chi^2 = 1.05$, $df = 1$, $p = 0.31$). Using Fisher's exact test no significant differences were found between the two age groups and reporting that the feelings of jealousy made them feel anxious when with their partner ($p = 0.11$), caused them to physically distance

themselves from their partner ($p = 1.00$), resulted in them giving their partner silent

treatment ($p = 1.00$), resulted in them trying to make their partner feel jealous ($p = 1.00$),

or resulted in them trying to do more things for their partner to make them happy ($p =$

0.76). No significant differences were found between groups reporting that the feelings of

jealousy resulted in them threatening their partner or engaging in physical violence. No

participants in either group reported threatening their partner or engaging in physical

violence.

Table 24

Descriptive Statistics for How the Feelings of Jealousy After Facebook Use Have

Impacted the Romantic Relationship

	Total		Group I		Group II	
	n	%	n	%	n	%
How the romantic relationship was impacted by the feelings of jealousy						
Feel/felt insecure in the relationship	51	72.9	41	75.9	10	62.5
Feel/felt anxious when with partner	13	18.6	12	22.2	1	6.3
Feel/felt lack of trust	36	51.4	24	44.4	12	75.0
Distanced self from partner physically	13	18.6	9	16.7	4	25.0
Give/gave partner silent treatment	16	22.9	12	22.2	4	25.0
Tried to make partner feel jealous	15	21.4	11	20.4	4	25.0
Threatened partner	0	0.0	0	0.0	0	0.0
Engaged in physical violence with partner	0	0.0	0	0.0	0	0.0
Check/checked up on partner more	35	50.0	25	46.3	10	62.5

frequently

Do not feel happy in the relationship	20	28.6	14	25.9	6	37.5
Try to do more things for partner to make them happy	15	21.4	10	18.5	5	31.3
Feel/felt inadequate as a partner	25	35.7	20	37.0	5	31.3
Other	4	5.7	4	7.4	0	0.0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Table 25

Frequency Count for 'Other' How Feelings of Jealousy Impacted the Romantic

Relationship

Impact on Relationship	Total	Group I	Group II
	n	n	n
Causes partners to engage in more conversations	1	1	0
Caused other feelings (frustration)	1	1	0
Asked partner to remove things from their Facebook page (pictures of an ex partner)	1	1	0
Indirect impact	1	1	0

Note: Total (n: 124); Group I (n: 89); Group II (n: 35)

Correlations Between Variables

The previous section looked at each specific variable measured and if there were differences between the two age groups. This section will look at the potential association between variables to address the hypotheses that were made. The results are presented in Tables 22 to 23.

Facebook happiness. A significant negative relationship was found for Facebook happiness and relationship satisfaction ($\tau = -.28$, $p = .001$). "Not at all happy" was ranked as 1 on the relationship satisfaction scale and "very happy" was ranked as 5 on the relationship satisfaction scale. Facebook happiness was coded 1 for "yes" and 2 for "no". This means that reporting Facebook happiness was associated with higher scores on the relationship satisfaction scale. Those reporting Facebook happiness were reporting higher satisfaction in their current/past romantic relationship.

Significant positive relationships were found for Facebook happiness and all of the SNS jealousy subscales. A significant positive relationship was found between Facebook happiness and the subscales "how likely are you/were you to become jealous after your partner has added an unknown member of the opposite sex?" ($\tau = .27$, $p = .001$), "how likely are you/were you to monitor your partner's activities on Facebook?" ($\tau = .26$, $p = .001$), and "how likely are you to become jealous after seeing that your partner has posted something on the page of a member of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples)?" ($\tau = .25$, $p = .002$). "Very unlikely" was ranked as 1 and "very likely" was ranked as 5 on the SNS jealousy subscale. This means that reporting Facebook happiness was associated with lower scores on all of the SNS jealousy subscales. In other words, those reporting Facebook happiness

were reporting that they are less likely to experience jealousy on Facebook or monitor their partner's activities on Facebook.

Significant positive relationships were found for Facebook happiness and all of the monitoring subscales. A significant positive relationship was found between Facebook happiness and the subscales "how often do you look/have you looked through your partner's drawers, handbag, or pockets" (τ = .30, p = .000), "How often do you secretly read/have you secretly read the text messages on your partner's mobile phone?" (τ = .20, p = .018), and "how often do you secretly read/have you secretly read your partner's emails?" (τ = .22, p = .012). "Never" was ranked as 1 and "all the time" was ranked as 5 on the monitoring subscales. This means that Facebook happiness was associated with lower scores on all of the monitoring subscales. Participants reporting Facebook happiness reported monitoring their partner offline less often.

Significant positive relationships were found for Facebook happiness and two of the SNS monitoring subscales. A significant positive relationship was found between Facebook happiness and the subscale "how likely are you/were you to monitor your partner's activities on the social networking site Facebook (through news feeds)?" (τ = .19, p = .021). No significant relationship was found for the subscale "how likely are you/were you to monitor your partner's postings or status updates" (τ = .03, p = .746). A significant positive relationship was found for the subscale "how likely are you to monitor who your partner adds" (τ = .21, p = .011). "Very unlikely was ranked as 1 and "very likely" was ranked as 5 on the SNS monitoring subscales. This means that Facebook happiness was associated with lower scores on monitoring who is added by one's partner and monitoring the activities of one's partner (through news feeds).

Significant positive relationships were also found between Facebook happiness and two of the trait jealousy subscales. A significant positive relationship was found between Facebook happiness and the trait jealousy subscales "jealous" ($\tau = .33$, $p = .000$) and "suspicious" ($\tau = .29$, $p = .000$). No significant relationship was found between Facebook happiness and the trait jealousy subscale "mistrustful" ($\tau = .15$, $p = .075$). "Disagree" was ranked as 1 and "strongly agree" was ranked as 5 on the trait jealousy subscales. This means that Facebook happiness was associated with lower scores on the traits jealous and suspicious.

Significant negative relationships were found between Facebook happiness and two of the subscales measuring unacceptable behaviour on SNS. The negative relationships were found between Facebook happiness and the subscales "how comfortable would you feel/would you have felt if you found out that your partner was communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online?" ($\tau = -.26$, $p = .001$) and "how comfortable would you feel/would you have felt if you found out that your partner was flirting with someone else online?" ($\tau = -.18$, $p = .040$). No significant relationship was found between Facebook happiness and the subscales "how would you feel/would you have felt if you found out that your partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples?" ($\tau = -.04$, $p = .640$), and "how would you feel/would you have felt if you found out that your partner was disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples)?" ($\tau = -.10$, $p = .271$). "Very uncomfortable" was ranked as 1 and "very comfortable" was ranked as

5 on the unacceptable behaviour subscales. This means that Facebook happiness was associated with higher scores on two of the unacceptable subscales. In other words, participants who reported experiencing Facebook happiness were more comfortable with their partners communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples), and were more comfortable with finding out that their partners were flirting online.

A significant positive relationship was also found between Facebook happiness and the scale measuring the likelihood of participants to increase monitoring behaviour or to begin monitoring behaviour if they found out that their partner was engaging in behaviours online that they felt uncomfortable with ($\tau = .24$, $p = .004$). "Very unlikely" was ranked as 1 and "very likely" was ranked as 5. This means that Facebook happiness was associated with lower ranks on the scale. Individuals reporting Facebook happiness reported being less likely to begin to monitor their partner or to increase monitoring behaviour if they felt that their partner was engaging in any behaviour online that they were uncomfortable with.

Facebook jealousy. A significant positive relationship was found between Facebook jealousy and relationship type ($\tau = .28$, $p = .001$). Facebook jealousy was coded 1 for "yes" and 2 for "no". "Casual dating" was ranked as 1 and "married" was ranked as 4 on the relationship type scale. This means that Facebook jealousy was associated with more casual and less committed relationships.

A significant positive relationship was found for Facebook jealousy and relationship satisfaction ($\tau = .30$, $p = .000$). "Not at all happy" was ranked as 1 on the relationship satisfaction scale and very happy was ranked as 5. This means that reporting

Facebook jealousy was associated with lower scores on the relationship satisfaction scale. Those reporting Facebook jealousy were reporting less satisfaction in their current/past romantic relationship.

A significant negative relationship was found between Facebook jealousy and one of the Facebook use subscales. A significant negative relationship was found between Facebook jealousy and the subscale measuring daily log in time ($\tau = -.19$, $p = .025$). "Less than one hour" was ranked as 1 and "does not apply. I do/did not log on daily" was ranked as 7. Facebook jealousy was associated with higher scores on the log in time subscale. Those reporting Facebook jealousy reported longer daily log in times or chose does not apply. A total of 70 participants reported experiencing Facebook jealousy and a total of 3 participants chose "does not apply. I do/did not log on daily". Therefore, more participants who reported experiencing Facebook jealousy reported longer daily log in times. No significant relationship was found between Facebook jealousy and log in frequency ($\tau = .03$, $p = .698$).

A significant negative relationship was found between Facebook jealousy and one of the Facebook intensity subscales: "Facebook is/was part of my everyday activity" ($\tau = -.17$, $p = .040$). No significant relationship was found between Facebook jealousy and the intensity subscales "I would be sorry if Facebook shut down" ($\tau = -.05$, $p = .577$), "I feel/felt out of touch when I haven't logged onto Facebook for a while" ($\tau = -.15$, $p = .064$). "Strongly disagree" was ranked as 1 and "strongly agree" was ranked as 5. Facebook jealousy was therefore associated with higher scores on the subscale "Facebook is/was part of my everyday activity". In other words, Facebook jealousy was

associated with participants agreeing that Facebook is/was part of their every day activity.

A significant negative relationship was found between Facebook jealousy and one of the subscales used to measure SNS use for profile maintenance and grooming. The negative relationship was found for the subscale "how often do you/did you change your profile" which measured SNS use for profile maintenance ($\tau = -.19$, $p = .031$). No significant relationships were found for the other subscales measuring SNS use for profile maintenance; "how often do you/did you upload pictures?" ($\tau = -.04$, $p = .651$) and "how often do you/did you change your status or post things on you page?" ($\tau = -.02$, $p = .780$). No significant relationships were found for any of the subscales measuring SNS for grooming. These subscales were "how often do you/did you visit the profiles of close friends" ($\tau = -.08$, $p = .352$), "how often do you/did you leave messages (wall posts) on the profiles of acquaintances" ($\tau = -.03$, $p = .720$), and "how often do you/did you leave messages (wall posts) on your partner's profile" ($\tau = -.02$, $p = .801$). "Almost never" was ranked as 1 and "daily" was ranked as 5. This means that Facebook jealousy was associated with changing one's profile more often.

A significant negative relationship was found between Facebook jealousy and all of the SNS jealousy subscales. Significant negative relationships were found between Facebook jealousy and the subscales "how likely are you/were you to become jealous after your partner has added an unknown member of the opposite sex?" ($\tau = -.52$, $p = .000$), "how likely are you/were you to monitor your partner's activities on Facebook?" ($\tau = -.52$, $p = .000$), and "how likely are you to become jealous after seeing that your partner has posted something on the page of a member of the opposite sex (for

heterosexual couples) or of the same sex (for same sex couples)?" (τ = -.45, p = .000). "Very unlikely" was ranked as 1 and "very likely" was ranked as 5. This means that Facebook jealousy was associated with higher scores on the SNS jealousy subscales. Those who reported experiencing Facebook jealousy were more likely to feel jealous after seeing that their partner had added someone or posted something on someone's page, and are more likely to monitor their partner's activities on Facebook.

Significant negative relationships were found between Facebook jealousy and all of the monitoring subscales. Significant negative relationships were found between Facebook jealousy and the subscales "how often do you look/have you looked through your partner's drawers, handbag, or pockets" (τ = -.34, p = .000), "how often do you secretly read/have you secretly read the text messages on your partner's mobile phone?" (τ = -.32, p = .000), and "how often do you secretly read/have you secretly read your partner's emails?" (τ = -.35, p = .000). "Never" was ranked as 1 and "all the time" was ranked as 5 on the monitoring subscales. This means that Facebook jealousy was associated with higher scores on the monitoring subscales. Participants reporting Facebook jealousy reported monitoring their partner offline more often.

Significant negative relationships were found between Facebook jealousy and all of the SNS monitoring subscales. Significant negative relationships were found between Facebook jealousy and the SNS monitoring subscales "how likely are you/were you to monitor your partner's activities on the social networking site Facebook (through news feeds)?" (τ = -.51, p = .000), "how likely are you/were you to monitor your partner's postings or status updates" (τ = -.42, p = .000), and "how likely are you to monitor who your partner adds" (τ = -.45, p = .000). "Very unlikely was ranked as 1 and "very likely"

was ranked as 5 on the SNS monitoring subscales. This means that Facebook jealousy was associated with higher scores on the SNS monitoring subscales. Those reporting Facebook jealousy were more likely to monitor their partner on the SNS Facebook.

Significant negative relationships were found between Facebook jealousy and all of the trait jealousy subscales. The significant negative relationships were found between Facebook jealousy and the trait jealousy subscales "jealous" ($\tau = -.44$, $p = .000$), "suspicious" ($\tau = -.41$, $p = .000$), and "mistrustful" ($\tau = -.41$, $p = .000$). "Disagree" was ranked as 1 and "strongly agree" was ranked as 5 on the trait jealousy subscales. Facebook jealousy was therefore associated with higher scores on the trait jealousy subscales. Participants reporting Facebook jealousy agreed more with the terms jealous, suspicious and mistrustful describing them.

Significant positive relationships were found between Facebook jealousy and all of the subscales measuring unacceptable behaviours on SNS. Significant positive relationships were found between Facebook jealousy and the subscales "how comfortable would you feel/would you have felt if you found out that your partner was communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online?" ($\tau = .31$, $p = .000$), "how comfortable would you feel/would you have felt if you found out that your partner was flirting with someone else online?" ($\tau = .35$, $p = .000$), "how would you feel/would you have felt if you found out that your partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples?" ($\tau = .23$, $p = .011$), and "how would you feel/would you have felt if you found out that your partner was disclosing personal information (to someone of the opposite sex for

heterosexual couples or to someone of the same sex for same sex couples)?" (τ = .18,

p = .041). "Very uncomfortable" was ranked as 1 and "very comfortable" was ranked as

5 on the unacceptable behaviour subscales. Facebook jealousy was therefore associated

with lower scores on the unacceptable behaviour subscales. In other words, participants

who reported Facebook jealousy reported being more uncomfortable if they found out

that their partner was engaging in these behaviours online.

A significant negative relationship was also found between Facebook jealousy

and the scale measuring the likelihood of participants to increase monitoring behaviour or

to begin monitoring behaviour if they found out that their partner was engaging in

behaviours online that they felt uncomfortable with (τ = -.35, p = .000). "Very unlikely"

was ranked as 1 and "very likely" was ranked as 5. This means that Facebook jealousy

was associated with higher ranks on the scale. Individuals reporting Facebook jealousy

reported being more likely to begin to monitor their partner or increase monitoring

behaviour if they felt that their partner was engaging in any behaviour online that they

were uncomfortable with.

Table 26

Kendall tau (τ) Correlations Between Facebook Happiness and Scales/Subscales

	Happiness	
Scales/Subscales	τ	*p*
Happiness	1.00	
Relationship type	-.13	.128
Relationship satisfaction	-.28**	.001
Log in frequency	.04	.682
Log in time	.13	.111
Intensity 1 (Facebook part of every day activity)	.04	.682
Intensity 2 (feeling sorry if Facebook shut down)	-.00	.967
Intensity 3 (feeling out of touch after not logging into Facebook)	-.01	.878
Profile maintenance 1 (frequency of uploading pictures)	.12	.167
Profile maintenance 2 (frequency of changing profile)	.13	.133
Profile maintenance 3 (frequency of changing status or posting things)	-.12	.159
Grooming 1 (frequency of visiting profiles of close friends)	-.01	.897
Grooming 2 (frequency of leaving wall posts on the profiles of close friends)	-.10	.261
Grooming 3 (frequency of leaving wall posts on partner's profile)	-.03	.762
SNS jealousy 1 (likelihood to become jealous over who partner added)	.27**	.001
SNS jealousy 2 (likelihood to monitor partner's Facebook activities)	.26**	.001
SNS jealousy 3 (likelihood to become jealous over partner's post)	.25**	.002

Monitoring 1 (partner's drawers, handbag, or pockets)	.30**	.000
Monitoring 2 (partner's text messages)	.20*	.018
Monitoring 3 (partner's email)	.22*	.012
SNS monitoring 1 (likelihood to monitor partner's activities)	.19*	.021
SNS monitoring 2 (likelihood to monitor partner's postings or updates)	.03	.746
SNS monitoring 3 (likelihood to monitor who your partner adds)	.21*	.011
Trait jealousy 1 (mistrustful)	.33**	.000
Trait jealousy 2 (jealous)	.15	.075
Trait jealousy 3 (suspicious)	.29**	.000
Popularity 1 (important people think I'm popular)	-.07	.392
Popularity 2 (bought 'in' things to have)	-.01	.912
Popularity 3 (ignoring some to be more popular with others)	.00	.980
Unacceptable behaviour 1 (partner communicating with someone online of the opposite or same sex)	-.26**	.001
Unacceptable behaviour 2 (partner flirting online)	-.18*	.040
Unacceptable behaviour 3 (partner disclosing intimate details online)	-.04	.640
Unacceptable behaviour 4 (partner disclosing personal information online)	-.10	.271
Change in monitoring behaviour	.24**	.004

Note. n = 124. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

Table 27

Kendall tau (τ) Correlations Between Facebook Jealousy and Scales/Subscales

	Jealousy	
Scales/Subscales	τ	*p*
Jealousy	1.00	
Relationship type	.28**	.001
Relationship satisfaction	.30**	.000
Log in frequency	.03	.698
Log in time	-.19*	.025
Intensity 1 (Facebook part of everyday activity)	-.17*	.040
Intensity 2 (feeling sorry if Facebook shut down)	-.05	.577
Intensity 3 (feeling out of touch after not logging into Facebook)	-.15	.064
Profile maintenance 1 (frequency of uploading pictures)	-.04	.651
Profile maintenance 2 (frequency of changing profile)	-.19*	.031
Profile maintenance 3 (frequency of changing status or posting things)	-.02	.780
Grooming 1 (frequency of visiting profiles of close friends)	-.08	.352
Grooming 2 (frequency of leaving wall posts on the profiles of close friends)	.03	.720
Grooming 3 (frequency of leaving wall posts on partner's profile)	-.02	.801
SNS jealousy 1 (likelihood to become jealous over who partner added)	-.52**	.000
SNS jealousy 2 (likelihood to monitor partner's Facebook activities)	-.52**	.000
SNS jealousy 3 (likelihood to become jealous over partner's post)	-.45**	.000
Monitoring 1 (partner's drawers, handbag, or pockets)	-.34**	.000
Monitoring 2 (partner's text messages)	-.32**	.000

Monitoring 3 (partner's email)	-.35**	.000
SNS monitoring 1 (likelihood to monitor partner's activities)	-.51**	.000
SNS monitoring 2 (likelihood to monitor partner's postings or updates)	-.42**	.000
SNS monitoring 3 (likelihood to monitor who your partner adds)	-.45**	.000
Trait jealousy 1 (mistrustful)	-.44**	.000
Trait jealousy 2 (jealous)	-.41**	.000
Trait jealousy 3 (suspicious)	-.41**	.000
Popularity 1 (important people think I'm popular)	-.04	.623
Popularity 2 (bought 'in' things to have)	.10	.248
Popularity 3 (ignoring some to be more popular with others)	-.07	.418
Unacceptable behaviour 1 (partner communicating with someone online of the opposite or same sex)	.31**	.000
Unacceptable behaviour 2 (partner flirting online)	.35**	.000
Unacceptable behaviour 3 (partner disclosing intimate details online)	.23*	.011
Unacceptable behaviour 4 (partner disclosing personal information online)	.18*	.041
Change in monitoring behaviour	-.35**	.000

Note. $n = 124$. * Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

The purpose of this chapter was to present in detail all of the data collected from the online survey and to present the results from the subsequent data analysis. Demographic information, descriptive statistics, significant differences between groups and correlations among variables were presented within this chapter.

From the total number of participants, 75.0% reported experiencing feelings of happiness and 56.5% reported experiencing feelings of jealousy within their current/past romantic relationship after using the SNS Facebook. Comments and photographs were

the most reported causes of both Facebook happiness and Facebook jealousy. These feelings of happiness and jealousy were reported to both directly and indirectly affect romantic relationships. Security and trust were the two most reported ways in which these feelings affected the romantic relationship. Overall, few significant differences were found between groups I (individuals 18 to 29 years of age) and II (individuals 30 years of age and older) for the factors that were found to be related to Facebook happiness and jealousy.

Individuals reporting Facebook happiness also reported relationship satisfaction and disagreed with the terms 'mistrustful' and 'suspicious' describing them. They reported being more comfortable with their partner engaging in certain activities online, reported being less likely to monitor their partner (online and offline) and reported being less likely to increase monitoring behaviour. Individuals reporting Facebook jealousy also reported less relationship satisfaction, less relationship commitment, and jealousy traits. They reported being less comfortable with their partner engaging in certain activities online, reported being more likely to monitor their partner (online and offline), and reported being more likely to increase monitoring behaviour. They also reported longer Facebook log in times and agreed that Facebook is/was a part of their everyday activity.

The next chapter will provide an overview of all the results and expand on the findings of the designed survey. Strengths and limitations of the study will also be discussed. The chapter will end with a discussion of recommendations for areas of future research.

Chapter 5: Discussion

The previous chapter focused on presenting detailed results of the online survey. The focus of this chapter will be on giving a summary of the survey results and to elaborate on the findings in order to answer the research question: how does Facebook use affect romantic relationships offline? Strengths and limitations of the study will also be discussed followed by recommendations for areas of future research.

Summary of Findings

The purpose of this study was to determine the ways in which Facebook use can affect romantic relationships offline. Through a comprehensive literature review and online survey, the aim of this study was to contribute to the research on SNS and to address the lack of research on individuals in North America. As hypothesized, it was found that the individuals in North America compare to the individuals in the study by Helsper and Whitty (2010) in that individuals will take action and monitor their partner's behaviour if they feel that their partner is engaged in online activities they are uncomfortable with. It was found that the individuals in North America compare to the individuals in the studies by Utz and Beukeboom (2011) and Mod (2010) in that a large number of individuals experience jealousy from SNS use and that these feelings were positively related to trait jealousy and monitoring behaviour. It was also found that some individuals will experience relationship happiness from SNS use and that these feelings will be positively related to relationship satisfaction.

Discussion of Findings

Romantic relationships.

Relationship type. Analysis of the survey results showed relationship type to be related to the experience of SNS jealousy. Consistent with other research (Aylor & Dainton, 2001), SNS jealousy was associated with more casual and less committed relationships. Aylor and Dainton (2001) found compared to casual daters, respondents who were married reported less jealousy, reported expressing jealousy less often, and reported fewer jealousy-related goals such as maintaining the primary relationship. Over half of the participants (64.0%) in group I who are 18 to 29 years of age reported speaking about a relationship in which they are or were seriously dating their partner, while the majority of the participants in group II who are 30 years of age and older (54.3%) reported speaking about a relationship in which they are or were married to their partner. Although no significant differences were found between groups I and II in experiencing SNS jealousy, over half of the participants in group I (60.7%) reported experiencing SNS jealousy while over half of the participants in group II (54.3%) reported that they have not experienced SNS jealousy. This suggests that individuals who feel more secure in their relationship report less romantic jealousy. In other words, they may perceive less as a threat to the romantic relationship and therefore experience less cognitive, emotional or behavioural reactions (Aylor & Dainton, 2001).

Relationship length. Relationship length was found to be unrelated to the experience of SNS happiness or SNS jealousy.

Relationship satisfaction. Analysis of the survey results showed relationship satisfaction to be related to both SNS happiness and SNS jealousy. Those reporting

Facebook happiness were reporting higher satisfaction in their romantic relationship, while those reporting Facebook jealousy were reporting less satisfaction in their romantic relationship. These findings are consistent with previous research done by Utz and Beukeboom (2011). They looked at both the positive (SNS happiness) and negative (SNS jealousy) consequences of SNS use and found that relationship satisfaction along with SNS use for grooming and log in frequency, predicted higher SNS relationship happiness. This can be seen in the results of this study. Relationship satisfaction for Group I was found to differ significantly from group II. Although there were more participants in group I who reported being very happy (56.2%) in their romantic relationship, a higher percentage of participants in group II reported being happy (60.0%) and very happy (28.6%) in their romantic relationship. Results show that a higher percent of participants in group II (82.9%) reported experiencing SNS happiness than participants in group I (71.9%). These findings not only show that relationship type can influence the experience of SNS jealousy but they also suggest that relationship satisfaction plays a part in the experience of SNS happiness and SNS jealousy. It is also quite possible that age plays a part in the experience of both.

Facebook use.

Log in frequency. The majority of participants (60.5%) reported logging in several times a day. No significant differences were found between groups I and II for log in frequency. Log in frequency was found to be unrelated to experiencing SNS happiness or SNS jealousy. This suggests that it is not the number of times individuals log in that influences feelings such as happiness or jealousy it is the time spent on Facebook that is a significant predictor of those feelings. Individuals can log on frequently but the longer

they spend on the SNS, the more likely they are to see things that will evoke feelings of happiness or jealousy.

Log in time. Analysis of the survey results showed log in time to be related to the experience of SNS jealousy. Those reporting Facebook jealousy reported longer daily log in times or chose does not apply. More participants who reported experiencing Facebook jealousy reported longer daily log in times.

This was found in previous research. Muise et al. (2009) found an association between time spent on Facebook and jealousy. It was unclear if more time spent on Facebook caused feelings of jealousy or if the feelings of jealousy caused by increased amounts of information available on one's partner causes them to spend more time on Facebook. Muise et al., (2009) hypothesised both to be true due to duel causation. Tokunaga (2011) found the amount of time spent on a partner's profile was related to amount of online surveillance. Tokunaga (2011) suggested that time is either a natural indication of surveillance, as it takes longer to see more or gain awareness of information, or that the longer individuals spend on Facebook the more enticed they are to monitor their partners and gain more information.

Facebook intensity. Analysis of the survey results showed the Facebook intensity subscale 'Facebook is/was part of my everyday activity' to be related to Facebook jealousy. Facebook jealousy was found to be associated with participants agreeing that Facebook is part of their every day activity. Utz and Beukeboom (2011) expected psychological meaning along with the type of use of SNS (for profile maintenance or grooming) to be positively related to SNS jealousy. Those who believe that Facebook is an important part of their life are more likely to spend more time on the SNS than those

who do not. Logging on daily creates an increased chance that individuals will come across jealousy-provoking information on their partner.

      Facebook use for profile maintenance and grooming. Although the majority of participants logged on frequently, the majority of participants rarely used Facebook for profile maintenance. The majority of participants reported that they almost never or only a few times a month uploaded pictures (83.9%), changed their profile (95.2%), or changed their status or posted things on their page (74.2%). It was found that Facebook was used more for grooming, particularly visiting profiles. Analysis of the survey results showed that the subscale measuring how often participants change their profile to be related to Facebook jealousy. Facebook jealousy was associated with changing one's profile more often. All of the subscales were found to be unrelated to Facebook happiness. These findings confirm Mod's (2010) findings that offline relationships are most negatively affected by active activities such as changing one's status. Passive activities on Facebook were not found to affect the relationship offline.

      SNS (Facebook) jealousy. Analysis of the survey results showed that all three Facebook jealousy subscales were related to both Facebook happiness and jealousy. Those reporting Facebook happiness reported that they were less likely to experience jealousy over who their partner adds or over their partner posting something on someone's page, and are less likely to monitor their partner's activities on Facebook. Facebook jealousy was associated with higher scores on the SNS jealousy subscales. Those who reported experiencing Facebook jealousy were more likely to feel jealous after seeing that their partner has added someone or posted something on someone's page, and are more likely to monitor their partner's activities on Facebook. Muise et al.,

(2009) found accessibility of information, relationship jealousy, the time spent on Facebook (Facebook addiction), and lack of context to be related to the experience of Facebook jealousy. Participants reported that their partners have both unknown individuals and past partners (romantic and sexual) as Friends on Facebook and that "the potential for jealousy in this environment is evident" (p. 443). Participants were found to be aware that increased exposure to information without proper context on Facebook could cause or increase feelings of jealousy.

Monitoring behaviour. Most participants reported never or rarely engaging in monitoring behaviour outside of Facebook. No significant differences were found between the groups for any of the monitoring behaviour. These findings are consistent with past research. Utz and Beukeboom (2011) found that the majority of participants reported almost never searching their partner's bags or reading their text messages or emails. These findings suggest that Facebook affects romantic relationships offline but that individuals seem reluctant to engage in behaviours that are or seem to be more socially unacceptable such as monitoring their partner's behaviours offline. Mod (2010) found that while feelings and emotions were intensified by Facebook use, individuals managed these emotions "to ensure that nothing takes place within a public setting" (p. 73). One participant reported that they did not do something online about their feelings because they believed that it wasn't something people 'do'.

Analysis of the survey results found monitoring behaviour to be related to the experience of both Facebook happiness and jealousy. Significant relationships were found for Facebook happiness and all of the monitoring subscales. Participants reporting Facebook happiness reported monitoring their partner offline less often. Significant

relationships were also found between Facebook jealousy and all of the monitoring subscales. Participants reporting Facebook jealousy reported monitoring their partner offline more often. Utz and Beukeboom (2011) believe that individuals who are more likely to monitor their partner online are also more likely to monitor their partner in other ways. Therefore, individuals who monitor their partner offline are likely to use the opportunity to monitor their partner online. As a result, they are exposed to information on their partner and often lack of proper context causing feelings of jealousy.

SNS monitoring behaviour. Just under half of the total number of participants (46.0%) reported that they would be somewhat likely, likely or very likely to monitor their partner's activities on Facebook and to monitor who their partner adds (33.9%). Over half (61.3%) reported that they would be somewhat likely, likely or very likely to monitor their partner's postings or status updates. This is somewhat consistent with the research done by Utz and Beukeboom (2011) who found that half of the respondents reported engaging in SNS monitoring behaviours at least every now and then. Joinson (2008) found that the most important uses of Facebook tended to be related to social searching and surveillance functions. On Facebook individuals are not only allowed, but are almost expected to follow others (Lampe, Ellison, & Steinfield, 2006, as cited in Tokunaga, 2011). Facebook has made it easy for individuals to acquire information on others and on the larger groups to which they may belong (Lampe et al., 2006). It is possible that the convenience of acquiring information, along with anonymity can motivate surveillance on SNS sites such as Facebook (Tokunaga, 2011).

Participants in group I who are 18 to 29 years of age were found to be more likely to monitor their partner over Facebook. A higher percentage of participants in group I

reported that they would be likely or very likely to monitor their partner's activities on Facebook (through news feeds) (27.0% of participants in group I, 17.1% of participants in group II), their partner's postings or status updates (40.5% of participants in group I, 28.5% of participants in group II) and who their partner adds (20.2% of participants in group I, 17.2% of participants in group II). This finding is consistent with previous research. Tokunaga (2011) found that younger participants were more likely to use interpersonal surveillance strategies over SNS.

Analysis of the survey results show SNS monitoring behaviour to be related to both Facebook happiness and jealousy. Participants reporting Facebook happiness also reported that they would be less likely to monitor their partner's activities (through news feeds) and reported being less likely monitor who their partner adds. Significant negative relationships were found between Facebook jealousy and all of the SNS monitoring subscales. Participants reporting experiencing Facebook jealousy also reported that they would be more likely to monitor their partner's on Facebook. They reported being more likely to monitor their partner's activities, postings or status updates, and who their partner adds on Facebook. All three monitoring activities can expose individuals to things without proper context and can cause feelings of jealousy (Muise et al., 2009; Utz & Beukeboom, 2011). As Muise et al., (2009) suggested this creates a feed-back loop where increased jealousy causes increased surveillance and the increased surveillance leads to further exposure to jealousy provoking information.

Trait jealousy. Significant relationships were found between Facebook happiness and the trait jealousy subscales "mistrustful" and "suspicious". Participants reporting Facebook happiness also reported that they disagree with the terms mistrustful and

suspicious describing them. No significant relationship was found between Facebook happiness and the trait jealousy subscale "jealous". Significant relationships were found between Facebook jealousy and all of the trait jealousy subscales. Participants reporting Facebook jealousy agreed more with the terms jealous, suspicious and mistrustful describing them. Trait jealousy has been positively linked to SNS jealousy in previous studies (Muise et al., 2009; Utz and Beukeboom, 2011). Both Muise et al., (2009) and Utz and Beukeboom (2011) found trait jealousy to be a "significant predictor of Facebook jealousy" (p. 443).

Need for popularity. Analysis of the survey results found that the need for popularity was unrelated to both Facebook happiness and jealousy. These findings were unexpected as Zhao (2008) found that many of the participants tried to show connectedness and popularity through their Facebook page through pictures, and that all participants tried to project an identity that was socially desirable. This included posting positive displays of affection for their loved ones. As Utz and Beukeboom (2011) suggested, individuals with a need for popularity or wanting to show popularity may therefore be sensitive to cues that threaten the way they want to present themselves. These individuals are therefore thought to be more likely to experience SNS jealousy.

Unacceptable behaviour on Facebook. Over half of the total number of participants reported feeling very uncomfortable and uncomfortable over each of the behaviours. These findings are consistent with previous research. Helsper and Whitty (2010) found the highest percentage agreement between partners was found for activities they labelled 'infidelity'. They found that both partners reported that they would be

unhappy if the other partner engaged in activities online such as falling in love with someone, flirting and disclosing personal information.

No significant differences were found between groups I and II for how participants would feel if they found out that their partner was communicating, disclosing intimate details or disclosing personal information online with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples). Significant differences were found between groups for how participants would feel if they found out that their partner was flirting online with someone else. No participants in group II reported feeling very comfortable or comfortable with online flirting behaviours. Although a few participants (3.4%) in group I reported feeling very comfortable or comfortable with online flirting behaviours, the majority (95.5%) reported feeling very uncomfortable or uncomfortable with it. Helsper and Whitty (2010) found certain behaviours to be unacceptable and the fact that they take place online does not make them anymore acceptable. Findings from this study show that overall age does not make a difference in this.

Participants who reported experiencing Facebook happiness were more comfortable with their partners communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples), and were more comfortable with finding out that their partners were flirting online. Participants who reported Facebook jealousy reported being more uncomfortable if they found out that their partner was communicating, flirting, disclosing intimate details or disclosing personal information to someone of the same sex (for same sex couples) or to someone of the opposite sex (for heterosexual couples). Previous research has shown emotional

online betrayal to be a "serious relationship transgression" (Whitty, 2003, 2005 as cited in Helsper & Whitty, 2010, p.918). It is possible that some individuals believe communicating and flirting online have less emotional feelings attached, making individuals who report experiencing SNS happiness more comfortable with those behaviours.

Change in monitoring behaviour. Most participants (90.3%) reported that they would monitor their partner or increase monitoring behaviour if they felt that their partner was engaging in any behaviour online they were uncomfortable with. These findings are consistent with previous research. Helsper and Whitty (2010) found that when individuals suspect their partner is undertaking in behaviours that they feel are unacceptable online, they do not shy away from monitoring their partner online. They found these monitoring behaviours include reading emails and instant message logs, checking browsing history, and reading text messages.

Individuals reporting Facebook happiness reported being less likely to begin to monitor their partner or to increase monitoring behaviour if they felt that their partner was engaging in any behaviour online that they were uncomfortable with. Those reporting Facebook jealousy reported being more likely to begin to monitor their partner or increase monitoring behaviour if they felt that their partner was engaging in any behaviour online that they were uncomfortable with.

Experiencing happiness within a romantic relationship after Facebook use. The majority (75%) of the total number of participants reported experiencing feelings of happiness within their past/current romantic relationship after Facebook use. No significant differences were found between the two groups reporting Facebook happiness.

The cause of Facebook happiness. All reported causes of Facebook happiness were active activities. Over half of the total number of participants who reported experiencing happiness reported that seeing comments posted by their partner (69.9%) and seeing pictures posted by their partner (81.7%) was the cause of Facebook happiness. Other less reported causes such as the status on their partner's profile were also active activities. This is consistent with Mod's (2010) findings that for Facebook users, active activities (such as posting pictures) had more of an effect than passive activities (such as stalking) in creating stress and eliciting emotions in their intimate relationships. Active activities such as changing one's status or posting comments and pictures may cause feelings of happiness as they "make a public declaration" (Mod, 2010, p. 68) of their relationship. Things like changing one status can add leverage to one's relationship

How the feelings of happiness after Facebook use have impacted the romantic relationship. Overall, happiness directly affected participants' romantic relationships. Out of the 93 participants (75.0% of the total number of participants) who reported experiencing feelings of happiness after Facebook use, only 2 participants (2.2% of participants reporting feelings of happiness) reported that Facebook indirectly impacted their relationships.

Experiencing jealousy within a romantic relationship after Facebook use. From the total number of participants, 56.5% reported that they have experienced feelings of jealousy within their past/current romantic relationship. No significant differences were found between the two age groups reporting Facebook jealousy.

The cause of Facebook jealousy. Over half of the participants (57.1%) who reported experiencing Facebook jealousy reported that seeing comments posted on their partner's wall from others was the cause of the jealous feelings. Seeing pictures of attractive individuals on their partner's page was the next highest reported cause of Facebook jealousy (47.4%) followed by seeing pictures of past relationships on their partner's page (42.9%). These most reported causes of Facebook Jealousy could be seen as possible threats to the romantic relationship, which are made public. Mod (2010) found that these types of active activities could cause feelings of uncertainty and insecurity in the relationship. Ambiguous pictures or comments can be seen which can create these feelings and cause people to question their partner's fidelity for example. Mod (2010) also found that these types of activities could show flaws in one's romantic relationship. It has been found that a sense of unity can be immensely important in how serious individuals feel their relationship is (Mod, 2010). Any pictures or comments that may suggest to others that the relationship may have flaws can create problems within the relationship offline.

How the feelings of jealousy after Facebook use have impacted the romantic relationship. Overall, the feelings of jealousy were reported to directly affect participants' romantic relationships. Out of the 70 participants (56.5% of the total number of participants) who reported experiencing Facebook jealousy, only one participant (1.4% of participants reporting feelings of jealousy) reported that Facebook did not directly impact their relationship.

Discussion of Survey Results

With the increased popularity of SNS such as Facebook and the various ways in which individuals use them, it is important to understand the implications it can have on the lives of those who use them. There are many ways in which the SNS Facebook can be used when it comes to romantic relationships. Therefore, the increased use of Facebook leads to more ways in which the dynamics of a romantic relationship can be affected offline. The purpose of this study was to determine the ways in which the SNS Facebook affects romantic relationships offline. Specifically, the focus of this study was on relational jealousy and happiness as a result of Facebook use.

It was found that individuals in North America compare to the individuals in the study by Helsper and Whitty (2010) in that there are expectations within a romantic relationship on what is considered to be acceptable online behaviour. Consistent with Helsper and Whitty's (2010) findings, the highest percentage of individuals reported that they would be uncomfortable if the other partner engaged in activities online such as falling in love with someone, flirting and disclosing personal information. Helsper and Whitty (2010) labelled these activities 'infidelity'. As was hypothesised when individuals suspect their partner is undertaking in behaviours that they feel are unacceptable online, they do not shy away from monitoring their partner online. These findings are consistent with previous research. Helsper and Whitty (2010) found that these monitoring behaviours include reading emails and instant message logs, checking browsing history, and reading text messages.

As hypothesised it was also found that some individuals experienced SNS happiness. In fact, the majority of participants (75% of the total number of participants)

reported experiencing feelings of happiness after Facebook use. These feelings of SNS happiness are related to relationship satisfaction. Participants reporting Facebook happiness reported higher satisfaction in their romantic relationship. Facebook happiness is not related to SNS grooming or any of the subscales measuring SNS use for maintenance and grooming.

Analysis of the survey results showed Facebook happiness to also be related to SNS jealousy, monitoring behaviour and SNS monitoring, the subscales measuring jealous and suspicious traits, two of the subscales measuring unacceptable behaviour on Facebook, as well as change in monitoring behaviour. Participants reporting Facebook happiness reported that they were less likely to experience jealousy on Facebook or to monitor their partner's activities on Facebook, they reported monitoring their partner offline and online less often, they disagreed with the traits jealous and suspicious describing them, they reported that they are more comfortable with communicating and flirting behaviours on Facebook, and they were less likely to monitor or increase monitoring behaviour if they found out that their partner was engaging in behaviours online that they were uncomfortable with. Being more comfortable and trusting with one's partner and being less likely to monitor or increase monitoring behaviour makes it less likely that individuals will come across something involving their partner which could result in feelings of jealousy. Facebook happiness was found to affect the romantic relationship offline in many ways. The most reported way was feeling more trust towards their romantic partner. The reported causes of SNS (Facebook) happiness were active activities done online by their partners which make a publically display and was found in

research to be a step forward in one's romantic relationship (Mod, 2010). It was found to bring a sense of certainty and assurance to the relationship.

As hypothesised it was found that a large number of individuals experienced SNS (Facebook) jealousy. Just over half of the participants reported experiencing feelings of jealousy after Facebook use. These feelings of Facebook jealousy are related to trait jealousy, however, it was found to be unrelated to the need for popularity. Participants reporting Facebook jealousy agreed more with the terms jealous, suspicious and mistrustful describing them. Analysis showed the feelings to also be related to monitoring behaviour and SNS monitoring. As hypothesised, participants reporting Facebook jealousy are more likely to monitor their partner's activities on Facebook, and reported monitoring their partner offline and online more often. However, Facebook jealousy was unrelated to SNS grooming. Facebook jealousy is related to SNS use for profile maintenance (changing one's profile) but unrelated to SNS use for grooming (visiting profiles).

Analysis of the survey results showed Facebook jealousy to also be related to relationship type, relationship satisfaction, log in time, the Facebook intensity subscale "Facebook is part of my everyday activity", SNS jealousy, as well as all the subscales measuring unacceptable behaviours on Facebook. Participants reporting Facebook jealousy were in less committed and more casual relationships, reported being less satisfied in their romantic relationship, reported longer daily log in times, agreed that Facebook is part of their everyday activity, and reported that they are more likely to experience jealousy on Facebook. They also reported being more uncomfortable with their partner communicating, flirting, disclosing intimate details, and personal

information online to individuals of the opposite sex (for heterosexual couples) or same sex (for same sex couples). Participants reporting Facebook jealousy were also more likely to begin to monitor or increase monitoring behaviour if they found out that their partner was engaging in behaviours online that they were uncomfortable with. There were also many ways in which Facebook jealousy was reported to affect the romantic relationship offline. The most reported way was feeling insecure in the relationship.

Age was not found to be an important factor for the majority of the subscales measured. Mann-Whitney U tests, Pearson's chi-squared tests, and Fisher's exact tests indicated that significant differences between groups I (participants 18 to 29 years of age) and II (participants 30 years of age and older) did not exist for the majority of subscales. No significant differences were found between the two groups in reporting experiencing feelings of happiness after Facebook use and the cause of these feelings. For how these feelings have impacted their past/current romantic relationship, the only significant difference found between groups I and II was for reporting that the feelings of happiness after Facebook use made them feel more secure in their relationship. No significant differences were found between the two groups in reporting experiencing feelings of jealousy after Facebook use, the causes of Facebook jealousy and how these feelings of jealousy have impacted their past/current romantic relationship.

From the analysis of the survey results, relationship satisfaction and trait jealousy were shown to be significantly related to Facebook use and the feelings that result from Facebook use. This is based upon the findings that relationship satisfaction and trait jealousy were significantly correlated with both Facebook happiness and jealousy. Individuals reporting experiencing feelings of happiness after Facebook use also reported

higher satisfaction in their current/past romantic relationship and disagreed with the terms "jealous" and "suspicing" describing them. Individuals reporting experiencing feelings of jealousy also reported less satisfaction in their current/past romantic relationship, and agreed with the terms "jealous," "suspicious," and "mistrustful" describing them. Links between surveillance behaviours, romantic jealousy and relationship satisfaction have also been found in past research. Elphinston and Noller (2011) found cognitive jealousy and surveillance behaviours to mediate the relationship between Facebook intrusion (intrusive thoughts about Facebook) and relationship dissatisfaction. Facebook intrusion was found to be related to cognitive jealousy and surveillance behaviours. Facebook intrusion was found to be related to relationship dissatisfaction. Cognitive jealousy and surveillance factors was also found to be linked to relationship dissatisfaction.

Implications for Counselling Psychology

The findings from this study have implications for counsellors. Because links between relationship satisfaction, trait jealousy, Facebook use and the feelings resulting from Facebook use have been found, it is recommended that counsellors not only engage in relationship counselling but also address SNS use when clients report issues with SNS and their relationships. Questions for SNS use should not only focus on the frequency and duration of SNS use, but should also include how the SNS is used (SNS for profile maintenance and grooming, SNS monitoring) and should check into SNS intensity (such as having SNS as part of their daily activity).

Strengths and Limitations

This section discusses both the strengths and limitations of the study. Strengths of the study include contributing to existing research by filling in important gaps on SNS

and Facebook. There is currently limited information on SNS jealousy and happiness and how romantic relationships are affected offline. There is also currently limited information on SNS and their affects on romantic relationships of Canadian participants and participants outside of a post secondary setting. Other strengths include the survey design, use of the online survey tool SurveyMonkey, and the methods used to gain the diverse sample of participants. As with all research, some limitations and delimitations exist. Limitations include potential reliability and validity issues with the self-report measures used. Delimitations include the lack of a pilot study, and the design of the survey. These will be discussed below.

Strengths. With the growing popularity of SNS, research continues to emerge not only on the uses of SNS but on the effects SNS have on the lives of individuals. One of the strengths of this study is that it contributes to existing research of SNS and romantic relationships. This study contributes to existing research by not only identifying the causes of both happiness and jealousy as a result of Facebook use, but also how romantic relationships are affected offline for individuals 18 years of age and older.

Sample demographics. This study went beyond previous research by recruiting participants that were not represented in previous research. Most studies used participants attending college or University with the average age of participants being in their early twenties. Hum et al., (2011) suggested studying participants of a broader age range. There were also no studies found using participants from Canada. This study used only participants from Canada who were 18 years of age or older. This study went beyond previous research by examining happiness and jealousy as well as other possible negative aspects of social networking sites like inappropriate disclosure and online behaviour, and

the ways in which participants feel that social networking sites have affected their romantic relationship.

Online Survey. The online survey used in this study was created from the survey software and questionnaire tool SurveyMonkey. Survey research was the best quantitative method to answer the research question because surveys allow for lots of information to be gathered from a large number of participants 18 years of age and older. Online surveys also help to reduce distortion and get honest answers from participants. Because romantic relationships can be a very meaningful part in the lives of many individuals, there is the potential for participants to distort their answers. Ensuring confidentiality has been found to reduce distortion (Woods & McNamara, 1980 as cited in Richman et al., 1999). Survey monkey uses a secure online survey format that ensured participant anonymity and allowed participants to fill out an easy to use survey on their own time. Surveys also allow for statistical analysis to be applied to the responses obtained.

Survey reliability. Overall the survey used demonstrated good reliability of the majority of the subscales. This gives confidence that most of the questions measured what they were intended to measure for the survey.

Recruiting methods. Another strength of the survey was the use of convenience sample methods to recruit participants. Through the use of technology, social media, and snowball sampling a large and diverse sample of participants was obtained. Posters advertising the study were not used to recruit participants. Due to living outside of the area in which the posters were approved, focus was put on other recruiting methods. An invitation to participate in the study was sent out to all of the Master of Education

students of the University of Lethbridge through the Faculty of Education listserv at the University of Lethbridge. The email was sent out through a University of Lethbridge email account and contained a short description of the study along with a link to the online survey. The description of the study and link was also sent out to all of the Master of Education students at the University of Lethbridge through the Faculty of Education listserv in an issue of the School of Gradate Studies Study Guide (SGS) study guide, which is emailed out to students from a University of Lethbridge email account. The survey was also Tweeted on Twitter by my supervisor Lorraine Beaudin and posted on Facebook. The recruitment strategy also included snowball sampling in order to gain a more diverse sample that may not have been reached by through email, twitter or Facebook. It also helped to get the suggested number of participants in total and in each age group for survey research. A total of 124 participants met the study's criteria and completed the survey. From the total number of participants 89 were 18 to 29 years of age (group I), and 35 were 30 years of age and older. Seymour Sudman (1976) suggested that for survey research there should be "a minimum of 100 participants in each major subgroup" and a minimum of "20 to 50 participants in each minor subgroup" (as cited in Gall et al., 2007, p.176).

Limitations.

Self-report measures. Being that this study uses self-report measures there is no way to verify how accurate or true the respondent's answers are. Even though the survey allowed participants to remain anonymous, there is still the potential for participants to report false or inaccurate answers. Participants may forget certain details or there are biases such as the social desirability bias that affect how a person answers survey

questions. It has been found that respondents tend to over report attributes that are socially desirable and underreport those that are socially undesirable (Krumpal, Jann, Auspurg, & von Hermanni, 2015). Even in a survey where they remain anonymous, it has been found that participants tend to "engage in impression management or self deception" (Krumpal et al., 2015, p. 122).

These are all potential threats to the reliability and validity of the survey results. It is possible that a qualitative study would gather more details and get different results. However, it would need to include a look at each participant's SNS page as people tend to "answer in accordance with perceived social norms" or they tend to refuse to answer the sensitive questions in interview situations (Krumpal, 2015, as cited in Krumpal, et al., 2015, p. 122). It is also difficult to study emotions like happiness and jealousy from observation as well as certain behaviours like secretly reading another individual's emails (Utz & Beukeboom, 2011).

Delimitations.

Informal survey testing. There are a few limitations of the study, which make the generalizability of the findings limited. Before the online survey was open for participants to complete, it was informally tested between two individuals. Four questions were unclear and this was not noticed until the survey was already open and had collected over 50 participants. Changes to the questions could not be made without clearing existing survey responses. As a result, the questions remained as they were. Question 4 which asked participants where their current residence is located did not use skip logic. This study focused on participants who live in Canada. Because skip logic was not used for this question, the three participants who reported residing in the United States were

able to complete the survey. The responses from these three participants were therefore removed from the results of the survey. One question was not specific and only asked participants how likely they are or were to feel jealous if their partner added an individual of the opposite sex as a friend on Facebook. The question did not ask about individuals of the same sex (for same sex couples). It was anticipated participants would answer similarly for each of the three questions measuring SNS (Facebook) jealousy given that the subscale was found to have good reliability. It was found that participants did answer similarly for all three questions. For the questions measuring the causes of Facebook happiness and jealousy, and how these feelings have affected the romantic relationship offline, although the "other" comment field was added it wasn't set as it's own choice. Participants could not just choose "other," they had to choose one of the choices above it first. Some participants clarified in the other field if they chose an answer that wasn't completely accurate. This raises some question as to how accurate the provided responses are for each participant. However, for the most part when participants did clarify it was a more detailed explanation of the answer already chosen. As identified earlier there were 5 participants who chose other for causes of Facebook happiness and 3 who chose other for how these feelings have affected the romantic relationship offline. Ten participants chose other for causes of Facebook jealousy and 4 chose other for how these feelings have affected the romantic relationship offline.

Survey design. Another possible limitation of the study could be the survey design. Some measures were comprised of more questions or subscales than others. Also, while most of the questions came from previous research and were found to be valid and reliable, a few of the survey questions were researcher created for the purpose of the

study. Questions 2 to 4 and 6 to 10 were created to collect demographic information and to ensure that participants met the required criteria to participate in the study. Question 11 and 12 were created to gather information on each participant's romantic relationship. Question 16 was created to gain a better understanding of Facebook usage than just how often participants logged on. Participants may be logging on more frequently than others but spending less time on the SNS Facebook and vice versa. Because question 24 gathered information on how often participants left messages (wall posts) on the profiles of acquaintances, question 25 was created to gather information on how often participants left messages (wall posts) on their partner's profile. Question 28 was created to add to the scales measuring SNS jealousy and look into how likely participants were to become jealous after seeing that their partner posted something on the page of a member of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples). Question 33 and 34 were created to measure how likely participants were to monitor their partners engaging in specific activities on Facebook such as postings or status updates, or who their partner adds. Question 37 was created to get a better measurement of trait jealousy. Question 45 was created to measure how likely participants would be to begin monitoring their partner or to increase their monitoring behaviour if they felt that their partner was engaging in any behaviour online that they were uncomfortable with. Questions 46 to 51 were created to see if participants experienced happiness and jealousy in their romantic relationship after using Facebook and if so, how these feelings have affected their relationship.

This study also used subscales that were found to have less than adequate reliability. This includes the subscales used to measure profile maintenance (α= 0.51) and

grooming (α= 0.59) and the need for popularity (α= 0.61). Low alpha scores can indicate low reliability of subscales. However, it was decided to keep these subscales to compare findings with previous studies. The findings from these particular subscales should therefore be interpreted with caution.

Alphas can be affected by the number of items used in each subscale (Field, 2013). It is therefore possible the low alpha scores came from using a small number of items to measure each construct. It is possible that higher alphas would have resulted from having more items in each subscale. Three items were used to measure profile maintenance, three items were used to measure grooming and three items were used to measure the need for popularity. Lower alphas can also often occur when measuring broad or diverse constructs (Kline, 1999 as cited in Field, 2013). Higher alphas for broad constructs may indicate that the measures are redundant, repeatedly measuring the same portion of the construct. It is possible that the small number of items used to measure each diverse construct lead to low alpha scores. Finally, the measures adapted from Utz and Beukeboom (2011), and Santor et al. (2000) were also previously found to have adequate internal consistency. Two items were adapted from Utz and Beukeboom (2011) and one was researcher created to measure profile maintenance. Two items were also adapted from Utz and Beukeboom (2011) and one was researcher created to measure grooming. Utz and Beukeboom (2011) used five items to measure profile maintenance (α= 0.76) and six items to measure grooming (α= 0.85). All three items used to measure the need for popularity were taken from the popularity scale created by Santor et al. (2000). The measures of popularity constructed by Santor et al. (2000) were found to possess adequate internal consistency in their study. The original scale consisted of

twelve items. The shortened version used by Utz and Beukeboom (2011) which consisted of seven items ($\alpha = 0.81$) was also found to be reliable.

Recommendations for Future Research

With the growing popularity of SNS and their ever-changing nature, there remains much to study about romantic relationships and SNS. As mentioned in the limitations of the study, a qualitative study of Facebook happiness and jealousy and the effect on romantic relationships offline on a diverse group of participants would be interesting. Future research is also needed on other types of SNS on a wide age range of individuals with different types of relationships. Furthermore, this study contained a much larger number of females than males as was common in much of the research found on SNS (Joinson, 2008; Mod, 2010; Lee et al., 2012; Muise et al., 2009; Steinfield et al., 2008; Stern & Taylor, 2007; Tokunaga, 2011; Tosun, 2012; Utz & Beukeboom, 2011). Further research focusing on males would be beneficial. A number of variables affect who participates in online surveys. Research has shown that females are more likely to respond to online surveys than males (Curtin, Presser, & Singer, 2000; Groves & Couper, 1996; Moore & Tarnai, 2002; Singer, van Hoewyk, & Maher, 2000 as cited in Porter & Whitcomb, 2005). Other demographic characteristics that have been found to affect survey participation are race and education. Research has found that more educated or affluent individuals are more likely to participate in surveys (Curtin et al., 2000; Goyder, 1986; Goyder et al., 2002; Groves et al., 2000; Kandel & Raveis, 1983; Singer et al., 1999, 2000 as cited in Porter & Whitcomb, 2005) and individuals identifying as white are more likely to participate than other races (Curtin et al., 2000; Groves et al., 2000; Singer et al., 1999, 2000; Voigt et al., 2003 as cited in Porter & Whitcomb, 2005). Porter and

Whitcomb (2005) also found that social engagement and personality traits also predicted survey response rates among the student population. College students who were more socially engaged and who had "high scores on the investigative personality type" (Porter & Whitcomb, 2005, p. 145) were found to be more likely to participate. Lastly, this study focused on how individuals' romantic relationships changed offline. It would be interesting to also find the ways in which a diverse group of participants are affected online.

Conclusion

For the most part, the findings of this study were as hypothesised. Most of the participants (75.0%) experienced feelings of happiness after Facebook use. Although just over half of the total number of participants (56.5%) reported experiencing feelings of jealousy after Facebook use, it was fewer participants than expected. Analyses of the survey results show that the SNS Facebook has the potential to affect romantic relationships offline in various ways.

Given the prevalence of SNS, it is important for researchers and clinicians to be aware of the feelings that can result from SNS use and the various ways in which SNS can affect individuals' lives offline. According to Utz and Beukeboom (2011), SNS bring problems to relationships that have no offline equivalent, and are things that couples didn't have to deal with before. And although these problems are created online, most participants make no attempt to resolve the problems through Facebook (Mod, 2010). Past research has found that most participants wanted to keep their online persona the same even though their feelings have been changed offline (Mod, 2010). This may be due to people wanting to portray a self that is socially desirable (Zhao et al., 2008). Many

do not feel that dealing with their relationship problems should be done online.

Therefore, exploring various ways to work out their feelings and issues becomes

important, whether it is done online or offline.

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Appendix A

University of
Lethbridge

PARTICIPANT (ADULT) CONSENT FORM

Faculty of Education

The Impact of Social Networking Sites on Romantic Relationships

You are being invited to participate in a study entitled The Impact of Social Networking Sites on Romantic Relationships that is being conducted by Andrea Evasiuk. Andrea Evasiuk is a graduate student in the Faculty of Education at the University of Lethbridge and you may contact her if you have further questions by email at evasiuk@uleth.ca or by phone at (780) 880-4894. Andrea is required to conduct research as part of the requirements for a degree in Counselling Psychology. The research is being conducted under the supervision of Dr. Lorraine Beaudin. You may contact her at (403) 329-2444.

The purpose of this research project is to look at the ways in which social networking sites can affect romantic relationships offline.

Research of this type is important because social networking sites are becoming such a large part of many people's lives that it has the potential to affect various aspects within it, including romantic relationships. There are few studies which address the effects social networking sites has on romantic relationships. Currently there are no studies, which look at if, and how social networking sites affect older adults. There are also no studies looking at younger people in Canada. This study will be the first to look at how social networking sites affect the romantic relationships of older adults and younger individuals in Canada.

You are being asked to participate in this study because you are at least 18 years of age, are currently in a romantic relationship and you and your partner have active Facebook accounts; or you can speak to a past romantic relationship that you had where both you and your past partner had Facebook accounts. If you agree to voluntarily participate in this research, your participation will include completing an online questionnaire. The questionnaire will take approximately 10-15 minutes to complete.

A potential risk to completing the survey is emotional discomfort. The questions may bring up some uncomfortable feelings. If at any time you do experience emotional discomfort you may choose to exit the survey at any time without consequence. You may exit the survey by exiting the Internet browser. You are also encouraged to reach out for help. You are encouraged to call your local 24 hour crisis hotline such as the Lethbridge Distress Line at 403-327-7905. Alternatively, you are encouraged to call 1-800-273-TALK (8255) to be directed to your nearest crisis center.

Potential benefits of your participation include providing valuable information, which may inform future research on the effects social networking sites have on offline relationships.

Your participation in this research must be completely voluntary. If at any time during the questionnaire you begin to feel uncomfortable and/or wish to stop participating you are welcome to withdraw from participation by closing the questionnaire window. If you do withdraw from the study your data will not be saved and therefore, will not be included in the study.

Your anonymity and confidentiality will be protected, as you will not be asked to provide any identifiable information. The online research survey created by the survey tool SurveyMonkey utilizes temporary Internet browser cookies to ensure that each individual can only access the survey once. These temporary Internet browser cookies cannot identify you in any way.   SurveyMonkey's online survey format is a secure format. In addition, only the researchers involved will have access to the secure server where the data will be accumulated and stored. This data will be extracted from the server into an Excel document, which will be stored on a password protected computer and USB flash drive which will be locked in a file cabinet only accessible by the researcher. All electronic data will be completely deleted after five years of completing the study.

Only summary results of this study may be shared at scholarly presentations, published in academic journals, or presented at academic conferences. And there will be no reference to any individual.

In addition to being able to contact the researcher and the supervisor at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge (403-329-2425).

1. Your participation in the online survey indicates that you understand and agree to the above conditions.
Thank you for your participation in this important study.

Start The Survey

Exit Now

Appendix B

Poster

Has your **romantic relationship** been affected by the social networking site Facebook?

Looking for individuals to participate in the study of how social networking sites affect romantic relationships.

Participants must be over the age of 18, currently in a romantic relationship or able to speak to a past romantic relationship, and have an activ account on Facebook. Romantic partner/past partner must also have an active account on Facebook.

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Appendix C

Online Questionnaire

Social Networking Sites and Your Relationship

Thank you for taking the time to participate in this study. Please be sure to read each question carefully, and answer as best as you can. Please note that by moving forward in the questionnaire you cannot go back and change previous answers. You will not be able to move forward in the questionnaire without selecting an answer. Your responses will be kept confidential and there is no way to track your answers.

2. Are you?
   - Male
   - Female
   - Other (If other please specify)

3. How old are you?

4. Where is your current residence located?
   - Canada
   - United States
   - Other (If other please specify)

5. Are you currently enrolled as a student?
   - Yes, full time in graduate school
   - Yes, part time in graduate school
   - Yes, full time at a four year undergraduate college/university
   - Yes, part time at a four year undergraduate college/university
   - Yes, full time at a two year undergraduate college/university
   - Yes, part time at a two year undergraduate college/university
   - Yes, at a high school or equivalent
   - No, I am not currently enrolled as a student

6. Are you currently employed?
   - Full time
   - Part time
   - Not employed
   - Self-employed
   - Retired

7. Do you currently have an active account on Facebook?
   - Yes
   - No
   - ➢ If Yes participants will be directed to question 8
   - ➢ If NO participants will be directed to question 7

8. If you currently do not have an active account on Facebook, have you had an active account in the past?
   - Yes
   - No
   - ➢ If YES participants will be directed to question 8
   - ➢ If No participants the survey is closed because they do not meet the study's requirements and the information is not saved or used in the study

9. Are you currently in a romantic relationship?
   - Yes
   - No
   - ➢ If YES participants will be directed to question 10
   - ➢ If NO participants continue on to question 9

10. If you are not currently in a romantic relationship, can you speak to a past romantic relationship?
    - Yes
    - No
    - ➢ If YES the participants continue onto question 9
    - ➢ If NO the survey is closed because they do not meet the study's requirements and the information is not saved or used in the study

11. Does/did your partner also have an active account on Facebook?
    - Yes
    - No
    - ➢ If YES the participants continue onto question 11
    - ➢ If NO the survey is closed because they do not meet the study's requirements and the information is not saved or used in the study.

12. How many months have you been/were you in the relationship for?

13. What relationship type are you/were you in?

    - Casual dating
    - Serious dating
    - Engaged
    - Married

14. How satisfied are you/were you with your relationship overall?

1	2	3	4	5
Not At All Happy	Less Happy	Neutral	Happy	Very Happy

15. How often do you/did you log in to the social networking site (Facebook)?
- Several times a day
- Daily
- Several times a week
- Once a week
- Several times a month
- Less often

16. Approximately how many hours each day do you/did you spend on the social networking site (Facebook)?
- Less than one hour
- One hour
- Two hours
- Three hours
- Four hours
- Five or more hours
- Does not apply. I do/did not log on daily

17. Facebook is/was part of my everyday activity

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

18. I would be sorry if Facebook shut down

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

19. I feel/felt out of touch when I haven't logged onto my Facebook for a while

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

20. How often do you/did you upload pictures?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

21. How often do you/did you change your profile?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

22. How often do you/did you change your status or post things on your page?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

23. How often do you/did you visit the profile of close friends?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

24. How often do you/did you leave messages (wall posts) on the profiles of acquaintances?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

25. How often do you/did you leave messages (wall posts) on your partner's profile?

1	2	3	4	5	
Almost Never	Few Times A Month	Weekly	Once A Day	Few Times a Day	N/A

26. How likely are you/were you to become jealous after your partner has added an unknown member of the opposite sex?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

27. How likely are you/were you to monitor your partner's activities on Facebook?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

28. How likely are you/were you to become jealous after seeing that your partner has posted something on the page of a member of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples)?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

29. How often do you look/have you looked through your partner's drawers, handbag, or pockets?

1	2	3	4	5
Never	Rarely	Sometimes	Often	All The Time

30. How often do you secretly read/have you secretly read the text messages on your partner's mobile phone?

1	2	3	4	5
Never	Rarely	Sometimes	Often	All The Time

31. How often do you secretly read/have you secretly read your partner's emails?

1	2	3	4	5
Never	Rarely	Sometimes	Often	All The Time

32. How likely are you/were you to monitor your partner's activities on the social networking site Facebook (through news feeds)?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

33. How likely are you/were you to monitor your partner's postings or status updates?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

34. How likely are you/were you to monitor who your partner adds?

1	2	3	4	5	
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely	N/A

35. The term mistrustful describes me

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

36. The term jealous describes me

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

37. The term suspicious describes me

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

38. Its important that people think I'm popular

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

39. I've bought things because they were the "in" things to have

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

40. At times, I've ignored some people in order to be more popular with others

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

41. How comfortable would you feel/would you have felt if you found out that your partner was communicating with someone of the opposite sex (for heterosexual couples) or of the same sex (for same sex couples) online?

1	2	3	4	5
Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable

42. How comfortable would you feel/would you have felt if you found out that your partner was flirting with someone else online?

1	2	3	4	5
Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable

43. How would you feel/would you have felt if you found out that your partner was disclosing intimate details online (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples)?

1	2	3	4	5
Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable

44. How would you feel/would you have felt if you found out that your partner was disclosing personal information (to someone of the opposite sex for heterosexual couples or to someone of the same sex for same sex couples)?

1	2	3	4	5
Very Uncomfortable	Uncomfortable	Neutral	Comfortable	Very Comfortable

45. How likely are you to begin/would you have begun to monitor your partner or increase monitoring behaviour if you felt that your partner was engaging in any behaviour online that you were uncomfortable with?

1	2	3	4	5
Very Unlikely	Unlikely	Somewhat Likely	Likely	Very Likely

46. Have you experienced happiness in your romantic relationship after using the social networking site Facebook that both you and your partner/former partner are members of?
   - Yes
   - No
   - ➢ If YES participants will continue onto question 46
   - ➢ If NO participants will be directed to question 48

47. If yes, what was the cause of those feelings? (Please check all that apply)
   - Seeing comments that were posted by my partner
   - Seeing pictures that were posted by my partner
   - The status on my partner's profile
   - Other (please specify):

48. How did those feelings of happiness impact your current/past romantic relationship? (Please check all that apply)
   - I feel/felt more secure in my relationship
   - I feel that I can trust my partner/ felt that I could trust my partner
   - It brought us closer together
   - Other (please specify):

49. Have you experienced jealousy in your romantic relationship after using the social networking site Facebook that both you and your partner/former partner are members of?
   - Yes
   - No
   - ➢ If YES participants will continue onto question 49?
   - ➢ If NO participants will be directed to the end of the survey

50. If yes, what was the cause of those feelings? (Please check all that apply)
   - Seeing comments posted on my partner's wall from others
   - Seeing comments that were posted by my partner on another individual's wall

- Seeing pictures of attractive individuals (known or unknown) on my partner's page
- Seeing photographs of past relationships on my partner's page
- The relationship status on my partner's page
- Other (please specify):

51. How did those feelings of jealousy impact your current/past romantic relationship? (Please check all that apply)
    - I feel/felt insecure in my relationship
    - I feel anxious when I am with my partner/I felt anxious when I was with my partner
    - I feel/felt a lack of trust in my relationship
    - I distanced myself from my partner physically
    - I give/gave my partner the 'silent treatment'
    - I have tried to make my partner feel jealous
    - I have threatened my partner
    - I have engaged in physical violence with my partner
    - I check/checked up on my partner more frequently
    - I do not feel happy/did not feel happy in my relationship
    - I try/tried to do more things for my partner to make them happy
    - I feel/felt inadequate as a partner
    - Other (please specify):

Thank you for taking the time to complete this survey. Please be assured that your answers are anonymous and confidential. To submit your responses please choose done. If you would like to withdraw your answers, you may close your browser now.

Done