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Facebook and Teenagers: Investigating Changes of Perceived Peer Pressures for Romantic Relationship Involvement Based on Facebook Attachment

Courtney Lynn Weiss Bennett
Walden University

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Walden University

College of Social and Behavioral Sciences

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Courtney Bennett

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Review Committee

Dr. Brian Zamboni, Committee Chairperson, Psychology Faculty

Dr. Stephen Burgess, Committee Member, Psychology Faculty

Dr. Tracy Masiello, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

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Romantic Relationship Involvement Based on Facebook Attachment

by

Courtney Lynn Weiss Bennett

MS, Florida State University, 2006

BS, Florida State University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

February 2017

Abstract

Although youth aged 12-17 years old constitute a growing segment of Facebook users, the impact social networking websites may have on their psyche has not been well-studied. Additionally, researchers have not investigated peer pressure as a mediator between individuals overall attachment to Facebook and the desire to be involved in a romantic relationship among teens or adults. The purpose of this quantitative study was to examine the connection between Facebook attachment and perceived peer pressure, specifically with regard to romantic relationships in individuals aged 14-17 years. Impression management theory served as the theoretical framework. A survey design was used to examine whether study variables (Facebook attachment, perceived peer pressure, and romantic relationship desires) were correlated with one another and whether Facebook attachment served as a mediating variable. Participants ($N = 42$) completed online surveys comprised of three established surveys that measure levels of perceived peer pressure, interest in romantic relationships, and overall Facebook attachment. Data were examined using correlational analysis. No significant correlations were found between any study variables. Because of the lack of statistical significance, no decisive conclusions can be rendered. Recommendations for future research include the use of different recruitment methods and the updating of assent and consent regulations for psychological research involving minors. The study provides a starting point for future researchers to evaluate the role of social media in adolescent development. Implications for positive social change include a greater awareness of the role of social media in the psychological development of young teens.

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Dedication

While it is my name on this dissertation, this doctoral degree has been made possible and is dedicated to the memory of my Grammy and Granddaddy, my very best friends. There is no doubt in my mind that I would not have had the courage, strength, or belief in myself to attempt a doctoral degree without Margaret and Frank Robertson, my grandparents. My Grammy and Granddaddy did not have the opportunity to obtain higher education. This fueled their desire for me to take every situation as a chance to learn something new has resonated throughout my entire life. Grammy and Granddaddy – We did it! I love and miss you more than what is imaginable.

Acknowledgments

There are quite a few people who have supported me throughout the years educationally and I would like to take a moment to personally thank them for their assistance. These people have not only listened as I whined about things they certainly did not have to care about, but they also have made me laugh, supported my abnormal sense of humor, provided me with reality checks when necessary, and offered me kind words when I felt like giving up.

There are times in life with pieces of a puzzle suddenly fit together beautifully, and the establishment of my dissertation committee was one of these serendipitous occasions. I must start with my dissertation chair, Dr. Brian Zamboni, as there is a no way I would have successfully completed the program without him. He took a leap of faith with me several years ago and has been my constant rock throughout this entire process. Dr. Zamboni's ability to encourage me has been a gift. Even with all the words in the world, I cannot sufficiently express my gratitude to him.

Secondly, I would like to take a second to acknowledge the second in command on my dissertation squad, Dr. Stephen Burgess, my committee member. Dr. Burgess graciously agreed to come along for this journey and has been a great resource and teammate. He has been an amazing person to work with, and I am so thankful that he was willing to take the time to work with me on such an important part of my educational life.

Other great educational beacons that have proven to be significant influences in my life, both educationally and professionally include Drs. Ashby Plant, Lenore McWey, Carol Darling, and Lynde Paule. My second psychology course in college was where I

truly fell in love with the field and discovered that I had a true desire to teach others about psychological principals. This course was taught by Dr. Plant. I had the joy of working with her throughout my undergrad program and she played a role in my master's program as well. Dr. Plant showed me the impact that a truly great instructor who is passionate about her field can have on the lives of their students. Drs. Lenore McWey and Carol Darling were extremely influential in my development at the master's level and believed that I was capable of greatness during a time when I was completely devoid of a life plan. Finally, Dr. Paule was an incredible force who I met in my doctoral program. She pushed me outside of my comfort zone in regards to research design while instilling in me the ideals necessary for being a successful instructor. Dr. Paule proved to be an incredible asset during my time in her class and beyond. All of these professors, as well as all those not mentioned, are deserving of so much more than a simple thank you, as they were crucial in assisting me along this path that led me to the completion of this dissertation.

Outside of academics, there have been a select group of individuals who have given me refuge and I thank them for all of the caffeine and giggles they have supplied over the years. My Starbucks family has made working on my doctorate fun and they have made me feel at home inside the walls of a coffee shop. While each of the baristas-turned-friends were an essential part of creating my productive school environment, there were a select few that were paramount in establishing a fun space to write. A few of these incredible individuals, to whom I hold a special place in my heart, are Tony DeMonego,

Anders Hancock, Lyndon Thacker, Kealeahia Stewart, Braxton Frizzle, and Noelle Flynt.

I could not have done it without you guys!

To my family, both chosen and blood, I love you and thank you for sticking with me through all of this! I refuse to even try to name each of you individually, because I am terrified I would accidentally leave someone out. If I like you, you know it, and this is meant for you. You are all beyond awesome! Thank you for being a part of my tribe!

While she cannot read, it would be a glaring omission if I did not provide acknowledgement to my fur-child, Berkeley. Weighing in at 10 pounds, she has helped me carry what felt like the weight of the world on my shoulders and always was willing to lick the tears away or take a fetch break when things got too serious. Knowing that I would always come home to find a ball of fur that loved unconditionally provided me hope for the future. I thank God for placing her in my life and allowing me to be her human.

As a spiritual person who is not particularly religious, I must give thanks to God for the opportunities I have had in my life, both negative and positive. After being a relatively healthy person throughout my childhood, at 23, my life changed forever. During testing for cardiac and neurologic diseases, I clinically died. While this could have been viewed as a setback for a life just beginning, I took it as an opportunity to start living without wondering what could have been. Had I not died and been given the chance to be revived, I would have likely never even attempted a doctoral degree. I am incredibly stubborn, so I suppose God knew that something drastic had to be done to help me reach my potential. One could argue that my near-death challenges were a bit

extreme, but, knowing me, nothing short would have produced change. I am grateful for the life lessons that have led me to this point and for being given the guidance to learn and adapt to my new physical and mental capabilities. God has given me the gift of humor to laugh at myself, which has undoubtedly allowed me to emerge reasonably psychologically intact after dealing with exceptionally horrific situations. If God only gives us what we can handle, then I am honored to say that God must truly think I am an incredibly strong woman. It is because of that, I can smile.

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Chapter 1: Introduction to the Study

Individuals are rapidly changing socialization behaviors as global society becomes interconnected via the Internet, which is accessible by any number of electronic devices (Brown & Bobkowski, 2011; Bugeja, 2006; Cohen-Almagor, 2011; Kirkpatrick, 2010; Robertson, 2009). Akin to the communication changes that occurred following the advent of the telephone, the nature of human interactions has changed amid the continued evolution of Internet technologies (Boyd & Ellison, 2007; Cohen-Almagor, 2011; Robertson, 2009). Among those leading the invention and development of new technology are young adults who recall the evolution of computer access, but were afforded the chance to learn alongside the new forms of software and hardware as young teenagers when the brain is more malleable to adjusting to new information (Robertson, 2009). Existing prior to the constant stream of media seems to propel technological savvy individuals to continually strive to create improved methods for connecting Internet users and available information (Boyd & Ellison, 2007; Cohen-Almagor, 2011; Kirkpatrick, 2010).

With the growth and success of Facebook, users have additional information available to them for connecting with other people in a virtual manner (Bonds-Raake & Raake, 2010; Gershon, 2011; Gonzales & Hancock, 2011; Lou, Yan, Nickerson, & McMorris, 2012; Paradise & Sullivan, 2012; Rouis, Limayem, & Salehi-Sangari, 2011; Skågeby, 2009; Strano, 2008; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008). Facebook developers have created the opportunity for users to have near continuous access to others' lives and to express their likes, dislikes, and opinions, as well as their

relationship status (Joinson, 2008; Kim & Lee, 2011; Kirkpatrick, 2010; Kujath, 2011; Lyndon, Bonds-Raacke, & Cratty, 2011; Moormand & Bowker, 2011; Tong, Van Der Heide, Langwell, & Walther, 2008). Researchers have found that peer pressure outside of the virtual environment is an identifier for behavioral and attitudinal alterations, particularly for those who are lacking a fully-formed self-identity from which intrapersonal confidence is maintained (Brown, Clasen, & Eicher, 1986; Connolly, Craig, Goldberg, & Pepler, 2004; Halevy, Chou, & Murnighan, 2012; House, 2008; MacDonald, 2009; Mikami, 2010; Santor, Messervey, & Kusumakar, 2000). Previously, peers applied peer pressure primarily when they were physically present with their targets in a face-to-face environment. Because of the increasing geographical dispersion of many populations, the extent of perceived peer pressure by individuals has been reduced because there are fewer opportunities to provide continual verbal or visual pressure in a face-to-face manner. Technological changes (including constant access to personal profiles of others on Facebook) have increased many individuals' opportunity to engage in constant self-comparison as well as perceive peer pressure (Sheldon, Abad, & Hinsch, 2011; Strano, 2008; Zhao, Grasmuck, & Martin, 2008). Facebook users can appraise their own worth in comparison with others as well as leave messages or comments on other users' profile pages, potentially resulting in situations for additional peer pressure to arise (Boyd & Ellison, 2007; Bugeja, 2006; Kirkpatrick, 2010).

I believe that research is needed to evaluate the possible association between young teenagers' Facebook attachment and their desire to be in a romantic relationship and whether peer pressure mediates this relationship. Based on my review of the

literature, this problem has not been fully investigated in literature to date. In this chapter, I state the purpose of my study and describe my study variables, research questions and hypotheses, and theoretical foundation. I also explain how I addressed research limitations. Finally, the significance of the study, implications for advancement of psychological knowledge, and the potential for social change are discussed.

Background

Social interaction via the Internet has far reaching effects for users of all ages (Brown & Bobkowski, 2011; Brown et al., 1986; Feaster, 2010; Miller, Lansford, Costanzo, Malone, Golonka, & Killeya-Jones, 2009; Zhao et al., 2008). Researchers have primarily focused on the psychological aspects of online socialization among adults (Ryan & Xenos, 2011; Wilson, Gosling, & Graham, 2012). Second to the relative newness of this online communicatory phenomena, research has lacked the inclusion of the extremely large population of online users, those who are under the age of 18 (Lenhart, Purcell, Smith & Zikuhr, 2010; Wilson et al., 2012). Results from prior studies indicate that the variables of importance within the present research (i.e., perceived peer pressure, desire to be involved in a romantic relationship, and Facebook attachment) are valid indicators of behavioral changes in adult participations such as changing profile pictures on social media websites due to peer influence (Brown & Bobkowski, 2011; Brown et al., 1986; Connolly et al., 2004; Crano, 2000; Ellison, Steinfield, & Lampe, 2007; Morrison & Bies, 1991; Miller et al., 2009; Santor et al., 2000; Zhao et al., 2008). A litany of prior research provides a foundation of evidence supporting the legitimacy of

the primary elements within this study and identifies obvious gaps in the literature mentioned previously.

Using impression management theory, Kobsa, Patil, and Meyer (2012) evaluated adult users of instant messenger services to investigate the users' personally perceived impression that they were attempting to display for third parties to receive. The authors found that participants were continually weighing themselves against that of their online "friends" by reviewing others' profiles. Participants' personal satisfaction in the decisions they made about the information they shared in their own profiles was largely based on their personal perceptions of their own profiles in comparison to those of their friends. Strano (2008) conducted research related to the transmission of peer pressure via Facebook and the subsequent behavioral changes that users make on their personal profiles displayed based on perceptions of said pressure. The findings support the ability of perceived peer pressure to generate behavioral changes in individuals, as Strano (2008) reported that participants cited peer pressure as the primary reason for altering their profile pictures.

Comparing Facebook to an online dating website, Muise, Christofides, and Desmarais (2009) evaluated participants' self-presentation on their Facebook profiles, including their decision to identify themselves as being in a romantic relationship. An interesting similarity discovered by the authors is an overwhelming attempt to put forth the desired self presentation to manage projected impressions, which may not coincide with what is factual for the user outside of the Internet. Romantic relationship status was a principal asset for developing self-presentation status by users and was found to be a

variable that users would employ to showcase their personal affirmation of a successful personal life. Elphinston and Noller (2010) furthered the research conducted by Muise et al. (2008) and identified the presence of Facebook infiltrating romantic relationships that are present offline, as users will compare their present status against friends and former mates. Additionally, Elphinston and Noller identified the catalyst for investigating romantic relationships of others being one of jealousy and desire to be socially acceptable.

O'Keefe and Clarke-Pearson (2011) chose to evaluate the population of and frequency of use of Internet and social media users. Research revealed that approximately 50% of teenagers review their personal profile on at least one social media website a minimum of once per day. The authors argued that the increase in social media via the internet is of potential risk to young people because it may lead to depression. Additionally, the high level of social media use in this age bracket could also result in increases to exposure and susceptibility to peer pressure, both positive and negative, by way of constant access to others input in users' life. Frequent use of social media sites can contribute to overall psychological health as found by Sheldon et al. (2011). In their study, participants reported feeling disconnected to life in a generalized sense following a 48-hour restriction from Facebook. This finding supports the presence of attachment to this form of media and the important role it can play in an individual's psychological well-being.

Problem Statement

The use of social media sites among U.S. teenagers is steadily rising with 73% of those aged 12-17 years reporting affiliation with at least one social network website in 2009 compared to 55% in 2006, the year Facebook first became available to younger teens (Lenhart et al., 2010). With the dramatic increase in young users, the need for understanding the potential psychological ramifications of this form of social media also grows. As professionals in psychology, the call to identify, research, and distribute information related to potential mental health harm or health is the catalyst to continue to perform ethical studies (APA, 2010). Prior research on the psychological components of Facebook use has primarily been inclusive of sample populations that are over the age of 18 (Darvell, Walsh, & White, 2011; Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008). The studies have investigated the various personality traits of frequent Facebook users, the potential behavior changes including the frequency of updating personal information, and romantic relationship variables that are impacted by social media websites (Elphinston & Noller, 2011; Gershon, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kim & Lee, 2011).

Researchers have explored the implications of indirect and/or direct peer pressure as a mediator in decision-making processes and frequency of social media use (Kim & Lee, 2011; Paradise & Sullivan, 2012; Raake & Bonds-Raacke, 2008; Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008). Specific research based solely on peer pressure as a mediator between the variables of Facebook attachment and the desire for romantic relationship involvement has not been investigated in depth for psychological purposes,

nor has such a study been conducted with teenagers whose demographic is largely active in online social media (Brown & Bobkowski, 2011; Lenhart et al., 2010; Malik & Mahmood, 2012; O'Keefe & Clarke-Pearson, 2011). The current study aimed to rectify this research problem through the inclusion of the underrepresented demographic of those aged 14-17 years while investigating any association between Facebook attachment and desire for romantic relationship involvement based on the users perceived peer pressure.

Purpose of the Study

The purpose of this study was to examine the relationship between Facebook attachment and perceived peer pressure as it regards involvement in romantic relationships among individuals aged 14-17 years.

Research Questions and Hypotheses

I sought to answer four research questions and their corresponding hypotheses as part of my investigation of the relationship between study variables.

Research Questions

RQ1: Among young teenagers, is interest in becoming involved in a romantic relationship related to perceptions of peer pressure?

RQ2: Is perceived peer pressure for romantic relationship involvement among young teenagers related to their Facebook attachment?

RQ3: Is Facebook attachment related to reported interest in becoming involved in a romantic relationship among young teenagers?

RQ4: Is perceived peer pressure among young teenagers a mediator between Facebook attachment and interest in being involved in a romantic relationship?

Hypotheses

*H*₁1: There is a correlation between perceptions of peer pressure and young teenagers' desires to be involved in a romantic relationship.

*H*₀1: There is no correlation between perceptions of peer pressure and young teenagers' desires to be involved in a romantic relationship.

*H*₁2: There is a correlation between perceived peer pressure to be involved in a romantic relationship in young teenagers and their Facebook attachment.

*H*₀2: There is no correlation between perceived peer pressure to be involved in a romantic relationship in young teenagers and their Facebook attachment.

*H*₁3: There is a correlation between Facebook attachment and young teenagers' interest in becoming involved in a romantic relationship.

*H*₀3: There is a correlation between Facebook attachment and young teenagers' interest in becoming involved in a romantic relationship.

*H*₁4: Perceived peer pressure among young teenagers is a mediator between Facebook attachment and interest in being involved in a romantic relationship.

*H*₀4: Perceived peer pressure among young teenagers is not a mediator between Facebook attachment and interest in being involved in a romantic relationship.

Theoretical Foundation

Personal perceptions of peer pressure and the application of similar pressure towards others can be attributed in part to the psychological phenomena of impression (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991). Subsequently, the constructs of impression management theory will be used as a foundation for the structure of this

quantitative survey research study. This theory was chosen because it provides an explanation for individuals' social interactions and their projection of perceived acceptable personalities to peers (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Zhao et al., 2008). The presentation of information provided by users on social networking websites are typically considered to be reflective of the values and traits held by the profile creator. Other social networking users view the projected information from others to psychologically create an ideal self, or a self that the individual believes is socially acceptable. The ideal self is then projected back out into the social group to verify the choices made about a user's personal self-concepts was correct. Impression management theory specifies that individuals take the information ascertained from peer interactions or comments and alter their projected self-concept in order to be more socially acceptable within their peer group. In terms of online social networking, when aspects of an individual's profile do not receive the desired feedback from peers, they can alter the areas identified as unacceptable by their peers. A more detailed account of the elemental constructs that provide the foundation for the impression management theory can be found within the second chapter.

Nature of the Study

In the current study, I used a snowball sampling technique coupled with word-of-mouth in order to reach targeted population for data collection via a four-part survey that was completed by the participants online. Teenagers within the target age range are generally surveyed by administering questionnaires during school (Greywolf, 2007; Lenhart et al., 2010; Wagener, Sporer, Simmerling, Flome, An, & Curry, 2004). In an

attempt to meet students from more than one school in a reasonably cross-demographic setting, this study focused on reaching potential participants via social media, specifically Facebook. Surveys offer a more time efficient data collection process to assist with maintaining the participants' attention and concentration for answering the presented questions. Additionally, the four-part survey has been generated on a secured virtual survey website that is accessible by any web-connected device. The researcher created a dedicated Facebook page for this study given the title "Teen Dating, Social Media, and Peer Pressure Research Study." This website contained information about the project, to include consent information for parents, the background information of the study, and the instructions for the parent or guardian to contact the researcher to receive the survey link that they were instructed to forward to their teenager for completion. Once the adult responsible for the teenager provided the teen with a link to the survey, the participant was able to complete all parts of the survey entirely anonymously on an electronic device of their choosing. Allowing the participants to complete the survey on an electronic device rather than on paper was a calculated decision that is meant to assist the overall comfort and willingness for the younger population to complete the study. Young teenagers are a part of the technologically advanced generation and have never known a time where computers and constant media access were not the norm (Robertson, 2009). Second to this, the aforementioned generation is more accustomed to receiving regular requests to complete tasks via technological devices, hopefully leading to their ease of use and comfort to provide honest responses throughout the survey.

Assumptions, Scope, and Delimitations

Assumptions present within the study are addressed within each corresponding area to include the choice of theoretical foundation, phenomena measured, instrumentation, methodology, statistical analysis and power of said results, participants, and the subsequent generalizability of results following data collection. The decision to utilize the impression management theory as the theoretical foundation for this study was made following a review of multiple theories that were reasonably related to the purpose of the study (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Zhao et al., 2008). While other theoretical options were available, such as the uses and gratifications theory, the theory of planned behavior, and conflict theory, each provided only a portion of the needed groundwork to conduct the study based on the identified variables and research questions (Halevy et al., 2012; House, 2008; MacDonald, 2009; Speakman & Ryals, 2010). The uses and gratifications theory was the only other strong contender for this study, because of its rationale for the changes of behaviors in terms of deciphering personal needs and the subsequent gratification that follows when others are complimentary or supportive of behavioral decisions (Katz, Blumler, & Gurevitch, 1973; Raacke & Bonds-Raacke, 2008; Urista, Qingwen, & Day, 2009). This theory, however, did not provide sufficient details for inclusion within this study, as it lacks a thorough description of how perceived perceptions by peers that are initiated by each individual's self-projection parlays into behavioral changes, as well as development of self-concept.

Perceived peer pressure, desire to be involved in a romantic relationship, and Facebook attachment within the target population have been assumed to be measurable

phenomena through survey methods that utilize previously developed, valid, and reliable instruments (Connolly et al., 2004; Ellison et al., 2007; Santor et al., 2000). Participants will be obtained via snowball sampling and word-of-mouth by way of a Facebook page dedicated to the study providing a reasonably accessible singular location with a target audience that is relatively inclusive of various demographical backgrounds (Creswell, 2009). Assuming the viewers of the survey's website are of varied demographics, the manner of recruitment was assistive in obtaining participants that are reasonably representative of the target population (Malik & Mahmood, 2012; United States Census Bureau [USCB], 2011). To amplify the snowball effect, flyers were also distributed to local middle and high school students to take home to their parents. These flyers were informational in nature and ultimately directed parents to the Facebook page of the study "Teen Dating, Social Media, and Peer Pressure Research Study." Data findings will subsequently be applicable to the target population following the procurement of the necessary number of surveys needed for research validity identified within the sample size analysis due to the aforementioned assumptions (Creswell, 2009; Ryan & Xenos, 2011; Sheldon et al., 2011, USCB, 2011; Walther et al., 2008). Statistical assumptions regarding data analysis include normal distributions of responses for the conduction of multiple correlational analyses of each variable and a regression analysis to conduct a mediation analysis.

The scope of this study incorporated the primary variables identified within the research questions and will be exclusively offered to participants aged 14-17 years. Delimitations of the study began with participant inclusion and exclusion, as the age of

the participant will be taken as correct per their self-report. All of the previously discussed assumptions will be applied in the final results portion of the study. The reporting of the findings will include a data analysis that will be assumed to be generalizable to the target population of teenagers between the ages of 14-17 within the United States (Lenhart et al., 2010; USCB, 2011). While the sampling procedures do not directly correlate with the ability to specifically control for inclusion of participants who would contribute to an exact demographic replica of the target population, the study will provide results that are within the under-researched age-range of young teenagers. Findings from this study, even without an exact demographic replica of the target population, can be used for researchers as a knowledge basis for the age group and present a rationale for conducting larger studies where cultivating a more demographically representative sample is plausible.

Limitations

Limitations within the current study are present in the form of limited funds, limited time for data collection, and participant self-presentation alterations based on expectancy bias. Monetary constraints result in a research limitation of employing a convenience sample rather than a more desirable large-sized national recruitment of participants that could be obtained using random sampling. Additionally, the advantage of a nation-wide recruitment procedure would offer the opportunity to cultivate a research sample that would have a more idealistic representation of the demographics and socioeconomic variations found in the target population (Lenhart et al., 2010; USCB, 2011). This limitation is addressed through the choice of recruitment strategies with

Facebook, a virtually accessible link for all English speaking persons to potentially view, being the primary catalyst for participant acquisition. To assist with generating additional word-of-mouth knowledge about the study, flyers were provided to approximately 800 students in a local school district's middle and high schools. While providing flyers to only one school set in a district could present socioeconomic biases, the location where this took place is a smaller county where there is only a singular middle and high school in existence for the entire population, subsequently lessening this limitation concern.

An additional potentially large limitation is based on the responses provided by the participants second to their desires to appear socially acceptable and their desire to please the experimenter creating bias in the results. Multiple actions have been taken to negate the majority of these concerns. First, the instrument used is broken down into three portions, all of which have a unique theme, increasing difficulty in the participants' ability to discern what a more socially appealing response would be on each portion of the survey (Connolly et al., 2004; Ellison et al., 2007; Santor et al., 2000). Instrument variability in its formatting of questions will also assist in limiting the participants' ability to decipher the desired response of the experimenter. Experimenter bias in general has been addressed by removing the largest potential limitation that can exist within this realm by not creating survey questions unique to this study by the researcher. The use of previously created instruments without altering questions will not only maintain the original validity and reliability of the measures, but will also remove the opportunity for infiltration of experimenter bias within the questions themselves. Experimenter bias will also be addressed in the administration of the survey to each participant by ensuring that

they are fully aware of the anonymity of their responses to both the researcher and any others who may later review the raw data. The knowledge that their responses will not be linked to their name will assist in limiting their desire to answer the questions in a manner that would appear pleasing to the experimenter rather than with their personal truth.

Significance

Technological growth is inevitable with infinite possibilities for the future (Boyd & Ellison; Cohen-Almagor, 2011; Kirkpatrick, 2010). Along with the advancement of technology is the interconnectedness of the world population that is equally affected by the breadth and reach of the internet (Brown & Bobkowski, 2011; Bugeja, 2006; Kirkpatrick, 2010; Robertson, 2009). This growth presents new challenges and opportunities for psychologists to understand human emotion and behaviors that are affected not merely by the physical presence of others, but also those which are present virtually (Elphinston & Noller, 2011; Feaster, 2010; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008). Second to the relative newness of the present level of interactions that occur online, the studies available are focused on general psychological concepts, primarily among adults. Results from the current study will provide the psychological community with evidence regarding the potential psychological impact young people's use of Facebook, filling the gap in literature where participants have primarily been adults. Additionally, this study extends current knowledge related to the level of peer pressure that is presented via Facebook to users, and could lead to potential future implications of the impact social

media can have on younger individuals' self-esteem (Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008).

Implications for Knowledge Advancement and Social Change

Uncovering information regarding the use of Facebook and changes in teenagers' behavior provides parents, teachers, clinicians, and researchers the opportunity to create a social change through more comprehensive understanding of teenage motivators (Ryan & Xenos, 2011). Findings from this study can be utilized not only for dissertation purposes, but it also possesses the potential for being condensed and published for more wide-spread knowledge dissemination among the psychological community. The ability to reach a greater number of psychological or psychologically-minded individuals through publication can lead to a greater awareness of the potential additional issues that may arise from social media use by teens and give insight for a greater understanding of the possibilities that exist for behavioral rationales in clinical practice settings, research projects, and theoretical development (Brown & Bobkowski, 2011; Moormand & Bowker, 2011). Knowledge about the teenaged population's behavioral choices can be rather challenging to fully comprehend due to the continued evolution of technology, changes of primary forms of communication, and the significant restrictions in place that limit the ability to reach teens for participating in research studies (Brown & Bobkowski, 2011; Lenhart et al., 2010; Mansson & Myers, 2011; Moormand & Bowker, 2011; Wilson et al., 2012).

Social media networks, to include Facebook, are successfully maintaining their consumer base and show a steady growth in users (Kirkpatrick, 2010; Koplowitz, 2013;

Lenhart et al., 2010; Robertson, 2009; Skågeby, 2009). The intrigue associated with the popularity of social media has led to the continuous introduction of new socializing platforms that provide users additional ways to have contact with others virtually. Teenagers have been exposed to more technological advances and internet-mediated socialization throughout their lifespan with no signs of future reductions in internet based social forums, resulting in these platforms drawing new users with each generation (Lenhart et al., 2010; Robertson, 2009; Strano, 2008). This research study was necessary for developing a more thorough understanding of how social media may alter teenagers' beliefs and behaviors.

Results from this study possess the potential to generate an increase in the ability to effectively reach teenagers within the clinical psychological setting initially due to a deeper grasp of teen's potential internal motivators (Brown & Bobkowski, 2011; Feaster, 2010; Miller et al., 2009; Robertson, 2009; Ryan & Xenos, 2011; Zhao et al., 2008). This alteration in practice created by a greater understanding of teenaged issues within the twenty-first century has the potential to initiate transcendence into a more local and less clinical setting for a larger level of social change to occur. Increasing general societal understanding of the impact that Facebook attachment, perceived peer pressure, and the desire for romantic relationship involvement among young teenagers has countless possibilities for application in daily life at the communal level, within familial interactions, and individually within the teen themselves. The knowledge accumulated from this study may potentially propel parents, educators, and clinicians to develop more

comprehensive techniques to educate teens on personal safety, peer pressures and overall mental health related to social engagement via the internet (Sheldon et al., 2011).

Summary

Research within the phenomena of social interactions via the medium of the internet and websites is of continued importance in the information-technology age, where new technological advancements are made on a seemingly daily basis (Brown & Bobkowski, 2011; Bugeja, 2006; Elphinston & Noller, 2011; Feaster, 2010; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008; Robertson, 2009). As will be discussed in the next chapter, younger teenagers are quite susceptible to perceived peer pressure as they work towards developing a self-concept and acceptable projected image that will appease their peers (Connolly et al., 2004; Mikami, 2010; Santor et al., 2000; Suizzo, 2000). While there remains the presence of face-to-face contact with others, constant access to the life of friends is now available thanks to Facebook (Elphinston & Noller, 2011; Feaster, 2010; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008). Constant feedback from others either from individualized comments or the information gleaned from reviewing what others report regarding their life can be a means of altering aspects of behaviors, characteristics, and how one presents themselves online among adults (Brown & Bobkowski, 2011; Crano, 2000; Ellison et al., 2007; Joinson, 2008; Morrison & Bies, 1991; Muise et al., 2009; O'Keefe & Clarke-Pearson, 2011; Paradise & Sullivan, 2012; Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008). The inclusion of a romantic relationship as an

additional factor for identifying self-worth adds yet another factor into the potential psychological issues that can arise from the use of Facebook in adult studies (Connolly et al., 2004; Crano, 2000; Elphinston & Noller, 2011; Miller et al., 2009; O’Keefe & Clarke-Pearson, 2011; Santor et al., 2000; Zhao et al., 2008). The present research is directed towards the unrepresented population of young teenagers in an attempt to identify variables that could potentially mediate any associative alterations in perceptions of peer pressure to be involved in a romantic relationship via Facebook based on attachment to the website (Connolly et al., 2004; Ellison et al., 2007; Lenhart et al., 2010; Malik & Mahmood, 2012; O’Keefe & Clarke-Pearson, 2011; Robertson, 2009; Santor et al., 2000; Strano, 2008). Impression management theory provides the foundation for researching this unique phenomenon of Facebook’s potential impact on young teenagers that is a part of the current human experience with Facebook’s website reporting 1.15 billion users’ worldwide (Feaster, 2010; Kirkpatrick, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Robertson, 2009; Zhao et al., 2008).

Chapter 2: Literature Review

Psychologically speaking, young teenagers, specifically those aged 14-17 years, are in the stages of formation identity (Brown et al., 1986; Ivanova, Veenstra, & Mills, 2010; McElhaney, Anotonishak, & Allen, 2008; Miller et al., 2009; Suizzo, 2000). Those in this age group often have an innate desire to belong to the in-group, have peer acceptance, and are creating their personal views of the world based on their grasp of societal, cultural, and interpersonal relationship scripts (Brown et al., 1986; Crano, 2000; Kobsa et al., 2012; McElhaney et al., 2008; Mikami, 2010; Suizzo, 2000). Relationships among or with same-aged individuals becomes more important to teenagers in this age range than relationships with their family members or parents (Brown et al., 1986; Connolly et al., 2004; Suizzo, 2000). Shifting the circle of friendships away from familial ties to that of the teenager's social group leaves the teen vulnerable to peer pressure, which can include peer pressure that is perceived online via Facebook (Brown et al., 1984; Connolly et al., 2004; Halevy et al., 2012; House, 2008; Ivanova et al., 2010; MacDonald, 2009; Mikami, 2010; Santor et al., 2000). A major aspect of the changes that occur amongst peer relationships during the teenage years is the development of romantic relationships (Connolly et al., 2004; McElhaney et al., 2008; Miller et al., 2009). These relationships are equally affected by all of the aforementioned factors of self-identity formation and perceived peer pressures experienced in both face-to-face as well as in online environments (Brown et al., 1986; Connolly et al., 2004; Crano, 2000; Kobsa et al., 2012; MacDonald, 2009; Malik & Mahmood, 2012; McElhaney et al., 2008; Mikami, 2010; Miller et al., 2009; Moormand & Bowker, 2011; Moreno, Brockman,

Wasserheit, & Christakis, 2012; O'Keefe & Clarke-Pearson, 2011; Reich, Subrahmanyam, & Espinoza, 2012; Suizzo, 2000).

There is an innate desire in humans to feel a sense of belonging and acceptance (Peterson & DeHart, 2013). As such, romantic relationships are an important variable in the social development of adolescents and offer an additional aspect of personal feelings of belongingness and acceptance among their peer group (Banker, Kaestle, & Allen, 2010; Madsen & Collins, 2011; Peterson & DeHart, 2013). Peterson and DeHart (2013) discussed the motivational aspects of romantic relationships and the power this form of social attachment has on human behaviors. Peer groups are often influential on the decision to form or end a romantic relationship. The authors reported that romantic relationships are likely to be formed and will last longer when compared to those whose peer group disapproves of their pairing (Peterson & DeHart, 2013). Peer pressure, both for adolescents and adults, is a mediating factor in the decision to become romantically involved with someone, as well as the desire to remain in the coupling (Banker et al., 2010; Madsen & Collins, 2011; Miller et al., 2009; Peterson & DeHart, 2013).

Adolescents who engage in romantic relationships that are considered socially acceptable often have higher levels of belongingness and self-esteem (Peterson & DeHart, 2013). This form of peer acceptance has been found to be a positive predictor for adults who subsequently reported a higher level of relationship satisfaction with adult romantic partners. Furthermore, social disapproval of a romantic pairing in adolescence can lead to lower relationship satisfaction in adulthood. Peer pressure and acceptance in adolescence is an important variable for success in adult romantic

relationships (Banker et al., 2010; Madsen et al., 2011; Miller et al., 2009). This variable also provides young teenagers the feeling of group acceptance and promoting a higher self-esteem through feeling a sense of belongingness to the social group (Banker et al., 2010; Brown et al., 1986; Collins, 2003; Ivanova et al., 2012; Madsen et al., 2011; Miller et al., 2009).

Wilson et al. (2012) performed a data analysis of historical research performed in the social sciences regarding Facebook use and subsequent user demographics, as well as behaviors identified within the available research. The researchers discovered that the number of Facebook friends among individuals aged 15-30 years was 11 times greater than that of users over the age of 50 (Wilson et al., 2012). These results bolster other researchers' calls for additional research on younger Facebook users (Reich, 2010; Reich et al., 2012; Wilson et al., 2012). Additionally, Wilson et al. (2012) found there was an inverse correlation between the age of a Facebook user and the number of friends he or she was associated with on his or her personal profile. Younger individuals with Facebook profiles would have a higher level of peer group influence on their identity development when compared to those in a non-Facebook society where peer groups were almost exclusively limited to those within close physical proximity (Anderson, Fagan, Woodnutt, & Chamorro-Premuzic, 2012; Arbitron, 2013; Brown et al., 1986; Connolly et al., 2004; Darvell et al., 2011; Ellison et al., 2007; Gonzales, & Hancock, 2011; Joinson, 2008; Kalpidou, Costin, & Morris, 2011; Manago, Taylor, & Greenfield, 2012; McElhaney et al., 2008; Moreno, Jelenchick, Egan, Cox, Young, Gannon, & Becker, 2011; Zhao et al., 2008). The presence of a number identifying the amount of friends one

has that can be viewed by others within a teenager's social circle can result in a false sense of popularity, self-worth, and misperceptions of their ability to define or participate in an intimate friendship relationship due to their underdeveloped emotional and cognitive maturity (Brown & Bobkowski, 2011; McElhaney et al., 2008; Miller et al., 2009; O'Keefe & Clarke-Pearson, 2011; Reich et al., 2012).

Psychological research has found that adult participants were prone to change their behaviors second to peer pressure felt from their interactions on Facebook, which supports the ability of Facebook to be a medium for transference of peer pressure that has the ability to alter human behaviors or beliefs (Bonds-Raake & Raake, 2010; Gershon, 2011; Gonzales & Hancock, 2011; Lou et al., 2012; Paradise & Sullivan, 2012; Rouis et al., 2011; Skågeby, 2009; Strano, 2008; Walther et al., 2008). Facebook users not only create personal profiles as a means of generating ideal self impressions for outsider review, but they are also able to post personal thoughts, ideas, statements or pictures on a running virtual wall which can be reviewed by those to whom they are affiliated (Elphinston & Noller, 2011; Joinson, 2008; Kim & Lee, 2011; Kobsa et al., 2012; Kujath, 2011; Lyndon et al., 2011; Manago et al., 2012; Moormand & Bowker, 2011; Rouis et al., 2011; Tong et al., 2008; Zhao et al., 2008). The postings on this wall can also be commented on by those affiliated with the user on Facebook, resulting in receiving immediate feedback on the impression being projected to others. Between the continual management of a profile that is to be a representation of the self and monitoring the personally added statements on users' own virtual walls while comparing their Facebook

postings to that of their peers, managing the impressions set forth to others becomes quite complex within this online environment.

Young teenagers' formidable self-identities are easily influenced by outside pressures and their own perceptions of socially desired actions (Brown et al., 1986; Connolly et al., 2004; Crano, 2000; McElhaney et al., 2008; Mikami, 2010; Miller et al., 2009; Morrison & Bies, 1991; Reich, 2010; Santor et al., 2000; Waters & Ackerman, 2011; Zhao et al., 2008). The lack of research that has been conducted to date about the mediation of peer pressure via the medium of Facebook on young teenagers has led to the current study. Developmentally age-appropriate fixations on romantic relationships within the 14-17 year old demographic is supported by current research as having a strong correlation with perceived peer acceptance or rejection of romantic partnerships (Connolly et al., 2004; McElhaney et al., 2008; Miller et al., 2009). The mediation of Facebook as a potential conductor of perceived peer pressure and desires to be involved in a romantic relationship among young teenagers was the basis for the current research project.

Socializing via the Internet

The early 1990s gave way to the development of new technology permitting the decrease in size of computers from those found in the 1980s, equating more access to devices for personal usage (Cohen-Almagor, 2011; Kirkpatrick, 2010). Personal computer users desired connectivity with available data, slowly prompting the development of a vast internet containing limitless amounts of information accessible to a larger portion of the world population (Cohen-Almagor, 2011). The increase of computer

access at both public locations and within the home compounded with the evolution of the internet gave individuals new methods for interpersonal communication both with known and unknown persons on a global level (Brown & Bobkowski, 2011; Bugeja, 2006; Kirkpatrick, 2010; Robertson, 2009). Face-to-face, telephone, or mailed letters were no longer the only means of conversing with others, as the internet provided immediate and seemingly unrestricted access to millions of people for social interaction (Cohen-Almagor, 2011; Kirkpatrick, 2010). Computer-mediated communication offered users of the internet the opportunity to make contact with those whom they previously would have had correspondence with via a different medium (Boyd & Ellison, 2007). The development of social media websites created the opportunity for individuals to not only have interactions with others, but also devised a platform for the user to portray themselves for all potential viewers of the website (Bonds-Raake & Raake, 2010; Boyd & Ellison, 2007; Cohen-Almagor, 2011; Correa, Hinsley, & Zuniga, 2010; Darvell et al., 2011; Ellison et al., 2007; Elphinston & Noller, 2011; Feaster, 2010; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008; Zhao et al., 2008).

A differentiation defined by Boyd and Ellison (2007) exists between the terminology of “social network sites” and “social networking sites” with both sharing the same commonly used acronym SNS. The use of “networking” within the SNS language suggests that individuals are actively perusing the social website to create networking opportunities for personal or business relationships (Bonds-Raake & Raake, 2010; Boyd & Ellison, 2007; Correa et al., 2010; Feaster, 2010). While this is certainly true for some

social media outlets, Facebook is more aligned with the ideal of a social network site, where users connect with individuals whom they already know, foster the continuation of relationships via the internet, and are able to reach out to unknown individuals should the user be so inclined (Anderson et al., 2012; Boyd & Ellison, 2007; Ellison et al., 2007; Kirkpatrick, 2010; Koplowitz, 2013; Mauri, Cipresso, Balgera, Villamira, & Riva, 2011). The categorization of Facebook as a social network site rather than a website built on networking per Boyd and Ellison's (2007) definition is supported by the company's current vision statement: "People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them" (www.facebook.com).

To grasp the significance of the impact that Facebook can have on the psychological health of users, the historical predecessors of social network websites, as well as the evolution of Facebook is vital for identifying the stages wherein a shift in the age of the target audience occurred (Boyd & Ellison, 2007; Brown & Bobkowski, 2011; Bugeja, 2006; Cohen-Almagor, 2011; Correa et al., 2010; Gershon, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Kalpidou et al., 2011; Mauri et al., 2011; O'Keefe & Clarke-Pearson, 2011; Paradise & Sullivan, 2012; Wilson et al., 2012). Early social network and programs including chat rooms and instant messenger services began emerging in the early 1990s offering users' personal anonymity by way of permitting each subscriber the ability to create any display name of their choosing following registering for the service with any valid email address that required no affiliation that could offer confirmation of identity (Cohen-Almagor, 2011). Further, these online

communicative options did not require any form of personally identifying data to be provided to the server, other users, or in the creation of any form of profile, resulting in the inability to verify the legitimacy of those with whom a conversation was being held. The first website that was created in an attempt to foster an environment of confirmed authentic representations of the user was sixdegrees.com in 1997 (Boyd & Ellison, 2007; Kirkpatrick, 2010). Following an initial email invitation sent to select known individuals, profiles were created and the user was offered the chance to invite their known contacts with additional email invitations, seemingly creating an authenticated approach to social network websites. Programming and technical difficulties led to the demise of sixdegrees.com, as they were unprepared for the magnitude of the ultimate popularity of the site. In 2003, an alternative to sixdegrees.com, Friendster, was launched in 2003 to the internet population initially obtaining users in a similar method via email invitations from current users (Boyd & Ellison, 2007; Cohen-Almagor, 2011; Kirkpatrick, 2010; Skågeby, 2008). Despite user acquisition techniques that were employed for authentication purposes, fake profiles became the norm on Friendster.com, which was also gaining a reputation for being a location for romantic interactions rather than socialization on a friendship or professional level (Kirkpatrick, 2010). The presence of creating alter-egos on the internet was of concern to those who were not interested in having online romances or sexual exchanges with strangers who could be inaccurately representing themselves (Boyd & Ellison, 2007). False representations of the self can be explained by multiple theories, but is readily applicable to the tenants of the impression management theory (Kobsa et al., 2012). In this situation, people may attempt to create a

profile that they personally perceive as what would be considered socially acceptable or attractive to others. In an attempt to gain attention online, be accepted by online peers, or to escape from the reality of their inability to execute their ideal self in the physical world, individuals began to utilize the internet as a means of formulating their desired projection of themselves (Boyd & Ellison, 2007; Kim & Lee, 2011; Kobsa et al., 2012; Zhao et al., 2008). Using online websites, chat-rooms, or instant messenger services provided users with an escape from the bounds of their physical appearance or any form of internalized ridicule received previously by allowing them to create a profile of the person they desire to be as a means to be accepted in their real life (Kim & Lee, 2011; Kobsa et al., 2012).

The first true competitor to Facebook during the first five to six years of its operation was founded in 2003 under the domain name MySpace.com (Boyd & Ellison, 2007; Bugeja, 2006; Cohen-Almagor, 2011; Kirkpatrick, 2010; Mauri et al., 2011; Skågeby, 2008; Wilson et al., 2012). MySpace had no requirements for authenticating users, to include any legitimate means of securing the age of those with profiles, the legitimacy of the profiles reflection of the user, which offered users the opportunity to post pictures, music, and personal updates about their life musings (Boyd & Ellison, 2007; Kirkpatrick, 2010; Reich, 2010). MySpace became yet another catalyst for the founder of Facebook to create a website for socializing that would remove programming and organizational pitfalls the prior social network websites faced. Less than one year after MySpace's launch, MySpace had garnered the reputation for being uncensored, friends were collected with abandon, and the format contained lewd images, sexual

content, and fostered the beginning of cyber-bullying by unidentified persons who could send messages to users filled with hateful or derogatory comments without restraint (Kirkpatrick, 2010; Reich, 2010; Reich et al., 2012). MySpace remains an active website currently, but has shifted their focus from a social network platform to a social networking website for sharing music and entertainment virtually (Kirkpatrick, 2010; www.myspace.com).

Facebook's origin following that of sixdegrees.com, Friendster.com and MySpace led to the development of a social network site that was designed to be the antithesis of its early predecessors where fake profiles were prevalent and user authentication was limited or no longer available via sixdegrees.com (Bugeja, 2006; Cohen-Amlagor, 2011; Kirkpatrick, 2010; Koplowitz, 2013; Mauri et al., 2011; Wilson et al., 2012). Each new rollout of Facebook's inclusion of a different demographic opens the door for variability of potential psychosocial effects on the users (Brown & Bobkowski, 2011; Lenhart et al., 2010; O'Keefe & Clarke-Pearson, 2011; Reich et al., 2012). As a powerful SNS, Facebook has evolved from being a website designed specifically for Harvard students to connect via the internet at its launch on February 4, 2004 (Bugeja, 2006; Cohen-Amlagor, 2011; Kirkpatrick, 2010; Koplowitz, 2013). At the end of the first day of operations, the social network site had acquired approximately 14,000 users (Kirkpatrick, 2010). In the span of one month, the demand for Facebook led to the addition of several more US based universities being provided with access to create and connect with their personal profiles. In October 2004, the expansion of Facebook went international with 21 worldwide collegiate institutions granted access to the social network site

(www.facebook.com). The college-only user requirement of Facebook was led by their mission statement delineating the social network aspect of the company's purpose wherein Thefacebook (as the SNS was originally titled) clearly identified on their homepage that "Thefacebook is an online directory that connects people through social networks at colleges" (Kirkpatrick, 2010; Koplowitz, 2013).

Demand for Facebook among those in college had led to desires for those in high school and younger to be able to join the exclusive website. Based on the known interest of the younger population led to company changes permitting the inclusion of high school students to join Facebook in September 2005 (Boyd & Ellison, 2007; Kirkpatrick, 2010; Koplowitz, 2013). Facebook revised their mission statement to reflect this significant target audience change by removing "colleges" and replacing it with the generic term "schools" (Boyd & Ellison, 2007; Bugeja, 2006; Cohen-Amlagor, 2011; Kirkpatrick, 2010; Koplowitz, 2013; Skågeby, 2009; Wilson et al., 2012). This change highlights that the core users of Facebook remained to be younger individuals who were actively involved in some form of education. At this time, teenagers who were not yet college-age were permitted to join as long as they were over the age of 13 and had a valid email address. The new inclusion of student-based users from potentially middle-school students to collegiate alumni allowed the largely young user-base to create their own personal Facebook page, connect with friends, family members, and unknown individuals regardless of college enrollment (Kirkpatrick, 2010; Koplowitz, 2013; Lenhart et al., 2010). After the change in requirement occurred, the younger teenage market that had

been anxiously awaiting the ability to be involved in the exclusive collegiate community led to an explosion of Facebook users.

A similar level of interest that led to the decision to permit younger users affiliated with any educational institution began to arise within those outside of the user requirement guidelines identified by Facebook. Almost one year to the day of permitting the joining of high school students, Facebook changed their educationally driven mission to include any individuals over the age of 13 with a valid email address to have access to create a profile on the social network site in September 2006 (Boyd & Ellison, 2007; Bugeja, 2006; Cohen-Amlagor, 2011; Kirkpatrick, 2010; Koplowitz, 2013). The newly devised mission statement unveiled in 2006 reflected a new revolution of Facebook's purpose, "Facebook is a social utility that connects you with people around you". Today, the mission identified by the company suggests the global focus of the company, "Facebook's mission is to give people the power to share and make the world more open and connected" (www.facebook.com).

The global presence of Facebook is easily seen by reviewing June 2013 statistics reported by the website (www.facebook.com). According to Facebook, approximately 699 million users participate in the social network site's many features on a daily basis with 80% of those users residing in locations other than the United States and Canada. The participation of all individuals in any demographic, including all age brackets, is supported by the astonishing number of active users reported which is approximately 1.15 billion (Arbitron, 2013; Lenhart et al., 2010; Robertson, 2009; www.facebook.com). This figure combined with research that has found psychological impacts of Facebook

use on the user supports the need for further identification of potential risk factors and the identification of catalysts that could lead to negative personal outcomes for the users in all age groups, rather than merely employing participants who are college-aged (Brown & Bobkowski, 2011; Correa et al., 2010; Darvell et al., 2011; Ellison et al., 2007; Gershon, 2011; Robertson, 2009; Wilson et al., 2012).

Popularity and Implications of Social Network Websites

The growth and popularity of social network websites among younger users aged 12-17 years was statistically significant following the user requirement changes made by Facebook with 55% of teens reporting use of a social network in 2006 and 73% reporting affiliation with at least social network website in 2009 (Lenhart et al., 2010). In 2009, Facebook became the most popular SNS, taking the coveted first place spot from MySpace (Koplowitz, 2013). With the dramatic increase in young users, the need for understanding the potential psychological ramifications of this form of social media also grows (Robertson, 2009; Rouis et al., 2011; Santor et al., 2000; Sheldon et al., 2011; Strano, 2008; Tong et al., 2008). As professionals in psychology, the call to identify, research, and distribute information related to potential mental health harm or health is the catalyst to continue to perform ethical studies (APA, 2010). Prior research that has been conducted on the psychological components of Facebook use has included sample populations of individuals over the age of 18 and has highlighted the aspects of personality and behavior that are affected by this social media network (Anderson et al., 2012; Correa et al., 2010; Ellison et al., 2007; Elphinston & Noller, 2011; Kalpidou et al., 2011; Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008).

Psychological Impact of Facebook

Researchers in multiple fields of academia recognize that due to the new phenomenon of Facebook, there are countless unanswered questions that remain to be studied adequately to fully grasp the potential effects of this SNS (Anderson et al., 2012; Mauri et al., 2011; Urista et al., 2009; Wilson et al., 2012). Review of the relevant literature reveals findings suggestive of significant changes in behaviors based on perceived peer pressures second to Facebook usage (Darvell et al., 2011; Elphinston & Noller, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Kim & Lee, 2011; Lyndon et al., 2011; Moreno et al., 2012; Raake & Bonds-Raake, 2008; Reich, 2010). Additionally, research has identified that specific personality traits are identified as prominent among frequent Facebook users, with important rationales for logging into the website supporting the continued need to investigate the psychological implications of Facebook (Kalpidou et al., 2011; Kim & Lee, 2011; Moreno et al., 2011; Ryan & Xenos, 2011; Tong et al., 2008; Walther et al., 2008). Of great concern within the present research is the effect of the identified Facebook correlates of psychological changes on younger teenagers who are developmentally immature and are readily influenced by outside factors on their ability to create a healthy self-image (Brown & Bobkowski, 2011; Brown et al., 1986; Crano, 2000; Ivanova et al., 2012; Lenhart et al., 2010; Malik & Mahmood, 2012; McElhaney et al., 2008; Mikami, 2010; Miller et al., 2009; O'Keefe & Clarke-Pearson, 2011; Santor et al., 2000; Suizzo, 2000).

Personality features such as extroversion, openness, and neuroticism have been identified as traits that are predictors of social media (Brown & Bobkowski, 2011; Correa

et al., 2010; Moreno et al., 2011; O’Keefe & Clarke-Pearson, 2011; Ryan & Xenos, 2011). These features have also been found to be predictive of thought process alterations and changes in behaviors following social media consumption. In a study of 959 adults, Correa et al. (2010) discovered that frequent users of social network websites like Facebook tend to be more extroverted and open about sharing the details of their life with others. Within their large nationally acquired United States demographically representative sample, one of the more interesting findings was that higher levels of neuroticism and an overarching presentation of a negative affect coupled with low self-esteem was a predictor of higher usage of social network websites (Correa et al., 2010).

Psychologically, the potential for Facebook to affect and alter an individual’s sense of self, personality, behavior, and connection with others is quite high (Sheldon et al., 2011; Strano, 2008; Zhao et al., 2008). Sheldon et al. (2011) discovered that their adult participants reported feeling disconnected to life when restricted from access to Facebook. These findings highlight the significant potential for social media alterations of the psyche. This form of social media not only serves as a medium for psychological alterations based on mere access, but can also be employed as a catalyst for sending, receiving, and perceiving peer pressure (Correa et al., 2010; Crano, 2000; Sheldon et al., 2011; Strano, 2008). Strano (2008) conducted a study that supports the presence of this phenomenon when the data revealed that peer pressure was the primary catalyst for changes in the Facebook profile pictures submitted by users. Facebook peers can also alter perceptions of an individual’s attractiveness based on the comments on a user’s profile by others, as well as the attractiveness of the profile owner’s friends (Walther et

al., 2008). Positive comments by a profile owner or their friends on users Facebook wall increases the perceived attractiveness of the user, whereas if negative commentary is present about the individual or by the person, their perceived attractiveness diminishes by viewers (Walther et al., 2008).

Adolescents who are learning about their personality, attempting to become accepted by their perceived in-group, and managing interpersonal as well as intrapersonal conflicts might also develop their online persona via their Facebook identity (Brown & Bobkowski et al., 2011; Brown et al., 1986; Feaster, 2010; Miller et al., 2009; Reich et al., 2012; Santor et al., 2000; Suizzo, 2000; Urista et al., 2009; Zhao et al., 2008). Upon their transition into adolescence, teens subsequently become capable of creating their own Facebook profile. This can result in a simultaneous creation of the need to manage projected impression is initiated virtually in addition to physically (Reich et al., 2012; Robertson, 2009; Zhao et al., 2008). Particularly for younger users, the number of friends one can claim on Facebook is an important factor for feeling validated in their created impression that is being portrayed virtually and/or physically (Kim & Lee, 2011; Lenhart et al., 2010). Social network participants' self-identified well-being has been found within research studies to be positively correlated with the number of friends they possess on Facebook (Kim & Lee, 2011). Ensuring that the number of friends that an adolescent has is within an acceptable range for peer acceptance can be an important factor for logging into Facebook and for continually monitoring personal profiles (Kim & Lee, 2011; Lenhart et al., 2010; Malik & Mahmood, 2012; Reich, 2010; Reich et al., 2012).

The Facebook Experience

Facebook can be accessed from most all devices with internet capabilities, opening the door for users to have constant access to the website for updating their personal information in addition to receiving real-time updates on their friends' lives (Boyd & Ellison, 2007; Bugeja, 2006; Kirkpatrick, 2010; Wilson et al., 2012). Each time a user logs into Facebook, they reach their profile page wherein they are brought to their timeline, an indication box that indicates the number of friends they currently possess, and their relationship status, among other information. When searching for individuals on Facebook, unknown members' profiles will show the number of friends that they possess, even with privacy settings restricting the information shared with unidentified users. Additionally, this search will often project standard profile information about the individual to include their picture, where they attend school or work, and their relationship status (Boyd & Ellison, 2007; Bugeja, 2006; Kirkpatrick, 2010; Strano, 2008; Walther et al., 2008; Waters & Ackerman, 2011; Wilson et al., 2012).

Logging into Facebook brings each user to their personal profile page (www.facebook.com; Kirkpatrick, 2010; Koplowitz, 2013). User profiles are the online representation of the individual who created the account, and as such, each time someone searches for the individual, the personal profile page is reached. Basic profile set-up on Facebook includes opportunities to provide personal information about education, current location, biographical information, as well as relationship status. Romantic relationship involvement is an optional choice of personal information that users may share that will appear under the "Relationship Status" headline (www.facebook.com; Kirkpatrick,

2010). When this option is chosen, every user who reaches the main profile of an individual, whether by searching for a new friend or when reviewing previously acquired friends' profiles, will be able to view the identified status. Facebook's technological inclusion of relationship status information, including the broadcasting of changes to status to friends of the profile owner, seemingly only increases the potential for users, particularly young teenagers who are developmentally prone to exploring romantic interactions, to have their perceptions of the importance of relationship involvement be altered.

Desires to feel socially accepted, viewing the relationship status of others on Facebook could initiate internal feelings or perceptions of pressure to be involved in a romantic relationship based on the status' of the user's friends (Feaster, 2010; Morrison & Bies, 1991; Strano, 2008; Waters & Ackerman, 2011). Available research has indicated that adult participants will alter their behaviors and change their profile pictures based on peer pressure from their virtual friends. This lends itself to questioning if Facebook would also be a mediator for peer pressure regarding romantic relationship involvement in young teenagers. Resulting data from the currently proposed survey-method research study could assist in filling a gap in literature through employing young teenagers as participants and will extend current knowledge related to the conduction of perceived peer pressure via Facebook (Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008).

Identified Gaps in the Available Literature

The available literature that has been reviewed regarding the potential psychological impact of Facebook suggests that adults may alter their behaviors and beliefs second to peer pressures, in part deriving from Facebook or social networking website utilization (Darvell et al., 2011; Elphinston & Noller, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Kim & Lee, 2011; Lyndon et al., 2011; Moreno et al., 2012; Raake & Bonds-Raake, 2008; Reich, 2010). Prior studies have primarily focused on individuals above the age of 18, leaving researchers unable to generalize findings for potential applicability on the younger demographic. Currently, available literature contains a gap lacking specification of similar studies on individuals aged 14-17 years. Subsequently, this gap in the literature has created a research problem that the proposed study will attempt to partially resolve (Ryan & Xenos, 2011; Sheldon et al., 2011).

In contrast to the majority of research available regarding social network websites, teenagers between the ages of 14-17 are the target population for this study (Crano, 2000; Lenhart et al., 2010; Ryan & Xenos, 2011; Sheldon et al., 2011; Wilson et al., 2012). A significant amount of the available literature includes college-aged participants who may be considered teenagers on technicality, yet these teens are within a new developmental phase of young adulthood rather than continuing to explore the same psychological facets of their personality as adolescence presents (Ivanova et al., 2012; Suizzo, 2000). College students are immersed in a vastly different environment than students in middle or high school (Lenhart et al., 2010; Malik & Mahmood, 2012). The change in environment can largely impact their perception of the importance of peer

acceptance. In secondary school settings, there are fewer students available for potential in-group inclusion (Reich, 2010; Reich et al., 2012). This social situation is an encapsulated environment wherein teens are not only required to physically interact with their peers daily, but with the birth of Facebook and other social network sites, they also receive input on their lives from their peers at all times. Compared to teenagers growing up in the 1990s, the ability for peer pressure, pressure to be involved in a romantic relationship, and maintain a socially pleasing appearance requires double the effort of the teen (Brown et al., 1986; Connolly et al., 2004; McElhaney et al., 2008; Miller et al., 2009; Reich et al., 2012; Santor et al., 2000; Suizzo, 2000). Attempting to fit in, make decisions that are not only personally gratifying, but those that will be socially acceptable must be reflected in reality as well as virtually.

Theoretical Framework of the Study

Impression Management Theory

This study applied impression management theory as a structural basis for a quantitative survey study (Morrison & Bies, 1991; Zhao et al., 2008). The elements presented within the impression management theory provide a foundation for the identification of motivators for perceived impressions displayed to others and the understanding of individually perceived impressions of the self (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Strano, 2008; Waters & Ackerman, 2011). Additionally, the theoretical foundation developed within the impression management theory serves as a tool for furthering knowledge regarding peer pressures and group identities. Individuals generate their self-concept largely based upon social interactions

and feedback from others per the impression management theory (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Zhao et al., 2008). Based on self-concept, a perceived social identity is formed and identifies the ideal self that individuals attempt to project. Social interactions occur under the pretense of maintaining the developed impression that has been created for specific societal activities based on self-concept combined with perceptions of socially acceptable beliefs and behaviors (Feaster, 2010; Kobsa et al., 2012). These specific elements found within the impression management theory enhance and theoretically ground the primary investigation of the proposed study (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Strano, 2008; Waters & Ackerman, 2011; Zhao et al., 2008).

The need to develop and maintain a socially acceptable presentation of the self to others as identified within the impression management theory is applicable to the developmental processes occurring during the teenage years (Brown et al., 1986; Connolly et al., 2004; Feaster, 2010; Kobsa et al., 2012; McElhaney et al., 2008; Miller et al., 2009; Morrison & Bies, 1991; Reich et al., 2012; Santor et al., 2000; Strano, 2008; Suizzo, 2000; Waters & Ackerman, 2011; Zhao et al., 2008). Rather than having to identify traits, characteristics, and viewpoints of life that are personally pleasing and that are acceptable to face-to-face peers, teenagers who have Facebook profiles must also manage their identity via technology (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Speakman & Ryals, 2010; Strano, 2008; Waters & Ackerman, 2011; Zhao et al., 2008). Facebook has become an added forum wherein the teen must be create and manage their self-perception and impression. Using the impression management theory

as a paradigm, teenagers who engage in Facebook must be able to create a formidable self-identity that is reflective of their true feelings, but is also compatible with their daily self-presentation to outsiders (Lenhart et al., 2010; Reich et al., 2012). In some respects, the use of Facebook for identity development could be somewhat less taxing than simply having to voice or behave in a certain way to present oneself in a socially pleasing manner.

Teenagers, like all people, do not exist in a vacuum and are subsequently interacting with others across a variety of formats including face-to-face, through telephone conversations, texting, emails, letters, memos, and through social network websites like Facebook (Brown & Bobkowski, 2011; Feaster, 2010; Lenhart et al., 2010; Kobsa et al., 2012; Malik & Mahmood, 2012; Morrison & Bies, 1991; Reich et al., 2012; Speakman & Ryals, 2010; Strano, 2008; Waters & Ackerman, 2011; Zhao et al., 2008). Facebook profiles of users can be viewed by friends, future friends, friends of friends, or even strangers dependent upon teenagers' privacy settings within their personal account (Boyd & Ellison, 2007; Bugeja, 2006; Kirkpatrick, 2010; Wilson et al., 2012). The potential number of viewers and people who can comment on an individual's profile is extensive, with the average number of friends per any aged Facebook user in the United States being approximately 300 (Arbitron, 2013). When only accounting for those who are between the ages of 12-17, the average number of friends increases to over 500 on average. The 200 person increase in the average number of friends per user profile supports the need for researching on the potential impact of Facebook on younger teenagers (Arbitron, 2013; Lenhart et al., 2010; Robertson, 2009). Pressure to present a

socially pleasing persona by a teenager who is in the midst of self-identification development can be challenging, as it requires recollecting all other forms of interactions socially to replicate a seamless impression presentation on Facebook (Crano, 2000; Reich et al., 2012). Preservation of self-image, managing feedback from peers and incorporating the concerns of others into a perceivably more acceptable presentation of the self are the major components contained within the impression management theory (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Speakman & Ryals, 2010; Strano, 2008; Waters & Ackerman, 2011; Zhao et al., 2008).

Theoretical Framework via Impression Management

This study investigated the presence of any significant relationship between Facebook attachment and the perceived peer pressures regarding romantic relationship involvement in individuals aged 14-17 years. Motivation to behave in various ways in order to be accepted socially is a key element of the impression management theory (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Speakman & Ryals, 2010; Strano, 2008; Waters & Ackerman, 2011; Zhao et al., 2008). This lays the groundwork for supporting the inquiry of desires to be in a romantic relationship second to perceived peer pressures where feelings of being less than due to being single can become a significant part of self-identity formation (Brown et al., 1986; Connolly et al., 2004; Ivanova et al., 2012; McElhaney et al., 2008; Miller et al., 2009; Reich et al., 2012; Santor et al., 2000). Impression management theory recognizes that the identification of the self is developed, in part, based on peer feedback of their current personal self-presentation (Morrison & Bies, 1991; Zhao et al., 2008).

Facebook is a platform for receiving significant feedback from peers that is both known and unknown, which could alter the individuals' self-identity and their future self-presentation (Boyd & Ellison, 2007; Bugeja, 2006; Kirkpatrick, 2010; Mauri et al., 2011; Morrison & Bies, 1991; Wilson et al., 2012; Zhao et al., 2008). The medium of Facebook requires an additional community consisting of social interactions where feedback is received and personal presentation is generated by each user. Altering one's Facebook profile to reflect the requests of peers or the perceived changes that would be necessary to be socially acceptable are elements consistent with the impression management theory (Morrison & Bies, 1991; Zhao et al., 2008). This solidifies the decision to employ the impression management theory within the present study.

The primary variables of the proposed study include perceived peer pressure, desire to be involved in a romantic relationship, and Facebook attachment among the young teenaged population (Brown & Bobkowski, 2011; Brown et al., 1986; Connolly et al., 2004; Crano, 2000; Ellison et al., 2007; Miller et al., 2009; Santor et al., 2000). These variables are readily applicable to impression management theory as a means for furthering the knowledge about changes in behavior second to perceived peer pressures (Morrison & Bies, 1991; Zhao et al., 2008). Further, the need for social acceptance, self-presentation, and self-image preservation on Facebook via involvement in romantic relationships is also reflected within the chosen theoretical framework (Brown & Bobkowski, 2011; Brown et al., 1986; Connolly et al., 2004; Crano, 2000; Ellison et al., 2007; Morrison & Bies, 1991; Miller et al., 2009; Santor et al., 2000; Zhao et al., 2008).

Summary and Conclusions

Regular updates to Facebook interface have occurred over the years and have not been without great controversy identified by the users (Boyd & Ellison, 2007; Gershon, 2011; Kirkpatrick, 2010; Koplowitz, 2013; Wilson et al., 2012). One of the more extreme changes to the broadcasting of personal information on a larger forum was the implementation of what Facebook coined a “news feed” wherein all changes that are made on any of a user’s friends’ account, to include but not limited to status updates, postings, pictures, or relationship status, are presented (Gershon, 2011). The information runs as a news reel of information on a user’s profile page and can be shown instantaneously on mobile devices as a Facebook update in addition to being notified while actively viewing the website. Previously, while users were connected as “friends,” one would have to go to their friends’ profile directly to view any current information that had been posted or uploaded to their page (Boyd & Ellison, 2007; Gershon, 2011; Kirkpatrick, 2010). Only directly initiated conversations or posts/pictures that specifically identify other users/friends would result in an alert to an individual’s friend prior to the addition of the news feed. Following this change, all friends of a user are immediately updated on their daily lives and any alterations to their life story. This functional change within Facebook creates the potential opportunity for perceptions of feeling the need to be involved in a romantic relationship to maintain a socially acceptable impression more readily prevalent second to instant notifications rather than receiving the information following viewing individual profiles of others (Boyd & Ellison, 2007; House, 2008;

Kirkpatrick, 2010; MacDonald, 2009; McElhaney et al., 2008; Speakman & Ryals, 2010; Wilson et al., 2012).

Of the updates that are present on users' profile pages, in addition to broadcast on the news feed of all identified friends of a user, is their current relationship status (Boyd & Ellison, 2007; Kirkpatrick, 2010; Wilson et al., 2012). Upon changes to relationship status, friends of the user will be notified of the relational status change via the live feeds that will immediately update all affiliated with an individual of the alteration. Literal management of users' impressions set forth to others also including the newly identified idea of romantic interests in adolescence and teenage years is a complicating factor of Facebook use within the younger teen population (Boyd & Ellison, 2007; Connolly et al., 2004; House, 2008; Kirkpatrick, 2010; MacDonald, 2009; McElhaney et al., 2008; Miller et al., 2009; Santor et al., 2000; Speakman & Ryals, 2010; Suizzo, 2000; Wilson et al., 2012). Concerning to the impact of teenage developmental processes, the known aspect of pressure received from peers in the physical world, is the addition of a virtual self that must be managed. Further, romantic expression and sexual desires that emerge in the early teenage years has been found to be mediated by peer pressures prior to the advent of social network sites (Brown et al., 1986; Connolly et al., 2004; Ianova et al., 2012; McElhaney et al., 2008; Miller et al., 2009; Santor et al., 2000; Suizzo, 2000). The combination of Facebook to this critical and complex developmental transition is socially relevant while being of significance importance for understanding the plight Generation Z, those born just prior to the turn of the century through 2010, faces in developing their own identity while subsequently maintaining this impression to their peers and delving

into romantic relations for the first time (Boyd & Ellison, 2007; Connolly et al., 2004; House, 2008; Kirkpatrick, 2010; MacDonald, 2009; McElhaney et al., 2008; Miller et al., 2009; Robertson, 2009; Santor et al., 2000; Speakman & Ryals, 2010; Suizzo, 2000; Wilson et al., 2012).

Chapter 3: Research Method

The purpose of this study was to identify whether a significant relationship exists between Facebook attachment and the perceived peer pressure regarding romantic relationship involvement in individuals aged 14-17 years. In this chapter, I provide a detailed account of the research methods that were used for data collection and analysis. Specific information related to the executive decisions made in regards to research design, methodology, instrumentation, and operationalization of constructs will be discussed. Following a detailed account of the research procedures, a data analysis plan for the collected information is provided, as will an assessment of threats to validity. Finally, ethical procedures and a thorough account of all potential ethical concerns with subsequent rationales addressing each established issue are discussed.

Research Design and Rationale

Identified variables include the participants' levels of perceived peer pressure, their reported desire to be involved in a romantic relationship, and their Facebook attachment. Data for each of these variables were gathered using three separate measures that are either brief in origin or are abbreviated versions of longer established tools. Concerns of an unreasonably lengthy data collection process in any research design methodology could compromise the validity of responses from the participants given the target age range. If the survey used was perceived as being too long by the participant, their willingness to thoughtfully respond to each question thoughtfully could be reduced. Additionally, since the survey is completed online during the teens own time, the argument could be made that a greater opportunity for incomplete data would be present

if the measure could not be completed in a reasonable amount of time. To offset this threat to external validity, I gathered data for each variable through an online survey containing four subsections, limiting the amount of time required for each participant to satisfactorily complete all aspects of the measure.

Population and Sampling

The target population for this study consists of Facebook users aged 14-17 years in the United States. In 2009, 82% of U.S. Residents aged 14-17 years indicated that they used social networking websites, with Facebook being their primary SNS (Lenhart et al., 2010; USCB, 2011). Demographically, males and females are equally as likely to have affiliation with Facebook, and individuals in low-income households are 10% more likely to use Facebook (Lenhart et al., 2010). A sample of young people in the United States who have access to Facebook and attend a local middle or high school was obtained via snowball sampling techniques (Creswell, 2009). The sample pool was generated via a dedicated Facebook page about the study. I also distributed flyers at a local middle and high school that caters to the target population. The flyers included a request that teen recipients share the materials with their parents.

Sample Size Analysis

In order to verify the necessary number of completed surveys for valid results, a power analysis was performed. Prior research studies containing statistically significant correlations between the use of Facebook or other social networking websites and behavioral modifications were evaluated (Ryan & Xenos, 2011; Sheldon et al., 2011; Walther et al., 2008). The standards of psychological research for statistical power ($1-\beta =$

0.8) and alpha ($\alpha = .05$) were utilized for determining the necessary sample size for a valid and reliable study (Creswell, 2009). These aspects of a sample size analysis were then combined with the mean of the reported effect sizes contained within three related studies, resulting in a correlational statistic ($r = .24$) (Creswell, 2009; Ryan & Xenos, 2011; Sheldon et al., 2011; Walther et al., 2008). Sample size tables do not reflect a specific finding for $r = .24$. However, if the lowest of the five correlations is dropped from the original reported findings for estimating purposes, the new $r = .25$. The resulting required sample size for a correlational statistical analysis with $1-\beta = 0.8$, $\alpha = .05$, and $r = .25$ was found to be $n = 122$.

Instrument Description and Appropriateness

To evaluate the research questions and hypotheses, participants were asked to complete a four-part questionnaire via an online survey. All survey questions were presented to participants by way of survey developmental software provided by the online platform eSurveyCreator (www.eSurveyCreator.com). Initial demographic information including age, gender, and ethnicity were obtained. Following this, three established measures were presented to the participants, with each located and approved for use within this study by the respective original creators (see Appendix B). The Adapted Peer Pressure Inventory was administered to measure participants' levels of perceived peer pressures (Brown et al., 1986, Santor et al., 2000). This adaptation is a shorter version of the original Peer Pressure Inventory, focusing more succinctly on the core issues pertinent to the current study. Next, romantic relationship involvement was assessed by employing Connolly et al.'s (2004) Dating Questionnaire, which contains

questions about participants' interest in romantic relationships. Finally, the Facebook Intensity scale (Ellison et al., 2007) was added to measure participants' attachment to Facebook. This scale was developed to assess the connection and attachment that individuals have with Facebook, rather than merely asking the amount of time that is spent on the social networking site (Ellison et al., 2007).

Collected demographic information was cultivated immediately following the participants' decision to proceed with the study by checking the corresponding agreement box within the online survey. Demographic data began by asking the participant to choose their age from predetermined response options of 14, 15, 16, and 17. The age query also included an option for selection if their age was not one of the preset responses. If the participant indicated that their age was not within the desired range, they were redirected to the final screen of the survey thanking them for their willingness to be involved with this research project. Next, the gender of the participant was obtained providing the response options of male and female. The final demographic information requested of the participants was their ethnicity. Predetermined response options included the following: White, Black or African American, multiethnic, Hispanic or Latino, and Other. Following the collection of demographic data, three formal measure instruments were administered to specifically address the study's variables of interest in a direct manner.

First, perceived peer pressure was assessed using a previously developed and validated instrument designed by Santor et al. (2000) for use with older adolescents and younger teenagers, the Adapted Peer Pressure Inventory. Participants were presented with

11 statements requiring their response on a standard seven point Likert-type scale where one represents statements that are “very untrue of me” to seven representing a statement that is “very true of me.” An example of the statements requiring a Likert-type scaled response within the Adapted Perceived Pressure Inventory is “I’ve skipped classes when others urged me to” (Santor et al., 2000). Of note, the entirety of the measure designed by Santor et al. (2000) will not be administered to participants, rather only the portion of the measure that directly addresses peer pressure perceptions.

During the development of the Adapted Peer Pressure Inventory by Santor et al. (2000), the authors made specific efforts to create and validate three separate shortened measures of key aspects discussed by Brown et al.’s (1986) initial measure. Santor et al. (2000) provided statistical evidence supporting that each of the three measures was valid when administered together and independently, leaving future researchers the opportunity to choose the measure that is most related to the phenomena being studied. The three portions of the Adapted Peer Pressure Inventory address peer pressure, peer conformity, and social aspects of popularity, with each developed scale reporting high internal consistency. Due to each of the scales being a valid measure independent from the other, only the peer pressure portion of the Adapted Perceived Peer Pressure Inventory was included in the present study. For this measure, the reliability was supported with a reported Cronbach’s alpha $\alpha = 0.84$ and content, as well as construct validity were found sufficient by their inclusion of questions from the initial PPI by Brown et al. (1986) that had a Pearson correlation of r greater than or equal to 0.40 (Santor et al., 2000).

Connolly et al.'s (2004) Dating Questionnaire was then administered to assess desires to be involved in a romantic relationship by way of a four question survey. The Dating Questionnaire was developed following a longitudinal study with 1,284 participants who were 9-14 years, aiming to reach late adolescent and early teen target population. This target population is within the current study's desired age group, thereby providing support for the appropriateness of this measure's inclusion. It is pertinent to include a measure of dating interest and growth of romantic relationship desires for this study, as it is a central part of the devised research questions. Connolly et al.'s (2004) findings of measure validity were supported by other measures devised utilizing the same theoretical framework of dating-stage theory employed by the authors. The reliability correlation for the romantic interest aspect of the measure was reported as $r(926) = 0.86$, $p < .001$ (Connolly et al., 2004).

The first question presented in the Dating Questionnaire is multi-part, requiring a response of true or false from participants for eight statements related to the frequency and format of time spent with members of the opposite sex (Connolly et al., 2004). For example, participants will be asked to respond either true or false for a statement such as "I go to dances or parties where both boys and girls are there." The remaining three questions ask direct questions about involvement in romantic relationships from which the respondent should choose the most appropriate available multiple-choice answer, for example "Do you have a girl(boy)friend right now?." This question offers response options of "Yes, I have one right now", "No, but I have had at least one since the

beginning of the school year”, “No, but I have had before”, and “No, I’ve never had a girl(boy)friend” (Connolly et al., 2004).

Finally, Ellison et al.’s (2007) Facebook Intensity scale assesses participants’ attachment to Facebook via an eight-question survey. This scale was designed as a means of not just measuring the amount of time spent on Facebook, but the intensity level of attachment participants had for Facebook. The inclusion of intensity in Ellison et al.’s (2007) survey is a primary factor in the decision to include this measure in the current study. Rather than asking about general Facebook usage, this measure delves deeper into the attachment to Facebook, assisting in answering the devised research questions and hypotheses.

While not designed directly for use within the target population, the respondents were all undergraduate students at a public university. The average age of participants was 20.1 with a SD of 1.64 and the average respondent was in their second year of college with a SD of 1.07 (Ellison et al., 2007). Questions posed during Ellison et al.’s (2007) study, outside of demographical information, did not ask questions that would preclude its use with younger or older individuals. Additionally, the reported standard deviation of respondents maintains a large portion of the respondents were teenagers, furthering the decision to include this measure in the current study, as it remains appropriate for use within the target population. The Facebook Intensity scale was found to have high reliability with a Cronbach’s alpha of $\alpha = 0.83$ (Ellison et al., 2007). Internal validity was found to be high, as the study conducted with the initial use of the new

measure found responses that were within a reasonable level of similarity for responses when compared to their study's grounding theoretical frameworks.

As guided by the Facebook Intensity scale, participants were first asked two multiple choice questions. These questions ask about the number of hours spent on Facebook and the participant's approximate number of Facebook friends. Multiple choice options for the number of hours spent on Facebook includes incremental options for hours such as "2-3 hours." For the number of Facebook friends, the participants were provided multiple choice interval options such as "more than 400" (Ellison et al., 2007). The remainder of the measure requests responses on a standard five point Likert-type scale with 1 = strongly disagree and 5 = strongly agree. An example of the final six question types is "Facebook is part of my everyday life" where participants would be asked to choose their level of agreement to the statement using the five-point Likert-type scale.

The chosen instruments were selected for their high validity, ability to measure the variables of interest in the study, and their generalizability for use with the target population. Prior to the incorporation of the measures, preexisting instruments were reviewed with the chosen methods found to be the most appropriate for obtaining the data desired. Permission to include and administer the Adapted Peer Pressure Inventory and the Dating Questionnaire was obtained via email from the lead authors in the studies that validated the establishment of the corresponding instrument (Connolly et al., 2004; Santor et al., 2000). The Facebook Intensity scale's creator has an established website that offers the instrument for research use with specific instructions informing the public

that no formal permission is necessary for the inclusion and administration of the scale outside of standard references within the study (Ellison et al., 2007).

Operational Definitions of Variables

In the present study, three variables were assessed with each requiring an explanation of the operational definitions presumed for research analysis. The first variable considered is perceived peer pressure. Perceived peer pressure is defined as feelings of pressure to conform to peer acceptable behaviors, attributes, or to alter viewpoints that is personally perceived by each individual based on relations with peers (Brown et al., 1986; Santor et al., 2000).

Santor et al.'s (2000) Adapted Peer Pressure Inventory borrowed features of the long-standing Peer Pressure Inventory created by Brown et al. (1986). The defined phenomena of perceived peer pressure within the Santor et al. (2000) study is similar to that of Brown et al.'s (1986) and is also relative to the present research. Subsequently, the construct operational definition for perceived peer pressure is the individualized personally subjectively experienced feelings received by peers that are urging or encouraging in nature for a change in behavior, thoughts, or status. The distinction of this definition of peer pressure is that the perceived pressure is felt by the individual to alter aspects of their life to achieve the outcome of being within the realm of what is perceived as socially acceptable within the peer group (Santor et al., 2000).

The second variable operationally defined within the construct of this study is a romantic relationship. Human relationships are complex by nature due to the social, behavioral, and cognitive psychological elements that are at work when interacting with

others (Collins, 2003; Madsen & Collins, 2011). Romantic relationships are subsequently greater in complexity than traditional relationships, such as friendships or colleagues, as romantic involvement requires many unique facets of feelings and behaviors to maintain the bond between two individuals (Banker et al., 2010; Madsen & Collins, 2011). These types of relationships are considered to be quite intense for those who voluntarily enter into a mutually agreed upon social status of being a romantically attached couple (Collins, 2003). For the purposes of this study, the operational definition of romantic relationships will be inclusive of the deep social, emotional, and physical attachment or bond that is created based on feelings of intimacy, personal disclosure, and perceived level of security (Banker et al., 2010; Connolly et al., 2004; Madsen & Collins, 2011). This can include spending time with others under the specific intent to create or sustain a relationship based on the presence of romantic feelings. The intention of dating or advancing a previously established friend-based connection to a romantically inclined bond is the primary component of the definition of a romantic relationship (Banker et al., 2010; Connolly et al., 2004).

Facebook attachment will be measured utilizing the Facebook Intensity scale designed by Ellison et al. (2007). This scale provides information related to respondents feelings of connectedness to Facebook by measuring four components of attachment to the SNS, a user's number of Friends on the website, the amount of time spent on the website, how integrated the website has become a part of the user's way of life, to include an emotionally based connection to Facebook access. Based on the established measure,

Facebook attachment can then be defined as the extent of the relationship and habitual behaviors perpetuated among users (Ellison et al., 2007).

Research Procedures

Plan of Recruitment

To obtain the desired sample population to be inclusive of target-aged individuals, a snowballing created sample of young people living in the United States will be sought (Creswell, 2009). In order to meet the demands required of ethical considerations discussed later, parental consent must be received prior to the teenage participant providing assent within the anonymous online survey. Due to this, a Facebook page containing information about the research study was created and geared towards the parents and guardians of appropriately aged teens. The website for the survey provides viewers with relevant background for the study, the ages of desired participants, associated risks, and other information typically contained in a parental consent form provided in a face-to-face survey situation. Viewers of the research project's website are invited to share the page with their friends, thus providing a snowball sampling methodology. In addition, the website provides instructions on how to contact the researcher in order to request the link for the survey for them to provide to their teen. Finally, the use of a dedicated page for the study gives the researcher the opportunity to provide updates to the public about recruitment status and subsequent findings.

A secondary means of recruitment was implemented by way of passing out approximately 800 flyers at a local middle and high school in order to generate additional awareness of the research study. Students attending the middle and high school in a local

school district in Florida were targeted, due to the researcher's personal connection to administration at said location in order to garner permission to enter the institutions. This school district was also chosen for passing out flyers due to the lack of any division between geographical locations for school assignments, as the county contains one school district that is home to only one high school and one middle school. Flyers were passed out to students during their lunch periods at both schools reaching students enrolled in sixth through twelfth grade. The materials provided were once again geared towards the parents or guardians of the teens with the verbal request that the students take the flyer home for parental perusal.

The flyers were created in a gender neutral color scheme to be attractive to a greater number of potential participants. On what is considered specialty paper due to its thickness and glossy features, flyers were printed on one side of standard sized paper that is 8.5 inches wide by 11 inches long. Thicker than normal paper was chosen to aid in ensuring the flyer stood out among a sea of other paperwork that the teen could ultimately bring home for a parent to review. To further increase intrigue in the flyer, a catchy inquisition related to being the parent of a teen in the target age range was centered at the top of the page. Pertinent key features were highlighted in bold and underlined along two columns created under the initial large header. The font choices were made with intention for ease of comprehension, as well as to increase the likelihood of review by a parent. Information within the flyer included details about who was eligible to participate and the variables investigated within the survey. A brief synopsis of the researcher was provided, along with the researcher's contact information for any

questions or concerns. The web address of the survey's Facebook page was provided on the flyer, directing parents to access the page to learn more about the study. Finally, directions for requesting the survey link for the parents to pass along to their teens were provided.

While the procedures described above are entirely anonymous without any means of personal recruitment to seek out underrepresented demographic categories as data collection takes place, an attempt to gain reasonably equal gender responses will be made by keeping the survey live for as long as necessary. The success of recruitment relies on the word-of-mouth of viewers of the Facebook page dedicated to the study. Facebook affords the ability to virtually like the study, which notifies that person's friends of their new affinity. If an individual likes the page and their 200 friends are notified of this choice, theoretically the 200 friends would subsequently be exposed to the research study, leading to their review of the information and potential decision to like the website. This type of exposure of the study to parents or guardians of prospective participants is designed for its snowballing effects and is desired for its ability for maximum exposure with limited monetary commitment.

Once parents contact the researcher requesting the link to the survey, the researcher provides them with the live and embedded address that the parent can forward to their teen for survey completion. When potential participants receive the link from their corresponding adult, they are instructed to click on the website and are taken directly to a welcome page for the study. The page they are greeted with indicates the appreciation for their time in completing the survey. They are instructed to choose to

advance forward for their continuation into the survey where they reach the assent portion of the survey. In this section, a synopsis of the purpose of the study as was provided on the study's Facebook page as well as the recruitment flyers is presented. The participant is also notified that all responses are entirely anonymous on this page and they are encouraged to respond to all questions openly and honestly without fear that their responses could in any way be tied to them personally. Finally, legally required assent information is presented in plain language as is discussed later in this chapter. At the end of the page, the teen is directed to choose the button indicating their desire to advance to the next page in the survey by either agreeing or declining to participate. If the participant chooses the button corresponding with their declination of participation, they will reach the last page of the survey where they are thanked for their time and willingness to take part in the survey. Should the participant provide their assent for participation, they will be advanced to the next page of the survey where demographic information is collected.

Following demographic information being collected, the participant will advance to the next page and begin the first of three survey measures mentioned previously. At the beginning of each new section of questions, the participant will be provided with a brief synopsis of what type of questions will follow, with the last section also including status of their progress. For example, prior to the last section of the study, the participant will be notified that they have reached the final set of questions in order to encourage their continued interest in the questions due to the knowledge that they have already completed the majority of the survey. They are then informed that the following questions will ask them about their use of Facebook. After the participant has completed all sections of the

survey, they reached a final page that notifies them they have finished all portions of the study and thanks them for their willingness to participate in the study. The final page also directs them back to the study Facebook page “Teen Dating, Social Media, and Peer Pressure Research Study” where they can find updates about the project in the future.

Assent and Consent Procedures

Ethical considerations were addressed throughout the development of this study from the outset, with particular focus given to the assent and consent procedures due to the use of minors as participants. The target population consists of what the United States Department of Health and Human Services, as well as the American Psychological Association consider children who are deemed incapable of providing their own consent for participation due to their status as a minor due to being under the age of 18 (APA, 2010; Protection of Human Subjects, 2009). Despite the consideration of those under the age of 18 being incapable of providing consent, the target population of those aged 14-17 is within the range of presumptive maturity level for being cognitively capable of providing their own assent for partaking in the study (Protection of Human Subjects, 2009).

Per developmental psychological principles, the sample population is no longer considered to be comprised of children, rather they would be developmentally classified as late adolescents who have garnered new cognitive, social, and emotional skills through their lifespan as children/early adolescents (Sanders, 2013; Suizzo, 2000). Within the target population’s age range, formal operational cognitive functions are possible, with the participants having the capacity for rational thought processes based on their

psychological development. This information suggests that participants will have the ability to provide assent to participate within this study and will be capable of understanding the assent procedures explained prior to the initiation of the survey, meeting regulatory code 45 C.F.R. § 46.408 (Protection of Human Subjects, 2009; Sanders, 2013).

As described in 45 C.F.R. § 46.117(d)(1), the research design and methodology of a study must not pose any more than a minimal physical, psychological, or emotional risk to the participant in order to exempt the need for parental consent prior to a minor's participation (Protection of Human Subjects, 2009). Waiving the need for pre-participation parent/guardian consent was not deemed plausible due to a few questions within the Adapted Peer Pressure Inventory that inquired about historical use of alcohol and drugs within the context of the measure. Because of this, the recruitment strategy was altered and parental consent was sought prior to participant assent, however, signed forms were not procured for this study since the survey was entirely anonymous. The only possible link between the participant and their identity would be signed consent forms, therefore an exception to the required written documentation of assent and informed consent was made per 45 C.F.R. § 46.117(c)(1) (Protection of Human Subjects, 2009).

To ensure that the protected group of minors would not be exploited or be subject to undue questions without adult permission, the recruitment process is focused entirely towards the parents or guardians of appropriately aged teenagers (APA, 2010; Protection of Human Subjects, 2009). Gearing all requests for participation of teens towards their parents inherently required the parent/guardian to review all information about the study,

to include all details legally required within a consent document. Teens could not access the survey without their parent requesting the link for the survey from the researcher and subsequently providing the link to their teen for their completion. Once the teen received the survey link from their parent or guardian, they reached a greeting page followed by an extensive assent form that they were requested to read and choose either that they agreed with the statements or they disagreed and did not wish to participate. If the teen indicated they agreed to participate in the study, the survey began, whereas if they declined on the assent page, they were redirected to the last page of the survey that thanked them for their time.

Parent/guardian informed consent was assumed by the very nature of the recruitment strategy. The consent form that was presented on the research project's Facebook website mirrored the information contained within the assent form, but was written in language reflective of the parent or guardian role in the study. Information provided within the informed consent form was inclusionary of all of the standard elements required by 45 C.F.R. § 46.117 (Protection of Human Subjects, 2009). The consent aspect of the study's Facebook page provided parents or guardians with an introduction of the research project, a brief description of the study, survey procedures, sample questions, risks and benefits of the study, privacy information, researcher information with contact details information and a thorough explanation of assumed consent. This discussion specified that the act of the parent or guardian requesting the survey link from the researcher and subsequently transferring the received link to their teen was considered their informed consent to permit their minor to participate in the

study. Lastly, the form contained a detailed account of the anonymity of all responses and emphasized that no identifying information was requested to include their teen's name, location, school affiliation, or specific date of birth.

Assent requests were presented to the participant electronically on the survey platform requesting their decision for continuation with the measure or to cease participation. Within the assent form, there were multiple sections that provide age-appropriate language to explain all aspects required of standard assent and consent forms (APA, 2010; Protection of Human Subjects, 2009). Initially, the page presented the nature of the study and provided information about the researcher, as well as emphasized the voluntary nature of the study and the ability to cease participation at any time during the survey. Next, a brief synopsis of the study was provided and details about the study such as the number and format of questions that were asked, to include two sample questions for the recruits' review. Following the overview of the research, detailed information about the voluntary nature of participation, why the study is felt to be important, and the ability to quit the study at any point during the survey was discussed.

Privacy issues were provided and explained that all responses are anonymous and that no personal information is requested, nor can their responses be linked to the teen in any way. To ensure that participants were able to seek assistance if, following the survey, they felt the need to discuss personal issues in a professional setting, a list of websites offering free or reduced-cost counseling facilities was provided. Next, the assent form encouraged the reader to contact the researcher using the contact information provided within the form if they had questions about the study or with any other concerns that

could have arisen. Following the review of the assent information, the teen had the option to continue with the study by choosing the corresponding button on the online tool or to refuse assent which redirected them to a page where they were thanked for the willingness to consider participation.

Data Analysis Plan

Statistical Analyses

Collected data included young teenagers' reports of their perceptions of peer pressure, interest in involvement in romantic relationships, as well as their Facebook use and attachment (Brown et al., 1986; Connolly et al., 2004; Ellison et al., 2007).

Following collection, all data was transferred into software that is regularly utilized for social science research known as Statistical Product and Service Solutions, more commonly referred to as SPSS (Version 23), for further statistical analyses (www.ibm.com). At the time of initial review, the demographical question regarding the age of the participant was employed as a means to screen the final information used for statistical analysis and ensure that only the target population was assessed within the study. After ensuring the appropriate population is being addressed, the remainder of the data was reviewed and cleaned to address any potential validity concerns related to responses, incomplete surveys, or other issues that may have arisen. Following this process, evaluation of the data was conducted by completing a correlational analysis between the scaled responses, which provided an indication of the strength of the relationships that exist between each measured variable (Creswell, 2009). A multiple

regression was then evaluated for use to conduct a mediation analysis of the identified variables.

The data addresses the previously identified research questions and the hypotheses, as restated below:

Research Questions

RQ1: Among young teenagers, is interest in becoming involved in a romantic relationship related to perceptions of peer pressure?

RQ2: Is perceived peer pressure for romantic relationship involvement among young teenagers related to their Facebook attachment?

RQ3: Is Facebook attachment related to reported interest in becoming involved in a romantic relationship among young teenagers?

RQ4: Is perceived peer pressure among young teenagers a mediator between Facebook attachment and interest in being involved in a romantic relationship?

Hypotheses

H_11 : There is a correlation between perceptions of peer pressure and young teenagers' desires to be involved in a romantic relationship.

H_01 : There is no correlation between perceptions of peer pressure and young teenagers' desires to be involved in a romantic relationship.

H_12 : There is a correlation between perceived peer pressure to be involved in a romantic relationship in young teenagers and their Facebook attachment.

H_02 : There is no correlation between perceived peer pressure to be involved in a romantic relationship in young teenagers and their Facebook attachment.

H₁₃: There is a correlation between Facebook attachment and young teenagers' interest in becoming involved in a romantic relationship.

H₀₃: There is a correlation between Facebook attachment and young teenagers' interest in becoming involved in a romantic relationship.

H₁₄: Perceived peer pressure among young teenagers is a mediator between Facebook attachment and interest in being involved in a romantic relationship.

H₀₄: Perceived peer pressure among young teenagers is not a mediator between Facebook attachment and interest in being involved in a romantic relationship.

Summary

A snowball sample of teenagers between the ages of 14-17 was asked to complete a research survey for ease and brevity of completion. The research design incorporated three previously established instruments that have been found to be valid and reliable in their assessment of the variables which they are intended to measure. Methods of the research study discussed have detailed the potential validity and ethical concerns related to the target population of young teenagers, assent and consent procedures, and the administration of the survey. Following the attainment of data from participants, multiple statistical analyses were performed using SPSS. The statistical procedures including multiple correlational analyses and a regression analysis to evaluate a possible mediating variable were conducted. Results from the analyses then assessed the predetermined research questions and hypotheses established within the study, as is discussed in upcoming chapters.

Chapter 4: Results

The purpose of this study was to determine the relationship between Facebook attachment and perceived peer pressure regarding romantic relationship involvement in individuals aged 14-17 years. Survey measures were presented to participants in order to answer research questions related to the variables of Facebook attachment, perceived peer pressure, and desire to be in a romantic relationship. Results from my investigation are discussed in this chapter. Prior to the revelation of the statistical findings and hypotheses testing, the alterations to the research methodology will be discussed. a discussion of the alterations to the methodology must be divulged. While the manner of recruitment was not altered, nor was the actual instrument, the sample size goal versus the final realized number was statistically significantly different. Once the issues that arose in data collection are identified as they potentially relate to the findings, the results will be discussed in the order of the research questions and hypotheses of the study.

Deviations from Initial Methodology

The initial and ideal sample population for this study, as was described in an earlier chapter, was to obtain a sufficient number of participants so that, at minimum, a total of $N = 122$ would be available for data analysis. Over 10 months was spent attempting to obtain this desired sample size. Constant attention to monitoring the Facebook website of the survey was performed, which included sharing the page regularly with friends on Facebook. The added endeavor to recruit more participants by way of preparing and handing out flyers to students at a middle and high school was taken about six months after the survey went live.

After unsuccessfully obtaining even half of the desired sample size in the time that was intended for full data collection to be completed, flyer distribution geared towards the parents of potential participants began. The added recruitment tactic of passing out flyers at schools with the request of the teens to deliver them to their parents for review was conducted and aimed at increasing the total number of participants. Unfortunately, while this action did seem to increase the number of surveys completed, the sample size remained well below the targeted goal. Several more months of continuing to monitor the survey's Facebook page and requesting friends share the website with any potential interested parents of teenagers took place, but the sample size remained less than desired. At the end of an extended period of data collection, the total number of surveys accessed by participants for completion was $N = 42$.

Due to such a small number of participants over a span of over 10 months, it was felt that the continuation of recruitment would likely far surpass a reasonable timeframe for completing the study. After much consideration, it was determined that analysis of the findings would be completed using the number of surveys completed, despite the less than desirable sample size. Based on the alterations to the recruitment methodology and the subsequent lack of reaching the target sample size necessary for statistical power, all results discussed within this chapter should be reviewed cautiously. Further details about the effects of using a smaller sample size in terms of overall study limitations, including the applicability of any findings, will be discussed at length in the next chapter.

Sample Population

A total of 42 surveys were accessed by potential participants. From these surveys, cases were removed from data analysis for the following reasons: one survey responder identified not having a Facebook account, four were removed due to a lack of responses to any of the measures after the demographic questions, and one was removed due to reported age. After removing these invalid and incomplete cases, the analysis was left with 31 surveys completed in totality and 5 that were more than 50% completed with a seemingly random placement of unanswered questions.

Demographics

The final sample consisted of 36 participants. The sex breakdown of the sample included 36.1% of respondents who reported being male and 63.9% female. In regards to age, results were reasonably distributed across the four age options. The youngest participants, those identifying themselves as being 14 years of age, contained the largest percentage of the sample at 36.1%. Moving upwards in age, 25% of the sample reported being 15 years of age, 22.2% reported being 16 years of age, and 16.7% reported their age as 17. The percentage breakdown of ethnicity within the sample was as follows: White 63.9%, Black or African American 16.7%, multiethnic 13.9%, Hispanic or Latino 2.8%, and Asian 2.8%. Finally, the grades in school of which the participants reported being enrolled in were spread among several possible presented responses. From the total sample, 19.4% were in the eighth grade, 5.6% were in ninth, 22.2% were in tenth, 27.8% were in eleventh, 22.2% were in twelfth grade and 2.8% reporting they were no longer in

school and had dropped out prior to graduating. See Table 1 for a complete breakdown of demographical data.

Table 1

Participant Demographics

Categories	N	%
Sex		
Male	13	36.1
Female	23	63.9
Total	36	100
Age (years)		
14	13	36.1
15	9	25
16	8	22.2
17	6	16.7
Total	36	100
Ethnicity		
White	23	63.9
Black or African American	5	16.7
Multiethnic	1	13.9
Hispanic or Latino	6	2.8
Asian	1	2.8
Total	36	100
Grade level		
8th	7	19.4
9th	2	5.6
10th	8	22.2
11th	10	27.8
12th	8	22.2
Other (i.e., no longer in school or dropped out)	1	2.8
Total	36	100

Statistical Results

Prior to providing the findings of the analytical testing, a detailed description of coding and transformation of responses into measurable data points is provided to ensure a greater understanding of what each variable represents.

Scoring and Coding of Measures

Coding each response was necessary to transform the items into measurable variables before statistical analysis could be conducted (Connolly et al., 2004; Creswell, 2009; Ellison et al., 2007; Gravetter & Wallnau, 2009; Santor et al., 2007). This process was completed within SPSS per instructions provided by the creators of each measure incorporated into the survey (Connolly et al., 2004; Ellison et al., 2007; Santor et al., 2000). The Dating Questionnaire consisted of a total of 11 items that, after transforming the responses and coding protocols, were averaged to generate the summary score (Connolly et al., 2004). The first part of this measure was comprised of eight true/false questions. These responses were coded ordinally with the higher assigned number applied to the response most indicative of dating behavior. Responses from these eight questions were averaged together to create one data point for the first item of the Dating Questionnaire. The remaining three data points were a Likert-type scale and coded ordinally from one to five with one representing responses least associated with dating and five applied to the response most representative of the presence of dating interest. All four of the data points were then averaged together to create the summary score for each participant.

Adapted Peer Pressure Inventory responses were Likert-type scaled options and subsequently coded from negative three to positive three (Santor et al., 2000). The lowest score was applied to responses of “very untrue of me.” Scores went up ordinally to the highest possible score of positive three for the response “very true of me” and the neutral response earned a coded score of zero. After transforming the responses into the appropriate numerical values, the responses from the 11 item scale were averaged to generate one mean score. Each participant subsequently would have one data point reflective of their perceived peer pressure based on the Adapted Peer Pressure Inventory responses.

Finally, the eight Facebook Intensity scale scores required transforming into two different scales for coding (Ellison, et al., 2007). The first response was based on a 10 point scale for the inquiry regarding the number of Facebook friends the participant reported having. The remaining seven responses were coded using a five point scale with one equating “strongly disagree” and five representing “strongly agree.” Once all of the responses had been appropriately coded, each participant’s numbered responses for the eight questions were averaged. This final calculation resulted in the creation of a Facebook Intensity score for each case.

Statistical Analysis of Research Questions and Hypotheses

The established research questions and associated hypotheses evaluate the core variables of interest within this study: interest in involvement in a romantic relationship, perceived peer pressure, and Facebook attachment. The first research question seeks to discover if interest in becoming involved in a romantic relationship is related to

perceptions of peer pressure among young teenagers. To investigate the question and test the corresponding hypotheses, a correlation analysis was performed. The Pearson correlation was performed using the summary score derived from the Dating Questionnaire as the first variable and the Adapted Peer Pressure Inventory mean score as the second variable. The scores from the Dating Questionnaire are considered to be reflective of the respondents' desire to be involved in a romantic relationship, while the scores from the Adapted Peer Pressure Inventory are considered to showcase perceived peer pressure felt by the participant in their daily life.

For the correlation analysis evaluating the first research question, the total number of cases for the analysis was $n = 35$ for both variables with missing data excluded pairwise. Statistical calculations resulted in a Pearson $r = -.020$, $p = .909$. The coefficient of determination for this research question's correlation was $r^2 = -.0004$, indicating a substantially less than 1% correlation between the variables. Critical values for hypothesis testing were reviewed assuming a two-tailed test with $\alpha = .05$ and the findings of the correlation analysis suggest the need to reject the alternative hypothesis (Gravetter & Wallnau, 2009). Subsequently, the null hypothesis that there is no correlation between perceptions of peer pressure in young teenagers' desires to be involved in a romantic relationship failed to be rejected.

The second research question seeks to answer if perceived peer pressure for romantic relationship involvement in young teenagers related to their Facebook attachment. This research question contains three variables requiring analysis. The variables included in this analysis are as follows: perceived peer pressure derived from

the Peer Pressure Inventory, romantic relationship interest derived from the Dating Questionnaire, and Facebook attachment derived from the Facebook Intensity Scale (Connolly et al., 2004; Ellison et al., 2007; Santor et al., 2000). A correlation matrix was performed to evaluate the presence of any relationship between these variables. As is shown in Table 1, there are no statistically significant correlations between the three variables identified within this research question. Following the evaluation of the critical values for each of the possible variable combinations assuming a two-tailed test with $\alpha = .05$, it is determined that the alternative hypothesis should be rejected, as there is no statistically significant correlation present (Gravetter & Wallnau, 2009).

Table 2

Correlation Matrix for Research Questions

	Adapted PPI	Dating Questionnaire	Facebook Intensity Scale
Adapted PPI	–	-.020(.909)	.072(.685)
Dating Questionnaire	-.020(.909)	–	-.042(.810)*
Facebook Intensity Scale	.072(.685)	-.042(.810)*	–

Note. *p* values are shown in parentheses.

* $n = 34$ except for those identified with an asterisk where $n = 35$.

Adapted PPI stands for the Adapted Peer Pressure Inventory measure.

Next, the research question seeking an answer as to if Facebook attachment is related to reported interest in becoming involved in a romantic relationship among young teenagers was investigated. A Pearson correlation was used to evaluate the variables of desire for romantic relationship involvement derived from the Dating Questionnaire and

Facebook attachment derived from the Facebook Intensity Scale (Connolly et al., 2004; Ellison et al., 2007). Any missing data was excluded pairwise for calculation purposes, bringing a total number of cases for this correlation to $n = 35$. Statistical calculations resulted in a Pearson $r = -.042$, $p = .810$. The coefficient of determination for this research question's correlation was $r^2 = -.002$, indicating a less than 1% correlation in existence between the variables. Based on critical values for this correlation assuming a two-tailed test with $\alpha = .05$, the alternative hypothesis must be rejected (Gravetter & Wallnau, 2009). Thus, the null hypothesis failed to be rejected as there is no statistically significant correlation between Facebook attachment and young teenagers' interest in becoming involved in a romantic relationship is adopted.

Lastly, an inquiry into whether perceived peer pressure among young teenagers was a mediator between Facebook attachment and interest in becoming involved in a romantic relationship was needed. In order to perform a multiple regression that would produce valid results, eight prerequisite assumptions must be met (Cohen, Cohen, West, & Aiken, 2013; Creswell, 2009; Gravetter & Wallnau, 2009). If any of the assumptions are violated, the analysis cannot be and should not be executed to determine the mediation of a variable between two other variables. One of the more significant assumptions required to perform a multiple regression is the presence of a relationship between the dependent variable and each of the tested independent variables (Cohen et al., 2013; Gravetter & Wallnau, 2009).

Pearson correlation findings for the first research question revealed no significant relationship between perceived peer pressure and interest in being involved in a romantic

relationship. Further, a lack of correlational relationships between perceived peer pressure and Facebook attachment were identified within the reports of the correlation matrix used for evaluating the third research question and hypothesis. Results from the aforementioned research questions and their corresponding statistical analyses support the decision to fail to reject the null hypothesis and reject the alternative hypothesis for the final research question. In sum, the lack of presence of a significant correlation between the three variables supports the finding that perceived peer pressure does not act as a mediator between interest in being involved in a romantic relationship and Facebook attachment.

Summary

Despite substantial efforts made by the researcher, the initial target sample size of $n = 122$ was not met. After approximately 10 months of focused data collection and subsequent recruitment actions, the total sample of participants with more than 50% response rate totaled $N = 36$, with 31 cases completed in their entirety. Statistical findings from this smaller sample group of young teenagers did not show any significant correlations between the variables of perceived peer pressure, desire for romantic relationship involvement, and Facebook attachment. Concerns relating to the possible effect the smaller sample size may have had on the outcome, along with a detailed discussion of the interpretation of findings, implications of this study, and future research ideas will be covered in the next chapter.

Chapter 5: Discussion, Conclusions, and Recommendations

This study's overall purpose was to consider the relationship between Facebook attachment, perceived peer pressure, and desire to be involved in a romantic relationship among young teenagers, aged 14-17 years. Since the year 2000, technological advancements have produced electronic devices that can be accessed by the vast majority of the population (Darvell et al., 2011; Lenhart et al., 2010; Ryan & Xenos, 2011; Sheldon et al., 2011; Strano, 2008). The use of social networking sites has grown alongside the increased accessibility of Internet-ready personal electronic devices.

With the increase in accessibility to electronics, such as phones with Internet access, the use of social networking websites across all age groups, but particularly young teenagers, has also risen. As a relatively new form of communication and socialization, online peer group interactions need to be evaluated to determine any potential effects that constant exposure to others may have on adolescent psychological development. Historical studies have investigated social networking websites use as a conduit for peer pressure using adults as their primary participant pool (Brown & Bobkowski, 2011; Elphinston & Noller, 2011; Gershon, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kim & Lee, 2011; Lenhart et al., 2010; Malik & Mahmood, 2012; O'Keefe & Clarke-Pearson, 2011; Paradise & Sullivan, 2012; Raake & Bonds-Raake, 2008). These studies also went on to evaluate a variety of subsequent variables to include emotional responses or physical actions taken by participants following exposure to social networking websites. The current research project was completed using an online survey of young teens, but was unable to adequately

accumulate the number of participants statistically necessary to detect any significant findings. As a result of this lack of statistical power, interpretations provided within this chapter are discussed with caution in regards to using the findings for support or dispute of any theories, studies, or psychological practice. Following the interpretations, detailed accounts of the major limitations of the study are discussed, as are the recommendations for future research. Finally, the implications for positive social change derived from this research study are examined.

Interpretation of Findings

Available literature relating to the presence of peer pressure acting as a conduit for social media action is present for adult participants (Correa et al., 2010; Crano, 2000; Sheldon et al., 2011; Strano, 2008). Additional studies also provide indication that there is a correlation between the use of Facebook and emotional feelings that are generally regarded as those reserved for romantic relationships (Sheldon et al., 2011; Strano, 2008; Zhao et al., 2008). There remains to be valid arguments theoretically and statistically through past research that there is some form of a relationship between the use of Facebook, perceived peer pressure, and the desire to be involved romantically with another person (Kim & Lee, 2011; Malik & Mahmood, 2012; Paradise & Sullivan, 2012; Raake & Bonds-Raacke, 2008; Reich et al., 2012; Robertson, 2009; Zhao et al., 2008). One of the primary gaps in literature that prompted this study was the seeming lack of any research available that adequately assessed the presence of these variables as they relate to anyone under the age of 18.

The findings of this study were not statistically significant. Because of this lack of significance and a lack of research that specifically evaluates the three variables tested within this study, no decisive stance on potential implications can be made at this time (Cohen et al, 2013; Correa et al., 2010; Creswell, 2009; Gravetter & Wallnau, 2009; Junco, 2012; Moreno et al., 2012). The refutation or confirmation of psychological theoretical frameworks cannot be established based on the aforementioned factors. Impression management theory was the theoretical framework for this study, as it emphasizes that the perception of pressure from peers and the application of such pressure towards others is a construct for interpersonal interactions as well as the development of personality (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Zhao et al., 2008). This theoretical framework has been found to be applicable within the target population of young teens (Feaster, 2010; Kobsa et al., 2012; Morrison & Bies, 1991; Strano, 2008; Waters & Ackerman, 2011). The current study does not identify any significant impact of peer pressure on Facebook attachment or the desire to be involved in a romantic relationship. This brings about the potential for interpreting these findings as being indicative of overall indifference teenagers possess towards Facebook, romantic relationship involvement, or even peer pressure. This assumption, however, would be unwarranted and potentially incorrect due to the limitations identified both in this and the prior chapter (Cohen et al., 2013; Creswell, 2009; Gravetter & Wallnau, 2009).

Regardless of the limited sample size, the correlation analysis could have resulted in findings that were closer to or were of statistical significance. There is potential for small sample sizes to produce statistical findings that would have shown a correlation

suggestive of a significant relationship between tested variables. If that would have occurred in this study, the statistically significant findings would have to be interpreted with caution due to the lack of power within the analysis of data (Creswell, 2009; Gravetter & Wallnau, 2009). Use of a larger sample size would have allowed for greater variations in responses and provided opportunities for outlier data to be identified and removed if patterns of correlation had emerged (Creswell, 2009).

There is also the possibility that the measures did not generate an accurate representation of the strength of correlations among the variables tested. Efforts to employ reliable and valid measures and make the survey time efficient for participants were made. Both the Adapted Peer Pressure Inventory and the Dating Questionnaire were developed for young adolescents (Connolly et al., 2004; Santor et al., 2000). The measure for perceived peer pressure was originally devised to target high school aged teenagers, but the measure evaluating the desire to be in a romantic relationship was created with a slightly younger audience in mind. The Dating Questionnaire was developed using participants in elementary to middle school having an average age of 12.28 years, with the oldest participant being 14.84 years (Connolly et al., 2004). There is the possibility that social, emotional, and psychological development that takes place between age 12 and 14 would result in the survey no longer adequately measuring the desired variable. Another possible deviation in targeted age ranges is found within the Facebook Intensity Scale, which was developed using college age students (Ellison et al., 2007). These slight variations in the demographics of the participants could have led to a lack of variable correlations in this study (Connolly et al., 2004; Ellison et al., 2007; Santor et al., 2000).

While the results were not generalizable for application to the target population, it is not felt that this disconfirms the overall applicability of the impression management theory as a means for the explanation of whether or not teens alter their projected impressions on social media to appear more appealing to the perceived social norms (Banker et al., 2010; Brown & Bobkowski, 2011; Brown et al., 1986; Collins, 2003; Connolly et al., 2004; Crano, 2000; Ellison et al., 2007; Feaster, 2010; Ivanova et al., 2012). The lack of significant findings should not inhibit future use of this theoretical framework within similar research inquiries, nor should it inherently discourage future investigations of these topics within the target population. As discussed in prior chapters, there have been significant findings of adults taking actions following perceiving peer pressure on social media websites, particularly Facebook (Darvell et al., 2011; Gershon, 2011; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Lou et al., 2012; O’Keefe & Clarke-Pearson, 2011; Peterson & DeHart, 2013).

Limitations of the Study

When reviewing this study’s findings and applications, caution should be used due to the limitations identified in chapter one as well as those that arose during data collection. As reported in chapter one, there are limitations to the applicability of this study to the entire target population in terms of generalizability, second to monetary and time constraints. These hindrances limited my ability to offer incentives to participants, which could have potentially increased the number of subjects. There were geographical limitations for additional recruitment activities that, with additional funding, a larger

effort to provide flyers to students at schools that were selected randomly for their demographic representation of the population as a whole could have been made.

Time constraints also limited the ability to reach out physically to schools across the nation for participant recruitment. Within the realms of this dissertation project, the amount of time taken to perform data collection was limited to the extent that monetary assets were available and time was permitted in the program. Potentially, if time and money had been of no concern, a larger outreach could have been completed to reach a larger number of parents and guardians of teens by purchasing an advertisement within Facebook about the research study. In addition, flyers could have been provided to parents directly via mailings at a number of demographically representative schools throughout the United States to not only reach the desired sample size needed for statistical power, but also to have findings that would be generalizable (Lenhart et al., 2010; USCB, 2011).

The greatest limitation of this study is the sample size. Due to low participation rates, the final sample was smaller than the desired target sample size. The sample size obtained was far below the amount needed for statistical power (Creswell, 2009; Gravetter & Wallnau, 2009). The results discussed in the prior chapter are subsequently limited in their ability to be applied to the target population or for use in providing sound evidence support discontinuing research on this subject area (Cohen et al., 2013; Creswell, 2009; Gravetter & Wallnau, 2009). While future studies may be able to offset these limitations with altering data collection methodologies or even differing measures,

the current findings scope and applicability are rather small for the target population as a whole.

The small sample size could have been a product of a number of different factors. Relevancy of the specific social networking website used for this study could have led to decrease interest by potential participants who received flyers at their schools. Constant change in what is considered to be popular is the norm for teenagers of all generations (Brown & Bobkowski, 2011). The target population's labels of popularity also include social networking websites (Brown & Bobkowski, 2011; La Sala, Skues, Wise, & Theiler, 2016; Lenhart et al., 2010). There is a possibility that the potential participants who received the flyers at their schools did not feel connected to Facebook, as they were more interested in a different social website, such as Snapchat, Instagram or Twitter (La Sala et al., 2016). This lack of connection may have subsequently jeopardized potential participants' interest in completing the survey, as well as providing their parents with the flyer to request consent.

Recruitment procedure requirements regarding who could be directly recruited for the study and mandatory parental permission prior to assent or participation are also felt to be logical suspects for the small sample size in this study. Due to the use of minors, regulatory bodies dictate that no direct recruitment could occur between the researcher and potential participants. Recruitment had to be geared towards the parents and guardians of teens with the request to pass along the information to their teen should they consent to their child's participation. Materials for recruitment subsequently had to be equally appealing and appropriate for both an adult and a young teenage audience. Also,

recruitment procedures had to rely on the parents and guardians to pass along the information, potentially resulting in a loss of participants by adults being willing to let their child participate, but did not want to take the time to forward on the study's details. If direct recruitment could have been permitted without mandatory adult consent being obtained first, the researcher could have had the teenaged participants complete the survey while they were in a centralized location. Also, the recruitment materials could have possibly been made more teen friendly and possibly included some form of small incentive. This study's design was developed for complete anonymity of the participant and without any researcher contact. The ability to provide participants with incentives would have resulted in the need to obtain identifying information from the teens in order to provide them with whatever gift could have been offered. Based on the recruitment procedures designed within this study, the ability to provide economically plausible incentives was not readily available due to the complete anonymity of the design and the lack of direct contact with the participants.

A repeat of this study would only be suggested with the caveat of a different recruitment strategy that could produce a larger number of participants. If time and monetary constraints were not present, the coordination with school systems around the country to obtain a socioeconomically representative sample would be highly recommended. Research conducted with young teens was more successful in terms of sample size when participant responses could be obtained in a controlled setting, such as in the classroom (Connolly et al., 2004). Another avenue that seems to have been successful in the past for recruitment of minors is offering an incentive to participants

(Modi, Vohra, Preston, Elliott, Van't Hoff, Coad, Gibson, Partridge, Brierley, Larcher, & Greenough, 2014; Nguyen, Jayadeva, Cizza, Brown, Nandagopal, Rodriguez, & Rother, 2014; Santor et al., 2000). A possible option for working around the mandated parental consent requirements is to offer incentives, but indicate that the only way to receive it would be to bring in their adult signed consent form on the day they complete the study at a centralized research location. This method would bring about new dilemmas, however, as ethically the drive for receiving incentives could result in coercion by the researcher. There have been successful recruitment methods with similar techniques to the present study with the implementation of snowball sampling online and in the community (Fenner, Garland, Moore, Jayasinghe, Fletcher, Tabrizi, Gunasekaran, & Wark, 2012; Ferguson, Munoz, Garza, & Galindo, 2013; Modi et al., 2014; Nguyen et al., 2014). Unfortunately, in those situations, the research was performed with adult participants or it was conducted in a country that considers age 16 the legal age for providing consent.

Recommendations

Future steps to further this line of study are recommended to find more definitive answers to the questions posed within this study. This project did not set out to find causation among the variables of Facebook attachment, romantic relationship desire, and perceived peer pressure in young teens. Correlational results were sought, but no substantial findings were identified. It is reasonable to recommend an attempt to perform this study again with the same measures, but using different recruitment methodologies. It would be beneficial to thoroughly investigate the variables proposed within this study on a larger and more statistically reliable scale.

Theoretical Recommendations

Another recommendation takes into account the extreme rapidity of the evolution of technology that has occurred over the past 30 years (Boyd & Ellison, 2007; Brown & Bobkowski, 2011; Bugeja, 2006; Cohen-Almagor, 2011; Kirkpatrick, 2010; Robertson, 2009). Access to said technology has undergone an equally fast transformation, particularly since the turn of the century. With the limited knowledge available about the impact that constant exposure to a technologically immersive world has on adolescent development, further research on the topic would be welcomed. Generation Z, representative of those born in 1996 to the present, is the first generation that was and is being raised in a world where there is no knowledge of life without constant media access (Robertson, 2009).

Research about cognitive development and social psychological theories were built on the principles of physical social groups being present to shape individuals' minds and personalities (Elphinston & Noller, 2011; Feaster, 2010; Gonzales & Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008). For example, Bronfenbrenner's (1986) ecological systems framework outlines the impact society has directly and indirectly on developing children through adulthood. Bronfenbrenner identifies that interactions a child has directly with others shapes their developing psyche. More importantly for this example, he posed that the interactions that those in contact with a child have with others in society without the child present will ultimately cause an impact on their development (Bronfenbrenner, 1986). In order for this to occur, however, there is an assumed level of physical contact required for the shaping

to take place (Bronfenbrenner, 1986; Brown et al., 1986). This model does not take into account the new challenges facing adolescents today, wherein they can have unbridled access to hundreds of people, 24 hours a day, and simultaneously have no direct face-to-face contact with anyone (Bronfenbrenner, 1986; Halevy et al., 2012; House, 2008; Ivanova et al., 2010; MacDonald, 2009; Mikami, 2010; Miller et al., 2009; Zhao et al., 2008).

This new societal norm has taken hold over a very number of years, when normally transformations of societal accessibility and acceptability can take decades to centuries (Brown & Bobkowski, 2011; Bugeja, 2006; Cohen-Almagor, 2011; Kirkpatrick, 2010; Robertson, 2009). As psychologists, it is required to evaluate the new normative environment in which children grow into teens with the ultimate goal of becoming well-adjusted, self-sufficient adults. Research using older theoretical models to determine their relevancy to the youth of today should be conducted. Previously supported findings of proven psychological theoretical frameworks, models and clinical practices from even the early 2000's may no longer be applicable to the current generation of young people. The field of psychology must remain actively diligent to uncover the effects that constant access to others opinions via social media can have on individuals, particularly children and teens. With the relative newness of young teens presenting themselves online for their peer group, the longitudinal impact that constant exposure to judgment by or of others will have is not yet known (Bonds-Raake & Raake, 2010; Boyd & Ellison, 2007; Cohen-Almagor, 2011; Correa et al., 2010; Darvell et al., 2011; Ellison et al., 2007; Elphinston & Noller, 2011; Feaster, 2010; Gonzales &

Hancock, 2011; Joinson, 2008; Junco, 2012; Kirkpatrick, 2010; Kujath, 2011; Raacke & Bonds-Raacke, 2008; Robertson, 2009; Zhao et al., 2008). Psychologists in the classroom, clinic, or laboratory must make conscious efforts to remain aware of the newest means used by young people for contacting one another via technology to ensure that adolescents are being evaluated, protected, and supported in the most helpful way possible in the present environment.

Governing Law and Regulation Recommendations

Within the current research project, the lack of success in obtaining the desired number of participants for the sample was felt to be largely attributable to the recruitment strategy. The confines of the recruitment strategies implemented within this study were limited extensively by the ethical constraints of performing research on minors (APA, 2010; Protection of Human Subjects, 2009). Without the ability to have direct contact with teens to recruit potential participants, a large disconnect was felt between the researcher and the desired sample population. It is recommended that a reevaluation of ethical limitations be conducted. More specifically, a review and revision for what is considered to be more than a minimal psychological risk for research performed on minors who are within the age and maturity of assent.

Governing bodies within the United States require psychological researchers who desire to perform a study on minors to acquire parental consent prior to the teens being offered opportunity to provide assent or participate (APA, 2010; Protection of Human Subjects, 2009). These laws are certainly valid and are reasonable in regards to the need to protect vulnerable populations due to the atrocities that have occurred when human

subjects have been used in research in the past. There are caveats that would permit a researcher to conduct a study with teens under the age of 18 without first gaining their parents or guardians permission prior to their participation by providing a waiver of consent for the project (Protection of Human Subjects, 2009). Given the effort required by parents for their teen to participate in the study, there is a possibility that the difficult recruiting a satisfactory number of participants would have been lessened for this study if a waiver of preemptive parental consent been granted. The parent/guardian had to take three separate steps before the survey link was even made available to potential participants. Presumably, the added steps required for consent prior to assent could have reduced number of age-appropriate teens who received the link to the survey in comparison to direct teen recruitment under a waiver of preemptive parental consent. Laws regulating the ability of universities to provide such a waiver to researchers are stringent, as is reasonable considering the potential vulnerability of the younger population. Despite that, following this study, it seems reasonable to encourage a review of what topics are considered to cause more than a minimal amount of psychological risk to participants.

As discussed in a prior chapter, there were less than five questions in the measure used to conduct this study that were considered to pose a greater than minimal risk by ethical standards outlined by the Department of Health and Human Services (Protection of Human Subjects, 2009). These questions asked very generically and superficially the participants past engagement in sex, alcohol use, and drug use. The questions corresponding with these topics were necessary for the validity of the instrument used to

measure perceived peer pressure (Santor et al., 2000). Finding shorter measures for this variable proved difficult. All identified potential alternative measures contained the same line of questions that would have continued to present as posing a greater than minimal risk to teenaged participants (Brown et al., 1986; Joinson, 2008; Walther et al., 2008). Due to this line of inquiry, the waiver for parental consent could not be granted due to the concern that having minors admit to the participation in these possibly immoral and illegal activities could cause undue psychological or legal harm (Protection of Human Subjects, 2009). It is argued that minors may not be fully cognizant of the potential ramifications of reporting their actions to a psychologist (National Research Council, 2014; Protection of Human Subjects, 2009). Researchers may be legally or ethically required to disclose confidential responses supplied by minor participants. Dependent upon the nature of the clinical relationship and the severity of the information disclosed, the psychologist may be required to disclose the illegal activities to parents or guardians of participants. Additionally, the clinician may even be obligated to notify the appropriate authorities' dependent upon the severity of the illegal actions that are divulged during the course of the study (Protection of Human Subjects, 2009).

While the aforementioned concerns are completely valid for the protection of human subjects, particularly protected populations, there is room to for interpretation of what constitutes minimal risk in today's society (National Research Council, 2014). Attempts to broaden the understanding of the definition of minimal risk and to suggest updated means to consider proposed research under ethical guidelines has been made in recent years. The National Research Council (2014) indicated that when evaluating

research with human subjects, particularly with minors, measures contained within a proposed study should pose no greater risk than the current level of societal exposure through their daily life. This also includes any information or behaviors that would be required for completion during standard mental health and general medical examinations. Potentially, a waiver of parental consent might have been granted for this study under the National Research Council's (2014) proposed guidelines. Moreover, the use of a broader scope for what is considered to be typical daily life of participants could possibly permit more autonomy for teenaged participants in the future.

Current societal norms for teenagers include a near constant exposure to media. Today's culture coincides with television shows and movies that are constantly implicitly or explicitly depicting sex, drugs and alcohol (Brown et al., 1986; Connolly et al., 2004; Ivanova et al., 2012; McElhaney et al., 2008; Miller et al., 2009; Santor et al., 2000; Suizzo, 2000). These topics are also found in television advertisements, billboards, radio commercials, music, and magazine articles, not to mention in countless locations throughout the internet. Societal norms have grown more accustomed to these formerly taboo topics and, generally, teens are more exposed to these areas than ever before in American history (Boyd & Ellison, 2007; Connolly et al., 2004; House, 2008; Ivanova et al., 2012; McElhaney et al., 2008; Miller et al., 2009; Santor et al., 2000; Speakman & Ryals, 2010; Suizzo, 2000).

Ethical regulations were established during a much more conservative era when compared to current norms (House, 2008; Protection of Human Subjects, 2009; Robertson, 2009; Speakman & Ryals, 2010; Suizzo, 2000). Regulatory codes are greatly

modeled after the Belmont Report that was written in 1979 (Protection of Human Subjects, 2009). Federal regulations were largely guided by this report when Federal Policy for the Protection of Human Subjects was made law in 1991. While updates and amendments have been made since then, the majority of the rulings identifying what specific areas are considered to pose more than a minimal risk for minors has remained largely unchanged (APA, 2010; Protection of Human Subjects, 2009).

The reevaluation of legislation, regulations, and governing practices pertaining to what constitutes more than minimal psychological harm among minors should be completed. This revision would only be successful, however, if it is conducted with the full understanding of the current reality of teenage life, culture, and overall societal norms. Such a review could potentially assist future psychologists in their efforts to research this under-reported group by providing teens with greater levels of autonomy by waiving the need for prior to participation parental consent.

Implications for Positive Social Change

Conducting this study was the first in a series of steps necessary to better understand the development of personality, behaviors, and relationships among young teenagers in this new virtual world (Lenhart et al., 2010; Robertson, 2009; Strano, 2008). Follow up studies reviewing individual variables correlation to each other as they relate to social media and young teens are needed, however, the completion of a study aiming to investigate this population begins the process of bringing about a positive social change. Future researchers now have the opportunity to learn from strengths and weaknesses of the current study to take positive steps towards obtaining a greater

understanding of the role social media plays on adolescent development. Finally, the project itself has experienced known positive social change simply by informing the public about the possible psychological impact that Facebook might have on teenagers that was posted online and discussed with school officials during participant recruitment. It is hoped that this conversation will continue and grow to include additional research and a restructuring of the verbiage within laws regulating the use of young teens in psychological studies.

Conclusion

The goal of this research project was to begin to fill the gap in literature that exists in the area of the impact social media has on psychological processes and development on individuals under the age of 18. This study aimed to evaluate the presence of any relationship between the desire to be involved in a romantic relationship and Facebook attachment secondary to perceived peer pressure among young teens, ages 14-17. After data collection, no significant correlations were found between Facebook attachment and the desire for romantic relationship involvement. No significant correlation was identified between the desire to be involved in a romantic relationship and perceived peer pressure. Lastly, there were no significant findings available to complete an analysis for the presence of perceived peer pressure acting as a mediator between Facebook attachment and the desire to be in a romantic relationship. All findings were reported with an advisory that due to the lack of reaching a sample population large enough to create statistical power caution should be used for blanket applications across the subject matter investigated. Despite the lack of a complete sample size for statistical power and the

absence of any significant findings, this study was important. This research serves as an initial step towards taking conscious actions to lessen the gap in literature from which this study was derived.

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Appendix A: Permissions for Use of Measures

Facebook Intensity Scale

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students use of online social network sites. *Journal of Computer-Mediated Communication*, 12. doi:10.1111/j.1083-6101.2007.00367.x

Via the primary author Ellison's website at

<https://www.msu.edu/~nellison/TOIL/scales.html>), the researcher identifies that the

Facebook Intensity Scale can be used by the general public without special permission as long as the above citation is appropriately applied.

Dating Questionnaire

Connolly, J., Craig, W., Goldberg, A., & Pepler, D. J. (2004). Mixed-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence*, 14, 185-207. doi:10.1111/j.1532-7795.2004.01402003.x

To obtain permission for this measure's usage, an email was sent to the lead researcher, Dr. Jennifer Connolly, at her York University email address. The transcript of the email sent to Dr. Connolly and her reply are found below.

Email to Dr. Connolly

Dr. Connolly,

My name is Courtney Bennett and I am a doctoral student at Walden University where I am becoming increasingly closer to achieving my goal of becoming a doctor of

psychology. I am writing as a means of seeking permission to utilize the Dating Questionnaire survey/scale you and your colleagues developed in 2004 within my dissertation research. Your contact information was provided as the correct contact to seek approval for inclusion in the survey of my upcoming dissertation research, thus my inquiry.

Presently, I am diligently working on my proposal and will be studying the changes of perceived peer pressures to be involved in a romantic relationship based on young teenagers' attachment to Facebook. As a part of a three-pronged assessment measure, the use of the Dating Questionnaire would be a phenomenal asset to my proposed dissertation study. My intention is to provide participants with a survey that will evaluate user attachment levels to Facebook, an adaptation of the Peer Pressure Inventory, and with your permission, the Dating Questionnaire to conduct correlational and multiple regression analyses to later transfer findings into a mediation analysis of the three primary variables.

Your consideration of granting me the permission to include your measure in my upcoming study is greatly appreciated. Should you agree, please have no doubt that all credit will be appropriately awarded to yourself, Craig, Goldberg, and Pepler, both within the text, as well as within the tables of data created post-data collection. If you have any concerns or would desire any additional information from me prior to permitting the inclusion of the Dating Questionnaire in my study, please do not hesitate to ask.

Sincerely,

Courtney Bennett, MS, ABD

Response received via email on 10/27/13 at 7:02PM

Hello Courtney

You have my permission to use the DQ in your research. I wish you all the best in completing your doctoral research

Jennifer Connolly

Adapted Peer Pressure Inventory

Santor, D., Messervey, D., & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls. *Journal of Youth and Adolescence*, 29(2). doi:10.1023/A:1005152515264

To obtain permission for this measure's usage within my study, an email was sent to the lead researcher, Dr. Darcy Santor, at his University of Ottawa email address. The transcript of the email sent to Dr. Santor and his reply is found below.

Email to Dr. Santor

Dr. Santor,

My name is Courtney Bennett and I am a doctoral student at Walden University where I am becoming increasingly closer to achieving my goal of becoming a doctor of psychology. I am writing as a means of seeking permission to utilize the adapted Peer Pressure Inventory survey/scale you and your colleagues developed in 2000 within my dissertation research. Your contact information was provided as the correct contact to

seek approval for inclusion in the survey of my upcoming dissertation research, thus my inquiry.

Presently, I am diligently working on my proposal and will be studying the changes of perceived peer pressures to be involved in a romantic relationship based on young teenagers' attachment to Facebook. As a part of a three-pronged assessment measure, the use of the adapted Peer Pressure Inventory (2000) would be a phenomenal asset to my proposed dissertation study. Initially, I thought of including the full Peer Pressure Inventory developed by Brown, Clasen, and Eicher (1986), however the length of the scale was of significant concern for participants willingness to put forth consistent effort throughout the length of the measure. Further research led me to the 2000 article where you and your colleagues adapted the initial PPI into a much more user-friendly measure that scaled back the number of questions that were specifically designed to evaluate a similar area of peer pressure that I am investigating. My intention is to provide participants with a survey that will evaluate user attachment levels to Facebook, an age appropriate Dating Questionnaire, and with your permission, the adapted questions investigating peer pressure to conduct correlational and multiple regression analyses to later transfer findings into a mediation analysis of the three primary variables.

Your consideration of granting me the permission to include your measure in my upcoming study is greatly appreciated. Should you agree, please have no doubt that all credit will be appropriately awarded to yourself, Messervey, and Kusumakar, both within the text, as well as within the tables of data created post-data collection. If you have any

concerns or would desire any additional information from me prior to permitting the inclusion of the adapted peer pressure scale in my study, please do not hesitate to ask.

Sincerely,

Courtney Bennett, MS, ABD

Response received via email on 11/2/13 @ 2:39 PM

Certainly and good luck with your project

DS

Appendix B: Research Survey's Facebook Page

Facebook Page Title

Teen Dating, Social Media, and Peer Pressure Research Study

Text of Webpage

Are you a parent/guardian of a young teenager, ages 14-17 that also uses Facebook?

If so, this Facebook page is for you!

My name is Courtney Bennett and I am a doctoral candidate at Walden University. Presently, in order to complete my dissertation research study, I am in need of teenaged participants to complete a formal research study that will be entirely anonymous. The survey will include questions about Facebook attachment, peer pressure, and romantic relationship involvement or the desire to be involved in a romantic relationship. To read more detailed information about the study, to include details of providing parental consent and review a copy of the official survey, please refer to the "Notes" section of this page.

Due to the age of the teenagers needed for the research study to be conducted, it is important that you, the parents/guardians, are aware of the study's purpose, benefits, risks, anonymity, and contact the researcher to request a link for the survey that you can share with your teen(s). The act of contacting the researcher for a link to the study will act as your permission or consent in permitting your child to participate in the survey. The survey link is a generic website specific to this study and will be sent to each potential participant's parent/guardian. This is an extra precaution to ensure complete anonymity for the survey respondents, as there will be no way to correlate the responses received to your Facebook account or email address, thus protecting the privacy of both you and your teen. There will be no information obtained from your personal background information at anytime through Facebook, nor will your Facebook page be reviewed for any reason whatsoever. This study is entirely based on research that is obtained through the survey responses and no other information is necessary or desired for project completion.

Again, all information is entirely anonymous, there will be no personalized information obtained during the survey about you or your child and no way to identify who completed what survey, as there will be no direct contact between your child and the researcher. Additionally, none of the messages/requests for the survey link will be saved (to include your email address, name, Facebook identity, etc.). Your email address or Facebook message will be permanently deleted following my response to your requests. You will never receive any unwanted emails or other exchanges within Facebook initiated by the

researcher or this study's Facebook page after your request for the survey link or a response to your questions are answered.

To provide you with as much information as possible about this study and to ensure you of not only the legitimacy of the research project, but also the anonymity, risks, benefits, and purpose, please take a moment to review the various tabs on this page to find answers to any questions you may have. Again, should you have further questions that are not found within this website, feel free to contact me via Facebook or email with a complete list of all contact information found under the "Contact" tab.

Thank you for your time in reviewing this project and your consideration in permitting your teen to participate in this study! I hope to hear from you requesting survey links for your 14-17 year old children soon!

Sincerely,
Courtney Bennett, MS

Appendix C: Sample Response to Parent or Guardian

Hello and thank you for taking time to review my doctoral study's Facebook page!

Your willingness to permit your teen to participate in this anonymous survey is greatly appreciated and will hopefully provide final results that will assist psychologists in understanding how Facebook may interact within perceptions of peer pressure and overall desires to be involved in a romantic relationship. Attached to this email is a PDF document of the formal Parent Consent form that was available for review within the Facebook page.

By passing along the survey link, you will be providing access to an age group that has only been minimally studied in regards to Facebook in general, not to mention how Facebook may be associated with peer pressure and romantic relationships. Thank you for your willingness to help psychologists, communities, and society better understand the impact of social media on young people. Once the final results have been completed, results will be outlined on the study's Facebook page, so please feel free to check back frequently for status updates of the survey. Additionally, please encourage your friends, coworkers, or peers who have teens within the targeted age group to review the research project's Facebook page in order to spread the word about my study and to ensure there are an ample number of surveys completed to obtain valid results!

The following link will send your teen directly to the survey website.

<https://www.esurveycreator.com/s/9d32551>

Again, this is an entirely anonymous survey and the website has no means of tracking any personal information whatsoever. If you or your teen have any additional questions regarding the survey, please have them contact me through the Facebook page, via email at FBDdoctoralResearchStudy@gmail.com, or by phone at [redacted] and I will be glad to answer any inquiries they may have.

Your time and participation in this important psychological research study is greatly appreciated!

Sincerely,
Courtney Bennett

Appendix D: Permission to Distribute Flyers at Schools

Permission to pass out flyers at the schools within the [school district name redacted] in [location redacted] was obtained via email exchanges with the superintendent of schools, [name redacted]. A request was made to be allowed to contact the principals at [school name redacted] and [school name redacted]. After explaining the nature of the study, ethical considerations, and overall purpose of the research, the details regarding the passing out of flyers during lunch breaks at both schools was proposed. The following reply was received from [superintendent name redacted].

Response received via email on 2/18/16 at 7:43AM

You have my permission to contact [principal name redacted] at [school name redacted] and [principal name redacted] at [school name redacted] to work out the logistics of getting the information out to the parents of their students. Good luck! Contact me if you have any problems setting up times to visit the schools.

[name redacted]

[email address redacted]

ATTENTION PARENTS OF TEENS AGES 14-17:

YOUR TEEN MAY BE ELIGIBLE TO PARTICIPATE IN A DOCTORAL RESEARCH STUDY!

PLEASE TAKE A MOMENT TO LEARN MORE ABOUT THIS OPPORTUNITY!

STUDY INFO:

- **Should you consent, please provide your teen with the official survey website www.esurveycreator.com/s/9d32551**
- **Study is completed online only and takes no more than 15 minutes to complete**
- **Survey asks about Facebook, relationships with peers, and romantic relationships**
- **Study is entirely anonymous and confidential**
- **Project designed and implemented by a local researcher**
- **Your help is vital to the success of this study!**

WHEN

**Immediately
24 Hours/7 Days**

Review details about this study at the research project's Facebook page: www.facebook.com/TeensAndSocialMediaResearchStudy

If you agree to permit your teen to take part in this study, please provide the link below to your teen for their survey completion.

If you prefer, you can also request the same link via Facebook messaging or by directly emailing the researcher at the following address:

FBD doctoralResearchStudy@gmail.com

WHERE **Online**

www.esurveycreator.com/s/9d32551

RESEARCHER INFO: