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Use of Facebook as a Social Support System to Maintain an Individual's Resource Pool

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Abstract

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MA, Seton Hill University, 2010

BS, University of New England, 1999

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Social Psychology

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Abstract

Stress affects individuals' physiology, mood, behavior, and cognitive abilities. Social support has been found effective in buffering stress. The social networking site Facebook allows individuals to connect to others to share stories, pictures, and general life events and, in so doing, offers a means of social support that bridges geographical distances for friends and family. There is limited research, however, on whether using Facebook buffers against stress. The purpose of this quantitative study was to examine the use of Facebook for social support using the conservation of resources theoretical model of stress management. Fifty-seven Facebook users over the age of 18, participated in the study. Multiple regressions were used to test hypotheses for two research questions. These questions examined the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain, as well as the extent the set of predictors differentially predict resource loss, resource threat, and resource gain. This resulted in several key findings. Facebook social support and being female predicted Facebook resource gain. Face-to-face social support positively predicted face-to-face resource gain and negatively predicted Facebook resource loss whereas stress positively predicted resource threat. The results of this study may contribute to positive social change by providing research-based results on how individuals might gain additional social support to help replenish their resource pools and buffer against stress.

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Dedication

This dissertation is dedicated to my friends and family who inspired me to conduct this research by seeking support on Facebook during their time of crisis.

I would like to add a special dedication to a good friend who believed strongly in supporting others in anyway that she could. She died while I was writing this dissertation and she took the time and energy to fill out the very long survey while she was on hospice care. She was an inspiration to me in many ways. She was community minded and cared for all she met.

We should all strive to be like Vikki Paiement Hilton (1948-2015)

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I can never thank my family and friends enough for their love and support. My mother has been a huge assistance by reading, editing, and pushing me when I wanted to give up. My husband has shown great patience amid the hours and hours of research, writing, and editing that went into this study.

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And a special thank you to all the individuals who took the time to fill out my very long questionnaire.

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Chapter 1: Introduction to the Study

Introduction

Online social networking sites, such as Facebook, bridge geographical distances among friends and family by allowing them to share stories, pictures, and important and not so important events (Facebook, 2013). This study is unique because, in it, I addressed an underresearched area of online social support. Specifically, I examined Facebook use for social support using the Conservation of Resources (COR) model of stress and stress management (Hobfoll, 2001). The results of this study provide insights into using Facebook for social support and determine how well that usage maintains the resource pool. Disseminating information to the general public about how to use Facebook for social support may help individuals make positive choices in communicating their need for social support on the platform.

This chapter begins with a background section which gives a brief outline of the topics included in this study, followed by several other sections containing the rationale for the study, the problem statement, the purpose statement, and the research questions and hypotheses. The theoretical framework; the nature of the study; some pertinent definitions; the study's limitations, assumptions, and scope and delimitations; and the significance of the study are also included in the chapter. The chapter concludes with a summary of key points.

Background

Stress

Stress is generally defined by the physiological responses to the demands of a stressor, which can be stimuli or an event (Kumar, Rinwa, Kaur, & Machawal, 2013). Stress not only has a physiological effect, but also may affect mood, behavior, and cognition (Crews, 2012; Hsiao-Pei, Hung-Yu, Wei-Lun, & Huang, 2011). There are three basic types of stress: acute, distant, and chronic (Dragoş & Tănăsescu, 2010). These types differ depending on how long ago the episode happened, the intensity of the episode, and the number of similar episodes (Gill, Saligan, Woods, & Page, 2009; Hansen, Armour, & Elklit, 2012; Schetter & Dolbier, 2011). There are four basic models of stress: stimulus, response, interaction, and transaction. In the stimulus-based stress model the focus is on the stimulus, which may be an event or environmental factor, as opposed to the individual's reaction as the basis for stress (Hobfoll, 1989). In the response-based stress model, stress is present whenever an individual needs to make a readjustment or adaptation due to an event. The focus of the interaction stress model is on the imbalance between the environmental stimulus and the individual's capacity to respond to the stimulus (Hobfoll, 2001). The transactional stress model is similar to the interactional model; however, it requires an appraisal system where the stimulus occurs, and, in it, individuals appraise their ability to manage the stressor (Hobfoll, 1989). The COR theory takes the transactional stress model to a new level (Hobfoll, 2011). A key tenet of COR, which refines the transactional stress model, is that the individual appraises their resource pool as opposed to appraising their ability to handle the stressor (Hobfoll,

2011). The general concept is that any stimuli may be handled if there are enough resources to take care of the stressor. There are four basic types of resources in the COR: objects, conditions, personal characteristics, and energies (Hobfoll, 1989). Object resources are physical or tangible material things such as books, clothing, food, or a house (Buchwald, 2010). Condition resources either protect the other resources or affect the acquirement or availability of other resources (Buchwald, 2010). Social norms, stereotypes, or general environment may all be considered condition resources. Social support is considered a condition resource, because it can be used to protect other resources (Buchwald, 2010). Energy resources help in acquisition of other resource types; these include money, time, and knowledge (Buchwald, 2010). For example, money is considered an energy resource because it can be consumed to acquire other resources. Personal characteristic resources are things which are intrinsic to the individual such as their personality traits (Buchwald, 2010). All stimuli or events/changes that an individual may have require resources from their resource pool (Alvaro et al., 2010). To compensate for the resource loss caused by the change, other resources must be optimized. Therefore, one type of resource, such as social support, can compensate for a weakness in another resource area such as money.

Coping

Men and women use different coping strategies and therefore use different resources from their resource pools (Hobfoll, Dunahoo, Ben-Porath, & Monnier, 1994). Women tend to be more prosocial than men in their coping. Men tend to use antisocial and aggressive means of coping but are less assertive about coping than women.

Prosocial coping, such as social support and social joining, is the positive use of social resources when faced with a stimuli or stress event and is seen as relationship enhancing, whereas antisocial coping tends to be detrimental to relationships (Stone, Hobfoll, Monnier, & Johnson, 1998). Resource pools for males and females can be developed and maintained in what Hobfoll (2011) called resource caravans. Resource caravans are places where the environmental conditions can encourage, discourage, or prevent resources from being sustained. Online communities can be used as a resource caravan in order to achieve resource resiliency and rebuild by reweaving the elements of culture that become torn when major personal, social, and economic events impact an individual.

Social Support: Online

Bunde, Suls, Martin and Barnett (2006) found that individuals seek social support from on-line internet interactions. The reasons for using on-line support are either because there is a lack of social support available in the individual's immediate environment, the individual avails themselves of all kinds of support, or they are seeking supplemental support to increase their existing resources. One key component of social support, on-line or face-to-face, is gaining validation from others. By using social media, individuals are able self-identify with a group or a community which shares their beliefs, values, and goals while remaining autonomous (Decaro & Stokes, 2008). Communication and comparison with people with similar experiences help individuals to gauge the appropriateness of their feelings as well as to acquire useful information and emotional support (Bunde et al., 2006). In Bunde et al. (2006), women who had used a hysterectomy support site generally reported that they had very supportive significant

others and did not feel that they were lacking social support outside of the website. However, they felt the website augmented their existing social support. A multidimensional social support with various types of social support, is more important than length of conversation or quantity of information given (Fukkink, 2011). It has been found that empathy between individuals, such as when there is a shared illness or issue, provides a deeper perception of social support than an individual who is merely qualified such as a professional councilor. Therefore, individuals may take the opportunity to seek on-line social support to sustain their resource pool.

Social Networking

Concerns with using on-line chat or social media include negative psychosocial effects such as disembodiment (Kang, 2007). Disembodiment is a predictor of increased loneliness and depression, as well as decreased social support. However, depending on the motivations of the social media, communicating on-line contributes to decreased off-line estrangement and depression, and increased happiness. Individuals have been found to use Facebook as an extension to their face-to-face interactions (Kujath, 2011). User profiles on Social network sites (SNSs) allow for acquaintances or those with similar interests to be able to find each other on the site. These profiles make it easier for prior face-to-face interpersonal relationships to continue online. This online connection may strengthen existing interpersonal relationships by giving greater access to friends and relatives. Face-to-face relationships are being maintained by online social networking communications. Social networking has become widespread over all sorts of electronic devices. People use their smart phones, tablets, computers, and videogame units as

means to communicate and connect to others. SNSs connect individuals in a direct person-to-person manner by giving individuals an opportunity to connect, communicate, and remain in contact with others in their social network (Ellison, Steinfield & Lampe, 2011; Huang & Lin, 2011).

Facebook

Facebook is a social networking site founded in 2004 as a communication tool at Harvard University (Sunday Indian, 2012). It was later opened to other universities then corporations. Finally, it was opened in 2006 to anyone over 13 years old. Originally an internal communication tool at Harvard, Facebook is now used as a tool to connect friends and family (Facebook, 2013). As of June 2013, there was an average of nearly 700 million daily active users of which around 80% of those users were from outside of North America. Bonds-Raacke and Raacke (2010) found that 87% of their study participants used a social networking site such as Facebook for 2.5 hours a day with an average of 235 friends in their networks. The general reasons for using the site were to keep in touch with old and new friends, to post and view photos of friends and family, and to feel connected. As Facebook grows, so do the uses for Facebook. Although there have been studies showing the positive uses of Facebook there have not been any that show Facebook being used to maintain an individual's resource pool to manage stress. The objective of this study was to better understand how individuals are currently using Facebook to maintain and build onto their social support networks thus adding resources to their resource pools.

Problem Statement

Stress and anxiety are related to various health-related issues such as cardiac problems, stroke, hypertension, and headaches (Maddock & Pariante, 2001). Productivity, memory, and cognitive issues increase when an individual is stressed. Therefore, it is healthier for individuals to reduce stress in their lives. The COR theory is helpful in explaining the relationship between resource loss and increased stress and anxiety (Hobfoll, 1989). The theory enables an understanding of how individuals maintain, gain, and lose resources. There are four general categories of resources in COR theory: objects, conditions, energies and personal resources (Hobfoll, 1989). Each resource category plays a part in coping efforts and can be gained. Although social support is considered a condition resource, it relates to all four categories in that the support system can contribute to or deplete the resource pool (Hobfoll, 1989). Social support is defined as including emotional support (showing concern and sympathy), informational support (offering advice or feedback), practical support (offering money or a service), and/or socializing support, companionship or validation of choices (Lin & Bhattacherjee, 2009).

Social support systems help to buffer against stress and anxiety via COR (Hobfoll, 1989). Therefore, individuals need to seek social support to help keep stress to a minimum. When there is a crisis, the individual needs to expend a great amount of their resource pool in order to gain the support they need (Hobfoll, 1989). For example, they need to make phone calls to inform family members and friends about what is happening. This takes time and energy and retraumatizes the individual as they must

recount the crisis again and again. There are also phone calls and visits from well-wishers, again taking time and energy away from the individual. Traditionally, individuals have sought support by using face-to-face and phone communication. Copious literature shows the need for social support to reduce stress and to back up the COR theory (Hobfoll, 1989, 2001, &2011). However, based on my review of the literature, there is very little research addressing online support systems and no research on Facebook usage as a way to gain or maintain a resource pool.

Purpose Statement

The purpose of this quantitative study was to explore whether using Facebook as a source to access social support could maintain the resource pool and give individuals access to not only emotional support but access to all categories of resources. I examined individuals' perceptions of social support on Facebook as well as the gains and losses of their resource pools when using Facebook as a social support system. Kang (2007) found that females were more likely than males to have greater online networks. However, Kang (2007) did not examine how this network difference affected resource pool usage. Regarding age differences, Baams, Jonas, Utz, Bos, and Van der Vuurst (2011) found that younger online users of social networks join as a means of social bonding. Given these previous findings, a secondary aim of mine was to examine gender and age differences in online resource pool use.

Research Questions and Hypotheses

RQ1: What are the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of

Facebook friends who are also in the participant's face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain?

Null Hypothesis 1: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource loss composite score.

Null Hypothesis 2: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource threat composite score.

Null Hypothesis 3: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource gain composite score.

RQ2: To what extent do the set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group) differentially predict resource loss, resource threat, and resource gain; and which predictors account for any differential? Let R_{Loss} = the multiple correlation of resource loss regressed on the set of predictors; R_{Threat} = the multiple correlation of resource threat regressed on the set of predictors; and R_{Gain} = the multiple correlation of resource gain regressed on the set of predictors.

Null Hypothesis 4: There will not be a significant difference between R_{Loss} and R_{Threat}.

Null Hypothesis 5: There will not be a significant difference between R_{Loss} and R_{Gain}.

Null Hypothesis 6: There will not be a significant difference between R_{Threat} and R_{Gain}.

Theoretical Framework

Hobfoll's (1989) conservation of resources theory (COR) was the main theory used in this study. In COR theory, an individual has a resource pool from which they can draw to help cope with stress and anxiety (Buchwald, 2010). As the resource pool is depleted, an individual's anxiety level increases while, when the resource pool is full, there are resources to help absorb any increased stress. According to Buchwald (2010), there are four general categories of resources. Objects are anything concrete or tangible which may include computers, a room of one's own, books, people, or other tools needed for the job at hand. Conditions are used to acquire or protect resources and may be environmental in nature. Energies are resources which allow access to other resources such as time, money, and knowledge. Finally, there are personal resources, which are one's own skills, traits, and characteristics. An example of a very low resource pool would be an individual who is homeless, has no family and friends, has no money, and is an alcoholic. On the other end of the spectrum would be a multimillionaire who has several homes, many family and friends, and has a college education.

Most individuals are between these extremes. At any given time, individuals may be facing a situation in which their resource pool is depleted, and their anxiety increases (Morelli & Cunningham, 2012). An example of this would be if an individual is traveling alone for a job interview and his or her plane is late. This delay puts you in a time crunch. Your resource pool is depleting due to the condition of the job interview, the time crunch, and the lack of social support. If you are new to traveling you may become further depleted because of your lack of knowledge. If you could reach out to a friend or

family, you could start to increase that resource pool and stabilize yourself. I examined social support to examine whether using Facebook is adequate for maintaining the resource pool and helping with the stabilization of stress and anxiety. Chapter 2 includes more discussion of COR theory and Facebook use for social support.

Nature of Study

The nature of this study is a quantitative cross-sectional correlational design. Correlation designed studies look at the relationship between the variables (Field, 2013). This design method shows if there is a relationship between Facebook use for social support and resource pool maintenance. Causal statements are not able to claim that using Facebook does maintain the resource pool; however, it is an exploration into what may help to stabilize an individual's social support resource pool. For this study, data was gathered via SurveyMonkey from Facebook users over the age of 18. The data was analyzed by a series of three multiple regression analyses using SPSS software. This was conducted by regressing each of the dependent variables (resource loss, resource threat, and resource gain) on the same set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group) testing each of the first three null hypotheses and answering the first research question. To answer the second research question, three pairwise differences (R_{Loss} vs R_{Threat}; R_{Loss} vs R_{Gain}; and R_{Threat} vs R_{Gain}) of the multiple-*R*s for each dependent variable were tested using Diebold's (2013) Excel spreadsheet calculator of Williams T test for overlapping correlations (Steiger, 1980).

Definitions

General

Facebook is a social networking platform that was created in 2004 to facilitate communication more efficiently among family, friends, and acquaintances (Facebook, 2013).

Face-to-face social support is support given to the participant on a regular basis by face-to-face or telephone meetings with family, friends, or significant others.

Facebook social support is support given to the participant on a regular basis by individuals who interact and communicate publicly and privately through Facebook.

Social networking sites (SNSs) are Internet-based websites that enable online communications between people for professional or personal reasons to share ideas, activities, events, and interests (Acar, 2008).

Social support is defined as at least two individuals exchanging knowledge, information, practical assistance, emotional empathy and/or comfort aimed at increasing the well-being of the receiver (Bunde et al., 2006; Kross et al., 2013; Kujath, 2011; LaCoursiere, 2001).

Variables

Stress was measured using the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983). The scale is used to measure an individual's perception of their current stress level as well as how stressful they appraise life events to be (Cohen et al., 1983).

Age is the current biological age of the participant.

Sex is the biological status of the participant, which is typically categorized as male or female (APA, 2011).

Number of Facebook Friends is the actual count of people on the Friend list of the participant's Facebook account regardless of how well known they are to the individual.

Percentage of Facebook Friends who are also in the participant's face-to-face support group is determined by dividing the Facebook friends who are also part of face-to-face support group by the total number of Facebook friends

Resource Gain is when the availability of a resource has increased for the participant (Hobfoll, 2006).

Resource Loss is when a resource has decreased in availability to the participant (Hobfoll, 2006).

Resource Threat is when the participant perceives that there may be a loss of a resource, but no actual loss has occurred (Hobfoll, 2006).

Assumptions

It was assumed that participants gave an accurate report of their resources and symptoms of stress. All participants were assumed to be 18 years old or older and met the inclusion criteria for the study. It was assumed that, based on the straightforward and simply stated format of the questionnaire and its validation results, participants were able to comprehend the questions asked.

Scope and Delimitations

The scope of this study was limited to the population demographics of the participants that took part. People under the age of 18 were excluded from the study.

Population demographics and covariates were collected and analyzed as possible confounders. The over 18 population was used due to their expanded social support network. Children under 18 tend to have a smaller social network which would be limiting for this study.

The delimitations for this study were that all participants had to be users of Facebook and over 18 years old. Individuals under 18 years old were not utilized in this study and therefore the information learned was not generalized to that population.

Limitations

The sample population investigated in this study was a limitation and may have limited the study's generalizability. The survey was an anonymous self-report on-line questionnaire. All scales which were used are designed for self-reporting and were valid and reliable. However, given the self-report nature, the subjects may not have accurately or honestly answer the questions. The utilization of on-line questionnaires can create a bias towards computer users as opposed to individuals who use cell phones to view Facebook. Therefore, individuals who use Facebook on their cell phones exclusively were instructed to use a computer to take the survey. The anonymous nature of the questionnaires meant the participants were not be able to ask for clarification during the survey which may have caused some inaccurate information to be gathered.

Significance

Stress and anxiety have been shown to cause physical and cognitive issues for individuals (Kumar, et al., 2013). Social support has been shown to reduce stress and anxiety through Conservation of resources theory (Hobfoll, 2006). When discussing

social support systems, most literature looks at the subject from a face-to-face interaction (Kujath, 2011; Alvaro et al., 2010). This project is unique because it addresses the under researched area of on-line social support. The results of this study provide insight into using Facebook for social support and maintaining the resource pool. On-line social media such as Facebook are becoming a part of normal daily life for many individuals. Understanding how Facebook increases the resource pool can help physicians and psychologists recommend additional tools for better stress management. For the general public, it will be helpful for them to have a place where they can receive social support in a time of need. By minimizing the depletion of their resource pools and by reducing stress, people will be healthier, aiding in the reduction of healthcare costs related to stress.

Summary

Chapter one gives a brief overview of stress, models of stress, coping, social support, social networking, and Facebook use. These topics will be explored further in chapter 2 as well as their relevant research. Included in chapter 1 are several sections describing why the study needs to be conducted. One of the major issues with face-to-face social support is the potential of retraumatization when the individual has to continually repeat what the issue is to their support network. By using a social media outlet such as Facebook the individual only needs to state the issue once. This study will explore how well using Facebook for social support maintains and potentially helps to increase the resource pool for the individual. Also included in chapter 1 are the theoretical framework, the nature of the study, pertinent definitions, the study's

limitations, assumptions, significance, scope and delimitations. The purpose of Chapter 2 is to explore the study topic in depth.

Chapter 2: Literature Review

The following literature review was conducted using Walden University Library resources and Google Scholar, which I searched to obtain academic journal articles concerning stress; stress models; social support; Facebook; and resource maintenance, loss, and gain. The majority of the literature reviewed is from the past 5 years with a few valuable resources from as early as 1989, specifically with regards to historical information pertaining to COR theory. In this chapter, I discuss the damaging effects of stress and anxiety, the development of the COR theory, the role of social support in stress management, the role of social support in face-to-face and online encounters, and the role of social network sites in social support and stress management.

Introduction

The purpose of this study was to explore whether using Facebook as a source to access social support could maintain the resource pool and give individuals access to not only emotional support but access to all categories of resources. The study examined individuals' perception of social support on Facebook as well as the gains and losses of their resource pools when using Facebook as a social support system. A secondary aim of the study examined gender and age differences in online research pool use. Kang (2007) found that females were more likely than males to have greater online networks. However, Kang's study did not examine how this network difference affected resource pool usage. Baams et al. (2011) found that younger online users of social networks join as a means of social bonding.

Stress and anxiety are related to various health related issues such as cardiac, stroke, hypertension, and headaches (Maddock & Pariante, 2001). Productivity, memory, and cognitive issues increase when an individual is stressed. The conservation of resources (COR) theory explains the relationship between resource loss and increased stress and anxiety (Hobfoll, 1989). The theory explains how individuals maintain, gain, and lose resources. Social support systems help to buffer against stress and anxiety via COR (Hobfoll, 1989). There is plenty of literature showing the need for social support to reduce stress and to back up the conservation of resources theory (Lin & Bhattacherjee, 2009). However, there is very little literature addressing online support systems and no literature looking at Facebook usage as a way to gain or maintain a resource pool.

Defining Stress

Stress is a difficult concept to define. There is literature to support stress as an objective concept as well as a subjective concept. Objectively, stress is generally defined by the physiological responses to the demands of the stressor (Kumar et al., 2013). A reaction to a stressor causes a hyperactivation of the hypothalamus-pituitary-adrenal axis and the autonomic nervous system (Hsiao-Pei et al., 2011). The stress reaction sends various chemicals and hormones racing through the body to prepare it for flight or fight. Dopamine and serotonin act as neurotransmitters affecting mood and behavior. When levels of dopamine and serotonin are changed due to the influence of a stress reaction, they can cause depression or mania (Hsiao-Pei et al., 2011). The immune system also becomes stimulated by the hormones and chemicals released through the Hypothalamus-Pituitary-Adrenal axis process (Crews, 2012). This stimulation overworks the immune

system increasing chemicals such as cortisol that activate pro-inflammatory cells and cause inflammation as well as increasing the risk for inflammatory diseases such as multiple sclerosis (Kern et al., 2013).

In addition to objective physiological responses, stress can also be defined by cognitive or emotional subjective response to the stimuli (Hsiao-Pei et al., 2011). Hsiao-Pei et al. (2011)'s definition of stress starts with a cognitive appraisal of an event or stimuli to decide if the event or stimuli needs a reaction or can be ignored. After the initial appraisal of the event or stimuli there may be a secondary appraisal as to whether the individual has the resources or coping mechanisms to deal with the event or stimuli. These cognitive appraisals are the perceptions of the individual. The perceptions can be positive or negative, severe or slight, motivating or debilitating. Each individual was asked to draw from their culture, past experiences, and knowledge to determine whether or not an event or stimulus is stressful. What may be appraised as stressful by one person may not be by another.

Types of Stress

Dragoş & Tănăsescu (2010) found there are three basic types of stress: acute, distant, and chronic. Acute stress is a common type of stress. This stressor is limited by time and is episodic. A stressor causes a response, possibly even an intense response but only during the time of the stressor. During an exposure, the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system both play a part in getting the hormones and chemicals to the stressor to where they can help protect the body by increasing cellular immunity. Through the flight or fight response in the system, the body prepares

to clot and ward off bacteria that may invade through a wound. Acute stress may lead to a little more long-term reaction where the individual is diagnosed with acute stress disorder (Hansen et al., 2012).

Gill et al. (2009) classified distant stress as a stressor that happened a long time ago and is not bound by time and episode. This type of stress affects the immune system differently because the constant psychological stress exerts an excessive demand on regulatory functions of the body causing inflammatory issues. The body's immunoglobulin and other infection fighters spend their time battling the constant barrage of inflammation and exhaust the supply leaving the body defenseless against real invaders such as the cold and flu. Combat veterans and individuals who experienced child abuse are typically thought to be affected by distant stress. They are continually affected by cognitive and psychological factors that perpetuate the traumatization keeping them in a chronic state of stress. Sufferers of distant stress may also develop posttraumatic stress disorder (PTSD).

Schetter & Dolbier (2011) defined a third type of stress as chronic stress. Chronic stress is caused by a forced change in the individual's identity or social role. One enduring feature of chronic stress is there is no clear ending to the stressor. This is very different from the episodic nature of acute stress; this is more of a constant ongoing demand that threatens the resources of the individual. Chronic stress impairs the body's regulatory systems causing a decrease in immune-functions of the body (Schetter & Dolbier, 2011). This is due to the constant adaptation to various stressors. Diseases such as diabetes cause chronic stress because of the constant demand for lifestyle changes and

physiological stress it puts on the body as the disease changes and adapts (Morris, Moore, & Morris, 2011).

DSM-V Stress Disorders

Acute stress disorder occurs within 4 weeks of the traumatic incident and lasts for at least 2 days up to 4 weeks (James & Gilliland, 2013). The diagnostic criterion for acute stress disorder has several components that start with the incident itself. The individual has witnessed, experienced, or perceived an event that threatened death or serious injury to themselves or others. Their response to the incident involves intense fear, helplessness, or horror. The individual begins showing symptoms two days to one-month post stressor incident. The individual experiences at least three dissociative symptoms (Bryant, Friedman, Spiegel, Ursano, & Strain, 2011). These symptoms include depersonalization, derealization, dissociative amnesia, a feeling of detachment or feeling numb, an absence of emotional responsiveness, or a decrease of awareness of their surroundings as if dazed or zombie-like. Another criterion for acute stress disorder is re-experiencing the trauma either with nightmares, flashbacks, reoccurring images or thoughts, or distress when faced with reminders of the trauma. Individuals significantly avoid stimuli that cause recollections of the trauma including odors, objects, events, thoughts, conversations, and people. Individuals with acute stress disorder experience anxiety and increased arousal symptoms such as hypervigilance, insomnia, irritability, poor concentration, and motor restlessness. And finally, the problems noted above must cause significant impairment socially or occupationally, or the symptoms may impair tasks and general daily functioning for the individual.

Acute stress disorder lays the foundation for the individual to shift to a more distant stress such as PTSD (Bryant, 2006). An individual may be diagnosed with PTSD after being diagnosed with acute stress disorder, and frequently acute stress disorder does lead to a PTSD diagnosis. In order to be diagnosed with PTSD an individual must meet several criteria. The individual needs to have been exposed to a trauma where they were either threatened (real or perceived) or involved with serious injury or possibility of death. They re-experience the trauma in some way. They avoid stimuli in at least three different ways. They suffer from three or more arousal indicators (Hinton & Lewis-Fernández, 2011). Symptoms impact the individual socially, occupationally, or in other important daily functions. PTSD cannot be diagnosed until 4 weeks post-trauma. Acute stress disorder shares many similarities with PTSD in that the individual has experienced or perceived trauma, they experience arousal indicators (i.e., sleep issues, concentration issues, and irritability), avoidance of stimuli, and re-experience of the trauma (Bryant et al., 2011). Along with these symptoms the individual also experiences at least 3 dissociative symptoms. They may feel numb or detached, be less aware of their surroundings like they are dazed, may have dissociative amnesia, suffer from depersonalization or derealization.

Individuals returning from combat are susceptible to PTSD. One group of symptoms, labeled “intrusive symptoms.” involve re-experiencing the trauma (Shad, Suris, & North, 2011). Intrusive symptoms are very common for returning military personnel. Flashback is a common intrusive symptom. Flashbacks can be triggered from sights, sounds, or smells, and occur while the individual is awake. The individual has

flashes of the incident occurring as if it is happening again to them. It is more than just a memory but something that is not able to be controlled by the individual.

Another common group of symptoms for the veteran is the hyper-arousal group. This group includes things like sleep disturbances, irritability, hyper-vigilance, and angry outbursts. Sleep disturbances include issues such as insomnia and nightmares. Insomnia may be attributed to a hyper-aroused sympathetic nervous system. All of the various symptoms of PTSD react with each other perpetuating a cycle that needs to be broken for the individual to heal.

Early intervention is important when treating PTSD (Creamer, Wade, Fletcher, & Forbes, 2011). Trauma-focused cognitive behavioral therapies are usually the first option offered to returning veterans. These types of therapies help the individual face the traumatic event and the fear that haunts them. They also receive assistance with dealing with the triggers they experience in everyday life. It helps with adapting to life after trauma. Another therapy that frequently helps with symptoms is eye movement desensitization and reprocessing (EMDR) (Silver, Rogers, & Russell, 2008). EMDR addresses and helps to minimize the effects of the traumatic experiences, triggers of the symptoms of PTSD, and anything that may block effective functioning. These are both effective non-pharmacological treatments for combat related PTSD.

Stress Models

There are four basic models of stress; stimulus, response, interaction, and transaction. In the response-based stress model, stress is present whenever an individual needs to make a readjustment or adaptation due to an event (Hobfoll, 1989). The event

may be positive or negative in order to be considered a stressor. It may also be something very minor such as running out of coffee and needing to drink something else or it can be something major such as a death of a loved one. The response-based model treats all stress the same, regardless of intensity or individual differences for buffering against stressors. It is simply judging that there is a response needed in order to react to the individual's environment.

In the stimulus-based stress model the focus is on the stimulus that may be an event or environmental factor as opposed to looking at the individual's reaction as the basis for stress (Hobfoll, 1989). The thought is that different types of stressors would result in different reactions and different outcomes. This model takes into account the differences between acute, chronic, and distance stressors. The weakness in the stimulus-based model is that the lines can be blurred for what is considered a stimulus since it can differ for each individual in intensity. For one person, being late to work may be highly stressful. However, for another the situation may not be stressful or even a stressor. Another weakness is that the stimulus-based model does not take into account buffering against stimuli, such as training to deal with that specific situation.

The interaction stress model looks at the imbalance between the environmental stimulus and the individual's capacity to respond to the stimulus (Hobfoll, 2001). This model does take into account buffering against the stimuli as well as the intensity of the stimuli. The interaction model looks at the situation more as a business interaction such as a supply and demand interaction. The environmental stimulus poses a demand on the individual needing them to supply the response. If the individual lacks what is needed to

respond to the stimulus they feel a greater strain or stress. If the individual perceives that they have what they need to meet the stressor's demand then they may end up not feeling any strain and may become demotivated (Buchwald, 2010). In the interaction model stress is not inherent in the event, as it is with the response-based model, nor does it rely on the stimulus to explain the level of stress. Instead it takes into account the resources available to the individual to cope with the stressor.

Transactional stress model is similar to interactional, however it requires an appraisal system where the stimulus occurs and the individual appraises their ability to deal with the stressor (Hobfoll, 1989). At the time the stimulus happens an initial appraisal occurs to judge whether the stimulus is threatening or challenging. Next a secondary appraisal occurs to determine what the individual possesses to cope with the stimulus. When the coping capability is less than needed for the stimulus it is considered to be a stressor. Next assessment is the depth of the stressor or how far out of the individual's ability to cope with the stressor. This model is more cognitive and motivationally based. The transactional stress model does take into account the buffering effect of the resources as a means to help individuals cope with the demands of the stimuli. In other words, the more resources an individual possesses the better at coping with stressful stimuli. The model does not differentiate between positive and negative stimuli. This means that positive stimuli are also seen as endangering the well-being of the individual. It is a model that assesses the resources the individual possesses as well as the demands of the stimuli (Hobfoll, 2011). However, neither the resources nor the demands are well defined. In this model resources are defined as decreasing demands

and demand is defined as taxing resources. This means that demands, resources, and stress are all determined after the fact and therefore the resource-demand balance is not able to be predicted or controlled.

Conservation of Resources (COR) Theory Model

The conservation of resources theory (COR) takes the transactional stress theory to a new level (Hobfoll, 2011). In this theory the resources are defined, and the buffering effect is taken into account. The demands on the resources by stimuli are not the central concept in COR as it is in the stimulus-based stress model. COR is a resource-based model of stress. The general concept is that any stimuli may be handled if there are enough resources to take care of the stressor. There are four basic types of resources in the COR: objects, conditions, personal characteristics, and energies (Hobfoll, 1989). Object resources are physical or tangible material things such as books, clothing, food, or a house. Condition resources either protect the other resources or effect the acquirement or availability of other resources. Social norms, stereotypes, or general environment may all be considered condition resources. Social support is considered a condition resource because it can be used to protect other resources. Energy resources help in acquisition of other resource types; these include money, time, and knowledge. For example, money is considered an energy resource because it can be consumed to acquire other resources. Personal characteristic resources are things that are intrinsic to the individual such as their personality traits. A person who is emotionally controlled may deal with anxiety better than someone who worries easily. Individuals strive to protect, retain, and obtain these resources. When the resources are depleted, threatened or perceived to be

threatened, such as a computer issue while trying to write their dissertation, then the individual experiences stress and anxiety (Alarcon, Edwards, & Menke, 2011). Stress and anxiety may also occur if the individual does not have adequate resources to meet the resource demand of a situation. For example, if the individual receives a bill for $200 and they only have $100 this may be a cause of anxiety for them. A third source of anxiety is actual resource loss such as a member of the support system dying or moving away, causing the individual stress.

COR Research

Hobfoll (1989) presented a resource-oriented model of stress with the goal of creating a clear framework to define stress. Previously, stress models were difficult to empirically test directly. This model of stress became the conservation of resources theory. In 1993, Hobfoll and Lilly (1993) stated resource loss was disproportionately weighted when compared to resource gain. This means that a resource loss is more of an issue in determining stress than a resource gain is in preventing stress. However, resource gain is important for buffering against stress reactions due to resource loss. The authors further showed that while resource loss is more rapid than resource gain, having an extended resource reservoir is important to regain lost resources more quickly. Not only is resource loss an issue, but the lack of resource gain can cause burnout in the workplace (Hobfoll, 2001). Hobfoll viewed burnout in the work environment through COR theory. Concrete and social factors may stand in the way of using resources effectively or may inhibit regaining resources as they are used. Cultural issues leading to gender, ethnic, or religious bias could be considered social factors which inhibit effective

use of resources. Concrete factors, such as appropriate tool and material use for work are examples of using resources effectively. In 2011, Hobfoll (2011) further explored the organizational psychology side of COR by looking at how employers can offer a caravan of resources for employees. The premise is that if employers offer a caravan or community of resource support this will promote excellence, dedication, and commitment to the organization. Not only when an organization provides resources, but also when they help to protect, foster, or pool resources they are creating an ecology or caravan of resources.

Other researchers are invested in COR theory and are expanding out from the organizational psychology realm. Zamani, Gorgievski-Duijvesteijn, & Zarafshani (2006) examined the psychological consequences of disasters using conservation of resources theory as a basis for understanding stress and coping. The authors found that there was a gap in the literature on individual level coping and resource appraisal since the majority of disasters studied were acute fast-moving disasters. Alvaro et al., (2010) used the COR theory as a framework for exploring the motivations for health organizations not using research evidence to improve policies and procedures within the healthcare setting. The authors found healthcare systems that lacked resources were more conservative and did not invest their limited resources in research or in using new research evidence in their facilities. Furthermore, they began the exploration into how perceived threats to resources between high-, middle-, and low-resource social groups could be affected by policies. Much of the research on COR theory has been in either a community setting or in an organizational setting. Buchwald (2010) took COR theory

into a slightly different direction and looked at test anxiety and performance on tests using COR as a framework. Slight increase of anxiety can help to motivate an individual to perform at a higher level; yet if the anxiety becomes too great then the individual's performance decreases. Some resources can be substituted for others to fill in a gap, such as a tutor may fill in for a lack of text books. However, not all resources are equal, and one cannot always be exchanged for another (Morelli & Cunningham, 2012). Additionally, individuals can appraise resources at different values. Morelli and Cunningham (2012) explored the relationship between motivation to protect resources and how the individual appraised the value of the resource. These appraisals of the resources affect how an individual cope with stressful situations. An individual who values monetary resources highly may use money to deal with a stressful situation. They may not fight as hard to keep a social support system in place yet feel violated if there are any threats to their money supply. On the other hand, an individual who appraises the social support resource highly may not feel the depletion of the monetary resource as greatly as they would be losing one person in their support system.

Coping

The Dual-Axis Model of Coping (DAMC) was developed to address coping in a social context (Hobfoll et al., 1994). The DAMC consists of two continuum type dimensions of coping. These dimensions are an active to passive dimension and a prosocial to antisocial dimension. The DAMC increases general understanding of social implications of coping strategies (Stone et al., 1998). For example, antisocial coping strategies may reduce stress of the individual but damage interpersonal relationships.

These types of coping may also help one individual while harming another. Men and women use different coping strategies and therefore use different resources from their resource pools (Hobfoll et al., 1994). Women tend to be more prosocial than men in their coping. Prosocial coping, such as social support and social joining, is the positive use of social resources when faced with a stimuli or stress event and is seen as relationship enhancing, whereas antisocial coping tends to be detrimental to relationships (Stone et al., 1998).

Men tend to use antisocial and aggressive means of coping but are less assertive about coping than women (Hobfoll et al., 1994). Prosocial coping provides additional social resources overtime whereas antisocial may deplete social resources needed for future events (Stone et al., 1998). In the past, active coping was identified as problem-focused coping (identified as masculine) and passive coping was identified as emotion-focused coping (identified as feminine). In the DAMC, active and passive coping strategies are seen as levels of social-network-oriented coping, i.e. the greater amount of social-network involvement is active and less social-network involvement is passive. Stone et al., (1998) found women used coping strategies that enhanced social support and men focused solely on problem resolution without regard as to how it impacted on social support systems. Active coping relates to lower emotional distress for both men and women, however both prosocial and antisocial coping are related to greater emotional distress for men but not women.

Social Support

Social support has been shown to have a beneficial effect on general well-being and has a buffering effect against stress. High levels of social support directly relate to lower levels of distress and increased general well-being (Graham & Barnow, 2013). Family, friends, and partner support all have a direct effect on an individual's well-being. Social support has a beneficial effect of buffering against negative effects of stressful situations by minimizing perceived stress or aiding in healthier responses to the stressors. The beneficial effects of social support are maximized when the support provider understands what the support receiver needs and wants. If the support is unwanted then there can be a negative effect due to mismatched needs and support provided. For example, if an individual needs a ride to work and the support provider is offering advice it may not be a good match of support to needs.

According to Cutrona and Suhr (1992) there are five general categories of social support: emotional support, informational support, esteem support, network support, and tangible support. Emotional support includes relationship building as the foundation of closeness between individuals. The ability to express sympathy and empathy to others are also emotional support as they show regret or understanding for the situation the individual is in. This helps to validate the individual's feelings and creates an environment where the individual does not feel like they are facing the situation alone. Some show emotional support by offering prayers for the individual while others may use physical contact such as hugs and kisses to show support. Informational support or knowledge sharing can be shown by offering advice or referrals to other sources of

assistance. Appraising the situation and offering detailed information are two other ways to offer informational support. Giving esteem support boosts the individual's self-esteem by offering positive comments and compliments, validating their point of view by agreeing with them or helping to alleviate feelings of guilt the individual may have about the situation. Offering companionship or providing access to new people or assistance is an example of network support. Tangible support includes lending money, taking an active participation in an activity to help relieve stress or anxiety, and helping in tangible ways such as offering a ride.

Face-to-Face vs. Online Social Support

There have been conflicting viewpoints in the literature as to whether or not internet use has negative effects on individual's well-being and social interactions. For example, chatting online has been associated with a decrease in face-to-face communication with family members, a decrease in off-line social circle size, and an increase in feelings of loneliness and depression (Hu, 2009). Kross et al. (2013) found that while direct social interactions (face-to-face, off-line interactions) predicted an increase feeling of well-being, Facebook use predicted a decreased feeling of well-being for individuals who also had a moderate amount of direct social interactions. However, loneliness predicted an increase in Facebook use. Increased online chatting has been linked to disembodiment as a predictor of depression and loneliness (Kang, 2007). Disembodiment is thought to be caused by limited physical sensory information indicating a decrease in non-verbal communication. Nods, facial expressions such as a smile, and physical contact add warmth and understanding to the communication between

individuals when face-to-face in real-life situations. To compensate for the lack of non-verbal communication cues, individuals are likely to increase self-disclosure when communicating online. Bunde et al. (2006) found that individuals who lacked social support in face-to-face situations did not tend to seek support online. Those who did seek support online found that online support did not take away from face-to-face support but enhanced the overall social support. They were able to share information and receive emotional support from others the same situation through online support while still receiving support from their face-to-face social support network. Some individuals do rely on Facebook and other online communications in place of face-to-face for social support. However, many use Facebook as an extension to their face-to-face interactions (Kujath, 2011). User profiles on SNS allow for acquaintances or those with similar interests to be able to find each other on the site. These profiles make it easier for prior face-to-face interpersonal relationships to continue online. This online connection may strengthen existing interpersonal relationships by giving greater access to friends and relatives. Relationships are being maintained by online communications.

Social Capital

The term social capital refers to the benefit an individual derives from social relationships (Ritchie, 2012). It is the connection between individuals where a reciprocity and level of trust is developed. Social capital may include social resources such as emotional support, knowledge sharing, and exposure to new ideas. These connections may be developed or maintained through various social networks. Lin (2011) described three social capital dimensions including a structural dimension (social interaction), a

relational dimension (social trust), and a cognitive dimension (social codes or norms). Social interaction, social trust, and shared social codes have been found to be predictors for engagement in social behaviors (Huang & Lin, 2011). Group interactions and social cues trigger an arousal response that induces individuals within the group to share knowledge and display social support behaviors. In a broad sense, social capital can be defined as reciprocities and achieving mutual goals of individuals within social networks (Ritchie, 2012). Overall well-being of the individuals within the social network community is a reflection of the availability of the social capital of the social network. This was explored by the social support section of the survey as well as the Facebook usage section.

Social Networking

Social networking has become widespread over all sorts of electronic devices. People use their smart phones, tablets, computers, and videogame units as means to communicate and connect to others. Social network sites (SNSs) connect individuals in a direct person-to-person manner by giving individuals an opportunity to connect, communicate, and remain in contact with others in their social network (Ellison et al., 2011; Huang & Lin, 2011). Rau, Gao, and Ding (2008) found that while individuals tend not to use SNS as a means to gather knowledge, they do use the sites as a means to share knowledge, obtain social support, and interact with others. Ellison et al. (2011) found on SNSs, the more friendships individuals had represented pre-existing offline connections and were predictors of social capital. However, new relationships forged online enable individuals to broadcast out to a greater audience for social support and information.

Unlike Rau et al. (2008), Ellison et al. (2011) found that individuals perceived information gathering as social capital.

The interactive nature of SNSs gives individuals an opportunity to increase their number of social contacts as well as improve the quality of current relationships. Coyle and Vaughn (2008) found that SNSs aid in reminding individuals to attend to their interpersonal relationships. This is done with flowing newsfeeds keeping the activities of friends in the forefront of the individual's home page within the SNSs. The ease and convenience of being able to communicate using SNSs aid in development and ability to sustain close relationships. Individuals tend to find that participating in SNSs offers them a sense of anonymity leading to an increase in personal disclosures and emotional expressions (Qiu, Lin, Leung, & Tov, 2012). In both offline and online relationships, individuals tend to put a more positive emotional light on themselves. However, the spread between positive and negative emotional expression is greater in the online environment. If the only motivation for online communication is to disclose and not reciprocate with support and knowledge sharing then negative relational outcome will result (Ledbetter et al., 2011). This is true for both online and offline relationships.

Types of Social Networking Sites

SNSs give individuals an opportunity to connect with others who have similar interests (Sheldon, 2008). Some SNSs are focused on one particular subject matter such as a support site for families affected by children with cancer (Coulson & Greenwood, 2012). These types of sites create a sense of community around the specific subject. Connecting online offers informational support as well as shared experiences, creating a

sense of community and strong social support. It gives individuals in similar situations an opportunity to communicate and compare their situation with that of others (Bunde, et al., 2006). Issues on these types of sites include a difference in personal values and disparity in levels of knowledge and experience. Individuals may not have similar religious or cultural values and therefore may not be able to offer knowledge support to others. Another negative aspect to the online support groups is there can be a lack of replies or delayed replies from other site members (Coulson & Greenwood, 2012). On these sites the members post to a bulletin board and will not see the request for information unless they log onto the site. However, these bulletin board type of sites are great for general information gathering and knowledge exchanges.

Many online games have a social networking component where individuals can speak or send messages in real time to other players (Dholakia, Bagozzi, Klein Pearo, 2004). These sites can be a chat room-based site where individuals pick a game and a room within the game and may choose to just play the game, read what others in the room are saying or may participate in the conversation. They may also make a room private and invite specific people to join them. Other gaming sites are Mega Multiplayer Online Role Playing Games (MMORPG) where there are many people in one big game on a server (Yee, 2006). People are able to speak or type globally or to one specific person in private, similar to text messaging them or talking on the phone. While gaming sites that have a social component are useful for social interactions, they are not used specifically for socialization. Individuals are not consistently online at the same time and there is not a message center for individuals to leave a message for later viewing (Yee,

2006). Another issue is not everyone is online for the same purpose. Some may be on to socialize while others are on for achievement-based reasons. These sites are more interactive and personal than a bulletin board style site because individuals can have a real-time conversation (Dholakia et al., 2004). However, even though the network is large, it is usual for the individual players to form smaller communities called guilds. The individuals usually, then, limit their communication to these smaller communities.

MMORPG sites take a huge time commitment due to the intensity of the gameplay and therefore social support interactions only occur when the individual waits for individuals in their social group to be online and they have the time to play and talk (Asbury & Hall, 2013). Sites such as Facebook do not require the same level of time commitment and participation as MMORPG sites (Manago, Taylor, & Greenfield, 2012). Asbury and Hall (2013) found that Facebook users not only indicated a higher level of perceived social support than non-Facebook users, but they also had a higher sense of general well-being. Individuals use Facebook as a means to gather news, for entertainment, and to maintain positive relationships with family and friends. Individuals with a high Facebook usage report better overall relationships with their family.

Facebook

Facebook is a social networking site founded in 2004 as a communication tool at Harvard University (Sunday Indian, 2012). It was then opened to other universities then corporations. In 2006, Facebook opened to anyone over 13 years old. Facebook offers several ways to communicate with others. The wall is a place where people can leave each other messages or place messages on their own wall. This is similar to a bulletin

board and the recipient does not need to be online for the message to be posted. Other individuals in the recipient's social network can view the message. This message can be a typed note, a photo, video, or other type of electronic media file. The second way to communicate is by sending a private message to the individual's inbox. This is similar to sending an email but uses the Facebook platform to send messages. Again, the individual does not need to be online for the message to be sent and various media files can be attached. The third communication device is a chat feature. This is like instant messaging where the individual needs to be online to chat. Specialty pages can be created and shared with people outside of an individual's friend network (Coustasse & Slack, 2013). These pages are used to share knowledge and support for a specific illness or purpose. The specialty pages can be found by a search feature on Facebook and then the individual may join the group by clicking "Like" on the page.

Facebook Uses

Facebook originally was an internal communication tool at Harvard, it is now used as a tool to connect friends and family (Facebook, 2013). As of June 2013, there was an average of nearly 700 million daily active users. Around 80% of those users were from outside of North America. Monthly there are nearly 1.15 billion active users with 819 million using mobile Facebook products such as smart phone apps. Bonds-Raacke and Raacke (2010) found that 87% of their study participants used a social networking site such as Facebook for 2.5 hours a day with an average of 235 friends in their networks. The general reasons for using the site were to keep in touch with old and new friends, to post and view photos of friends and family, and to feel connected. As

Facebook grows, so do the uses for Facebook. Kamble (2011) felt that medical educators could use Facebook to mentor and to teach medical students. He came to this conclusion after 90% of the medical students and residents surveyed said they used Facebook as a means to de-stress and seek support. The study confirmed positive relationships between improved relationships and the number of face-to-face friends by using online social networking.

In both face-to-face and Facebook interactions, individuals tend to put a more positive emotional expression on themselves (Qiu et al., 2012). Generally, they project how they want others to view them. However, the spread between positive and negative emotional expression is greater in the online environment. This information may help other viewers to adjust for this more positive view when giving social support to others. When individuals were honest in their self-representation they had a higher perception of social support (Junghyun & Jong-Eun, 2011). This perception may be based on Facebook friends being more likely to give social support when they know that the individual is in need of support as opposed to someone hiding behind a mask of positive emotion. While the features of face to face social support such as gazing, touching, and non-verbal communication are important, electronic social communications achieved through Facebook give individuals the ability to connect to a larger social support system with the potential of enhancing satisfaction of their support needs (Sheldon, Abad, & Hinsch, 2011).

Literature Gaps

Stress can take a toll on the human body as well as the mind (Kumar et al., 2013). However, predicting the reaction to a stimulus is not easy. Each person perceives, analyzes, and responds to each stimulus in a unique manner (Hsiao-Pei et al., 2011). There are many ways to view stress and stress reactions. One way to view stress is through the conservation of resources theory (COR) (Hoboll, 2011). The COR theory bases the response of an individual to a stimulus on what is in their resource pool. There have been studies examining the COR concepts within healthcare, business settings, community settings as they respond to disasters, and classroom settings. COR has been used to explain reactions to stress, performance prediction, and motivational or demotivational factors (Buchwald, 2010). Hobfoll (2011) has begun to examine how to maintain or gain resources in a workplace by engaging caravans of resource pools for individuals to recharge when needed. Sheldon et al. (2011) stated that the larger base of Facebook friends enhanced the satisfaction of social needs for individuals who used Facebook for social support. However, there is a lack of research as to how social media can maintain or help grow the resource pools. Facebook was chosen specifically because of the large and varied user base, as well as the multiple ways a user can access friends and family (Bonds-Raacke & Raacke, 2010). In this study, I examined whether using Facebook can help maintain and increase the resource pool. Individuals filled out a questionnaire to measure their perception of their stress level, perception of social support on Facebook, and their perception of resource gain and loss when they use Facebook. Details on research design, method, and analysis are presented in chapter 3.

Chapter 3: Research Method

The purpose of this quantitative study was to determine whether there are significant relationships between the dependent variables of resource loss, resource threat, and resource gain and a common set of predictor variables: social support (Facebook and face-to-face), stress, age, sex, number of Facebook friends, percentage of Facebook friends who are also Face-to-face friends, number of face-to-face friends, and percentage of Face-to-face friends who are also Facebook friends and how each variable accounts for resource loss, threat, or gain. This chapter presents (a) an overview of the research design and the methods used in testing the hypotheses in the study; (b) descriptions of the study setting and the study population, the sample size calculation, and the eligibility criteria as well as the characteristics of participants; (c) descriptions of the research instruments; (d) the method used for data collection; and (e) discussions of the research questions and the hypotheses along with associated analysis plan.

Research Design and Approach

Using a quantitative method of research allows the research problem to be stated in specific and defined terms (Creswell, 2009). The independent and dependent variables in quantitative studies are clearly defined reducing the risk of a subjective judgment allowing the researcher to remain separated from the issue and maintain objectivity.

In this quantitative cross-sectional correlational study, data were collected from individuals over 18 years old via a Facebook link to an online survey. Correlation designed studies look at the relationship between the variables (Field, 2013). For this study, a series of multiple regressions were used to examine the relationship between

each dependent variable and the common set of predictors. Multiple regression analysis is a preferred statistical method when there are more than two predictor variables (Frankfort-Nachmias & Nachmias, 2008).

Setting and Sample

Access to and invitation for participation were via the Facebook social network site. As of April 2018, monthly, there are nearly 2.2 billion active users with 1.5 billion using mobile Facebook products such as smart phone apps (Facebook, 2018). This makes Facebook accessible 24 hours a day for many individuals. It is estimated that 58% of the population are female while 42% are males (Smith, 2014). The average number of Facebook friends is 250 (Smith, 2014). People age 65 and older account for 45% of the population, and 34% of the population are ages 18-29 years old (Smith, 2014). On Facebook, 70% of teens are friends with their parents (Smith, 2014). The average visit on Facebook lasts 20 minutes (Facebook, 2018).

Participants

The participants were users of Facebook over 18 years of age. Participants included members of both sexes and persons from all the diverse cultural and economic backgrounds found in this population.

Recruitment of Participants

After approval from the Walden University Institutional Review Board (IRB; approval number 03-04-15-0283265) authorizing this research, a Facebook page was created. The page was open access meaning that no one needs to friend or like the page to obtain the information on it. A Facebook advertisement was sent out to 200,000

individuals; this ad was at the introductory Facebook advertisement level, directing readers to the study page on Facebook. There was no direct contact between myself and potential participants. The study page included an introduction to the study and a link to a SurveyMonkey questionnaire. The questionnaire was anonymous with minimal identifiable information such as age, sex, number of Facebook friends, percentage of Facebook friends who are also Face-to-face friends, number of face-to-face friends, and percentage of Face-to-face friends who are also Facebook friends.

Informed Consent

In this study, prospective participants were given sufficient information on the study's Facebook page to decide whether to participate or not. There was no researcher contact beyond the Facebook study page reducing the possibility of researcher coercion. The study's Facebook page, as well as the first page of the SurveyMonkey questionnaire used in this study, contained a clear explanation of the purpose, duration, and nature of the study, as well as information about potential benefits, risks, discomfort, and adverse effects arising from the study. Participants were informed that there was no compensation associated with participating in the study. Participants were given the opportunity to ask questions about any issues that are not clear to them by redirecting them to an anonymous question and answer section of the study's Facebook page. The participants were informed that by answering questions on the questionnaire they consented to join the study. The participants were made aware of their rights to decline to participate in the study and to withdraw at any time. Participants were asked to affirm that they are 18 years of age or older. Participants under the age of 18 were redirected to a page thanking

them for their interest but explaining that they were not in the demographic being studied at this time. In addition to clicking a consent button on the first page of the online survey that allowed access to the questionnaire items, the last page reminded the participant of the choice to withdraw or to confirm consent by clicking a submit button.

Sample Size

The sample size is based on the number of predictor variables, alpha level, power level, and minimum effect size deemed of practical importance. The alpha (.05) and power (.80) parameter values of .05 and .80, respectively, are commonly used values in social science research. In multiple regression, the effect size for the omnibus effect (multiple-R^2) and the semipartial effect size of individual predictors need to be considered. While multiple-R^2 effect sizes tend to be medium (.13) to large (.26), semipartial squared (sr^2) effect size for individual predictors tend to be small (.01) to medium (.06). For purposes of this study, an individual predictor effect size midway between small and medium (sr^2 = .035) was deemed of practical importance and, with multiple-R^2 of .20 (midway between medium and large), was statistically detectable with a target sample size of 182.

Instrumentation and Materials

The following survey instruments were used to collect the needed data about social support, stress, and resource pool use: (a) the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988); (b) the Perceived Stress Scale (Cohen et al., 1983); and (c) the Conservation of Resources Evaluation (Hobfoll, 1989). The other piece of the questionnaire was a demographic section. These instruments are

further described in the chapter sections that follow, and copies can be viewed in Appendices A, B, C, and D.

Multidimensional Scale of Perceived Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS) was created as a self-report questionnaire containing 12 questions with a 7-point rating scale ranging from 1 (Very Strongly Disagree) to 7 (Very Strongly Agree) (Zimet et al., 1988). The 12 questions were broken into 3 groups of 4 questions measuring perceived support of family, friends, and significant other. The scale was used to measure perceived social support of undergraduates at Duke University most of which were freshmen. The scale reliability was .88 dropping to.85 six months later. This demonstrated a good internal reliability with adequate stability over time. Zimet, Powell, Farley, Werkcman, and Berkoff (1990) used the MSPSS scale in three separate populations of pregnant women, high school students, and pediatric residents. The reliability was .92 for the pregnant women, .84 for high school students, and .90 for pediatric residents demonstrating a very good internal reliability. The MSPSS scale is being modified to include measurements from Facebook and face-to-face support systems. The questions and scale remained the same but were answered for both Facebook and face-to-face support systems. This modification should not change the internal reliability for the questionnaire. For analysis purposes, there was a composite of the social support system including family, friends, and significant others. The information gathered with the MSPSS supported research questions 1 and 2.

Perceived Stress Scale

The Perceived Stress Scale (PSS) was created as a 14 question self-report questionnaire with a rating scale of 0 (*never*) to 4 (*very often*) (Cohen et al.,1983). The scale was developed to measure perceived stress in 2 college groups and 1 high school group during a smoking cessation study. The internal reliability was .85 for the full 14 question test and .72 for a shortened 4 question test. The 10-question version of the questionnaire had an adequate internal reliability of.78 for individuals with a junior high school education and above (Cavalari & Romanczyk, 2012). This was determined in a population of undergraduates who were working with autistic children. However, in a population of women awaiting a cancer diagnosis the coefficient alpha score for internal reliability was .91 which would be considered very good internal reliability. The choice to use the 10 question PSS has been determined due to the adequate to very good internal reliability in various study populations. The PSS helped gauge where the perceived stress level was for the individuals. This aided in the understanding and strength of the COR-E responses.

COR-E

Conservation of resources were measured using the COR-E by Hobfoll (1989). This survey measures the loss, as actual loss and threat of loss, and gain in an individual's resource pool. The original survey consisted of 74 resource items which the participant had to rate for the loss, threat of loss, and gain over short and long-term time periods using a 7-point rating scale 1 (*to a small degree*) up to 7 (*to a great degree*) (Hobfoll & Lilly, 1993). Hobfoll (2006) has since changed the rating scale and the time period being

measured. The new rating scale is a 5-point Likert-type scale where 0 means not at all/not applicable, 1 means to a small degree, 2 means to a moderate degree, 3 means to a considerable degree, and 4 means to a great degree. In Hobfoll and Lilly (1993) the short-term period was for the "last few weeks" and the long-term period of time was 1 year. With the new rating scale, Hobfoll (2006) changed the rating period to the past 6 months. The test-retest reliability ranged between .55 to .64 for short term period and .64 to .67 in the long-term periods. The participants in this study consisted of 255 undergraduates from a state university and 74 individuals from evening courses in a community college and from 2 churches. The undergraduate sample had an average age of 18 consisting of 95 males and 160 females. The community college and church sample had an average age of 34 consisting of 21 males and 53 females.

A modified version of the COR-E used by Hobfoll (2007) was used in the questionnaire. The modifications to the survey asked for the changes of actual loss, threat of loss, or actual gain for the past month in Facebook and face-to-face resources. The COR-E determined how complete the individual's resource pools are at the moment by evaluating perceived resource gain, perceived resource loss, and perceived threat to resources.

Descriptive Data Questionnaire

I used the Descriptive Data Questionnaire (DDQ) to collect general information about the participants. This questionnaire was written by the researcher for the purposes of this study. The items on the questionnaire requested information about the age, sex, estimated amount of time spent per day on Facebook, number of Facebook friends, and

how many of their Facebook friends were also in their face-to-face social support group. Copies of the DDQ are available in Appendix D. Age was written numerically. Sex was coded as follows: 0 (*male*), 1 (*female*). Average hours spent on Facebook daily was written numerically. The number of Facebook friends and the number of Facebook friends who are also part of the participant's face-to-face social support group were written numerically.

Data Analysis

Research Questions and Hypotheses

Two research questions guide this study:

RQ1: What are the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain?

Null Hypothesis 1: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource loss composite score.

Null Hypothesis 2: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource threat composite score.

Null Hypothesis 3: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource gain composite score.

RQ2: To what extent do the set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends

who are also in the participant's face-to-face support group) differentially predict resource loss, resource threat, and resource gain; and which predictors account for any differential? Let R_{Loss} = the multiple correlation of resource loss regressed on the set of predictors; R_{Threat} = the multiple correlation of resource threat regressed on the set of predictors; and R_{Gain} = the multiple correlation of resource gain regressed on the set of predictors.

Null Hypothesis 4: There will not be a significant difference between R_{Loss} and R_{Threat}.

Null Hypothesis 5: There will not be a significant difference between R_{Loss} and R_{Gain}.

Null Hypothesis 6: There will not be a significant difference between R_{Threat} and R_{Gain}.

Data Collection and Statistical Analysis

The questionnaires were filled out by participants anonymously through a link on Facebook which connects them to a SurveyMonkey encrypted survey. Although SurveyMonkey assigns a case identifier for each respondent, the identity of a respondent was not possible. Data for all participants who submit the survey was collected, but those with substantial missing data was excluded during the screening and cleaning phase of data analysis.

A series of three multiple regression analyses using SPSS software was conducted regressing each of the dependent variables (resource loss, resource threat, and resource gain) on the same set of predictors to test each of the first three null hypotheses and answer the first research question. To answer the second research question, three pairwise differences (R_{Loss} vs R_{Threat}; R_{Loss} vs R_{Gain}; and R_{Threat} vs R_{Gain}) of the multiple-*R*s for each

dependent variable were tested using Diebold's (2013) Excel spreadsheet calculator of Williams T test for overlapping correlations (Steiger, 1980).

Protection of Human Participants

Participants were accorded the rights to privacy, the choice to participate or not to participate, as well as the right to change their mind and withdraw from the study at any time during the questionnaire (APA, 2010). The safety, health, and welfare of every participant in this research was given priority by following the Walden University IRB approved protocols. Participants were informed of the potential benefits of the research. The privacy of participants was protected through the anonymous submission of the questionnaire. This was achieved by using the gold version of SurveyMonkey which encrypts responses and transmissions of surveys. The data was coded and stored on the researcher's computer with password protection. Hard copies of the data were not made.

Summary

In this chapter, the hypotheses and research questions are presented as well as the study setting and participant group description. The study was a quantitative cross-sectional correlational design. Data was collected from Facebook users 18 years of age or older. The target sample size was 182.

The instruments used in the collection of data included (a) the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988); (b) the Perceived Stress Scale (Cohen et al.,1983); and (c) the Conservation of Resources Evaluation (Hobfoll, 1989), and (d) a descriptive data questionnaire written by the researcher to collect demographic data from the participants. Reliability and validity information of each published

instrument is presented in this chapter. The mode of data collection was a questionnaire presented through SurveyMonkey A series of multiple regression analyses and pairwise comparison of obtained multiple-*R*s constitute the primary data analysis plan.

Informed consent explained the purpose, the duration, potential benefits, risks, discomfort, and participant anonymity on both the Facebook study page and the first page of the survey. This statement was clear and simple enough for participants to understand their rights. Since the online informed consent form was the only connection between the participants and the study, there was no need to obtain signed informed consent (APA, 2010). Upon the completion of the study, results were disseminated through the study's Facebook page.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to explore whether using Facebook as a source to access social support would maintain an individual's resource pool and give the individual access to not only emotional support but access to all categories of resources. I examined individuals' perceptions of social support on Facebook as well as the gains and losses of their resource pools when using Facebook as a social support system. In analyzing data, I sought to determine significant relationships between the dependent variables of resource loss, resource threat, and resource gain and a common set of predictor variables: social support (Facebook and face-to-face), stress, age, sex, number of Facebook friends, percentage of Facebook friends who are also face-to-face friends, number of face-to-face friends, and percentage of face-to-face friends who are also Facebook friends, and how each variable accounts for resource loss, threat, or gain. A secondary aim of the study was to examine gender and age differences in online resource pool use.

The study had two research questions:

RQ1: What are the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain?

Null Hypothesis 1: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource loss composite score.

Null Hypothesis 2: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource threat composite score.

Null Hypothesis 3: The combined effect (R^2) of the set of predictors will not significantly account for variance in the resource gain composite score.

RQ2: To what extent do the set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group) differentially predict resource loss, resource threat, and resource gain; and which predictors account for any differential? Let R_{Loss} = the multiple correlation of resource loss regressed on the set of predictors; R_{Threat} = the multiple correlation of resource threat regressed on the set of predictors; and R_{Gain} = the multiple correlation of resource gain regressed on the set of predictors.

Null Hypothesis 4: There will not be a significant difference between R_{Loss} and R_{Threat}.

Null Hypothesis 5: There will not be a significant difference between R_{Loss} and R_{Gain}.

Null Hypothesis 6: There will not be a significant difference between R_{Threat} and R_{Gain}.

Found within this chapter is (a) a description of the data collection, recruitment, and response rates; (b) characteristics of the sample as well as how the sample relates to the larger population; (c) descriptive statistics of the scales and indexes; (d) evaluation of assumptions; (e) paired comparisons of Facebook versus face-to-face social support,

resource gain, and resource loss; (f) correlations among predictor and criterion variables; (g) regression model findings; and (h) pairwise comparison of regression models.

Data Collection

After receiving approval to conduct the study from the Walden University IRB, I posted information about the study via a link on Facebook which connected participants to a SurveyMonkey encrypted survey. Although SurveyMonkey assigns a case identifier for each respondent, the identity of respondents was not accessible by me.

A Facebook page for this study was created on March 5, 2015. This Facebook page included a description of the study, eligibility criteria for participants, and a link to the survey on SurveyMonkey. Then an advertisement was created in the Facebook advertisement section using IRB-approved advertisement language. The advertisement was sent out to 1,000 individuals a day via their Facebook walls. The individual would then be able to click on the advertisement to view the full content of the study's Facebook page. A copy of this advertisement was also posted on my Facebook wall where 194 friends could view it. The advertisement was shared on four other individual's Facebook walls where a combined total of 564 friends could view the advertisement. Within the first 5 hours after the advertisement had potentially been seen by over 1,700 individuals, five surveys had been initiated and one survey completed.

After 1 week, the study's page on Facebook had 57 likes. The Facebook section advertisement had been delivered to over 100,000 Facebook walls. This advertisement had been clicked on 3,564 times. The Facebook wall advertisement had been shared 34 times. By the end of March 2015, the study Facebook page had 207 likes. The Facebook

study advertisement had been clicked on 17,328 times. However, the study had only been started 52 times with 12 completions. At the end of April 2015 there had been an additional 42 attempts to fill out the survey with only six completions. The number of attempts to fill out the survey dropped off drastically after these first few months. Due to the low survey response rates, the survey was added to the Walden Participant Pool site via the Walden IRB on August 20, 2015.

The recruitment process continued through Facebook advertisements and the Walden Participant Pool until July 2016. The response rate for surveys was still very low with 55 completed surveys. On July 5, 2016, Walden IRB approved a change in the recruitment procedure to include placing fliers on college community bulletin boards. Within a week there were 25 fliers posted on community bulletin boards in six different local colleges and universities. By November 1, 2016, however, there were only a few more additional completed surveys. On November 8, 2016, with committee approval, I closed the data collection.

I followed the data collection procedures of the plan presented in Chapter 3, except for two previously described changes to participant recruitment procedures. On August 20, 2015, the survey was added to the Walden Participant Pool site. The second change happened on July 5, 2016, when the Walden IRB approved the placement of advertising fliers to be posted at local colleges on their community bulletin boards.

The sample size had been calculated with alpha and power parameter values of .05 and .80, respectively, which are commonly used values in social science research. In multiple regression, the effect size for the omnibus effect (multiple-R^2) and the

semipartial effect size of individual predictors need to be considered. While multiple-R^2 effect sizes tend to be medium (.13) to large (.26), semipartial squared (sr^2) effect size for individual predictors tend to be small (.01) to medium (.06). For the purposes of this study, individual predictor effect size midway between small and medium (sr^2 = .035) was deemed of practical importance; with a multiple-R^2 of .20 (midway between medium and large), this effect size would be statistically detectable with a target sample size of 182. However, due to low response rates, the sample size (57) was much lower.

Recruitment and Response Rates

As of 2013, the population on Facebook consists of 1.79 billion active users monthly with 54% of those identifying as female and 46% as male (Statista, 2016). The Facebook-based advertisement for the survey went out to 523,483 individuals. Based on Facebook shares, there were another estimated 5,392 individuals who had the opportunity to view the advertisement. It is unknown how many individuals viewed the fliers or saw the survey through the Walden Participant Pool. The study's Facebook page received 2,163 views and 261 likes. The survey on SurveyMonkey was accessed 527 times. Two hundred and two individuals began the survey between March 5, 2015, and September 13, 2016. One individual was under 18 and was ineligible to proceed. Forty-one individuals did not consent and were ineligible to proceed. This left 160 eligible cases. There were 404 scale items. Of the 160 cases, 57 had adequate data: 49 answered all items, five had missing data on one item, two had missing data on two items, and one had missing data on seven items. Case-specific scale mean scores were used to substitute for missing data. The remaining 103 cases had missing data on 72 or more items and were

eliminated from analysis. Fifty-seven of these individuals completed the survey with adequate data, resulting in a completion rate of 36%.

Descriptive Statistics

Description of the Sample

The sample consisted of 57 participants consisting of 75.4% (43) females and 24.6% (14) males, which was disproportional to the 2013 reported 46% male and 54% female distribution of actual Facebook user by sex (Statista, 2016). Participants ranged in age from 22 to 74 (M = 47.04, SD = 12.9). The amount of time spent on Facebook ranged between 0.17 hours and 8 hours with a mean of 2.04 hours a day (SD = 1.6), similar to the user average of 2.25 hours a day reported by Facebook (Facebook, 2013). The average of Facebook friends per individual was 349.96 friends with the range of 2 to 2192 friends (SD = 397.5), which was similar to the user average of 325 reported by Facebook (Facebook, 2013). Many individuals have Facebook friends who are also face-to-face friends. The mean number of Facebook friends who were also face-to-face friends was 103.75 with the range being 1 to 550 (SD = 115.6).

Correlations of Sample Demographics and Facebook Characteristics

Age was inversely related to time spent on Facebook, $r(55) = -.280$, $p = .035$, and number of Facebook friends, $r(55) = -.406$, $p = .002$. Time spent on Facebook was positively correlated with number of Facebook friends, $r(55) = .335$, $p = .011$, and the number of Facebook friends was inversely related to the percent of Facebook friends that were also face-to-face friends, $r(55) = -3.52$, $p = .007$. None of which were correlated with sex.

Descriptive Statistics of Scales and Indexes

Mean composites and reliability were calculated for stress, Facebook social support, and face-to-face social support. Mean composites were also created for threat and for Facebook and face-to-face versions of gain and loss; but because these are indexes, reliability does not apply. Table 1 includes a summary of the response options for each scale and index, and Table 2 includes descriptive statistics for each composite.

Table 1

Response Options for Scales and Indexes

Value	Stress	Social support	Gain, loss, threat
1	Never	Very strongly disagree	Not at all or not applicable
2	Almost never	Strongly disagree	To a small degree
3	Sometimes	Mildly disagree	To a moderate degree
4	Fairly often	Neutral	To a considerable degree
5	Very often	Mildly agree	To a great degree
6		Strongly agree	
7		Very strongly agree	

Table 2

*Descriptive Statistics for Composite Scales and Indexes (*N = *57)*

Composite	# items	*M*	*SD*	Min	Max	S	K	A
Stress	10	2.61	0.65	1.40	4.20	0.29	-0.50	.87
FB social support	12	4.59	1.30	1.08	7.00	-0.43	0.19	.93
FF social support	12	5.71	1.22	1.50	7.00	-1.53	3.03	.92
FB gain	74	1.90	0.80	1.01	4.84	1.26	2.07	Na
FF gain	74	2.70	1.04	1.14	4.91	0.19	-0.88	Na
FB loss	74	1.34	0.52	1.00	3.27	1.91	3.32	Na
FF loss	74	1.74	0.84	1.00	4.32	1.18	0.61	Na
Threat	74	1.54	0.68	1.00	3.45	1.24	0.34	Na

Note. FB = Facebook; FF = face-to-face; S = skewness; K = kurtosis; α = Cronbach's alpha.

Results

Assessment of Assumptions

All composite variables had adequate variance for inferential tests, were within reasonable limits of normality (skewness < |2|, kurtosis < |6|), and the three scales had very high reliability (see Table 2). Because the number of Facebook friends had skewness of 2.48 and kurtosis of 7.97, a base 10 log transformation was used in subsequent inferential analyses. There were no multicollinearity issues in any of the multiple linear regression models; maximum variance inflation factor was 1.46. Because of the difficulty in recruiting participants and the resulting small sample, the alpha level for statistical significance was raised to .10 to increase power and reduce Type II error.

Paired Comparisons of Social Support and Resource Gain and Loss

Facebook and face-to-face versions of social support, resource gain, and resource loss were measured. As shown in Figure 1, face-to-face social support was higher than Facebook social support.

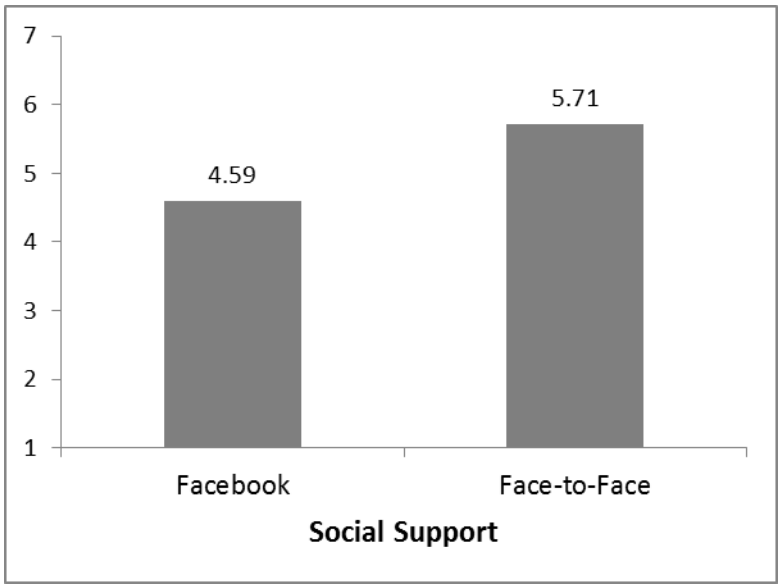

Figure 1. Social support comparison: Facebook and face-to-face. $t(56) = 5.86$, $p < .001$.

As shown in Figure 2, there was greater resource gain from face-to-face than Facebook, but face-to-face also had greater resource loss compared to Facebook. Both Facebook and face-to-face had greater resource gain than loss.

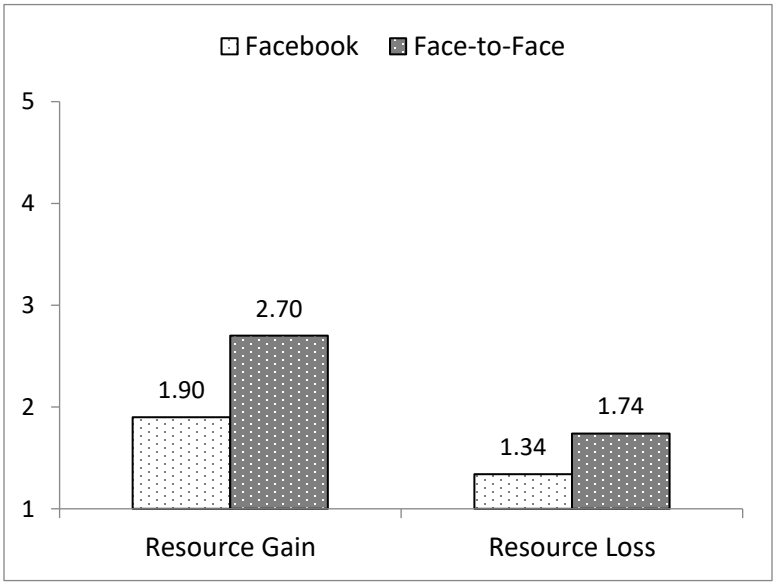

Figure 2. Resource gain and loss comparison: Facebook and face-to-face. Between Facebook and face-to-face: gain, $t(56) = 6.70$, $p < .001$; loss, $t(56) = 4.90$, $p < .001$. Between gain and loss: Facebook, $t(56) = 5.60$, $p < .001$' face-to-face, $t(56) = 6.45$, $p < .001$. Correlations Among Predictor and Criterion Variables

Table 3 presents the correlations among predictor and criterion variables. Facebook resource gain was positively related to Facebook resource loss, face-to-face resource gain, and Facebook social support. Females had more Facebook resource gain than males. Facebook resource loss was positively related to face-to-face resource loss and resource threat, and negatively related to face-to-face social support (i.e., the greater the face-to-face social support the less Facebook resource loss). Facebook social support and face-to-face social support were positively related.

Face-to-face resource gain was positively related to face-to-face resource loss, and face-to-face resource loss was positively related to resource threat. Resource threat was positively related to stress, and stress was negatively related to age (i.e., as age increased, stress decreased). Age was negatively related to the number of Facebook friends (i.e., as age increased, the number of Facebook friends decreased), and the number of Facebook friends was negatively related to the percent of Facebook friends that were also face-to-face friends (i.e., as the number of Facebook friends increased, the percent that were also face-to-face friends decreased).

Table 3

*Correlations Among Predictor and Criterion Variables (*N = *57)*

	Upper diagonal = Pearson correlation value Lower diagonal = *p* value											
Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. FB gain		**.39**	**.55**	.14	.17	**.30**	.00	-.03	.04	-.07	.07	**.27**
2. FB loss	**.00**		.21	**.68**	**.73**	-.01	**-.24**	.10	.19	-.12	-.09	.16
3. FF gain	**.00**	.12		**.30**	.19	-.12	.21	-.16	.03	-.03	-.06	.00
4. FF loss	.29	**.00**	**.03**		**.80**	.14	.03	.13	.12	-.11	-.17	-.02
5. Threat	.21	**.00**	.17	**.00**		.04	-.14	**.31**	.11	-.19	-.12	.05
6. FB SS	**.02**	.94	.38	.29	.78		**.36**	-.12	-.04	.12	.08	.08
7. FF SS	.97	**.07**	.11	.82	.31	**.01**		**-.22**	-.04	-.06	-.11	-.15
8. Stress	.81	.47	.23	.32	**.02**	.39	**.10**		.01	-.17	**-.31**	.09
9. # FB friends	.79	.16	.80	.39	.41	.76	.76	.94		**-.35**	**-.41**	.00
10. % FB also FF	.61	.36	.81	.40	.16	.37	.66	.22	**.01**		.16	.15
11. Age	.62	.52	.64	.20	.37	.56	.42	**.02**	**.00**	.23		-.05
12. Sex (1 = female)	**.04**	.24	.99	.87	.72	.58	.26	.49	.99	.28	.73	

Note. FB = Facebook, FF = face-to-face, SS = social support, % FB also FF = % Facebook friends also face-to-face friends. Bolded values are statistically significant at $\alpha < .10$.

Regression Models to Answer Research Question 1

The first research question was: What are the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participants face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain?

The results of a series of multiple linear regressions, one for each of the five criterion variables, are provided in Table 4. None of the models were statistically significant, though 4 of the 5 models had one or more significant predictors. Facebook social support and being female predicted Facebook resource gain. Face-to-face social

support positively predicted face-to-face resource gain and negatively predicted Facebook resource loss. Stress positively predicted resource threat.

Table 4

*Regression Model Results for Research Question 1 (*N *= 57)*

	Criterion				
	FB gain	FF gain	FB loss	FF loss	Threat
F(7, 49)	1.631	0.897	1.011	0.589	1.149
R (*R*^{2})	.435 (.189)	.337 (.114)	.355 (.126)	.279 (.078)	.375 (.141)
Model *p*	.149	.516	.435	.761	.349
Predictors: *B* (*p*)					
Constant	1.029	2.965	1.622	1.477	0.976
Social Support FB	**.198 (.027)**	-.184 (.127)	.040 (.500)	.125 (.204)	.071 (.351)
Social Support FF	-.054 (.579)	**.226 (.096)**	**-.113 (.091)**	-.030 (.786)	-.075 (.384)
Stress	-.056 (.755)	-.254 (.306)	.002 (.989)	.123 (.544)	**.273 (.088)**
# FB friends ($\log_{10}$)	.017 (.933)	.018 (.949)	.104 (.458)	.050 (.828)	.054 (.765)
% FB friends also FF friends	-.004 (.258)	.000 (.931)	-.002 (.428)	-.002 (.593)	-.003 (.316)
Age	.004 (.692)	-.004 (.742)	-.002 (.758)	-.009 (.407)	-.001 (.886)
Sex (1 = female)	**.491 (.050)**	.177 (.598)	.149 (.372)	-.091 (.742)	.023 (.915)

Note. FB = Facebook, FF = face-to-face. *B* is the unstandardized coefficient. Alpha level for significance = .10.

Pairwise Comparison of Regression Models

The second research question was: To what extent do the set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participants face-to-face support group) differentially predict resource loss, resource threat, and resource gain; and which predictors account for any differential?

Williams *T* test for overlapping correlations (Steiger, 1980) was used to test the difference in multiple-*R* values for each criterion model. As detailed in Table 5, none of the pairwise tests were statistically significant, meaning that the common set of predictors did not predict one criterion significantly better than any other criterion.

Table 5

Williams T *Pairwise Comparison Tests of Regression Models (*N = *57)*

	Pairwise Comparison of Model *R*'s Upper diagonal = Williams *T* values; lower diagonal = one-tailed *p* value				
Model	FB gain	FB loss	FF gain	FF loss	Threat
FB gain		0.640	0.515	1.106	0.421
FB loss	.262		0.087	0.548	0.196
FF gain	.304	.466		0.090	0.178
FF loss	.137	.293	.464		1.038
Threat	.338	.423	.430	.152	

Note. FB = Facebook, FF = face-to-face.

Summary of Findings

The purpose of this study was to explore whether using Facebook as a source to access social support would maintain the individual's resource pool and give the individual access to not only emotional support but access to all categories of resource. In response to research question 1, it was found that there were several significant predictors. Facebook social support and being female predicted Facebook resource gain. The greater the face-to-face social support the less Facebook resource loss. Individuals with a higher stress score perceived a higher resource threat. As age increased, stress decreased. Question 2 showed none of the pairwise tests were statistically significant. Therefore, the study did not show whether Facebook as a source to access social support would maintain the individual's resource pool.

Overall, none of the predictors could predict one criterion significantly, but some of the predictors are positively correlated to some of the criterion (i.e., stress was positively correlated to resource threat).

Chapter 5 includes interpretation of these findings, limitations of this study, recommendations for further study, and social change implications.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to explore whether using Facebook as a source to access social support would maintain the individual's resource pool and give the individual access to not only emotional support but access to all categories of resource.

RQ1: What are the combined and relative effects of face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group in accounting for variance in resource loss, resource threat, and resource gain?

Regarding Research Question 1, I found that there were several significant predictors. Facebook social support and being female predicted Facebook resource gain. The greater the face-to-face social support the less Facebook resource loss. Individuals with a higher stress score perceived a higher resource threat. As age increased, stress decreased.

RQ2: To what extent do the set of predictors (face-to-face social support, Facebook social support, stress, age, sex, number of Facebook friends, and percentage of Facebook friends who are also in the participant's face-to-face support group) differentially predict resource loss, resource threat, and resource gain; and which predictors account for any differential? Let R_{Loss} = the multiple correlation of resource loss regressed on the set of predictors; R_{Threat} = the multiple correlation of resource threat regressed on the set of predictors; and R_{Gain} = the multiple correlation of resource gain regressed on the set of predictors.

Null Hypothesis 4: There will not be a significant difference between R_{Loss} and R_{Threat}.

Null Hypothesis 5: There will not be a significant difference between R_{Loss} and R_{Gain}.

Null Hypothesis 6: There will not be a significant difference between R_{Threat} and R_{Gain}.

In analyzing data to answer RQ2, I found that none of the pairwise tests were statistically significant. Therefore, the study did not show whether Facebook as a source to access social support would maintain the individual's resource pool. I, thus, concluded that Null Hypotheses 4, 5, and 6 were all true. In this chapter, I present (a) an interpretation of the findings; (b) the limitations of the study; (c) recommendations for future studies; and (d) implications for social change.

Interpretation of Findings

In response to Research Question 1, it was found that there were several significant predictors. Facebook social support and being female predicted Facebook resource gain. The greater the face-to-face social support the less Facebook resource loss. Individuals with a higher stress score perceived a higher resource threat. As age increased, stress decreased.

In 2007, Kang found that females had greater online networks than males which was confirmed in this study. There were a mean 425 Facebook friends for females and 378 for males. In this study, it was found that being female predicted a Facebook resource gain when the individual also felt they had a social support on Facebook. This could be due to

the larger number of Facebook friends which females have. However, it could also be explained by females and males having different coping strategies (Hobfoll et al., 1994). Stone et al. (1998) found that women tend to be more prosocial than males. Facebook is a social media which depends on social interaction which would be considered prosocial behavior.

Similar to how gender affects how individuals cope, age may affect how stress is perceived. Within this study, it was found that, as age increased, stress decreased, and the number of Facebook friends decreased. Baams et al. (2011) found that younger online users of social networks join as a means of social bonding, whereas Sheldon and Hinsch (2011) suggest that the older population uses Facebook to counteract loneliness and the feeling of disconnection. Eastin and LaRose (2005) found that the older population showed a decrease in stress with the use of online social networks such as Facebook. Therefore, it makes sense that their number of Facebook friends would be lower than the younger population who use Facebook to meet new people who are interesting in the same activities they are.

The average number of Facebook friends was slightly higher in this study than what was found in previous studies. According to Smith (2014), the average number of Facebook friends is 250. People age 65 and older account for 45% of the population of Facebook users, and 34% are ages 18-29 years old. The median age of participants in this study was 47 years old, and the range was between 22 and 74 years old. The mean number of Facebook friends was 350.

There has been conflicting information in the literature as to whether Facebook interactions negatively affect face-to-face social support. Hu (2009) found that online communications decreased face-to-face communications and decreased the face-to-face social circle size. According to Kujath (2011), individuals tend to use Facebook as an extension of their face-to-face interactions. In this study I did not find that the face-to-face circle size decreased with Facebook use. However, it was found that as the actual number of Facebook friends increased, the percentage of Facebook friends who were also Face-to-Face friends and family decreased. This finding does not specifically show that the face-to-face circle of friends and family decreased. An explanation could be that while the Facebook circle of friends increased the face-to-face friends circle remained the same which would account for the percentage of face-to-face friends also being Facebook friends seeming to decrease. This finding confirms Kamble's (2011) finding that face-to-face relationships were improved using online social networking.

Moreover, instead of Facebook usage taking away from face-to-face interactions, I found there is support for Facebook use having a positive influence on face-to-face interactions and support. Individuals who seek support online found that online support did not take away from face-to-face support but enhanced the overall social support (Bunde et al., 2006). In a study conducted by Kamble (2011), 90% of the medical students in the sample used online social networking to seek support, destress, and connect to face-to-face friends and family. There was a positive relationship between face-to-face social support and online support in Kamble's study, which was statistically

confirmed by this study. Findings showed that Facebook social support and face-to-face social support were positively related.

In this study, the conservation of resources (COR) theory was used as the core theory to explore how Facebook use influences stress and the perception of a stimuli. COR explains the relationship between resource gain, loss, and threat and the effect it has on a perceived stimulus (Hobfoll, 1989). COR is a resource-based model of stress. The general concept is that any stimuli may be handled if there are enough resources to take care of the stressor. There are four basic types of resources in the COR: objects, conditions, personal characteristics, and energies (Hobfoll, 1989). Social support systems help to buffer against stress and anxiety via COR.

In this study I found that stress positively predicted resource threat. Fearing the loss of a resource could be a cause of stress. For example, if your car tends to not start on cold mornings you could feel like a resource, your car, in being threatened when it is winter. This threat could cause worry and stress even before the actual stimulus of the car not starting happens. In this case the resource threat of losing the use of the car causes a stress reaction the same way as it would if the car did not start. This stress reaction is a cognitive or emotional subjective response to the stimuli (Hsiao-Pei et al., 2011). The cognitive appraisal of the potential event, car not starting, caused a stress reaction. Therefore, the signs of stress positively can predict a threat to a resource. People with higher stress scores also perceived a greater resource threat.

According to Hobfoll (1989), social support can be used to protect other resources. It was found in this study that Face-to-face social support positively predicted face-to-

face resource gain and negatively predicted Facebook resource loss. The greater the face-to-face social support the less Facebook resource loss. High levels of social support directly relate to lower levels of distress and increased general well-being (Graham & Barnow, 2013). Social support has a beneficial effect of buffering against negative effects of stressful situations by minimizing perceived stress or aiding in healthier responses to the stressors. The beneficial effects of social support are maximized when the support provider understands what the support receiver needs and wants.

Unfortunately, the common set of predictors did not predict one criterion significantly better than any other criterion. Since none of the pairwise tests were statistically significant, Research Question 2 was not proved. Therefore, the study did not show whether Facebook as a source to access social support would maintain the individual's resource pool. Thus, proving Null Hypothesis 4, 5, and 6 to all be true.

Limitations of the Study

There are several limitations in this study. Due to a small sample size, this study has limits on generalizability of the findings. The sample populations were heavily biased towards female participants (75.4%, n=43). The sample population consisted only of adult Facebook users due to the nature of the study and therefore cannot be generalized to a greater population. The survey was a self-report questionnaire administered anonymously. Therefore, participants could not request clarification of the questions. The questionnaire itself was very long and there were no incentives to completing it. The intrinsic motivations of the participants were relied on for questionnaire completion. The

questionnaire length was thought to be the main cause for a great number of incomplete surveys (202 accessed survey with 57 completing survey).

Finally, this study did not distinguish between the multiple tools for social interaction which Facebook has to offer. Facebook offers a newsfeed/bulletin board function, a private message function, group chats, and group specific pages where specialty groups may share information and offer support. These all offer a different communication style and effect for the user and may have impact on the experience the participant has while on Facebook.

Recommendations

I used the Conservation of Resources theory model and questionnaire in its entirety. This included looking at resource gain, resource loss, and resource threat. These variables were looked at for both Face-to-face interactions as well as Facebook interactions. This resulted is a daunting and long questionnaire. There were 74 responses required for each variable as well as for Facebook and Face-to-face resulting in 444 responses needed just for the COR-E section of the questionnaire. A recommendation for a future study would be to decrease this section of the questionnaire to focus solely on resource gains of Facebook users. In previous studies, Facebook has been shown to help extend and supplement the user's Face-to-face circles, therefore focusing on the potential of resource gains would be beneficial information to obtain (Kujath, 2011).

It was found in several past studies, as in this study, that there was a heavy bias towards females responding to the questionnaires. Moreover, there is research that males tend to use social media and coping methods differently than females do (Hobfoll et al.,

1994 & Kang, 2007). Therefore, it is recommended that a study focusing on males and their social media use in combination with stress and resource gain be studied.

Finally, due to this study's findings that as age increased, stress decreased, it is recommended that a study to explore how age effects stress and social support be conducted.

Implications

The results of this study show that using Facebook for social support does not harm the Face -to-Face relationships but rather helps to enhance them. Social media and Facebook give individuals an opportunity to connect, communicate, and remain in contact with others in their social network (Ellison, Steinfield & Lampe, 2011; Huang & Lin, 2011). Facebook is a global application where people can reach out around the world. It gives an opportunity to communicate with old and new friends. It gives individuals an opportunity to interact with others in a quick easy manner. Facebook gives individuals an opportunity to compare themselves with others and share experiences. In this type of environment, people can learn from each other, seek validation, and give support in a multidimensional way.

Using Facebook as a tool to seek social support is an important accompaniment to Face-to-Face interactions. It has the potential to reduce retraumatization by being a single place where an individual can explain a situation and others can comment and offer support. That same individual, if not using Facebook, may have to repeat the incident over and over many times causing a retraumatization with each telling. This

same individual can then go onto Facebook and read the supportive messages when they are ready.

There are also special Facebook pages which are geared toward being a support group. For example, if you are a graduate student working on your dissertation there is a place you can go to and read what other graduate students are experiencing. These pages are great because you can ask questions and hear how others have solved or worked through different issues. This type of social support would normally have to be conducted in person at a specific time and place. This could take valuable time away from family or work. Using a tool such as Facebook, takes less time and gives an individual a broader group of people to help them regain their resources without impeding on other valuable resources.

The results from this study were disseminated via the study's Facebook page as well as through the publishing of this dissertation.

Conclusion

Hobfoll (1989), shows that social support can be used to protect other resources. Facebook social support and face-to-face social support, in this study, were found to be positively related. This finding further backs up Kujath's (2011) study where they found that individuals used Facebook as an extension of their face-to-face social support network. With further research, stronger correlations between using Facebook for social support and a decrease in stress should be able to be found.

It was also found that individuals with higher stress scores also perceived a higher resource threat. This finding falls into place when taking into consideration the COR

stress model where the individual appraises their resource pool as opposed to their ability to handle the individual stressor (Hobfoll, 2011). When the resource pool begins to dwindle the individual's stress level increases. As this happens the individual begins to worry about other resources dwindling, causing the resource threat. Based on the results of this study, a greater picture of the benefits of using Facebook can be achieved with a paired down version of the study focusing only on resource gains and Facebook in the future.

References

Acar, A. (2008). Antecedents and consequences of online social networking behavior: The case of Facebook. *Journal of Website Promotion, 3*(1/2), 62-83. doi:10.1080/15533610802052654

Alarcon, G. M., Edwards, J. M., & Menke, L. E. (2011). Student burnout and engagement: A test of the conservation of resources theory. *Journal of Psychology*, *145*(3), 211-227. doi:10.1080/00223980.2011.555432

Alvaro, C., Lyons, R. F., Warner, G., Hobfoll, S. E., Martens, P. J., Labonte, R., & Brown, E. R. (2010). Conservation of resources theory and research use in health systems. *Implementation Science, 5*, 79. doi:10.1186/1748-5908-5-79

American Psychological Association. (2010). Ethical principles of psychologists and code of ethical conduct including 2010 amendments. Retrieved from http://www.apa.org/ethics/code/index.aspx?item=11

American Psychological Association. (2011). Definition of terms: Sex, gender, gender identity, sexual orientation. Retrieved from http://www.apa.org/pi/lgbt/resources/sexuality-definitions.pdf

Asbury, T., & Hall, S. (2013). Facebook as a mechanism for social support and mental health wellness. *Psi Chi Journal of Psychological Research, 18*(3), 124-129. ISSN: 21648204

Baams, L., Jonas, K. J., Utz, S., Bos, H. M. W., & van der Vuurst, L. (2011). Internet use and online social support among same sex attracted individuals of different ages.

Computers in Human Behavior, 27(5), 1820-1827. doi: 10.1016/j.chb.2011.04.002

Bonds-Raacke, J., & Raacke, J. (2010). MySpace and Facebook: Identifying dimensions of uses and gratifications for friend networking sites. *Individual Differences Research, 8*(1), 27-33.

Bryant, R. A. (2006). Acute stress disorder. *Psychiatry, 5*(7), 238-239. doi:10.1053/j.mppsy.2006.04.003.

Bryant, R. A., Friedman, M. J., Spiegel, D., Ursano, R., & Strain, J. (2011). A review of acute stress disorder in DSM-5. *Depression and Anxiety, 28*(9), 802-817. doi:10.1002/da.20737

Buchwald, P. (2010). Test anxiety and performance in the framework of the conservation of resources theory. *Cognition, Brain, Behavior. An Interdisciplinary Journal, XIV(4),* 283-293. ISSN: 12248398.

Bunde, M., Suls, J., Martin, R., & Barnett, K. (2006). Hystersisters online: Social support and social comparison among hysterectomy patients on the Internet. *Annual of Behavioral Medicine, 31*(3), 271-278. doi:10.1207/s15324796abm3103_9

Cavalari, R. N., & Romanczyk, R. G. (2012). Caregiver perspectives on unintentional injury risk in children with an autism spectrum disorder. *Journal of Pediatric Nursing, 27*(6), 632-641. doi:10.1016/j.pedn.2011.07.013

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 386-396. ISSN: 1210-7778.

Coulson, N. S., & Greenwood, N. N. (2012). Families affected by childhood cancer: An analysis of the provision of social support within online support groups. *Child: Care, Health & Development, 38*(6), 870-877. doi:10.1111/j.1365-2214.2011.01316.x

Coustasse, A., & Slack, C. (2013). Potential benefits of using Facebook in the healthcare industry: A literature review. *Insights to a Changing World Journal, 2013*(1), 41-52. ISSN:15501574

Coyle, C. L., & Vaughn, H. (2008). Social networking: Communication revolution or evolution?. *Bell Labs Technical Journal, 13*(2), 13-17. doi:10.1002/bltj.20298

Creamer, M., Wade, D., Fletcher, S., & Forbes, D. (2011). PTSD among military personnel. *International Review of Psychiatry, 23*(2), 160-165. doi:10.3109/09540261.2011.559456

Creswell, J. W. (2009*). Research design: Qualitative, quantitative, and mixed methods* (3rd ed.). Thousand Oaks, CA: Sage.

Crews, F. T. (2012). Immune function genes, genetics, and the neurobiology of addiction. *Alcohol Research: Current Reviews, 34*(3), 355-361. ISSN:21683492

Cutrona, C. E. & Suhr, J. A. (1992). Controllability of stressful event and satisfaction with spouse support behaviors. *Communication Research, 19,* 154–174. ISSN:0093-6502

Decaro, D., & Stokes, M. (2008). Social-psychological principles of community-based conservation and conservancy motivation: Attaining goals within an autonomy-

supportive environment. *Conservation Biology, 22*(6), 1443-1451. doi:10.1111/j.1523-1739.2008.00996.x

Dholakia, UM., Bagozzi, RP., Klein Pearo, L. (2004). A social influence model of consumer participation in network- and small-group-based virtual communities. *International Journal of Research in Marketing, 21*(3), 241-263, ISSN:0167-8116, doi:10.1016/j.ijresmar.2003.12.004.

Diebold, C. (2013). Excel spreadsheet calculator.

Dragoş, D., & Tănăsescu, M. (2010). The effect of stress on the defense systems. *Journal of Medicine & Life, 3*(1), 10-18. ISSN:1844122x

Eastin, M. S., & LaRose, R. (2005). Alt.support: Modeling social support online. *Computers in Human Behavior, 21*(6), 977-992. doi:10.1016/j.chb.2004.02.024

Ellison, N. B, Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society. 13*: 873-892. doi:10.1177/1461444810385389

Facebook. (2013). *Facebook Key-Facts* Retrieved October 15, 2013 from http://newsroom.fb.com/Key-Facts

Facebook. (2018). Facebook Key-Facts Retrieved June 18, 2018 from http://newsroom.fb.com/Key-Facts

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage.

Frankfort-Nachmias, C., & Nachmias, D. (2008*). Research methods in the social sciences* (7th ed.). New York: Worth.

Fukkink, R. (2011). Peer counseling in an online chat service: A content analysis of social support. *Cyberpsychology, Behavior & Social Networking, 14*(4), 247-251. doi:10.1089/cyber.2010.0163

Gill, J. M., Saligan, L., Woods, S., & Page, G. (2009). PTSD is associated with an excess of inflammatory immune activities. *Perspectives in Psychiatric Care, 45*(4), 262-277. doi:10.1111/j.1744-6163.2009.00229.x

Graham, J. M., & Barnow, Z. B. (2013). Stress and social support in gay, lesbian, and heterosexual couples: Direct effects and buffering models. *Journal of Family Psychology, 27*(4), 569-578. doi:10.1037/a0033420

Hansen, M., Armour, C., & Elklit, A. (2012). Assessing a dysphoric arousal model of acute stress disorder symptoms in a clinical sample of rape and bank robbery victims. *European Journal of Psychotraumatology*, 31-10. doi:10.3402/ejpt.v310.18201

Hinton, D. E., & Lewis-Fernández, R. (2011). The cross-cultural validity of posttraumatic stress disorder: Implications for DSM-5. *Depression & Anxiety*, *28*(9), 783-801. doi:10.1002/da.20753

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513-524. doi:10.1037/0003-066X.44.3.513

Hobfoll, S. E. (2001). The Influence of Culture, Community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review, 50*(3), 337. doi:10.1111/1464-0597.00062

Hobfoll, S. E. (2006). Guiding community intervention following terrorist attack. In Y. Neria, R. Gross & R. Marshall (Eds.), *9/11 - Mental Health in the Wake of Terrorist Attacks* (pp. 215-230). Cambridge.

Hobfoll, S. E. (2007). *General Resource Evaluation*. Retrieved from http://www.personal.kent.edu/~shobfoll/Files/COR-E.pdf

Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational & Organizational Psychology*, *84*(1), 116-122. doi:10.1111/j.2044-8325.2010.02016.x

Hobfoll, S. E., Dunahoo, C. L. Ben-Porath, Y., & Monnier, J. (1994). Gender and coping: The dual-axis model of coping. *American Journal of Community Psychology, 22*, 49-82.

Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as a strategy for community psychology. *Journal of Community Psychology, 21*(2), 128-148. ISSN: 00904392.

Hsiao-Pei, L., Hung-Yu, L., Wei-Lun, L., & Huang, A. (2011). Effects of stress, depression, and their interaction on heart rate, skin conductance, finger temperature, and respiratory rate: sympathetic-parasympathetic hypothesis of stress and depression. *Journal of Clinical Psychology, 67*(10), 1080-1091. doi:10.1002/jclp.20833

Hu, M. (2009). Will online chat help alleviate mood loneliness?. *Cyberpsychology, Behavior & Social Networking*, *12*(2), 219-223. doi:10.1089/cpb.2008.0134

Huang, Jyun-Wei, & Lin, Chieh-Peng. (2011). To stick or not to stick: The social response theory in the development of continuance intention from organizational

cross-level perspective. *Computers in Human Behavior, 27*(5), 1963-1973. doi:10.1016/j.chb.2011.05.003

James, R. K. & Gilliland, B.E. (2013). *Crisis intervention strategies* (7th ed.). Belmont, CA.

Junghyun, K., & Jong-Eun, R. L. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. C*yberpsychology, Behavior & Social Networking, 14*(6), 359-364. doi:10.1089/cyber.2010.0374

Kamble, A. (2011). Comparative study of use of social networking sites by medical students & resident doctors and its correlation with perceived social support, social integration and stress management. *New Indian Journal of Surgery, 2*(4), 218.

Kang, S. (2007). Disembodiment in online social interaction: Impact of online chat on social support and psychosocial well-being. *Cyberpsychology, Behavior & Social Networking, 10*(3), 475-477. doi:10.1089/cpb.2006.9929

Kern, S., Krause, I., Horntrich, A., Thomas, K., Aderhold, J., & Ziemssen, T. (2013). Cortisol awakening response is linked to disease course and progression in multiple sclerosis. *PLoS One, 8*(4), 1-8. doi:10.1371/journal.pone.0060647

Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D., Lin, N., … Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *PLoS One, 8*(8), 1-6. doi:10.1371/journal.pone.0069841

Kujath, C. L. (2011). Facebook and MySpace: Complement or substitute for face-to-face interaction?. *Cyberpsychology, Behavior & Social Networking, 14*(1/2), 75-78. doi:10.1089/cyber.2009.0311

Kumar, A., Rinwa, P., Kaur, G., & Machawal, L. (2013). Stress: Neurobiology, consequences and management. *Journal of Pharmacy & Bioallied Sciences, 5*(2), 91-97. doi:10.4103/0975-7406.111818

LaCoursiere, S. P. (2001). A theory of online social support. *ANS. Advances in Nursing Science, 24*(1), 60-77. ISSN: 0161-9268.

Ledbetter, A. M., Mazer, J. P., DeGroot, J. M., Meyer, K. R., Yuping Mao, & Swafford, B. (2011). Attitudes toward online social connection and self-disclosure as predictors of Facebook communication and relational closeness. *Communication Research*, *38*(1), 27 -53. doi:10.1177/0093650210365537

Lin, C. P. (2011). Modeling job effectiveness and its antecedents from a social capital perspective: A survey of virtual teams within business organizations. *Computers in Human Behavior, 27*(2), 915–923. doi:10.1016/j.chb.2010.11.017

Lin, C. P., & Bhattacherjee, A. (2009). Understanding online social support and its antecedents: A socio-cognitive model. *The Social Science Journal*, *46*(4), 724-737. doi:10.1016/j.soscij.2009,03,004

Maddock, C., & Pariante, C. M. (2001). How does stress affect you? An overview of stress, immunity, depression and disease. *Epidemiologia e Psichiatria Sociale, 10*(3), 153-162.

Manago, A. M., Taylor, I., & Greenfield, P. M. (2012). Me and my 400 friends: The anatomy of college students' Facebook networks, their communication patterns, and well-being. *Developmental Psychology, 48,* 369-380. doi:10.1037/a0026338

Morelli, N. A., & Cunningham, C. J. (2012). Not all resources are created equal: COR theory, values, and stress. *Journal of Psychology, 146*(4), 393-415. doi:0022-3980

Morris, T., Moore, M., & Morris, F. (2011). Stress and chronic illness: The case of diabetes. *Journal of Adult Development, 18*(2), 70-80. doi:10.1007/s10804-010-9118-3

Qiu, L., Lin, H., Leung, A. K., & Tov, W. (2012). Putting their best foot forward: Emotional disclosure on Facebook. *Cyberpsychology, Behavior & Social Networking, 15*(10), 569-572. doi:10.1089/cyber.2012.0200

Rau, P. P. L., Gao, Q., & Ding, Y. (2008). Relationship between the level of intimacy and lurking in online social network services. *Computers in Human Behavior, 24*, 2757–2770. ISSN:0747-5632

Ritchie, L. (2012). Individual stress, collective trauma, and social capital in the wake of the Exxon Valdez Oil Spill*. *Sociological Inquiry, 82*(2), 187-211. doi:10.1111/j.1475-682X.2012.00416.x

Schetter, C., & Dolbier, C. (2011). Resilience in the context of chronic stress and health in adults. *Social & Personality Psychology Compass, 5*(9), 634-652. doi:10.1111/j.1751-9004.2011.00379.x

Shad, M. U., Suris, A. M., & North, C. S. (2011). Novel combination strategy to optimize treatment for PTSD. *Human Psychopharmacology: Clinical & Experimental, 26*(1), 4-11. doi:10.1002/hup.1171

Sheldon, P. (2008). The relationship between unwillingness-to-communicate and students' Facebook use. *Journal of Media Psychology: Theories, Methods, and Applications, 20*(2), 67–75. doi:10.1027/1864-1105.20.2.67

Sheldon, K. M., Abad, N., & Hinsch, C. (2011). A two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it. *Journal of Personality & Social Psychology, 100*(4), 766-775. doi:10.1037/a0022407

Silver, S. M., Rogers, S., & Russell, M. (2008). Eye movement desensitization and reprocessing (EMDR) in the treatment of war veterans. *Journal of Clinical Psychology, 64*(8), 947-957. doi:10.1002/jclp.20510

Smith, C. (2014). *By the numbers: 89 amazing Facebook user statistics*. Retrieved from http://expandedramblings.com/index.php/by-the-numbers-17-amazing-facebook-stats#.UyW6k7vD_IU

Steiger, J. H. (1980). Tests for comparing elements of a correlation matrix. *Psychological Bulletin, 87*(2) 245-251. ISSN:0033-2909

Stone, B. K., Hobfoll, S. E., Monnier, J., & Johnson, R. J. (1998). How antisocial and prosocial coping influence the support process among men and women in the U.S. Postal Service. *Sex Roles, 39*(1/2), 1-20. ISSN: 03600025.

The Sunday Indian. (2012). *And Facebook begins.* Retrieved from http://www.thesundayindian.com/en/photo-albums/241/

Yee, N. (2006). Motivations for play in online games. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, *9*(6), 772-775. ISSN: 1094-9313.

Zamani, G. H., Gorgievski-Duijvesteijn, M. J., & Zarafshani, K. (2006). Coping with drought: Towards a multilevel understanding based on conservation of resources theory. *Human Ecology, 34*(5), 677-692. doi:10.1007/s10745-006-9034-0

Zimet, G. D., Dahlem, N. W., Zimet, S. G. & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52,* 30-41. ISSN:0022-3891

Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the multidimensional scale of perceived social support. *Journal of Personality Assessment, 55*(3/4), 610-617. ISSN: 0022-3891.

Appendix A: Multidimensional Scale of Perceived Social Support

Multidimensional Scale of Perceived Social Support (Zimet et al., 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Feeling About Statement
1 = Very Strongly Disagree
2 = Strongly Disagree
3 = Mildly Disagree
4 = Neutral
5 = Mildly Agree
6 = Strongly Agree
7 = Very Strongly Agree

Support Statements	Face-to-Face	Facebook
1. There is a special person who is around when I am in need.	[drop down 1-7]	[drop down 1-7]
2. There is a special person with whom I can share my joys and sorrows.	[drop down 1-7]	[drop down 1-7]
3. My family really tries to help me.	[drop down 1-7]	[drop down 1-7]
4. I get the emotional help and support I need from my family.	[drop down 1-7]	[drop down 1-7]
5. I have a special person who is a real source of comfort to me.	[drop down 1-7]	[drop down 1-7]
6. My friends really try to help me.	[drop down 1-7]	[drop down 1-7]
7. I can count on my friends when things go wrong.	[drop down 1-7]	[drop down 1-7]
8. I can talk about my problems with my family.	[drop down 1-7]	[drop down 1-7]
9. I have friends with whom I can share my joys and sorrows.	[drop down 1-7]	[drop down 1-7]
10. There is a special person in my life who cares about my feelings.	[drop down 1-7]	[drop down 1-7]
11. My family is willing to help me make decisions.	[drop down 1-7]	[drop down 1-7]
12. I can talk about my problems with my friends.	[drop down 1-7]	[drop down 1-7]

Appendix B: The Perceived Stress Scale

The Perceived Stress Scale (Cohen et al., 1983)

The questions in this scale ask you about your feelings and thoughts **during the last month**.
In each case, you will be asked to indicate by choosing *how often* you felt or thought a certain way.

How Often Felt
0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?	[drop down 1-4]
2. In the last month, how often have you felt that you were unable to control the important things in your life?	[drop down 1-4]
3. In the last month, how often have you felt nervous and "stressed"?	[drop down 1-4]
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	[drop down 1-4]
5. In the last month, how often have you felt that things were going your way?	[drop down 1-4]
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	[drop down 1-4]
7. In the last month, how often have you been able to control irritations in your life?	[drop down 1-4]
8. In the last month, how often have you felt that you were on top of things?	[drop down 1-4]
9. In the last month, how often have you been angered because of things that were outside of your control?	[drop down 1-4]
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	[drop down 1-4]

Scoring: PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A short 4 item scale can be made from questions 2, 4, 5 and 10 of the PSS 10 item scale.

Appendix C: Conservation of Resources Evaluation (COR-E)

Resource Loss

Instructions:

We are interested in the extent to which you have experienced or discussed loss of the listed resources in the past month. We are looking at both Facebook and face-to-face resource changes or discussions of changes. Facebook discussions would only be Facebook, not MySpace, blogs, or other on-line social media. Face-to-face would include actual face-to-face encounters, phone calls, or texts. The resources include objects, conditions, personal characteristics, and energies.

Loss of resources occurs when the resource has either decreased in availability to you or there is a potential for loss of the resource (e.g. actual loss of personal health or concern for potential loss of health while waiting for test results). You will be asked to rate the degree to which you have experienced or discussed changes to these resources on Facebook and face-to-face. For both Facebook and face-to-face, if you have experienced or discussed changes in either actual loss or potential loss of any of the resources in the past month, rate the loss from 1-4 (1 = to a small degree, 2 = to a moderate degree, 3 = to a considerable degree, 4 = to a great degree). If you haven't experienced/discussed the resource loss in the past month or the resource is not applicable, choose 0. The numbers are in a drop-down menu for each resource.

PLEASE NOTE: DO NOT RATE the availability of the resource to you. We are only interested in how much you discuss the loss or potential loss of each resource.

FOR EXAMPLE: RESOURCE item 26 - Status / Seniority at work: If the status / seniority of your job hasn't changed in the past month and you haven't discussed the possibility of job status change on Facebook, then you choose a "0" in the Facebook loss column. If you have discussed job status/seniority with family, friends, co-workers, etc. on the phone or in person, choose the number between 1 and 4 that reflects the amount of discussion you have had. If you don't have a job, i.e. you're retired and not looking for a job, choose "0".

Resource Changes
0 = not at all / not applicable 1 = to a small degree 2 = to a moderate degree 3 = to a considerable degree 4 = to a great degree

RESOURCES	Face-to-Face Loss	Facebook Loss
1. Personal transportation (car, truck, etc.)	[drop down 0-4]	[drop down 0-4]
2. Feeling that I am successful	[drop down 0-4]	[drop down 0-4]
3. Time for adequate sleep	[drop down 0-4]	[drop down 0-4]
4. Good marriage	[drop down 0-4]	[drop down 0-4]
5. Adequate clothing	[drop down 0-4]	[drop down 0-4]
6. Feeling valuable to others	[drop down 0-4]	[drop down 0-4]
7. Family stability	[drop down 0-4]	[drop down 0-4]
8. Free time	[drop down 0-4]	[drop down 0-4]
9. More clothing than I need	[drop down 0-4]	[drop down 0-4]
10. Sense of pride in myself	[drop down 0-4]	[drop down 0-4]
11. Intimacy with one or more family members	[drop down 0-4]	[drop down 0-4]
12. Time for work	[drop down 0-4]	[drop down 0-4]
13. Feelings that I am accomplishing my goals	[drop down 0-4]	[drop down 0-4]
14. Good relationship with my children	[drop down 0-4]	[drop down 0-4]
15. Time with loved ones	[drop down 0-4]	[drop down 0-4]
16. Necessary tools for work	[drop down 0-4]	[drop down 0-4]

17. Hope	[drop down 0-4]	[drop down 0-4]
18. Children's health	[drop down 0-4]	[drop down 0-4]
19. Stamina/endurance	[drop down 0-4]	[drop down 0-4]
20. Necessary home appliances	[drop down 0-4]	[drop down 0-4]
21. Feeling that my future success depends on me	[drop down 0-4]	[drop down 0-4]
22. Positively challenging routine	[drop down 0-4]	[drop down 0-4]
23. Personal health	[drop down 0-4]	[drop down 0-4]
24. Housing that suits my needs	[drop down 0-4]	[drop down 0-4]
25. Sense of optimism	[drop down 0-4]	[drop down 0-4]
26. Status/seniority at work	[drop down 0-4]	[drop down 0-4]
27. Adequate food	[drop down 0-4]	[drop down 0-4]
28. Larger home than I need	[drop down 0-4]	[drop down 0-4]
29. Sense of humor	[drop down 0-4]	[drop down 0-4]
30. Stable employment	[drop down 0-4]	[drop down 0-4]
31. Intimacy with spouse or partner	[drop down 0-4]	[drop down 0-4]
32. Adequate home furnishings	[drop down 0-4]	[drop down 0-4]
33. Feeling that I have control over my life	[drop down 0-4]	[drop down 0-4]
34. Role as a leader	[drop down 0-4]	[drop down 0-4]
35. Ability to communicate well	[drop down 0-4]	[drop down 0-4]
36. Providing children's essentials	[drop down 0-4]	[drop down 0-4]
37. Feeling that my life is peaceful	[drop down 0-4]	[drop down 0-4]
38. Acknowledgement of my accomplishments	[drop down 0-4]	[drop down 0-4]
39. Ability to organize tasks	[drop down 0-4]	[drop down 0-4]
40. Extras for children	[drop down 0-4]	[drop down 0-4]
41. Sense of commitment	[drop down 0-4]	[drop down 0-4]
42. Intimacy with at least one friend	[drop down 0-4]	[drop down 0-4]
43. Money for extras	[drop down 0-4]	[drop down 0-4]
44. Self-discipline	[drop down 0-4]	[drop down 0-4]
45. Understanding from my employer/boss	[drop down 0-4]	[drop down 0-4]
46. Savings or emergency money	[drop down 0-4]	[drop down 0-4]
47. Motivation to get things done	[drop down 0-4]	[drop down 0-4]
48. Spouse/partner's health	[drop down 0-4]	[drop down 0-4]
49. Support from co-workers	[drop down 0-4]	[drop down 0-4]
50. Adequate income	[drop down 0-4]	[drop down 0-4]
51. Feeling that I know who I am	[drop down 0-4]	[drop down 0-4]
52. Advancement in education or job training	[drop down 0-4]	[drop down 0-4]
53. Adequate financial credit	[drop down 0-4]	[drop down 0-4]
54. Feeling independent	[drop down 0-4]	[drop down 0-4]
55. Companionship	[drop down 0-4]	[drop down 0-4]
56. Financial assets (stocks, property, etc.)	[drop down 0-4]	[drop down 0-4]

57. Knowing where I am going with my life	[drop down 0-4]	[drop down 0-4]
58. Affection from others	[drop down 0-4]	[drop down 0-4]
59. Financial stability	[drop down 0-4]	[drop down 0-4]
60. Feeling that my life has meaning/purpose	[drop down 0-4]	[drop down 0-4]
61. Positive feelings about myself	[drop down 0-4]	[drop down 0-4]
62. People I can learn from	[drop down 0-4]	[drop down 0-4]
63. Money for transportation	[drop down 0-4]	[drop down 0-4]
64. Help with tasks at work	[drop down 0-4]	[drop down 0-4]
65. Medical insurance	[drop down 0-4]	[drop down 0-4]
66. Involvement with church, synagogue, etc	[drop down 0-4]	[drop down 0-4]
67. Retirement security (financial)	[drop down 0-4]	[drop down 0-4]
68. Help with tasks at home	[drop down 0-4]	[drop down 0-4]
69. Loyalty of friends	[drop down 0-4]	[drop down 0-4]
70. Money for advancement or self-improvement (education, starting a business, etc.)	[drop down 0-4]	[drop down 0-4]
71. Help with child care	[drop down 0-4]	[drop down 0-4]
72. Involvement in organizations with others who have similar interests	[drop down 0-4]	[drop down 0-4]
73. Financial help if needed	[drop down 0-4]	[drop down 0-4]
74. Health of family/close friends	[drop down 0-4]	[drop down 0-4]

Resource Gain

Instructions:

We are also interested if you have had a gain in any of the resources, listed below, in the past month.

Gain of resources occurs when the availability of a particular resource has increased for you (e.g., you and your family have spent more time together in the past month so you have experienced gain in the resource of "time with loved ones"). If you have experienced/discussed a resource gain or have obtained additional resources due to Facebook connections or face-to-face interactions in any of the resources in the past month, you would rate that resource gain from 1 to 4 (1 = to a small degree, 2 = to a moderate degree, 3 = to a considerable degree, 4 = to a great degree). If the availability of the resource is unchanged to you and you haven't experienced a gain, or the resource is not applicable, you would rate "extent of gain" as 0 (zero = not at all / not applicable).

Resource Changes
0 = not at all / not applicable
1 = to a small degree
2 = to a moderate degree
3 = to a considerable degree
4 = to a great degree

RESOURCES	Face-to-Face Gain	Facebook Gain
1. Personal transportation (car, truck, etc.)	[drop down 0-4]	[drop down 0-4]
2. Feeling that I am successful	[drop down 0-4]	[drop down 0-4]
3. Time for adequate sleep	[drop down 0-4]	[drop down 0-4]
4. Good marriage	[drop down 0-4]	[drop down 0-4]
5. Adequate clothing	[drop down 0-4]	[drop down 0-4]
6. Feeling valuable to others	[drop down 0-4]	[drop down 0-4]
7. Family stability	[drop down 0-4]	[drop down 0-4]
8. Free time	[drop down 0-4]	[drop down 0-4]
9. More clothing than I need	[drop down 0-4]	[drop down 0-4]
10. Sense of pride in myself	[drop down 0-4]	[drop down 0-4]
11. Intimacy with one or more family members	[drop down 0-4]	[drop down 0-4]
12. Time for work	[drop down 0-4]	[drop down 0-4]
13. Feelings that I am accomplishing my goals	[drop down 0-4]	[drop down 0-4]
14. Good relationship with my children	[drop down 0-4]	[drop down 0-4]

15. Time with loved ones	[drop down 0-4]	[drop down 0-4]
16. Necessary tools for work	[drop down 0-4]	[drop down 0-4]
17. Hope	[drop down 0-4]	[drop down 0-4]
18. Children's health	[drop down 0-4]	[drop down 0-4]
19. Stamina/endurance	[drop down 0-4]	[drop down 0-4]
20. Necessary home appliances	[drop down 0-4]	[drop down 0-4]
21. Feeling that my future success depends on me	[drop down 0-4]	[drop down 0-4]
22. Positively challenging routine	[drop down 0-4]	[drop down 0-4]
23. Personal health	[drop down 0-4]	[drop down 0-4]
24. Housing that suits my needs	[drop down 0-4]	[drop down 0-4]
25. Sense of optimism	[drop down 0-4]	[drop down 0-4]
26. Status/seniority at work	[drop down 0-4]	[drop down 0-4]
27. Adequate food	[drop down 0-4]	[drop down 0-4]
28. Larger home than I need	[drop down 0-4]	[drop down 0-4]
29. Sense of humor	[drop down 0-4]	[drop down 0-4]
30. Stable employment	[drop down 0-4]	[drop down 0-4]
31. Intimacy with spouse or partner	[drop down 0-4]	[drop down 0-4]
32. Adequate home furnishings	[drop down 0-4]	[drop down 0-4]
33. Feeling that I have control over my life	[drop down 0-4]	[drop down 0-4]
34. Role as a leader	[drop down 0-4]	[drop down 0-4]
35. Ability to communicate well	[drop down 0-4]	[drop down 0-4]
36. Providing children's essentials	[drop down 0-4]	[drop down 0-4]
37. Feeling that my life is peaceful	[drop down 0-4]	[drop down 0-4]
38. Acknowledgement of my accomplishments	[drop down 0-4]	[drop down 0-4]
39. Ability to organize tasks	[drop down 0-4]	[drop down 0-4]
40. Extras for children	[drop down 0-4]	[drop down 0-4]
41. Sense of commitment	[drop down 0-4]	[drop down 0-4]
42. Intimacy with at least one friend	[drop down 0-4]	[drop down 0-4]
43. Money for extras	[drop down 0-4]	[drop down 0-4]
44. Self-discipline	[drop down 0-4]	[drop down 0-4]
45. Understanding from my employer/boss	[drop down 0-4]	[drop down 0-4]
46. Savings or emergency money	[drop down 0-4]	[drop down 0-4]
47. Motivation to get things done	[drop down 0-4]	[drop down 0-4]
48. Spouse/partner's health	[drop down 0-4]	[drop down 0-4]
49. Support from co-workers	[drop down 0-4]	[drop down 0-4]
50. Adequate income	[drop down 0-4]	[drop down 0-4]
51. Feeling that I know who I am	[drop down 0-4]	[drop down 0-4]
52. Advancement in education or job training	[drop down 0-4]	[drop down 0-4]
53. Adequate financial credit	[drop down 0-4]	[drop down 0-4]
54. Feeling independent	[drop down 0-4]	[drop down 0-4]
55. Companionship	[drop down 0-4]	[drop down 0-4]

56. Financial assets (stocks, property, etc.)	[drop down 0-4]	[drop down 0-4]
57. Knowing where I am going with my life	[drop down 0-4]	[drop down 0-4]
58. Affection from others	[drop down 0-4]	[drop down 0-4]
59. Financial stability	[drop down 0-4]	[drop down 0-4]
60. Feeling that my life has meaning/purpose	[drop down 0-4]	[drop down 0-4]
61. Positive feelings about myself	[drop down 0-4]	[drop down 0-4]
62. People I can learn from	[drop down 0-4]	[drop down 0-4]
63. Money for transportation	[drop down 0-4]	[drop down 0-4]
64. Help with tasks at work	[drop down 0-4]	[drop down 0-4]
65. Medical insurance	[drop down 0-4]	[drop down 0-4]
66. Involvement with church, synagogue, etc	[drop down 0-4]	[drop down 0-4]
67. Retirement security (financial)	[drop down 0-4]	[drop down 0-4]
68. Help with tasks at home	[drop down 0-4]	[drop down 0-4]
69. Loyalty of friends	[drop down 0-4]	[drop down 0-4]
70. Money for advancement or self-improvement (education, starting a business, etc.)	[drop down 0-4]	[drop down 0-4]
71. Help with child care	[drop down 0-4]	[drop down 0-4]
72. Involvement in organizations with others who have similar interests	[drop down 0-4]	[drop down 0-4]
73. Financial help if needed	[drop down 0-4]	[drop down 0-4]
74. Health of family/close friends	[drop down 0-4]	[drop down 0-4]

Appendix D: Descriptive Data Questionnaire

Descriptive Data Questionnaire

Age- type current age	
Sex- choose one	Male, Female
Estimated amount of time spent per day on Facebook- type approx. number of hours rounded up to whole number (i.e. for 30 minutes type 1)	
Number of Facebook friends- type number of current FB friends	
Facebook friends also in face-to-face social support group- type approx. number of friends, family and significant others who are both a Facebook friend and face-to-face friend or family	