In 1998, only about 40% of U.S. homes had personal computers, and only about a third of those had access to the Internet (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998). Kraut and colleagues (1998) found significant relationships between Internet use and family communication, loneliness, and depression. However, early studies did not show positive outcomes from Internet use. In fact, they showed a decidedly negative impact. Kraut and colleagues' 1998 longitudinal study of the first one to two years of online access for 73 families (169 individuals) found no beneficial correlations. Because no evidence for associations between the Internet and wellness were found, researchers expressed general concerns about Internet usage. As a result, a predominant cautionary view of Internet use persisted for several years.

Internet Drawbacks
Young (1998) attempted to define and categorize Internet addiction with a symptomatic questionnaire. The 8 question symptom survey was based on the existing 10 question pathological gambling diagnostic questionnaire, which was believed to be the most similar diagnosis in the diagnostic manual (Young, 1998). Based on the responses, the survey categorized Internet users into two groups: dependent, meaning those who fit at least five of the eight questions for the diagnostic questionnaire, and nondependent, meaning those who did not fit at least five of the eight questions. Young (1998) reported distinct differences in the Internet usage patterns between these groups. The dependent group quickly developed heavy usage that interfered with their lives and proved difficult if not impossible to curtail or discontinue. Additionally, dependent participants used the Internet in a converse pattern to nondependents, with the top three uses for dependents being the bottom three uses for nondependents (Young, 1998).

Internet addiction researchers have struggled to find a clear and definitive parameters to define addiction. For example, Hardie and Tee (2007) identified the maladjustment personality construct neuroticism and lack of social support as key components. Moody (2001) reported relationships between Internet usage and subtypes of loneliness.

**ABSTRACT.** The Internet has become increasingly popular as a source of news, entertainment, and communication over the last 2 decades. Online social networks, such as Facebook®, are especially popular with college students; 9 out of 10 have a social account and average 47 min of screen time per day interacting with others (Sheldon, 2008). The present study sought to determine whether the use of Facebook constitutes a perceived social support for college students. Higher perceived levels of social support were found for frequent Facebook users as compared to low frequency users $t(125) = 9.82, p < .001$, estimated power .87. Frequency of social media was also related to wellness and perceived relationship with family. Geographic distance from home, years in college, and sex were not related to the use of the online social network. Implications for future research in the area of online usage and wellness are discussed.
Internet use was indirectly correlated to social loneliness, but directly correlated to emotional loneliness. The work of Casale and Fioravanti (2011) supports the loneliness paradigm, and also reported relationships between extreme Internet use and loneliness. Similarly, Weiser (2001) found that social integration was indirectly related to recreational use of the Internet, and that practical use was directly correlated to social integration. On the other hand, Vergeer and Pelzer (2009) failed to find any correlation between the size of a participant’s online social network and loneliness despite the fact that they found a positive correlation between a participant’s off-line social network size and social support.

Internet Benefits
Procopio and Procopio (2007) observed situational use of the Internet by examining the usage of individuals who lost their physical communities by natural disaster. Specifically, they looked at Internet utilization by the citizens of New Orleans after hurricane Katrina. They found that, in a time of crisis (like being away from home for the first time), the Internet became a vital tool for reconnecting with one’s physical community (Procopio & Procopio, 2007). Other studies have also found that utilization of the Internet can translate into real world community participation. Valenzuela, Park, and Kee (2009) found intensity of Facebook use and the use of Facebook groups correlated with civic and political participation.

Can Internet usage be therapeutic? Colvin, Chenoweth, Bold, and Harding (2004) surveyed caregivers of adult relatives that used online support groups. The respondents identified several positive aspects (e.g., anonymity and time flexibility), and several negative aspects, (e.g., no ability to receive physical comfort and the lack of contextual cues; Colvin et al., 2004). Another study examining the online support of adolescents with chronic kidney disease found a mixture of positive (e.g., connecting geographically dispersed individuals with shared experiences) and negative (e.g., the diverse ages limited cohesion and shared interests; Nicholas et al., 2009). In addition, Eichhorn (2008) found constructive and useful support to be solicited and received in her investigation of online eating disorder support groups.

Arguments for the use of the Internet as a means of social support and wellness are beginning to emerge in the study of online communities. Massively multiplayer online games (MMOs) allow participants to engage in competition and teamwork, while interacting with others online. The popularity of these games is evident. Sales account for about $11 billion of the video game industry’s worldwide revenue (Gamasutra, 2009). Besides entertainment, Barnett, Coulson, and Foreman (2009) found communication and social support to be key motivational factors for MMO players. In turn, participation in MMO communities may be a means for achieving the need for belongingness. The positive effect on overall well-being has been cited in the psychological literature over the past several decades (e.g. Baumester & Leary, 1995). Unfortunately, research on MMOs has identified the addictive nature of these games, because many players invest a significant amount of time playing, while neglecting other responsibilities (Yee, 2006).

Online social networks have become increasingly popular over the last decade. Ellison, Steinfield, and Lampe (2007) investigated the intensity of Facebook use on three dimensions of social capital. They found that intensity of Facebook use was directly related to bridging, bonding, and maintaining social capital. The researchers also found that the correlation between intensity of Facebook use and bridging capital was impacted by life satisfaction and self-esteem. Interestingly they did not find any significant interactions between bonding capital, Facebook intensity of use, and psychological factors (life satisfaction and self-esteem). Similarly, Manago, Taylor, and Greenfield (2012) found that a college student’s estimated Facebook audience size was directly related to their perceived well-being. In turn, Manago and colleagues suggested that psychosocial needs highly salient during late adolescence and early adulthood could be achieved via online communities. Because it does not require the same time investment of MMO participation, we believe Facebook provides a better platform for exploring positive outcomes of online communities.

Current Study
Maintaining the perspective that Internet usage can lead to positive outcomes, our study was designed to examine online social networks as a means of social support and wellness. Although individuals may have a variety of reasons for using the Internet and social media outlets in particular, we examined Facebook as a communication platform and a potential mechanism for health and wellness. Other studies have examined the number of online social connections (e.g., number
of Facebook friends), but we sought to identify the amount of social engagement. Specifically, our first hypothesis predicted that heavily engaged users of Facebook would report higher measures of social support compared to more lowly engaged users of Facebook. Additionally, perceived family relationships and general mental health and wellness were compared across users of Facebook. Our second hypothesis predicted that heavily engaged users of Facebook would report better perceived family relationships compared to low users of Facebook. Our third and final hypothesis predicted that heavily engaged users of Facebook would report higher perceived mental health and wellness compared to lowly engaged users. Years in college, geographic distance from home and sex were also examined as potential control variables.

Method

Participants
A random sample of 130 undergraduate college students from a public university in Texas agreed to participate in the study (see Table 1). The sample included 73 women and 53 men with mean age of 20.2 years. Sixty-two percent of participants were White American, 21% African American, 10% Hispanic, and 7% other. Following approval from the university’s Institutional Review Board, undergraduates were recruited to participate via student email listerv query. One hundred twenty-six of the participants (97%) reported having a Facebook account and a cell phone with text messaging capacity and were included in the subsequent analysis.

Materials and Procedure
Participants were invited to complete an online survey that utilized the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988). The social support scale consisted of a 12-item questionnaire based on a 7-point Likert-type scale. The MSPSS assessed social support from both friends and family. The MSPSS had sound psychometric properties with measures of internal consistency ranging from .85 to .91 (Zimet, Powell, Farley, Werkman, & Berkoff, 1990). A slightly modified version of Diener’s Satisfaction with Life Scale was used to measure health and wellness (Diener, Emmons, Larsen, & Griffin, 1985). Sample items are “I am satisfied with my life” changed to “I am satisfied with my mental health.” Cronbach’s α for the current sample was .88. In addition, participants were asked about the degree of their Facebook usage, quality of family relationships (separate from the social support measure), frequency of communication with family and friends, and geographic distance from home. All of these items were presented as one online survey on Psychdata.

Facebook users were categorized as lowly or heavily engagement users based on the reported frequency of social engagement on Facebook. Participants were asked how often they logged onto Facebook (frequency) and the degree of their social engagement (meaning whether they primarily viewed posts as opposed to posting and communicating with others). The degree of social engagement was based on each participant’s identification of Facebook usage when answering an item with two response choices. Low users were defined by infrequent social engagement on Facebook (e.g. “I have few status updates and correspondence with others”, $M = 6.80$, $SD = 2.70$). Highly engaged Facebook users were identified by self-report of frequent status updates and correspondence with others ($M = 20.20$, $SD = 3.40$).

Results

Separate independent sample t tests were performed to examine differences in social support, family relationship quality, wellness and geographic distance from home based on low and heavy usage of Facebook. A Bonferroni correction was used to protect against the increased risk of Type I error when performing multiple tests. In addition, analysis of covariance procedures examined the potential moderating effects of biological sex and time in college.

Social Support
The first hypothesis was supported because mean comparisons indicated that heavily engaged users of Facebook reported significantly higher levels
of social support ($M = 52.50, SD = 5.80$) compared to low users ($M = 42.50, SD = 5.10$), $t(125) = 9.82$, $p < .001$, $d = 1.76$. Differences between groups remained after controlling for sex, distance from home and time in college.

**Mental Health Wellness**

Mean comparisons indicated a difference on overall perceived wellness between the highly engaged and low engaged users of Facebook. Wellness outcomes paralleled those of social support because low engaged users of Facebook reported less health and wellness ($M = 27.00, SD = 3.10$) compared to heavy users ($M = 33.10, SD = 4.90$), $t(125) = 8.41$, $p < .001$, $d = 1.50$. Differences between groups remained after controlling for (a) sex, (b) distance from home, and (c) time in college.

**Family Relationship Quality**

A comparison of heavy and low Facebook engagement revealed similar results because highly engaged users reported better overall relationships with family ($M = 26.80, SD = 2.70$) compared to low users ($M = 20.20, SD = 2.2$), $t(125) = 7.98$, $p = .001$, $d = 1.43$. Differences between groups remained after controlling for sex, distance from home and time in college.

See Figures 1, 2, and 3 for a summary of mean comparisons across all three outcome measures.

**Discussion**

Our findings were consistent with survey research from the general population that indicated higher levels of perceived social support for Facebook users compared to non-Facebook users (Hampton, Goulet, Rainie, & Purcell, 2011). Our findings also highlighted connections between the frequency and amount of online social engagement on general mental health. In addition to entertainment and news, the current findings suggested that the use of Facebook may provide wellness benefits and may serve as a mechanism for maintaining favorable relationships with family. We believe our findings underscored the need to identify types of Internet usage before making broad stroke assumptions about the effects of spending time on the Internet.

Facebook may provide the most efficient means for achieving salient developmental tasks.
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for late adolescence and young adulthood. Results from recent studies with college students suggest that identity, sexual development, and intimacy are constructs linked to online social networking (Ibrahim, 2009; Manago, Graham, Greenfield, & Salimkhan, 2008). Hampton and colleagues (2011) reported evidence that Facebook may be conducive for maintaining ongoing communication with close, as opposed to distant relations. Furthermore, achievement of informational contexts of social support have been linked to intensity of Facebook usage (Ellison et al., 2007).

The prevalence of online relationships warrant further study as the Internet has increasingly become a primary mode of communication. For college students in particular, the use of social media may help alleviate emotional distress and loneliness associated with leaving home (Ellison et al., 2007). A weakness of the current study was the omission of other online social networks, such as Twitter, Linked-In, and perhaps online gaming. Facebook social support may be qualitatively different from other types of electronic communication, because the user selects with whom he or she will correspond with as friends. For example, one person may follow a Twitter account whose owner does not need to reciprocate. This may or may not be true with online games, chat rooms, and discussion boards as well.

Our sample is weak in ethnic diversity, which makes generalization across all demographics questionable. Lastly, we did not assess the amount of time spent online. Because our study made a distinction between the number of times a person logged onto Facebook, it is possible that low or heavy users could have spent different or similar amounts of time using the online platform. We believed the amount of online engagement was more relevant for our current findings, but future studies should assess time spent online as well.

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