Psychiatry Research ■ (■■■■) ■■■–■■■

Contents lists available at ScienceDirect

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres

# Social media users have different experiences, motivations, and quality of life

Jay Campisi *, Denis Folan, Grace Diehl, Timothy Kable, Candice Rademeyer

*Department of Biology, Regis University, D-8, Denver, CO 80221, USA*

ARTICLE INFO

*Article history:*
Received 8 August 2014
Received in revised form
10 March 2015
Accepted 20 April 2015

*Keywords:*
Social media
Social networking
Stress
Quality of life

ABSTRACT

While the number of individuals participating in internet-based social networks has continued to rise, it is unclear how participating in social networks might influence quality of life (QOL). Individuals differ in their experiences, motivations for, and amount of time using internet-based social networks, therefore, we examined if individuals differing in social network user experiences, motivations and frequency of social network also differed in self-reported QOL. Two-hundred and thirty-seven individuals (aged 18–65) were recruited online using the online platform Mechanical Turk (MTurk). All participants completed a web-based survey examining social network use and the World Health Organization Quality of Life Scale Abbreviated Version (WHOQOL-Bref) to assess QOL. Individuals who reported positive associations with the use of social networks demonstrated higher QOL while those reporting negative associates demonstrated lower QOL. Moreover, individuals using social networks to stay connected to friends demonstrated higher QOL while those using social networking for dating purposes reported lower QOL. Frequency of social network use did not relate to QOL. These results suggest that QOL differs among social network users. Thus, participating in social networking may be a way to either promote or detract from QOL.



## 1. Introduction

Quality of life (QOL) is a multidimensional construct that refers to an individual's overall subjective well-being and life satisfaction in the context of culture and value systems and in relation to goals, expectations, standard and concerns (Lawton et al., 1999, 2001). Several important determinants of QOL have been identified, including lifestyle (e.g., habits), social and community environment (e.g., social network), clinical status and health care (e.g., medical conditions), and socioeconomic and financial factors (e.g., financial resources) (Konagaya et al., 2009; Johnson et al., 2013). A large body of research indicates that these determinants are interrelated and that modulation of one determinant can affect related determinants and QOL (Johnson et al., 2013). For example, more diverse social networks have been demonstrated to benefit physical and psychological health and overall QOL (House et al., 1988; Berkman, 1995; Cohen et al., 1997; Kawachi and Berkman, 2001; Konagaya et al., 2009; Johnson et al., 2013). Therefore, identification of factors that contribute to QOL enables understanding of mechanisms for maintaining optimal levels of QOL.

While having a diverse social network is generally beneficial to health and QOL (House et al., 1988; Berkman, 1995; Cohen et al., 1997; Kawachi and Berkman, 2001; Konagaya et al., 2009; Johnson et al., 2013), it is unclear how *internet-based* social networks might influence health and QOL. Historically, internet users have searched the web for medical information. However, with the growth of social network sites such as Facebook, Twitter, Instagram, and Google+, the Internet is now used not only as an information source but also for individuals to disseminate personal health information, experiences and knowledge (Scanfeld et al., 2010; Prieto et al., 2014). Research conducted in the area of emotional disclosure (Pennebaker et al., 1988), an intervention in which individuals write or talk about emotionally stressful materials reveals beneficial effects in some but not all participants (Vedhara et al., 2010). It remains unclear if emotional disclosure will work or actually have detrimental effects in a social networking setting. Moreover, recent research suggests that emotional states can be transferred to others via emotional contagion (Coviello et al., 2014; Kramer et al., 2014). For example, researchers observed that the emotional content displayed in user News Feed in Facebook influenced the posting behavior of the user. When positive expressions were reduced, users produced fewer positive posts and more negative posts; when negative expressions were reduced users produced greater positive posts and fewer negative

* Corresponding author. Tel.: +1 303 964 5136; fax: +1 303 964 5480.
*E-mail address:* jcampisi@regis.edu (J. Campisi).

http://dx.doi.org/10.1016/j.psychres.2015.04.042
0165-1781/

posts (Kramer et al., 2014). Thus, understanding how social network usage might influence health and QOL is of significance.

There is evidence that individuals differ in both their internet-based social-networking experiences and their motivations for using social networks. For example, although many individuals report positive associations of Facebook use (Mauri et al., 2011), our previous work indicates that many Facebook users find the use of social networking to be stressful (Campisi et al., 2012) and others have found that Facebook use can result in declines in subjective well-being (Kross et al., 2013). Moreover, despite widespread use of Facebook, teens report waning enthusiasm for Facebook, disliking the increasing adult presence, people sharing excessively, and stressful "drama", but they keep using it because participating is an import part of overall teenage socializing (Madden et al., 2013). This report suggests that at least some users feel compelled to use social network sites. In addition, while many users benefit from information sharing through social networks such as Twitter (Alas et al., 2013), there is evidence that Twitter use can also result in negative psychological states for some individuals (Umihara and Nishikitani, 2013). It remains unknown if individuals who differ in their experiences with social networks or motivations for use also differ in how these networks influence their QOL.

The popularity of social-networking web sites such as Facebook and Twitter continues to increase and individuals report spending significant time connecting through internet-based social networks (D'Amato et al., 2010). For example, Facebook has surpassed Google as the most visited site in the United States, with over a billion monthly active users and more than 550 million daily active users (Kross et al., 2013). Twitter currently has over 250 million active users (https://twitter.com/twitter/status/28105 1652235087872), and around 400 million tweets are published daily. Interestingly, there is some evidence that the frequency of internet use modulates the user's experiences. A recent report indicates that a patient's frequency of internet use impacted their overall preference for both the type of information they received and their decision-making autonomy (Xie et al., 2013). Moreover, researchers are beginning to realize the value of using social networking sites to both "push" and "pull" information related to health, using these sites with greater frequency (Bartlett and Wurtz, 2015). Thus, understanding how social network usage might influence health and QOL is of great importance.

A number of aspects of QOL might potentially be modified by online social media use. For example, studies have indicated that access to basic health information by internet use may empower patients in physician-patient interaction (Robinson et al., 1998) and encourages active patient communication (Calbabretta, 2002). Moreover, research indicates that social network use is associated with improved social well-being (Achat et al., 1998). Therefore, it is possible that both physical and psychosocial QOL domains might be impacted by the user experience with social networks. Given that individuals differ in their experiences, and motivations for using internet-based social networks, their frequency of use, and that social networks generally influence health and QOL, we examined if individuals differing in social network user experiences, motivations and frequency of social network use also differed in self-reported QOL. We hypothesized that people reporting positive associations with social networking would report higher QOL than those who reported negative associations with social networking. In addition, we predicted individuals reporting positive motivations for using social networks would report higher QOL than those who expressed negative motivations for using social networking sites. We anticipated that both physical and psychosocial QOL domains might be impacted by the user experience, and motivations of use with social networks. Lastly, we predicted frequency of social network use would modulate the positive and negative impacts of social network use on QOL. In the event that significant differences exist between social media users and these variables future studies would be required to closely examine mediating factors.

## 2. Materials and methods

### 2.1. Participants

Participants were 244 individuals recruited online using Mechanical Turk (MTurk; www.mturk.com), an online platform run by Amazon (www.amazon.com). Subjects were at least 18 years old, United States residents, current users of social media networks, and members of the MTurk.com website (see Table 1). MTurk is a platform in which employers ("requesters") post-small human intelligence tasks ("HITs") and employees ("workers") perform those tasks for compensation (Bell et al., 2013). Participants were paid $0.50 for completing the experiment. All procedures were approved by the University Institution Review Board. Our previous research (Campisi et al., 2012) as well as power calculations indicate that this sample size is sufficient to demonstrate differences between groups. Sample sizes were calculated based on a 90% power at an alpha level of 0.05 to detect meaningful differences. This power value is equivalent to a probability of $< 10\%$ of committing a type-II error. Studies suggest that MTurk samples are more diverse than college student samples (Paolacci et al., 2010) and the quality of data provided by MTurk samples and samples drawn from college populations has been reported to be equivalent (Buhrmester et al., 2011; Sprouse, 2011).

### 2.2. Procedures

All participants completed an informed consent and then completed a web-based survey adapted from our previous work examining social network use (Campisi et al., 2012). The survey asked subjects to respond to questions regarding their experiences with social network use by examining how using social networks made them feel on a 1–5 Likert-type response scale, with higher scores indicating the participant felt a particular way when using social networks and lower scores indicating they did not feel a particular way when using social networks (Table 3). The four stated feelings attributed to social networking use were based on previous data (Chou et al., 2009; Campisi et al., 2012; Chou and Edge, 2012;): feeling stressed, angry, happy, or sad. The survey also asked subjects to respond to questions regarding the motivations why they use social networks on a 1–5 Likert-type response scale, with higher scores indicating they use social networks for the listed reason and lower scores indicating they do not use social networks for the listed reason (Table 4). The fours stated motivations for use were also based on previous studies (Chou et al., 2009; Chou and Edge, 2012): to feel included, due to boredom, to stay connected with friends, or for dating purposes.

In order to examine QOL all subjects also completed the World Health Organization Quality of Life Scale Abbreviated Version (WHOQOL-Bref) (Skevington et al., 2004). The WHOQOL-Bref is a widely used self-report questionnaire developed by the World Health Organization. Two general questions include subjective evaluations of overall quality of life ("How would you rate your overall quality of life?") and overall satisfaction with health ("How satisfied are you with your health?"). The additional questions assess four QOL domains, including physical health (6 items), psychological health (6 items), social relationships (3 items), and environment (8 items) (Tables 2–4). Each question is rated on a 1–5

**Table 1**
Demographic and social network characteristics of participants.

| Characteristic | Number (%) |
|---|---|
| Sex | |
| Male | 143 (60) |
| Female | 94 (40) |
| Age | |
| Mean | 28.8 |
| Range | 18–65 |
| Social networking use: overall use | |
| Facebook | 210 (88) |
| Twitter | 111 (46) |
| Google+ | 71 (30) |
| Dating sites | 20 (8) |
| Social networking use: average # of log-ins/week | |
| Facebook | 17.5 |
| Twitter | 10.3 |
| Google+ | 9.2 |
| Dating sites | 9.5 |