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# The Discriminant Value of Personality, Motivation, and Online Relationship Quality in Predicting Attraction to Online Social Support on Facebook

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This study investigates the relationship between personality traits, user motivations, relationship quality, and attraction to online social support in a sample of young adults (N=278) in Greece who use Facebook. Self-report questionnaires on personality, motives, relationship quality, online social support, and sociodemographic factors were administered. According to the results, men in contrast to women were significantly more attracted to online social support. Predictors of online relationship quality were the existence of close relationships, entertainment, and conscientiousness. Motives, personality, relationship quality, and gender were good predictors of attraction to online social support. Implications for psychologists and future research are discussed.

## 1. INTRODUCTION

The explosive growth of social networking sites (SNS) in the last years has had a huge impact on psychological research and international literature. The social power of networks such as Facebook and Twitter to connect, entertain, and enrich our lives is undeniable (DeLambo, Homa, Peters, DeLambo, & Chandras, 2011). However, the psychosocial effects of SNS on social interaction, communication, and mental health seem to be complex and still not well researched (Wilson, Gosling, & Graham, 2012). The reasons why young people use social media technologies, and particularly how their interpersonal relationships on Facebook impact seeking social support online, need to be further investigated, as researchers believe that SNS have drastically affected the psychosocial evolution of the current young adults—a generation that has been brought up immersed in social media and technology (Manago, Taylor, & Greenfield, 2012). Little research has been conducted in Greece regarding the use of SNS usage, even though Facebook is the second most visited site online with about 4 million active Greek users (Konsulas, 2012). The purpose of this article is to investigate how individual characteristics (gender, personality traits, user motivations) and online social relationships affect the use of

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Facebook as a tool for seeking social support online in a sample of young adults in Greece.

Social support is beneficial to and an important predictor of psychological and physical health, as well as overall well-being (Burleson & MacGeorge, 2002; Kleftaras, 1998, 2004, 2006). It could briefly be described as an interactive process that includes verbal and nonverbal communication provided by ties or links (social networks) that individuals have (friends/family, contacts in the real world or on the Internet) and that aims to improve an individual's feelings of coping, competence, belonging. and/or self-esteem. The existence of adequate social support is linked with various health outcomes, such as psychological adjustment, improved efficacy, better coping with upsetting events, resistance and recovery from disease, and reduced mortality (Griffiths et al., 2012; Kleftaras, 2004, 2006).

It is unclear whether interpersonal relationships and social interactions online can provide meaningful social support (Eastin & LaRose, 2004), even though various studies have demonstrated that the same types of social support found in the offline world also existed online, showing that a computermediated environment could be an alternative or supplementary setting for obtaining support (i.e., Tichon & Shapiro, 2003). Studies show that SNS users who engaged in online activities would be more likely to receive social support online (Ellison, Steinfeld, & Lampe, 2011), for example, participation in health-related Facebook groups is associated with informational and emotional support (Bender, Jimenez-Marroquin, & Jadad, 2011). Facebook users are more likely to provide online support to others who are in need of help or support (Kim & Lee, 2011), and the number of Facebook friends in particular is found to play an important role in predicting perceived social support, especially for people who face many stresses in life (Nabi, Prestin, & So, 2013).

Research has shown that the quality of interpersonal relationships can influence health and well-being (Cohen, 2004). The degree of closeness and self-disclosure, two basic dimensions of interpersonal relationship quality, can influence the social support a person receives (Sadat Nurullah, 2012). Strong supportive relationships can provide psychological support and

are thought to be important for emotional and physical wellbeing (Cohen, Gottlieb, & Underwood, 2004). However, the social networks created by weak ties (i.e., neighbors, loose friendships, work associates), because of their diversity, can also provide social support in the form of information exchange (Lampe, Ellison, & Steinfeld, 2008). The social sharing of emotion (self-disclosure) can encourage social connections, create bonds (Peters & Kashima, 2007), and provide immediate benefits, boosting well-being by increasing perceived social support (Berger & Buechel, 2012). High levels of self-disclosure are frequently found on Facebook (Krasnova, Speikermann, Koroleva, & Hildebrand, 2010) even with superficial friends, enabling Facebook users to increase the quality of their online relationships by transforming casual online relationships into more intimate ones (Manago et al., 2012). The "status updates," for example, are found to provide opportunities for openness and transparency, encouraging familiarity and intimacy between individuals (Kirkpatrick, 2010).

Facebook usage has also been found to significantly correlate with personality characteristics (Amichai-Hamburger & Vinitzky, 2010), as these are considered highly relevant in predicting online behaviors (Hamburger, 2002). Few studies explore the relationship between online social support and individual differences as portrayed by the Five Factor Model of personality dimensions. One of the dimensions, Neuroticism, is described as the tendency to experience mood swings and negative emotions (McCrae & Costa, 1996). Individuals high in Neuroticism are found to report the lowest perceived social support offline in face-to-face interactions, which may potentially result in a possible use of the Internet in search of support (Swickert, Hittner, Harris, & Herring, 2002).

Agreeableness measures how friendly people are and is another dimension that has been shown to be associated with online social interactions and their quality (McCarty & Green, 2005). Although people high in Agreeableness perceived higher social support online (Swickert et al., 2002), those with low levels are likely to have fewer friends in SNS, as they would also have difficulties forming relationships in the offline world (Landers & Lounsbury, 2006). The dimension of Conscientiousness describes behaviors that fall in the category of emotional intelligence, that is, people who are responsible, dependable, reliable, and helpful members in groups (McCrae & John, 1992). Conscientiousness seems to be negatively correlated with the use of SNS (Butt & Phillips, 2008) and the amount of time spent on Facebook (Ryan & Xenos, 2011).

With regards to the final two dimensions of the Five Factor Model of Personality, *Extraversion* and *Openness to Experience*, even though they are associated with the use of Internet (cf. Kraut et al., 2002), there is not sufficient evidence linking them with online relationship quality and social support. Extraverted individuals are sociable and outgoing, whereas introverted individuals may use SNS as an alternative to social activities (Ross et al., 2009) or as a substitute for real-world interactions (Amiel & Sargent, 2004). Openness to Experience

describes people that are adventurous, curious, and prefer novel experiences. This factor is found to be associated with trying out new methods of communication (Butt & Phillips, 2008) and keeping up with new social networking technologies (Vodosek, 2003).

Understanding the use of Facebook for social support requires consideration of not only individual user characteristics but also of the motives for using it. Previous research showed that there are various motives for Facebook usage and that they are relative to the personality and needs of the users (Błachnio, Przepiórka, & Rudnicka, 2013). The interpersonal utility motive (the need to communicate and interact socially) can significantly predict the amount of time spent in SNS (Price, Leong, & Ryan, 2005). It also plays an important role in maintaining close or distant social networks (Boase, Horrigan, Wellman, & Rainie, 2006) as well as the breadth and depth of self-disclosure. Other motives include the use of SNS for information (obtaining, reading, sharing information about others, and causes), relaxation, and entertainment in the form of meeting new people, playing online games, watching video, and listening to music (Ulusu, 2010). Escape is another motive that has shown to be associated with SNS usage, though Sheldon (2008) argued that not many people go to Facebook to escape from problems in real life; mainly they want to "kill time" and find some relief from boredom.

Although research has shown gender differences in SNS usage patterns (e.g., Peluchette & Karl, 2008), there is an absence of significant findings contrasting the quality of men's versus women's online relationships (Baym, Zhang, Kunkel, Ledbetter, & Chen, 2007). Even though women are more likely to use SNS, equal amounts of men and women are users of Facebook (Hargittai, 2008). Men are also found to be more likely to use Facebook in order to find dates (Raacke & Bonds-Raacke, 2008) and make new friends, whereas women tend to use it to maintain their existing relationships (Muscanell & Gaudagno, 2012). Gender is also found to influence the perceived intimacy and posting behavior of users (Rau, Gao, & Ding, 2008) and may have an impact on support-seeking behaviors (MacGeorge, 2003).

The effect of Facebook on social relationships in various cultures is considered a fruitful area of exploration (Amichai-Hamburger & Hayat, 2011). Several studies identify crosscultural differences in terms of SNS usage (Ji et al., 2010) and social support (Taylor et al., 2004), not only between Western and East Asian societies (e.g., Qiu, Lin, & Leung, 2013) but also among European countries (Vasalou, Joinson, & Courvoisier, 2010). Greece is generally considered a more interdependent society (Hofstede, 1983) where people may interact with fewer people but tend to have more intimate relationships and ties with their close relatives (Georgas et al., 1997). A study showed that people in Greece perceived less support and experienced less positive and more negative affect in social interactions than those in the United Kingdom, a more independent culture where people have more extensive networks (Kafetsios & Nezlek, 2012).

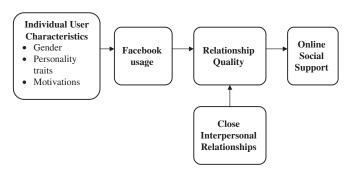


FIG. 1. Sequence of factors that affect attraction to social support on Facebook.

In conclusion, according to the literature review, the sequence of the factors that affect the attraction to social support on Facebook can be illustrated in Figure 1.

Given the study objectives as well as what is evident from the literature review, the following hypotheses are formulated: There are significant relationships among personality characteristics, motives for Facebook usage, relationship quality, attraction to online social support, daily Facebook usage, and relationship closeness. There are significant differences in the aforementioned factors among individuals with low, average, and high daily Facebook usage. We hypothesize that there are significant differences in attraction to online social support between men and women and that online relationship quality is among the predictive factors of online social support. Finally, it is expected that personality, motives for Facebook usage, relationship quality, and gender discriminate significantly the subjects of high and low attraction to online social support.

## 2. METHOD

## 2.1. Participants

The sample for the study consisted of 278 young adults: 132 men (47.5%) and 146 women (52.5%) between the ages of 18 and 26, with a mean age of 22.5 years. They were approached in public places and asked to participate anonymously, on a volunteer basis. More than half of them (N=161) live in a city with more than 100,000 residents, and at least 80% (N=226) were undergraduate students, whereas the rest of the participants (N=52) had either finished their degree or were postgraduate students.

Almost half of the participants (N=128) had maintained a profile in Facebook for 3 or more years, whereas 52.5% used Facebook together with other SNS (Twitter and MySpace). The majority of participants (72%) used Facebook for up to 1.5 hr on a daily basis, whereas a small number (14.4%) used Facebook for more than 2 hr a day. To evaluate the most prominent interpersonal relationship on Facebook, participants were asked to describe how strong they perceived their closest online relationship (i.e., acquaintance, friend, close friend, romantic). Eighty-two percent indicated that the closest relationship they

created on Facebook was either an acquaintance or a friend. Half of the participants (N=125) reported that they had met their friends initially offline and used Facebook as a means to stay connected, whereas only 31% (N=86) indicated that they had met online and stayed in contact that way.

#### 2.2. Materials and Procedure

A short demographic survey was employed to provide information on the characteristics of the participants as well as on their Facebook habits. In addition, four questionnaires were administered that were translated, adapted into Greek, and revised through back-translations by a team of four bilingual professionals: two psychologists and two specialists in English and Greek language.

NEO-Five-Factor Inventory (NEO-FFI). The NEO-FFI was used to measure personality traits and involves a brief subset of the full 240 question NEO-PI-R. According to the Big Five model, there are five domains of the adult personality: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. The NEO-FFI has 60 items (e.g., "I like to have a lot of people around me") that ask the respondents to rank their agreement with the statement on a 5-point Likert-type scale. People scoring high on a scale are considered to have a significant degree of that trait. Respective internal consistency alphas of .86, .77, .73, .68, and .81 were obtained for the NEO-FFI Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness scales (Costa & McCrae, 1992; McCrae, 1992).

Computer-Mediated Communication Motives Scale. The Computer-Mediated Communication Motives Scale measures the reasons why people use the Internet and consists of 45 items (e.g., "I use Facebook because it makes me feel less lonely"). Response options range on a 5-point Likert-type scale and comprise five motivation dimensions: interpersonal utility (need for affection, companionship, and social interaction), information seeking, entertainment (pass time, relaxation), escape (get away from and forget about real life, procrastinate), and convenience (communication, time control, economy). Respective Cronbach alphas of the five dimensions are .93, .87, .85, .85, and .78 (Papacharissi & Rubin, 2000).

The Personal Relationship Scale. This instrument was based on social psychological theories such as Kelley et al.'s (1983) work on close relationships and social penetration theory (Altman & Taylor, 1973). It was developed by Parks and Floyd (1996) to measure friendship qualities. A list of items (e.g., "I feel I could confide in this person about almost anything") were generated to measure seven dimensions of interpersonal relationships: interdependence (the degree of mutual dependence between two parties), breadth and depth (variety of conversational topics and degree of self-disclosure), code change (private signals used in the relationship), understanding (accepting behaviors, contributing to the relationship), commitment (the importance of relationship to continue), and

network convergence (the degree of overlap between each other's social networks). Response options range on a 7-point Likert scale, and a number of items in each factor are reverse scored. Reliabilities, measured by Cronbach's alpha, ranged between .61 and .83.

Computer mediated social support. For this instrument, 33 scale items were developed by Walther and Boyd (2002) that reflected hypothetical aspects of the electronic support advantages and disadvantages of face-to-face support (e.g., "I always get an opportunity to express myself online"). The items are rated on a 5-point Likert-type scale. The four factors identified are social distance (stigma management, autonomy and dependency issues), anonymity (technological distance, use of pseudonyms online), interaction management (benefits of asynchronous means of communication), and access (availability of online social support). Reliabilities, measured by Cronbach's alpha, were .88, .75, .72, and .72 respectively.

#### 3. RESULTS

Because the validity of the measures used in the present research has not been studied in a Greek population, it was deemed necessary to study their factorial structure based on our sample. Principal-components factor analyzes, using Varimax rotations, were conducted on all instruments. The CMC-Motives Scale contained five factors explaining 55.4% of the variance. The factor labels proposed by Papacharissi and Rubin (2000) suited the extracted factors and were retained. The Cronbach's alpha reliability coefficients, as found in the present study for the factors entertainment, information, escape, convenience and interpersonal utility were .83, .85, .80, .86, and .94, respectively. The Personal Relationship Scale in regard to the sample showed the seven primary factors that were found in the study of Parks and Floyd (1996) explaining 60.8% of the variance and had reliability coefficients of .92 (Cronbach's alpha) and .87 (split-half reliability). The Computer-Mediated Social Support instrument contained the four factors proposed by Walther and Boyd (2002), explaining 44% of the variance. The reliability coefficients, as found in the present study, were .91 (Cronbach's alpha) and .86 (split-half reliability). Finally, the NEO-FFI revealed five primary factors that explained 34% of variance. The Cronbach's alphas for Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness found in the present study, were .74, .66, .57, .52, and .78, respectively.

We hypothesised that there would be cant correlations between the personality dimensions (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness), motives for Facebook usage (entertainment, information, escape, convenience, and interpersonal utility), relationship quality, and attraction to online social support. As it is apparent in Table 1, our expectations were partially verified. All the motives for Facebook usage correlated with the factors of attraction to online social support and relationship quality, whereas Neuroticism showed moderately

TABLE 1
Correlations Among Social Support, Relationship Quality,
Motives, Personality Subscales (Pearson *r*) and Average
Daily Social Networking Sites Usage (Spearman rho)

	Social Support	Relationship Quality
Motives		
Interpersonal utility	.46**	.29**
Information seeking	.16**	.19**
Entertainment	.27**	.23**
Escape	.43**	.27**
Convenience	.34**	.24**
Personality		
Neuroticism	.36**	.20**
Extraversion	11	.03
Openness to	07	02
Experience		
Agreeableness	37**	13*
Conscientiousness	16**	.07
Daily Facebook usage	.16**	.21**

p < .05. \*p < .01.

significant positive correlations (r = .36, p < .01 and r = .20, p < .01, respectively) and Agreeableness negative correlations (r = -.37, p < .01 and r = -.13, p < .05, respectively) with the two aforementioned factors. Furthermore, Conscientiousness was negatively correlated (r = -.16, p < .01) with attraction to online social support, whereas Extraversion and Openness to Experience showed no significant correlations.

To examine whether individuals with low, moderate, and high daily use of Facebook differ significantly as to motives for Facebook usage, personality dimensions, relationship quality, and attraction to online social support, the sample was divided into three groups based on their daily usage: individuals who spent less than 30 min daily (N = 87), individuals who spent 30 to 60 min daily (N = 76), and individuals who spent more than 60 min daily on Facebook (N = 115). The cutoff scores were indicated by previous research studies (e.g., Harbaugh, 2010). As expected (Table 2), comparisons showed statistically significant mean differences as to all the motive variables; Neuroticism, F(2, 275) = 10.81, p < .00001; Agreeableness, F(2, 275) = 7.44, p < .01; relationship quality, F(2, 275) = 5.91, p < .01; and attraction to online social support, F(2, 275) = 3.86, p < .05.

In accordance with our expectations, significant differences were found between men and women regarding social support, as men (M = 87.8, SD = 19.76) compared to women (M = 80.2, SD = 20.2) reported higher levels of attraction to online social support, t(276) = 3.17, p < .01.

To find whether relationship quality is a predictor of attraction to online social support, a multiple regression analysis was

TABLE 2
Comparison (One-Way Analysis of Variance) of Means and Standard Deviations Regarding Daily Facebook Use, Motives,
Personality Characteristics, Relationship Quality, and Attraction to Online Social Support

	Daily Facebook Use				
	Less than 30 Min <sup>a</sup> M (SD)	30–60 Min <sup>b</sup> M (SD)	More than 60 Min <sup>c</sup> M (SD)	F(2, 275)	
Motives					
Interpersonal utility	40.1 (14.74)	45.1 (13.69)	48.95 (15.07)	9.06****	
Information seeking	19.8 (5.84)	20.9 (5.65)	22.7 (5.05)	7.24**	
Entertainment	24.5 (6.42)	27.1 (6.06)	29.7 (6.61)	16.24****	
Escape	10.95 (4.56)	12.3 (4.17)	13.8 (4.82)	10.00****	
Convenience	20.2 (6.09)	23.00 (6.06)	25.5 (5.69)	20.03****	
Personality					
Neuroticism	20.7 (6.14)	24.5 (6.91)	24.95 (7.31)	10.81****	
Extraversion	29.2 (5.51)	28.8 (5.72)	29.2 (6.37)	.18	
Openness to	25.4 (5.58)	26.5 (6.05)	24.5 (5.97)	2.77	
Experience	28.2 (4.55)	27.4 (5.46)	25.5 (5.48)	7.44**	
Agreeableness Conscientiousness	29.99 (6.58)	30.9 (7.35)	30.7 (6.81)	.40	
Relationship quality	146.2 (36.11)	158.2 (39.63)	165.9 (41.06)	5.91**	
Attraction to online social support	79.1 (19.9)	84.4 (21.07)	86.97 (20.31)	3.86*	

 $<sup>^{</sup>a}N = 87. ^{b}N = 76. ^{c}N = 115.$ 

conducted, utilizing all five personality variables and motives, gender, daily Facebook usage, degree of closeness, and the factor of relationship quality as independent ones and the factor of attraction to online social support as the dependent. Regression analysis vielded an overall multiple correlation of R = .64 accounting for 41% of the variance, F(14, 263) = 13.22, p < .0001. However, in contrast to our hypothesis, relationship quality ( $\beta = .10$ , p = .08) was not a statistically significant predictor of online social support. To identify whether the opposite existed, another multiple regression analysis (stepwise) was conducted, utilizing the factor of relationship quality as the dependent variable and, as independent ones, all five personality variables and motives, gender, daily Facebook usage, the degree of closeness, and the factor of attraction to online social support. The results (Table 3) yielded an overall multiple correlation of R = .59 accounting for 33% of the variance, F(4,(273) = 35.68, p < .0001. According to these results attraction to online social support ( $\beta = .17, p < .05$ ) was important in predicting relationship quality, together with the degree of closeness in relationships ( $\beta = .48$ , p < .0001), the entertainment motive ( $\beta = .16$ , p < .01), and the personality trait of Conscientiousness ( $\beta = .10, p < .05$ ).

Finally, a discriminant analysis was conducted to evaluate the discriminant value of personality characteristics (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness), motives for Facebook usage, gender and relationship quality in distinguishing individuals of low and high attraction to online social support. The Computer Mediated

Social Support scale authors, as well as existing literature, do not indicate a cutoff score. Consequently, to study the differences between individuals of low and high attraction to online social support, the sample was divided in two groups based on the subjects' score frequencies. In our sample, the lowest score was 33, whereas the highest was 135. According to the frequencies, the score of 84 divided the sample into two approximately equivalent in number groups. The first group consisted of 138 participants (53 men, 85 women) who reported low levels of attraction to online social support (scores ranging from 33 to 84), with a mean score of 67.8 (SD = 14.26). The second group consisted of 140 participants (79 men, 61 women) who reported high levels of attraction to online social support (scores ranging from 85 to 135), with a mean score 99.6 (SD =10.7). The mean scores of the two groups were significantly different, t(276) = -21.04, p < .0001). Wilks's Lambda was  $\lambda =$  $.72, \chi^{2}(12) = 88.82, p < .00001, and the canonical correlation$ was .53, which indicates a good significant association between the discriminant function and belongingness in a group. In fact 73.7% of the original group cases were seen as being correctly classified. These results also indicate that approximately 28.1% of the variance of the discriminant function is explained by the groups or, in other words, that the discriminant function accounts for about 28.1% of the variance of the scores of attraction to online social support.

Closer analysis of the structure matrix revealed three significant predictors, namely, interpersonal utility motive (r = .63), escape motive (r = .56), and Agreeableness (r = -.54) with

p < .05. p < .01. p < .00001.

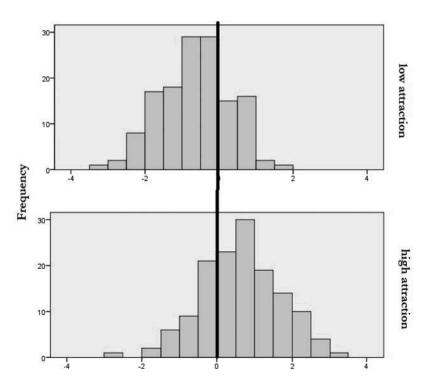


FIG. 2. Histograms showing the distribution of subjects' discriminant scores in the groups of low and high attraction to online social support.

TABLE 3 Summary of Hierarchical Regression Analysis for Variables Predicting Relationship Quality on Facebook

R = .59	
$R^2 = .33$	
$F(4, 273) = 35.68^{****}$	

Variables	$B^{a}$	$SEB^{b}$	β	t
Close relationships	21.4	2.26	.48	9.44****
Entertainment	.94	.31	.16	3.04**
Attraction to online social support	.34	.11	.17	3.14**
Conscientiousness	.61	.30	.10	2.06*

$$N = 278$$
.

<sup>a</sup>The direction of the relationship between variables. The positive B coefficient shows that the relationship of this variable with the dependent variable is positive. <sup>b</sup>The standard error of the unstandardized B coefficient.

Neuroticism, the motive of convenience, Conscientiousness, and relationship quality being less successful predictors, whereas gender and the other factors were poor predictors. The discriminating variables (personality characteristics, motives, gender, and relationship quality) are weighted into a new single index in order to produce as much separation as possible between the groups of high and low attraction to online social

support. The horizontal axis describes the vectors created by encompassing all of the variables that were used and assigning importance to each of them. The vertical axis labeled "Frequency" represents the proportion of plots (number of subjects) along each vector. The bold black vertical line was provided as a visual aid to help compare the two distributions. As it is evident in Figure 2, the majority of individuals in the first group (low attraction to online social support) are placed on the negative and opposite side of the axis than those of the second group (high attraction to online social support), who are clustered on the positive side. The two distributions do not overlap much, indicating a good discriminant function.

#### 4. DISCUSSION

The present study attempted to identify factors affecting the use of Facebook in relation to social support. In that regard, we focused on examining the relationship between personality, motivation, relationship quality, and attraction to online social support in a sample of young Greek adults. An important finding of this study is that men, in contrast to women, were significantly more attracted to the element of online social support in Facebook. This is in congruence to White and Dorman (2000), who suggested that men seem to embrace the anonymity provided by the Internet, openly sharing their concerns and relying on others for assistance, thus seemingly breaking out of the traditional masculine role constraints to ask for help or support. Furthermore, men usually have small support networks; they are unlikely to receive emotional support from male friends and are

unlikely to have many female friends, so many rely on female family members for emotional support (Wellman & Wortley 1989). The use of Facebook could possibly provide them with the opportunity to anticipate social support from an online community that is likely to be larger and more widespread than their offline support system, allowing for an increased sense of social support.

To examine whether individuals with low, moderate, and high daily use of Facebook differed significantly as to the aforementioned factors, the sample was divided into three groups based on their daily usage. Our hypothesis was confirmed, indicating that the higher a person's motivation to gratify his or her needs, the longer he or she uses Facebook daily. This finding is in accordance with and adds to the existing literature (e.g., Price et al., 2005) that suggests that motives can significantly predict the amount of time spent on SNS. Frequent daily Facebook usage was also related to high levels of Neuroticism. This could be explained by the fact that emotionally unstable individuals tend to avoid more risky face-to-face interactions and may prefer the relatively safer online social environment of Facebook (Amichai-Hamburger & Vinitzky, 2010).

We hypothesized that relationship quality is a predictive factor of attraction to support on Facebook (see Figure 1). However, our results showed quite the opposite; it is the attraction to online social support that predicts the quality of online relationships. As a result, our original schematic illustration should change by placing the factor of attraction to online social support before the factor of relationship quality. This modification would mean that individuals using Facebook as a tool for social support end up strengthening, in breadth and depth, the quality of their online relationships. Receiving online social support seems to increase self-disclosure, understanding, and commitment, creating more intimate interpersonal relationships that can strengthen one's general health and wellness, or can act as a cushion during stressful, illness-related events (Griffiths et al., 2012).

The majority of the participants in this study identified their closest online relationships as weak in strength (acquaintances or friends). The degree of closeness in interpersonal relationships was found to be the best predictor of relationship quality, a fact that is in accordance with findings that suggest that differences in relational quality may be associated with relationship type (Baym, Zhang, & Lin, 2004). However, social networks comprised by weak ties are not insignificant with regards to relationship quality. They are important on account of their diversity, availability, and visibility (Brandtzæg, Lüders, & Skjetne, 2010), as they can positively influence interpersonal relationships by creating different social circles, and they can provide novel information, objective feedback, and reduced risk. Accumulating hundreds of online connections has social benefits for SNS users, regarding, for example, sensitive healthrelated information (Wright, Rains, & Banas, 2010), or new job opportunities (Burke & Kraut, 2013).

In addition, another important finding in this study was the highlighting of motivation for usage as a more salient factor compared to personality in understanding the use of Facebook in search for social support. It appears that personality characteristics were important background factors, whereas motives operated in the foreground greatly influencing Facebook usage. The fact that, according to its discriminant value, interpersonal utility constituted the best predictor of attraction to online social support is in congruence with previous research suggesting that individuals who have few close friends and face problems forming intimate relationships may use the Internet for its interpersonal utility (Caplan, 2003).

An interesting and unexpected finding concerns the second best predictor of attraction to online social support, which was the motive of escape. This finding is in contrast to Sheldon's (2008) conclusion that Facebook is not generally used as a means of escaping from real life. Our results indicate that Facebook constitutes a virtual context that creates an exciting, changing, and challenging environment (Ellison et al., 2011) that could assist in providing an escape from real-life boredom and the problems associated with emotional difficulties (e.g., stress, depression, anxiety), problematic situations or personal hardships (e.g., job burnout, academic troubles, sudden unemployment, marital discord). Facebook users may turn to online interactions, an easily accessible provider of social support (Kim & Lee, 2011) that could work as a mechanism to help escape from face-to-face communication, and as such relieve or cope with the underlying problems in their lives.

Together with motives for usage, the personality dimensions of Agreeableness and Neuroticism were identified as having good discriminant value, constituting strong predictors of attraction to online social support, in contrast to Wilson, Fornaiser, and White (2010), who found that they have no impact on Facebook use. In fact, our results indicated that individuals low in Agreeableness were significantly more attracted to online social support. Because those with such quality generally have less empathy and are somewhat suspicious and unfriendly (McCrae & John, 1990), unsatisfactory face-toface communication may well lead them to use Facebook for social support. Furthermore, highly neurotic people are more likely to experience stress and nervousness, and one way to help alleviate these feelings could be to seek support online from friends. Neurotic users typically disclose information online because they seek self-assurance (Amichai-Hamburger & Vinitzky, 2010) and may seek support through activity in Facebook groups by "liking" other users' updates, hoping that they in turn would reciprocate (Bachrach, Kosinski, Graepel, Kohli, & Stillwell, 2012).

## 5. CONCLUSION

Cyberspace is, psychologically, a new realm of human experience that has the potential to transform psychology and psychotherapy (Barak & Suler, 2008). SNS are starting to become tools for research, for designing intervention programs and

customizing interventions in important areas of mental health research such as anxiety, depression (Giota & Kleftaras, 2013; Youn et al., 2013), and suicide prevention (Moreno et al., 2011). Psychologists and mental health professionals in general are facing the challenge of trying to adapt their practices to this new digital reality (Kolmes, 2009). Traditionally, therapists obtained information about a client through face-to-face dialogue. However, Facebook seems to create an environment that can foster in-depth self disclosure (Krasnova et al., 2010), where self-destructive behaviors (i.e., alcohol and drug use), cyberbullying, and negative self- comments are openly displayed (DeLambo et al., 2011; Moreno et al., 2011). In addition, the fact that people choose social media to announce possible suicide attempts (Ruder, Hatch, Ampanozi, Thali, & Fischer, 2011) could potentially have important implications for health professionals working with young adults who use SNS in their daily lives.

Online social networks offer the illusion of a widespread social support system where communication is simple and online support is convenient, accessible, and at user discretion (Ellison, Steinfield, & Lampe, 2007). We believe that Facebook could be utilized for the client's benefit and be valuable for counselors and psychologists who research and analyze personality and human behavior. Having access to the online profile or openly discussing Facebook and the client's online interactions during sessions could be used not only to gain further insights into their thoughts and behaviors (DeLambo et al., 2011) but also as a feedback for the course of the therapeutic process. Furthermore, the existence of online social networks, even though comprised by weak ties, might act as an easily accessible and effective tool for young adults to increase their well-being. In fact, online social networks, with the help of counselors, could have therapeutic value in allowing users who seek social support online to share emotion and to create rewarding and satisfactory online relationships.

To sum up, the results of the present study were limited by the self-report questionnaires and the correlational nature of the results that did not allow "cause and effect" conclusions. Another limitation is the fact that only one SNS was studied, and thus the results cannot be generalized to other sites. In spite of these limitations, the results of the present study have some important implications on future research. Experimental methods could further explore how Facebook activities (posts, online groups, games) and different types of relationship interactions influence online social support, as well as the potential benefits or risks in encompassing Facebook in the therapeutic process. We believe that cross-disciplinary research collaborations, with scientists who work in the fields of social sciences, as well as the technical fields of human-computer interactions, shall play an integral role in developing online social media, which may increase our understanding of health behavior and enhance the impact of behavioral interventions regarding social support, mental health, and overall well-being.

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#### **REFERENCES**

- Altman, I., & Taylor, D. (1973). Social penetration: The development of interpersonal relationships. New York, NY: Holt, Rinehart, & Winston.
- Amichai-Hamburger, Y., & Hayat, Z. (2011). The impact of the internet on the social lives of users: A representative sample from 13 countries. *Computers in Human Behavior*, 27, 585–589. doi:10.1016/j.chb.2010.10.009
- Amichai-Hamburger, Y., & Vinitzky, G. (2010). Social network use and personality. Computers in Human Behavior, 26, 1289–1295.
- Amiel, T., & Sargent, S. L. (2004). Individual differences in internet usage motives. Computers in Human Behavior, 20, 711–726.
- Bachrach, Y., Kosinski, M., Graepel, T., Kohli, P., & Stillwell, D. (2012). Personality and Patterns of Facebook Usage. Web Science, 12, 12–24.
- Barak, A., & Suler, J. (2008). Reflections on the psychology and social science of cyberspace. In A. Barak, (Ed.), *Psychological aspects of cyberspace: Theory, research, applications* (pp. 1–12). Cambridge, UK: Cambridge University Press.
- Baym, N. K., Zhang, Y. B., Kunkel, A., Ledbetter, A., & Chen, M. (2007).
  Relational quality and media use in interpersonal relationships. *New Media Society*, 9, 735–752.
- Baym, N. K., Zhang, Y. B., & Lin, M. C. (2004). Social interactions across media: Interpersonal communication on the Internet, telephone and face-toface. New Media & Society, 6, 299–318.
- Bender, J. L., Jimenez-Marroquin, M. C., & Jadad, A. R. (2011). Seeking support on Facebook: A content analysis of breast cancer groups. *Journal of Medical Internet Research*, 13, e16.
- Berger, J. A., & Buechel, E. (2012). Facebook therapy? Why do people share self-relevant content online? Available at SSRN: http://ssrn.com/ abstract=2013148 or http://dx.doi.org/10.2139/ssrn.2013148
- Błachnio, A., Przepiórka, A., & Rudnicka, P. (2013). Psychological determinants of using Facebook: A research review. *International Journal of Human–Computer Interaction*29, 775–787. doi:10.1080/10447318.2013.780868
- Boase, J., Horrigan, J. B., Wellman, B., & Rainie, L. (2006). The strength of Internet ties. Pew Internet and American Life Project. Retrieved from http:// www.pewinternet.org/pdfs/PIP\_Internet\_ties.pdf
- Brandtzæg, P. B., Lüders, M., & Skjetne, J. H. (2010). Too many Facebook "friends"? Content sharing and sociability versus the need for privacy in social network sites. *International Journal of Human–Computer Interaction*, 26, 1006–1030.
- Burke, M., & Kraut, R. (2013, February). Using Facebook after losing a job: Differential benefits of strong and weak ties. Paper presented at CSCW'13, San Antonio, TX. Available from http://citeseerx.ist.psu.edu/ viewdoc/summary?doi=10.1.1.297.3853&rank=1
- Burleson, B. R., & MacGeorge, E. L. (2002). Supportive communication. In M. L Knapp & J. A. Daly (Eds.), *Handbook of interpersonal communication* (2nd ed., pp. 374–420). Thousand Oaks, CA: Sage.
- Butt, S., & Phillips, J. G. (2008). Personality and self reported mobile phone use. *Computers in Human Behavior*, 24, 346–360.
- Caplan, S. E. (2003). Preference for online social interaction: a theory of problematic internet use and psychosocial well-being. *Communication Research*, 30, 625–648.
- Cohen, S. (2004). Social relationships and health. American Psychologist, 59, 676–684.
- Cohen, S., Gottlieb, B., & Underwood, L. (2000). Social relationships and health. In S. Cohen, L. Underwood, & B. Gottlieb (Eds.), Social support

- measurement and intervention: A guide for health and social scientists (pp. 3–25). New York, NY: Oxford University Press.
- Costa P. T., & McCrae R. R. (1992). Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory: professional manual. Lutz, FL: Psychological Assessment Resources.
- DeLambo, D. A., Homa, D., Peters, R. H., DeLambo, A. M., & Chandras, K. V. (2011). Facebook and social media: Implications for counseling college students. Retrieved from http://counselingoutfitters.com/vistas/ vistas11/Article\_68.pdf
- Eastin, M. S, & LaRose, R. (2004). Alt. support: Modeling social support online. *Computers in Human Behavior*, 21, 977–992.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media Society*, 13, 873–892.
- Georgas, J., Christakopoulou, S., Poortinga, Y. H., Angleiter, A., Goodwin, R., & Charalambopoulos, N. (1997). The relationship of family bonds to family structure and functions across cultures. *Journal of Cross-Cultural Psychology*, 28, 303–320.
- Giota, K. G., & Kleftaras, G. (2013). The role of personality and depression in problematic use of social networking sites in Greece. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 7, Article 6. doi:10.5817/CP2013-3-6
- Griffiths, F. E., Cave, J., Boardman, F., Ren, J., Pawlikowska, T., Ball, R., . . . Cohen, A. (2012). Social networks—The future for health care delivery. Social Science & Medicine, 75, 2233–2241.
- Hamburger, Y. Amichai. (2002). Internet and personality. Computers in Human Behavior, 18, 1–10.
- Harbaugh, E. R. (2010). The effect of personality styles (level of introversion–extroversion) on social media use. The Elon Journal of Undergraduate Research in Communications, 1, 70–86.
- Hargittai, E. (2008). Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication*, 13, 276–297.
- Hofstede, G. (1983). National cultures revisited. Behavior Science Research, 18, 285–305.
- Ji, Y., Hwangbo, H., Yi, J., Rau, P., Fang, X., & Ling, C. (2010). The influence of cultural differences on the use of social network services and the formation of social capital. *International Journal of Human–Computer Interaction*, 26, 1100–1121.
- Kafetsios, K., & Nezlek, J. B. (2012). Emotion and support perceptions in everyday social interaction: Testing the "less is more" hypothesis in two cultures. *Journal of Social and Personal Relationships*, 29, 165–184.
- Kelley, H. H., Berscheid, E. Christensen, A. Harvey, J. H., Huston, T. L., Levinger, G. McClintock, E. Peplau, L. A., & Peterson, D. R. (Eds.) (1983). Close relationships. New York: W. H. Freeman.
- Kim, J., & Lee, J. E. (2011). The Facebook paths to happiness: Effects of the number of facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior and Social Networking*, 14, 359–364.
- Kirkpatrick, D. (2010). The Facebook effect: Inside story of the company that is connecting the world. New York. NY: Simon & Schuster.
- Kleftaras, G. (1998). Depression today: Description, diagnosis, theories and research findings [Greek]. Athens, Greece: Ellinika Grammata.
- Kleftaras, G. (2004). La dépression: Approche cognitive et comportementale [Depression: Cognitive and behavioral approach]. Paris, France: L'Harmattan.
- Kleftaras, G. (2006). Psychosocial factors and later life depressive symptoms in a Greek community sample. *Physical and Occupational Therapy in Geriatrics*, 25(2), 13–32.
- Kolmes, K. (2009). Managing Facebook as a mental health professional. Retrieved from http://drkkolmes.com/2009/06/08/managing-facebook-as-amental-health-professional/
- Konsoulas, T. (2012). Facebook: Τα στατιστικάτωνΕλλήνωνχρηστών [The statistics of Greek users]. Retrieved from http://www.socialsteps. gr/facebook-ta-statistika-twn-ellinwn-users/

- Krasnova, H., Spiekermann, S., Koroleva, K., & Hildebrand, T. (2010). Online social networks: why we disclose. *Journal of Information Technology*, 25, 109–125.
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58, 49–74.
- Lampe, C., Ellison, N., & Steinfield, C. (2008). Changes in use and perception of facebook. Proceedings of the 2008 Conference on Computer-Supported Cooperative Work. Retrieved from https://www.msu.edu/~nellison/Lampe EllisonSteinfield2008.pdf
- Landers, R. N., & Lounsbury, J. W. (2006). An investigation of Big Five and narrow personality traits in relation to internet usage. *Computers in Human Behavior*, 22, 283–293.
- MacGeorge, E. L. (2003). Gender differences in attributions and emotions in helping contexts, Sex Roles, 48, 175–182.
- Manago, A. M., Taylor, T., & 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
- McCarty, C., & Green, H. D. (2005). Personality and personal networks. Paper presented at the Sunbelt XXV Conference.
- McCrae, R. R. (1992). The five-factor model: Issues and applications [Special issue]. *Journal of Personality*, 60.
- McCrae, R. R., & Costa, P. T., Jr. (1996). Toward a new generation of personality theories: Theoretical contexts for the Five-Factor Model. In J. S. Wiggins (Ed.), *The Five-Factor Model of personality: Theoretical perspectives* (pp. 51–87). New York, NY: Guilford.
- McCrae, R. R., & John, O. P. (1992). An introduction to the Five-Factor Model and its applications. *Journal of Personality*, 60, 175–215.
- Moreno, A. M., Jelenchick, L. A., Egan, K. G., Cox, E., Young, H., Gannon, K. E., & Becker, T. (2011). Feeling bad on Facebook: Depression disclosures by college students on a social networking site. *Depression and Anxiety*, 28, 447–455
- Muscanell, N. L., & Guadagno, R. E. (2012). Make new friends or keep the old: Gender and personality differences in social networking use. *Computers in Human Behavior*, 28, 642–647.
- Nabi, R. L., Prestin, A., & So, J. (2013). Facebook Friends with (health) benefits? Exploring social network site use and perceptions of social support, stress, and well-being. *Cyberpsychology, Behavior, and Social Networking*, 16, 721–727. doi:10.1089/cyber.2012.0521.
- Papacharissi, Z., & Rubin, A. M. (2000). Predictors of Internet use. *Journal of Broadcasting and Electronic Media*, 44, 175–96.
- Parks, M. R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Computer-Mediated Communication*, 1(4). Retrieved from http://jcmc.indiana.edu/vol1/issue4/ parks.html
- Peluchette, J., & Karl, K. (2008). Social networking profiles: An examination of student attitudes regarding use and appropriateness of content. *CyberPsychology & Behavior*; 11, 95–97.
- Peters, K., & Kashima, Y. (2007). From social talk to social action: Shaping the social triad with emotion sharing. *Journal of Personality and Social Psychology*, 93, 780–797.
- Price, L., Leong, E., & Ryan, M. (2005). Motivations for social Internet use. ANZMAC 2005 Conference: Consumer Behaviour. Edith Cowan University. Available from http://ro.ecu.edu.au/ecuworks/2507/
- Qiu, L., Lin, H., & Leung, A. K.-y. (2013). Cultural differences and switching of in-group sharing behavior between an American (Facebook) and a Chinese (Renren) social networking site. *Journal of Cross-Cultural Psychology*, 44, 106–121.
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology & Behavior*, 11(2), 169–174.
- Rau, P. L. P., 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.
- Ross, C., Orr, E. S., Sisic, M., Arsenault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, 25, 578–586.

- Ruder, T. D., Hatch, G. M., Ampanozi, G., Thali, M. J., & Fischer, N. (2011). Suicide announcement on Facebook. *Crisis*, 32, 280–282. doi:10.1027/0227-5910/a000086
- Ryan, T., & Xenos, S. (2011). Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Computers in Human Behavior*. Advance online publication. doi:10.1016/j.chb.2011.02.004
- Sadat Nurullah, A. (2012). Received and provided social support: a review of current evidence and future directions. American Journal of Health Studies. Available from http://www.thefreelibrary.com/\_/print/PrintArticle. aspx?id=308741526
- Sheldon, P. (2008, Spring). Student favorite: Facebook and motives for its use. Southwestern Mass Communication Journal, pp. 39–53.
- Swickert, R. J., Hittner, J. B., Harris, J. L., & Herring, J. A. (2002).
  Relationships among Internet use, personality and social support.
  Computers in Human Behavior, 18, 437–451.
- Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and social support: Who seeks it and why? *Journal of Personality and Social Psychology*, 87, 354–362.
- Tichon, J. G., & Shapiro, M. (2003). The process of sharing social support in cyberspace. CyberPsychology & Behavior, 6, 161–170.
- Ulusu, Y. (2010). Determinant factors of time spent on Facebook: Brand community engagement and usage types. *Journal of Yasar University*, 18, 2949–2957.
- Vasalou, A., Joinson, A. N., & Courvoisier, D. (2010). Cultural differences, experience with social networks and the nature of "true commitment" in Facebook. *International Journal of Human–Computer Studies*, 68, 719–728.
- Vodosek, M. (2003). Personality and the formation of social networks. Paper presented at the annual meeting of the American Sociological Association, 16 August 2003, Atlanta Hilton Hotel, Atlanta, GA. Available at: http:// www.allacademic.com/meta/p107700\_index.html
- Walther, J. B., & Boyd, S. (2002). Attraction to computer-mediated social support. In C. A. Lin & D. Atkin (Eds.), Communication technology and society: Audience adoption and uses (pp. 153–188). Cresskill, NJ: Hampton Press.
- Wellman, B., & Wortley. S. (1989). Brothers' keepers: Situating kinship relations in broader networks of social support. Sociological Perspectives, 32, 273–306

- White, M. H., & Dorman, S. M. (2000). Online support for caregivers analysis of an internet Alzheimer's mail group. *Computers in Nursing*, 18, 168–176.
- Wilson, K., Fornasier, S., & White, K. M. (2010). Psychological predictors of young adults' use of social networking sites. Cyberpsychology, Behavior & Social Networking, 13, 173–177. doi:10.1089/cyber.2009. 0094
- Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of Facebook research in the social sciences. *Perspectives on Psychological Science*, 7(3), 203–220. doi:10.1089/cyber.2009.0094
- Wright, K. B., Rains, S., & Banas, J. (2010). Weak-tie support network preference and perceived life stress among participants in healthrelated, computer-mediated support groups. *Journal of Computer-Mediated Communication*, 15, 606–624.
- Youn, S. J., Trinh, N.-H., Shyu, I., Chang, T., Fava, M., Kvedar, J., & Yeung, A. (2013). Using online social media, Facebook, in screening for major depressive disorder among college students. *International Journal of Clinical and Health Psychology*, 13, 74–80.

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