MUNI FSS

JOURNAL OF PSYCHOSOCIAL RESEARCH ON CYBERSPACE
CYBERPSYCHOLOGY

Choi, J. (2022). Do Facebook and Instagram differ in their influence on life satisfaction? A study of college men and women in South Korea. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 16*(1), Article 2. https://doi.org/10.5817/CP2022-1-2

Do Facebook and Instagram Differ in Their Influence on Life Satisfaction? A study of College Men and Women in South Korea

Jounghwa Choi

Hallym University, Chuncheon, South Korea

Abstract

While a number of previous studies examined the impacts of social networking sites (SNSs) on young people's well-being, they usually focused on a single platform without considering the increasing use of multiple social media platforms. In addition, only a few studies have explored gender differences, and empirical evidence outside Western culture is still lacking. To this end, the present study explores how two different types of use (i.e., active vs. passive) of the two most popular SNS (social network sites) platforms (i.e., Facebook and Instagram) are related to college men's and women's life satisfaction via social support and social comparison in South Korea. Path analyses conducted using data from a nationwide online survey of Korean college students (N = 360) revealed that active use contributes to life satisfaction via perceived social support on SNSs, while passive use decreases life satisfaction via negative social comparison on SNSs. Both active Facebook and Instagram use are related to perceived social support, while negative social comparison tends to be related only to passive Instagram use. Gender differences were not observed in the hypothesized relationships except for those involving the control variables (i.e., the amount of overall SNS use and the number of SNS platforms used). The results suggest that the influences of SNS use on subjective well-being depend on the types of SNS use and the nature of the platforms. The practical implications for social media literacy education are discussed.

Keywords: social network sites, perceived social support, negative social comparison, life satisfaction, active and passive use

Editorial Record

First submission received:
June 24, 2020

Revisions received:
February 2, 2021
July 11, 2021
November 18, 2021

Accepted for publication:
January 3, 2022

Editor in charge:
Alexander P. Schouten

Introduction

Social networking sites (SNSs) are internet-based platforms that allow individuals to present themselves and establish or maintain connections with others (Ellison et al., 2007, p. 1143). They have become an integral part of young people's lives. In Korea, individuals in their 20s show the highest rate of SNS use (82.3%) (Y.-H. Kim, 2019), as was similarly observed in the U.S. (Smith & Anderson, 2018) and EU countries (Eurostat, 2020). This age group also spends the most time using SNSs compared to other generations and accounts for the highest proportion of heavy users (DMC Media, 2018). Accordingly, academic attention has increasingly been paid to the impacts of SNSs on young people's well-being (see Appel et al., 2020; Huang, 2017; Liu et al., 2016; Liu et al., 2018; Yoon et al., 2019 for review). Notwithstanding the accumulating literature, the increasing complexity of SNS functions and the emergence of new SNSs call for further exploration.

First, to date, previous studies usually focused on a single platform. The majority of studies have focused on Facebook, and a relatively small number of studies have focused on other SNS platforms. However, the use of multiple social media platforms by users has increased over time. According to a report by the Pew Research Center (Smith & Anderson, 2018), 73% of Americans use more than one SNS, and the median number used by the 18 to 29-year-old age group is four platforms. A report from Korea in 2016 also stated that 49% of Facebook users use Instagram and that 84% of Instagram users use Facebook simultaneously (Y.-N. Kim, 2016). "[S]ocial media platforms differ by type, functionality, and primary intended purpose" (Primack et al., 2017, p. 2); thus, users' SNS experiences can vary across platforms (Weinstein, 2018). Given these differences, the conclusions drawn from one SNS platform may not be applicable to other platforms. Therefore, scholars (Primack et al., 2017; Weinstein, 2018) have called for researchers to consider the use of multiple SNS platforms (Sheldon & Bryant, 2016). Second, relatively few studies (e.g., Orben et al., 2019) have explored gender differences in the role of SNSs in young people's subjective well-being. Because men and women differ in their use of and motives for using media technologies (Krasnova et al., 2017; Pujazon-Zazik & Park, 2010), gender differences in social media use may result in different well-being outcomes between men and women. Exploring this possibility could provide insights for the design of social media literacy or mental health intervention programs customized to each gender group.

Therefore, the present study is intended to explore how the uses of the two most popular SNS platforms, i.e., Facebook and Instagram, are differentially related to college men's and women's subjective well-being in South Korea. In South Korea, Facebook and Instagram are the most widely used platforms among individuals in their twenties (DMC Media, 2020). In addition, the overlap in users between these two platforms is the greatest relative to that of other platforms (Y.-N. Kim, 2016). Because Instagram is considered distinct from Facebook in nature, comparing these two SNS platforms could expand the extant literature, which primarily focuses on Facebook. In this exploration, we consider two different types of SNS use (i.e., active vs. passive) and two different mediators (i.e., perceived social support on SNSs and negative social comparison on SNSs) based on the theoretical model proposed by Verduyn et al. (2017). By examining how active and passive Instagram and Facebook uses are differentially related to life satisfaction via these two mediators among college men and women in South Korea, this study is aimed at providing a more comprehensive picture of the relationship between SNS use and subjective well-being among the young.

The majority of previous studies on the relationship between SNS use and well-being have been conducted on Western cultures (see Huang, 2017; Liu et al., 2018), although the extant literature suggests that the roles of SNSs, how people use SNSs, and the subsequent consequences may differ by culture (Cho & Park, 2013; Jackson & Wang, 2013). Several cross-cultural studies on SNS use suggest that Korean college students have stronger motives for obtaining social support through SNS (Y. Kim et al., 2011) and differ in the way they engage with SNSs, such as in terms of self-presentation (Lee-Won et al., 2014) and social comparison (Song et al., 2019). While previous Western studies often showed mixed results or no association in the relationships between SNS use and well-being indicators (e.g., Coyne et al., 2020), Koreans' stronger motives for social support and social comparison on SNS may suggest these relationships might be pronounced among Koreans. Therefore, by seeking empirical evidence beyond that for Western culture, this study contributes in expanding our understanding of the role of SNSs in people's subjective well-being.

SNS Use and Subjective Well-Being

Subjective well-being is "a person's cognitive and affective evaluations of his or her life as a whole" (Diener et al., 2002, p. 187). It is an important goal that people strive to achieve and is related to objective indicators of well-being, such as health and longevity (De Neve et al., 2013). Social relationships are considered among the most important predictors of subjective well-being (Cooper et al., 1992). As a result, the emergence of SNSs has attracted the attention of social scientists interested in the role of social ties in individuals' subjective well-being.

In recent years, it has been a recurring trend to explore how two different types of SNS use, i.e., active vs. passive SNS use, differentially relate to subjective well-being. The active use of SNSs refers to SNS activities "where users actively engaged with the site, creating content and communicating with friends" (Gerson et al., 2017, p. 82), while the passive use of SNSs refers to SNS activities, such as consuming or monitoring the content of others without interacting (e.g., scrolling through news feeds or viewing posts) (Frison & Eggermont, 2016a; Verduyn et al., 2015). It has been hypothesized that active use relates to well-being indicators such as life satisfaction, whereas passive use relates to ill-being indicators, such as depression. Such hypotheses are concisely captured in Verduyn et al.'s

(2017) model, which delineates paths from active/passive SNS use to subjective well-being via greater social support and via upward social comparison and envy. A number of previous studies have provided supporting evidence for this model (see Verduyn et al. 2017 for review).

At the same time, arguments and evidence countering such active/passive SNS use hypotheses have also emerged. For example, Aalbers and colleagues' (Aalbers et al., 2019) longitudinal study found that loneliness predicts passive SNS use but that the reverse does not occur. Several other studies suggest that passive SNS use can have a positive effect on well-being (Chen et al., 2019; Meier et al., 2020) and that some types of active SNS use can have a negative effect on well-being (Kross et al., 2021). Recent meta-analysis studies (Liu et al., 2019; Yin et al., 2019) provide conflicting findings on the associations between active/passive SNS use and well-being. Some scholars (Beyens et al., 2020; Valkenburg et al., in press) have found only small proportions of participants to report negative effects of passive SNS use. Notwithstanding, more recent evidence that supports active/passive SNS use hypotheses is still conflicting (Burnell et al., 2019; Lin et al., 2020; Macrynikola & Miranda, 2019; Pang, 2021). For example, Frison and Eggermont's (2020) longitudinal study and Liu et al.'s (2019) meta-analysis support the active/passive SNS use hypotheses. Given these mixed findings, it appears that Verduyn et al.'s (2017) model requires further exploration.

Social Comparison and Social Support as Mediators

Social Comparison

While social comparison is a fundamental psychological process that assists in individuals' social adjustment (Mussweiler et al., 2006), upward social comparison (e.g., comparing oneself with superior others) can be detrimental to one's subjective well-being because people can have poor self-evaluations (Fujita, 2008). On SNSs, social comparison information is salient, and social comparison is ubiquitous (Haferkamp & Krämer, 2011). SNSs allow for self-presentation, and users often portray themselves on SNSs in an ideal manner (Barash et al., 2010; Chou & Edge, 2012). While people share their negative life events and emotions on SNSs (Burke & Develin, 2016; Moreno et al., 2011), positive events are more likely to be shared through social media, which does not require immediate feedback, whereas negative events are more likely to be shared through intrusive media (i.e., phone calls) to seek immediate feedbacks or help (Choi & Toma, 2014). As a result, people's self-presentation on SNSs is positively skewed (Lee-Won et al., 2014), and SNS users are more likely to encounter others' reports of positive life events more frequently than in real life.

Scholars have argued that passive exposure to these positive self-presented images is likely to induce negative social comparison (e.g., feelings that others are doing better or are happier than oneself), which in turn negatively affects subjective well-being (Verduyn et al., 2020). As people passively use SNSs, they are more likely to engage in negative social comparison (Burnell et al., 2019; Hu & Liu, 2020; Ozimek & Bierhoff, 2020; Schmuck et al., 2019) and to feel envy (Krasnova et al., 2015; Tandoc & Goh, 2021) when using these sites. Such negative social comparison on SNSs in turn is associated with depressive symptoms (Burnell et al., 2019; Hanna et al., 2017; Tandoc & Goh, 2021), lower self-esteem (Burnell et al., 2019; Hanna et al., 2017; Schmuck et al., 2019) and lower subjective well-being (Frison & Eggermont, 2016b; Wang et al., 2018; H. S. Yang et al., 2014). Although recent studies have begun to document positive aspects of upward social comparison on SNSs (Meier et al., 2020; Meier & Schäfer, 2018; Park & Baek, 2018), Verduyn et al. (2020) argue that such positive effects may occur only occasionally while the effects of social comparison on SNSs are typically negative. Yoon et al.'s (2019) meta-analysis also shows that upward social comparison on SNSs is associated with depression with a moderate effect. Compared to the abundant discussion and empirical evidence on the relationship between passive SNS use and social comparison/subjective well-being, little evidence has been given on the relationship between active SNS use and negative social comparison. One study (Hwang, 2019) found that not just looking at other people's status updates but also commenting on other people's photos/videos are strongly associated with upward social comparison among Instagram users. It may be that when engaging in such activities, users consistently compare themselves to others.

Previous studies report that people in collectivistic cultures are more likely to engage in social comparison (White & Lehman, 2005). Consistently, a few studies on SNSs have reported that Korean students have stronger social comparison motives for self-enhancement on Facebook and experience more negative affect after social comparison (Song et al., 2019). Therefore, Korean college students' engagement in social comparison on SNSs

could be an important path to their subjective well-being. Given the above discussion, we propose the following hypotheses and research questions:

H1: The passive use of SNSs is (a) positively related to negative social comparison on SNSs and (b) negatively and indirectly related to subjective well-being via negative social comparison.

RQ1: Is the active use of SNSs (a) related to negative social comparison on SNSs (b) and indirectly related to subjective well-being via social comparison on SNSs?

Social Support

Perceived social support has been considered an important contributor to one's subjective well-being (Turner, 1981). Friend networks are a particularly important source of social support for college students and have a positive impact on their well-being (Demir et al., 2013). As a result, SNSs through which young people can easily connect with their friends can be a source of social support. The existing literature suggests that the active form of SNS use especially promotes social support. Although several studies suggest that some forms of active SNS use can be related to greater loneliness (C. Yang, 2016; C. Yang & Brown, 2013), a number of empirical studies report that active SNS use decreases depressive symptoms and loneliness via positive effects on online social support (Frison et al., 2019; Li et al., 2015; Lin et al., 2020; Seo et al., 2016). Such findings are also supported by longitudinal and experimental studies (Burke & Kraut, 2014; Deters & Mehl, 2013; Utz & Breuer, 2017). Social support on SNS cannot be obtained unless one makes connections and engages in interactions with others on SNSs; when people have friends and share their stories, they are more likely to receive social support, which explains why the number of SNS friends (Liu et al., 2018) and self-disclosure on SNS (R. Zhang, 2017) are positively related to social support. Based on these previous findings, Verduyn et al. (2017) proposed a path to subjective well-being via social capital/connectedness from active SNS use, and this indirect relationship has been supported by several studies (Frison & Eggermont, 2015; J. Kim & Lee, 2011; Lin et al., 2020).

On the other hand, the results of studies employing a measure of passive use are somewhat equivocal. Several studies suggest that passive SNS use has no or a negative relationship to social support: Burke et al.'s (2010) study shows that SNS content consumption is related to increased loneliness; Liu et al.'s (2018) meta-analysis shows that there is no relationship between SNS content consumption and social support. However, several other studies imply a positive relationship between passive use and social support (C. Yang, 2016; C. Yang & Robinson, 2018) and social capital (Chen et al., 2019). C. Yang and Robinson (2018) argued that passive SNS use such as browsing can serve as a channel for receiving information instrumental to social adjustment. In summary, the literature provides strong evidence of the positive relationship between active SNS use and social support and some evidence of the negative or lack of a relationship between passive SNS use and social support.

Meanwhile, cultural studies have suggested that Asians are less likely to seek explicit social support than Westerners (H. S. Kim et al., 2008), while obtaining social support is a more important motive for SNS use among Korean college students than for their US counterparts (Y. Kim et al., 2011). Therefore, empirical exploration is necessary to see if SNS use may help Korean college students to obtain social support. Given the above discussion, we propose the following hypothesis and research question:

H2: The active use of SNSs is (a) positively related to perceived social support on SNSs and (b) positively and indirectly related to subjective well-being via perceived social support.

RQ2: Is the passive use of SNSs (a) related to perceived social support on SNSs (b) and indirectly related to subjective well-being via perceived social support on SNSs?

Facebook and Instagram

While several studies focused on a particular social media platform (typically Facebook), scholars have only recently begun to pay attention to the issue of using multiple platforms due to the increasing use of multiple social media platforms by users. Several studies have compared the use of different platforms or relationships between SNS usage and well-being across different platforms and found that the relationship between SNS use and psychological outcomes can vary depending on the type of SNS platform used (Sakurai et al., 2021; Saunders &

Eaton, 2018; Schmuck et al., 2019; Utz et al., 2015). For example, Utz et al. (2015) compared Snapchat and Facebook and found that Snapchat elicited higher levels of jealousy than Facebook. Pittman and Reich (2016) also reported that image-based social media platforms, but not text-based platforms, influenced subjective well-being.

Among the several social media platforms, Facebook and Instagram are expected to differentially relate to subjective well-being given their distinct features. Facebook allows people to connect with others, post their content, and share their and others' content. While Instagram is similar to Facebook in terms of its basic mechanism, Instagram differs from Facebook due to its focus on sharing photos and videos. On Facebook, people can post and share text-based content, photos and videos, whereas Instagram's content is mostly image-based. Given such differences, it has been argued that positive and polished images are more prominent on Instagram than on Facebook (Lup et al., 2015), while on Facebook, the sharing of negative feelings is often observed (Moreno et al., 2011). One study (Waterloo et al., 2018) in fact found that expressing negative emotions is perceived to be more normative on Facebook than on Instagram, whereas positive emotional expression is perceived as more appropriate on Instagram than on Facebook. Additionally, on Instagram, following someone is not necessarily reciprocal. Thus, to make connections with others on Instagram, one can simply click the "follow" button, and people can easily follow those who are not their acquaintances and view their posts. In contrast, connecting with others is reciprocal on Facebook. On Facebook, one should send a friend request, which must be accepted for one to receive status updates from other friends (Lup et al., 2015).

Given that Facebook is based on reciprocal relationships and as negative emotions are more frequently expressed on Facebook, Facebook may be a more important source of social support than Instagram, because users may more easily express their difficulties and negative emotions for their Facebook friends to more easily identify them. On the other hand, the nonreciprocal and public nature of image sharing on Instagram may be more likely to trigger negative social comparison than on Facebook, as Instagram users can more easily access the curated images posted by other users without a friend request.

As we hypothesized above that active use will be related to perceived social support on SNS and that passive use will be related to negative social comparison on SNS, the following hypotheses are proposed:

H3: Compared to active Instagram use, active Facebook use is more strongly related to perceived social support on SNS.

H4: Compared to passive Facebook use, passive Instagram uses is more strongly related to negative social comparison on SNS.

Gender Differences

The aforementioned relationships may manifest differently depending on gender because of gender difference in the way people utilize social support, engage in social comparison, and use SNSs.

Gender research suggests that social support plays a more important role in subjective well-being among women than men (Hori & Kamo, 2018), and women use social-support systems more frequently than men (Belle, 1991). Studies on college students revealed that women are more likely to seek and provide social support (Stokes & Wilson, 1984) as a result of gender role socialization (Reevy & Maslach, 2001). College women were more likely to rely on social support to cope with psychological distress (M. Zhang et al., 2018) and they tend to have larger overall social support networks than their male counterparts (Stokes & Wilson, 1984; Tinajero et al., 2015). These findings imply that college women could better employ SNSs as a source of social support than their male counterparts. Consistent with this conjecture, several social media studies reported that women tend to use SNSs for relationship maintenance (Haferkamp et al., 2012; Krasnova et al., 2017) and are likely to exchange more positive comments on SNSs than men (Thelwall et al., 2010). Several social media studies further revealed gender differences in the relationship between SNS use and social support. For example, Frison and Eggermont's (2016a) study showed that as active private Facebook use increased, adolescent girls' perceived online social support increased, while this positive relationship was not found among boys. Liu et al.'s (2018) meta-analysis also reported a stronger relationship between the time spent on SNS and social support among women compared to that among men. Tifferet's (2020) meta-analysis also concluded that women are more likely to give and receive social support on SNS compared to men. These findings suggest that the relationship between social media use (particularly

active SNS use) and subjective well-being via social support might be more pronounced among women than men, although inconsistent findings are also noted (e.g., Liu et al., 2016).

Social psychology research investigating social comparisons also suggests that there are gender differences. For example, in a study by Gibbons and Buunk (1999), women exhibited a stronger social comparison orientation, and this finding was also confirmed in a multinational study (Guimond et al., 2007). Similarly, gender differences in social comparisons on SNSs have been documented. One study reported that women were more likely than men to use SNSs for social comparison (Haferkamp et al., 2012), and social comparison emerged as a more important factor for Facebook use among female Italian college students than their male counterparts (Bergagna & Tartaglia, 2018). A pair of studies on adolescents (Lian et al., 2017; Nesi & Prinstein, 2015) also reported that the relationship between social comparison on SNSs and depressive symptoms was more pronounced among girls than boys. Another study on Chinese college students showed that the association between passive SNS use and low subjective well-being mediated by envy was moderated by gender, and this effect was stronger among women (Ding et al., 2017). Given these findings, it might be possible that the relationship between SNS use (particularly passive SNS use) and subjective well-being via negative social comparison might be more pronounced among college women than men.

Additionally, several studies reported that men and women use social media in different ways (Krasnova et al., 2017; Pujazon-Zazik & Park, 2010). For example, studies suggest that Facebook is used more by men than women, whereas Instagram is more favored by women than men (Y.-H. Kim, 2019; Nternet Stats, 2019). This gender differences in SNS platform preference may also influence the aforementioned relationships. Thus, Instagram use might be more strongly related to social support and social comparison among women than men and vice versa for Facebook use. Therefore, we propose the following research question:

RQ3: Do the aforementioned relationships (H1 to H4, RQ1, and RQ2) differ by gender?

These relationships are configured in the path model shown in Figure 1.

Method

Sample and Data Collection

An online survey of Korean college students was conducted via a research firm in South Korea in October 2019. The participants were recruited nationwide from the online survey panel owned by the research firm. The survey investigated perceptions and behaviors related to SNS use and relevant psychological variables. This study was approved by the Institutional Review Board at the institution where the author is affiliated, and all the participants provided informed consent. Of the 503 college students who completed the survey, 71.6% (N = 360) used both Facebook and Instagram [women n = 189 (52.5%), men n = 171 (47.5%)] and were included in the analysis.

Measures

Passive and Active Use of Facebook and Instagram

The measure developed by Gerson et al. (2017) was employed to assess the active and passive use of Instagram and Facebook. Gerson et al.'s original measure was developed for Facebook; thus, some items were modified for Instagram (e.g., "Commenting on statuses, wall posts, pictures, etc." for Facebook was changed to "Commenting on stories and other types of posts" for Instagram). The questionnaires asked the participants to indicate how frequently they engaged in each specific activity when they were on Facebook/Instagram (five items for active use, including "commenting on statuses, wall posts, pictures, etc." and four items for passive use, including "checking to see what someone is up to") on a scale from 1 = *nearly* to 5 = *very frequently*.

Perceived Social Support on SNSs

To measure the extent to which the participants perceived social support on SNSs (PSS), Li et al.'s (2015) measure was used. The questionnaires asked the participants to indicate how often they received supportive responses or

comments from their SNS friends (e.g., "receive congratulations" or "receive help from SNS friends to solve problems") on a 5-point Likert-type scale (1 = *never* to 5 = *daily*).

Negative Social Comparison on SNSs

Negative social comparison on SNSs (NSC) was assessed utilizing H. S. Yang et al.'s (2014) measure, which consists of eight items, such as "On SNSs, I feel others are experiencing better lifestyles than mine" and "On SNSs, I feel others are achieving something more than what I am achieving." The participants responded using a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*).

Life Satisfaction

To evaluate subjective well-being, life satisfaction (LS), which is a cognitive dimension of subjective well-being, was assessed. LS is considered a critical indicator of subjective well-being and has received relatively less research attention than other indicators of subjective well-being (Huang, 2017). The measure developed by Diener et al. (1985) was used. The participants rated five items (e.g., "I am satisfied with my life" and "So far, I have gotten the important things I want in life") on a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*).

Control Variables

As control variables, offline social capital, self-esteem, overall SNS use and demographic variables (i.e., sex, age, ad income) were assessed and included in the analysis. Because offline social relationships can influence online social capital and subjective well-being (Freberg et al., 2010), this variable was controlled to determine the additional contribution of Facebook and Instagram use to perceived social support on SNS and LS. Zimet and colleagues' (1988) measure (the significant other subscale) was employed to measure offline social capital. Similarly, self-esteem, which was measured with Rosenberg's (1965) scale, was controlled to examine the effects of Facebook and Instagram use in addition to the influence of self-esteem because the previous literature suggests that self-esteem can influence social comparison and subjective well-being (Jang et al., 2016; Paradise & Kernis, 2002). Lastly, the total number of SNS platforms used by the participants and the amount of overall SNS use were measured to (1) control for the effect of SNSs other than Facebook and Instagram and (2) control the time spent on SNSs. Adapted from Lin et al.'s (2016) instrument, the participants were asked to report their overall SNS use time (1 = *not at all to* 7 = *more than three hours per day*) and frequency (1 = *not at all* to 7 = *frequently everyday*) during the recent month. These two items were averaged to calculate the amount of overall SNS use. The participants were also asked to report all SNS platforms they use by checking a list of SNS platforms. By summing up the responses, the total number of SNS platforms other than Facebook and Instagram was calculated.

The descriptive statistics of the key variables and their correlations are presented in Table 1.

Analysis

The path analyses were conducted using Mplus 8 (Muthén & Muthén, 1998-2017) to test and explore the aforementioned hypotheses and research questions. In all analyses, the control variables were included to predict all endogenous variables in the model. Multiple fit indices were used to evaluate the global model fit. First, the overall model including men and women was estimated by using sex as a control variable. To test the hypothesized indirect effects via the potential mediator variables, the bias-corrected confidence intervals were computed based on asymmetric bootstraps with 5,000 bootstrap replicates. In addition, a chi-square difference test was conducted by constraining the hypothesized path coefficients to be equal for the comparison. Then, a multigroup analysis was conducted to estimate the path coefficients for the men and women. To examine group differences, multiple chi-square difference tests were conducted by constraining the corresponding paths in each group to be equal.

Results

The tests of the overall model across the gender groups revealed a satisfactory fit $\chi^2(4) = 4.60$, $p = .33$, CFI = .99, RMSEA = .02, SRMR = .01. The results of the path analysis are presented in Figure 1.

Briefly, regarding the effects of the control variables, self-esteem was positively related to LS (β = .53, $p < .001$) and NSC (β = –.41, $p < .001$); overall, SNS use and the total number of SNS platforms used were related to PSS (β = .09, $p = .047$; β = .17, $p < .001$, respectively); no other significant relationships involving the control variables were found.

Table 1. *Correlations, Means, and Standard Deviations (N = 360).*

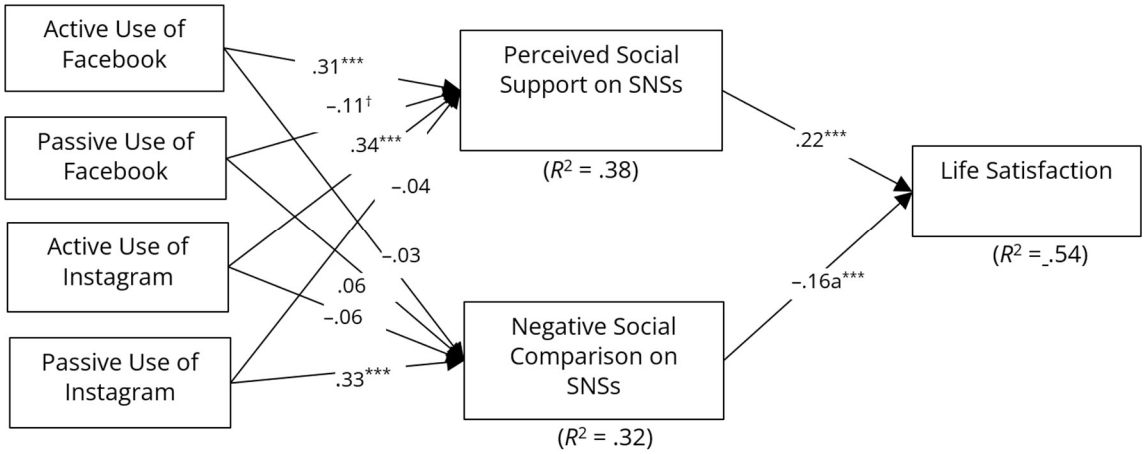
	M	*SD*	1	2	3	4	5	6	7
All									
1. AUF	1.96	0.86	(.83)	.47**	.42**	.12*	–.01	.44**	.15**
2. PUF	3.15	0.99		(.84)	.14**	.44**	.19**	.10	.01
3. AUI	2.52	1.01			(.88)	.49**	.08	.52**	.20**
4. PUI	3.45	0.93				(.81)	.35**	.18**	.04
5. NSC	3.47	0.86					(.93)	.03	–.41**
6. PSS	2.34	1.00						(.90)	.30**
7. LS	3.96	1.24							(.91)
Women									
1. AUF	1.81[a]	0.82		.49**	.43**	.16*	.03	.45**	.13
2. PUF	3.03[b]	0.98			.19**	.48**	.15*	.10	.03
3. AUI	2.71[c]	1.01				.45**	.00	.55**	.24**
4. PUI	3.61[d]	0.87					.31**	.15**	.01
5. NSC	3.54	0.75						–.00	–.38**
6. PSS	2.44	1.05							.29**
7. LS	3.94	1.26							
Men									
1. AUF	2.12[a]	0.88		.40**	.52**	.16*	–.02	.46**	.17*
2. PUF	3.28[b]	0.99			.14	.46**	.36**	.10	–.02
3. AUI	2.32[c]	0.96				.48**	.13	.50**	.17*
4. PUI	3.27[d]	0.97					.36**	.22**	.07
5. NSC	3.40	0.95						.05	–.45**
6. PSS	2.44	0.94							.32**
7. LS	3.99	1.21							

Note. AUF: Active Use of Facebook; PUF: Passive Use of Facebook; AUI: Active Use of Instagram; PUI: Passive Use of Instagram; NSC: Negative Social Comparison on SNSs; PSS: Perceived Social Support on SNSs; LS: Life Satisfaction. Reliability (Cronbach's alpha) is shown in the parentheses. Mean scores sharing the same superscript are statistically significant at $p = .05$.
*$p < .05$, **$p < .01$

H1a and RQ1a concern the relationships between passive (H1) and active (RQ1a) SNS use and NSC. The results suggest that only the passive use of Instagram (PUI) (β = .32, $p < .001$], but not the passive use of Facebook (PUF) (β = .06, $p = .293$), is positively related to NSC. As PUI increased, the participants were more likely to engage in negative social comparison. Therefore, H1a was partially supported. Regarding active use (RQ1a), neither the active use of Facebook (AUF) or the active use of Instagram (AUI) was related to NSC [β = –.03, $p = .57$ for AUF; β = –.06, $p = .31$ for AUI].

H2a and RQ2a concern the relationships between active (H2) and passive (RQ2a) SNS use and PSS. The results suggest that AUF and AUI are positively related to PSS [β = .31, $p < .001$ for AUF; β = .34, $p < .001$ for AUI]. As AUF and AUI increased, the participants were more likely to report that they received greater supportive responses from their SNS friends. Therefore, H2a was supported. Regarding passive use, the relationship between PUF and PSS approached the significance level (β = –.11, $p = .052$), but PUI was not related to PSS (β = –.04, $p = .54$). Although the direction of the coefficients was negative, the results in general suggest no significant relationship between passive use and PSS.

Figure 1. *The Results of the Path Analysis (N = 360).*



† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$
Note 1. All standardized coefficients.
Note 2. Control variables are not included in the figure to allow for a parsimonious presentation.

H1b and H2b concern the indirect relationships. Regarding the indirect effect of the passive use of SNSs on LS via NSC (H1b), the indirect effect of PUI, but not PUF, was examined because PUF was not related to NSC. The bootstrap estimated indirect effect of PUI on LS via NSC was negative and significant at p = .006, partially supporting H1b: *standardized indirect effect* = –.05 (bias-corrected 95% CI from bootstrap estimation = –.096 to –.025). Regarding the indirect effect of the active use of SNSs on LS via PSS, the indirect effects of both AUF and AUI were statistically significant, supporting H2b: *standardized indirect effect* = .065 (bias-corrected 95% CI from bootstrap estimation = .035 to .107, $p < .001$ for AUF) and *standardized indirect effect* = .071 (bias-corrected 95% CI from bootstrap estimation = .034 to .12, p = .001 for AUI). Finally, none of the indirect effects of active use via NSC (RQ1b) and passive use via PSS (RQ2b) were statistically significant, suggesting no or weak relationships with the mediators. All indirect path coefficients are presented in Table 2.

Table 2. *Direct and Indirect Effects of Passive and Active Facebook and Instagram Uses on Life Satisfaction (N = 360).*

	Standardized Coefficient	Bootstrapped 95% CI
Total from AUF to LS	.070	[.035, .113]
Total indirect	.070	[.035, .113]
AUF → NSC→ LS	.006	[−.013, .030]
AUF → PSS→ LS	.065	[.035, .107]
Total from PUF to LS	−.033	[−.066, −.005]
Total indirect	−.033	[−.066, −.005]
PUF → NSC→ LS	−.010	[−.038, .009]
PUF → PSS → LS	−.022	[−.054, .001]
Total from AUI to LS	.082	[.040, .133]
Total indirect	.082	[.040, .133]
AUI → NSC → LS	.011	[−.008, .036]
AUI → PSS → LS	.071	[.034, .120]
Total from PUI to LS	−.061	[−.110, −.023]
Total indirect	−.061	[−.110, −.023]
PUI → NSC → LS	−.053	[−.096, −.025]
PUI → PSS → LS	−.007	[−.035, .021]

Note. AUF: Active Use of Facebook; PUF: Passive Use of Facebook; AUI: Active Use of Instagram; PUI: Passive Use of Instagram; NSC: Negative Social Comparison on SNSs; PSS: Perceived Social Support on SNSs; LS: Life Satisfaction.

H3 and H4 concern the differential influence of the platforms on LS. To test these hypotheses, chi-square difference tests were conducted by constraining the corresponding paths to be equal. H3 hypothesized that compared to AUI, AUF will be more strongly related to PSS. The chi-square difference test suggested no significant

difference, $\Delta\chi^2(1) = 0.05$, $p = .82$. Regarding the hypothesized comparison between PUF and PUI in relation to NSC (H4), the difference was significant: $\Delta\chi^2(1) = 7.02$, $p = .008$. That is, compared to passive Facebook use, passive Instagram use was more strongly related to negative social comparisons. Therefore, H3 was not supported, and H4 was supported.

Finally, RQ3 asked whether gender differences exist in the relationships examined above. As a preliminary analysis, the mean differences in the key variables were examined with independent sample *t*-tests. All SNS uses showed significant differences between the groups, such as higher Instagram use among women ($t_{AUI} = 3.77$, $p < .001$, $M_{diff} = 0.39$; $t_{PUI} = 3.46$, $p = .001$, $M_{diff} = 0.34$) and higher Facebook use among men ($t_{AUF} = 3.40$, $p = .001$, $M_{diff} = 0.30$; $t_{PUF} = 2.45$, $p = .015$, $M_{diff} = 0.25$). No differences were detected in NSC, PSS, and LS (refer to Table 1).

To compare the gender groups in the research model, a multigroup analysis was conducted, and tests of the path coefficient differences were conducted by constraining each path to be equal across the groups. The model fit each group well [$\chi^2(8) = 5.03$, $p = .75$, CFI = 1.00, RMSEA < .01, SRMR = .01]. However, no significant differences were detected in any of the path comparisons. Notably, the post hoc analysis revealed that two control variables, i.e., the overall amount of SNS use and the number of SNS platforms, are differentially related to PSS depending on gender. The association between the overall amount of SNS use and PSS was significant in both gender groups but greater among the men ($\beta_{women} = .14$, $p = .029$; $\beta_{men} = .19$, $p = .003$; $\Delta\chi^2(1) = 6.95$, $p = .008$). The relationship between the number of SNS platforms and PSS was not significant among the women but significant among the men ($\beta_{women} = .02$, $p = .701$; $\beta_{men} = .16$, $p = .009$; $\Delta\chi^2(1) = 11.75$, $p < .001$).

Discussion

The present study explored how two different types of use (i.e., active vs. passive) of the two most popular SNS platforms (i.e., Facebook and Instagram) are related to college men's and women's LS via two mediators (i.e., perceived social support and negative social comparison) in South Korea. The results suggest that the outcomes of SNS use depend on the usage type: active use tended to contribute to LS via a positive influence on social support (i.e., active Facebook and Instagram use). In contrast, passive use appeared to play a negative role in subjective well-being mainly through its positive relationship with negative social comparison (i.e., passive Instagram use). Additionally, as expected, perceived social support and negative social comparison on SNSs were related to LS and explained a significant amount of variance in LS. These findings suggest that SNSs play an important role in college students' subjective well-being and that social support and social comparison are important mediators, as Verduyn et al. (2017) proposed. Both positive (social support on SNSs) and negative (negative social comparison on SNSs) experiences with SNSs jointly influenced subjective well-being. This finding suggests that to fully understand the role of SNSs in subjective well-being, it is necessary to consider both the positive and negative outcomes of SNS use, as Weinstein (2018) argued.

This study also found that not only the type of SNS usage but also the type of SNS platform is important. The active use of both Facebook and Instagram tended to be related to perceived social support, but negative social comparison tended to be related only to passive Instagram use. While Facebook could be considered a better channel for exchanging social support given that it is based on reciprocal relationships and allows textual content (Lup et al., 2015; Moreno et al., 2011), Instagram is also fundamentally a social network site that facilitates the building and maintaining of relationships and interaction with others. As a result, regardless of their unique features, both platforms appear to play a role in receiving social support. In contrast, it appears that negative social comparison is more relevant to Instagram than Facebook, which could be due to the unique features of Instagram. The relationships on Instagram are not necessarily reciprocal; thus, it is easier to follow those who are not offline acquaintances (Lup et al., 2015). Additionally, due to Instagram's image-based content, users may be exposed to polished images to a greater extent on Instagram than on Facebook (Winter, 2013). These features of Instagram might lead users to engage in negative social comparisons when they passively consume Instagram content.

Finally, and unexpectedly, no significant gender differences were found in the suggested relationships. Although different preferences for SNS platform by gender were observed, the relationships among SNS use, social comparison, social support, and LS were no more or less pronounced among the women, which contradicts several previous studies. Interestingly, a gender difference was detected in the relationship between PSS and two

additional SNS use variables (i.e., the amount of overall SNS use and the number of SNS platforms used). As men use SNS to a greater extent and use more SNS platforms, they were more likely to perceive online social support than women. This result may suggest that although the way men use SNS matters (as shown in the significant relationship between AUI/AUF and PSS), the absolute number of online connections also matters to men, likely because men are more oriented toward large social groups, whereas women are oriented toward close dyadic relationships (Baumeister & Sommer, 1997). Thus, having large networks is not necessarily important for women but could be important for men (as evidenced in the nonsignificant relationship between the number of SNS platforms and PSS among the women and their significant relationship among the men). Krasnova et al.'s (2017) and Park's (2014) study supports this conjecture: they found that women are more likely to use SNSs to bond in close relationships whereas men use them to gain general information or to expand weak social ties. These findings may suggest that women and men may seek different types of social support in different manners, and future studies would need to account for all these factors to clearly understand gender differences in the role of SNSs in providing social support.

The present study has several theoretical implications for research concerning SNS use and subjective well-being. First, it shows that SNS platforms can have differential effects, suggesting that future studies should attempt to determine the effect of each SNS platform, which could be particularly important because people often use multiple SNSs simultaneously (Smith & Anderson, 2018). Each SNS platform has its own unique features, and such features may lead to outcomes that are distinct from those of other SNS platforms. Without considering simultaneous SNS use, an effect found in one SNS could confound that in other SNSs or be spurious. Second, this study shows the utility of Verduyn et al.'s (2017) model. By considering two different paths through which SNS use influences subjective well-being, this study could provide a more complete picture of the roles of SNS use in subjective well-being. As the active and passive measures were found to be differentially related to the outcome variables, future studies should consider various aspects of SNS use rather than relying on unidimensional measures. Finally, while this study found no gender differences in the relationship among SNS use, social support, social comparison, and LS, it also revealed that the influence of the amount of SNS use and the number of SNS platforms on social support is greater among men than women. This finding suggests that to explore gender differences in SNSs' influence, diverse aspects of SNS use (e.g., how it is used, how much it is used or how many are used) as well as diverse aspect of psychological outcomes (e.g., types or dimensions of social support) may need to be considered. This type of approach could help researchers determine the diverse aspects of SNS effects.

The present study offers practical implications for media literacy education. Given both the positive and negative outcomes of SNS use (i.e., social support and negative social comparison), educational intervention programs should be designed to help college students maximize social support on SNSs and minimize negative social comparison. A campus or group-based SNS social support campaign that asks individuals to actively participate on SNSs might be effective in increasing perceived social support among both college men and women. To prevent negative social comparison, an educational intervention program focusing on Instagram might be useful. For example, a recent study showed that exposure to "Instagram vs. reality" images containing an idealized depiction and a natural depiction of appearance side-by-side can decrease negative appearance comparison on SNS (Tiggemann & Anderberg, 2020). Previous studies have tested the effect of a social media literacy intervention on attitudes toward tanning (Mingoia et al., 2019) and body image (McLean et al., 2017). Similarly, future studies should explore how to design an intervention to improve college students' capacity to be critical of Instagram content.

The present study has several limitations that indicate directions for future studies. First, while Facebook and Instagram were the focus of this study, other SNSs, such as YouTube, Snapchat, and TikTok are gaining great popularity among the young. Although overall SNS use was included to control for the influence of other SNSs, the observed relationships in this study could have changed if such platforms were included. Therefore, future studies should examine the influence of multiple SNS platforms jointly. Second, given that the data used in this study are cross-sectional, causality cannot be determined. For example, it is possible that those who are more satisfied with their life engage in negative social comparison to a lesser extent and more actively engage in active SNS use. Although some longitudinal studies support the relationship between SNS use and well-being indicators (Mundy et al., 2021; Riehm et al., 2019), some are not (Aalbers et al., 2019; Coyne et al., 2020; Orben et al., 2019). For example, Coyne and colleagues' (2020) longitudinal study reported that a relationship between SNS use and depression was observed at the between-individuals level but not at the within-individual level. To uncover these causal relationships, a longitudinal study is desired.

Future studies should examine more specific types of active and passive SNS use, such as posting about positive events vs. posting about negative events (R. Zhang, 2017) and public active/passive use vs. private active/passive use (Valkenburg et al., 2021). Although the active-passive dichotomy has served as a parsimonious means to capture SNS use, this approach has also received criticism for its lack of valid measures (Trifiro & Gerson, 2019) and inconsistent findings (Valkenburg et al., 2021). Several studies have reported that some forms of passive SNS use can contribute to well-being by stimulating inspiration and enjoyment (Beyens et al., 2020; Meier et al., 2020) while some forms of active SNS use can be detrimental to well-being (C. Yang, 2016). Therefore, scholars argue that research must specify content types in more detail (Beyens et al., 2020) or subtypes of active/passive SNS use (Kross et al., 2021). Another venue for future studies is cross-cultural research. The present study showed that differential effects of SNS use types and platforms occur among Korean college students, and the patterns of the effects resemble those in Western studies. However, several studies suggest that the strength of these effects may differ by culture (e.g., LaRose et al., 2014; Yin et al., 2019). For example, Yin et al.'s (2019) meta-analysis found a stronger relationship between SNS usage and positive indicators of mental health in collectivist cultures than in individualist cultures. Although such a meta-analysis provides important insight, given the heterogeneity of research methods and contexts used in the analyzed studies, evidence from direct cross-cultural comparisons is necessary.

Acknowledgement

This research was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2018S1A3A2074932).

Conflict of Interest

The Author(s) declare(s) that there is no conflict of interest.

References

Aalbers, G., McNally, R. J., Heeren, A., De Wit, S., & Fried, E. I. (2019). Social media and depression symptoms: A network perspective. *Journal of Experimental Psychology: General, 148*(8), 1454–1462. https://doi.org/10.1037/xge0000528

Appel, M., Marker, C., & Gnambs, T. (2020). Are social media ruining our lives? A review of meta-analytic evidence. *Review of General Psychology, 24*(1), 60–74. https://doi.org/10.1177/1089268019880891

Barash, V., Ducheneaut, N., Isaacs, E., & Bellotti, V. (2010). Faceplant: Impression (mis)management in Facebook status updates. *Proceedings of the International AAAI Conference on Web and Social Media*, *4*(1), 207–210. https://ojs.aaai.org/index.php/ICWSM/article/view/14037

Baumeister, R. F., & Sommer, K. L. (1997). What do men want? Gender differences and two spheres of belongingness: Comment on Cross and Madson (1997). *Psychological Bulletin, 122*(1), 38–44. https://doi.org/10.1037/0033-2909.122.1.38

Belle, D. (1991). *Gender differences in the social moderators of stress*. Columbia University Press.

Bergagna, E., & Tartaglia, S. (2018). Self-esteem, social comparison, and Facebook use. *Europe's Journal of Psychology, 14*(4), 831–845. https://doi.org/10.5964/ejop.v14i4.1592

Beyens, I., Pouwels, J. L., van Driel, I. I., Keijsers, L., & Valkenburg, P. M. (2020). The effect of social media on well-being differs from adolescent to adolescent. *Scientific Reports, 10*(1), 1–11. https://doi.org/10.1038/s41598-020-67727-7

Burke, M., & Develin, M. (2016). Once more with feeling: Supportive responses to social sharing on Facebook. In *CSCW '16: Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing* (pp. 1462–1474). ACM. https://doi.org/10.1145/2818048.2835199

Burke, M., & Kraut, R. E. (2014). Growing closer on Facebook: changes in tie strength through social network site use. In *CHI '14: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 4187–4196). ACM. https://doi.org/10.1145/2556288.2557094

Burke, M., Marlow, C., & Lento, T. (2010). Social network activity and social well-being. In *CHI '10: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 1909–1912). ACM. https://doi.org/10.1145/1753326.1753613

Burnell, K., George, M. J., Vollet, J. W., Ehrenreich, S. E., & Underwood, M. K. (2019). Passive social networking site use and well-being: The mediating roles of social comparison and the fear of missing out. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 13*(3), Article 5. https://doi.org/10.5817/CP2019-3-5

Chen, S., Shao, B.-J., & Zhi, K.-Y. (2019). Examining the effects of passive WeChat use in China. *International Journal of Human–Computer Interaction, 35*(17), 1630–1644. https://doi.org/10.1080/10447318.2018.1559535

Cho, S. E., & Park, H. W. (2013). A qualitative analysis of cross-cultural new media research: SNS use in Asia and the West. *Quality & Quantity, 47*(4), 2319–2330. https://doi.org/10.1007/s11135-011-9658-z

Choi, M., & Toma, C. L. (2014). Social sharing through interpersonal media: Patterns and effects on emotional well-being. *Computers in Human Behavior, 36*, 530–541. https://doi.org/10.1016/j.chb.2014.04.026

Chou, H.-T. G., & Edge, N. (2012). "They are happier and having better lives than I am": The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking, 15*(2), 117–121. https://doi.org/10.1089/cyber.2011.0324

Cooper, H., Okamura, L., & Gurka, V. (1992). Social activity and subjective well-being. *Personality and Individual Differences, 13*(5), 573–583. https://doi.org/10.1016/0191-8869(92)90198-X

Coyne, S. M., Rogers, A. A., Zurcher, J. D., Stockdale, L., & Booth, M. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in Human Behavior, 104*, Article 106160. https://doi.org/10.1016/j.chb.2019.106160

Demir, M., Doğan, A., & Procsal, A. D. (2013). I am so happy 'cause my friend is happy for me: Capitalization, friendship, and happiness among US and Turkish college students. *The Journal of Social Psychology, 153*(2), 250–255.

De Neve, J. E., Diener, E., Tay, L., & Xuereb, C. (2013). The objective benefits of subjective well-being. In J. Helliwell, R. Layard, & J. Sachs (Eds.), *World Happiness Report*. UN Sustainable Development Solutions Network.

Deters, F. G., & Mehl, M. R. (2013). Does posting Facebook status updates increase or decrease loneliness? An online social networking experiment. *Social Psychological and Personality Science, 4*(5), 579–586. https://doi.org/10.1177/1948550612469233

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Diener, E., Lucas, R. E., & Oishi, S. (2002). Sujective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 463–473). Oxford University Press.

Ding, Q., Zhang, Y.-X., Wei, H., Huang, F., & Zhou, Z.-K. (2017). Passive social network site use and subjective well-being among Chinese university students: A moderated mediation model of envy and gender. *Personality and Individual Differences, 113*, 142–146. https://doi.org/10.1016/j.chb.2016.04.038

DMC Media. (2018). *2018 Target audience report - 20s*. https://www.dmcreport.co.kr/report/surveyReport/freeView?reportcode=DMCSRF200014969&drtopdeth=RPT_TYPE_3&keyword_type=REPORT_KEYWORD_16

DMC Media. (2020). *2020 Social media status and prospect*. https://www.dmcreport.co.kr/report/trendBrief/freeView?reportcode=DMCTBF20200100&drtopdeth=RPT_TYPE_1&keyword_type=REPORT_KEYWORD_16

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*(4), 1143–1168. https://doi.org/10.1111/j.1083-6101.2007.00367.x

Eurostat. (2020). *Being young in Europe today - digital world*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Being_young_in_Europe_today_-_digital_world

Freberg, K., Adams, R., McGaughey, K., & Freberg, L. (2010). The rich get richer: Online and offline social connectivity predicts subjective loneliness. *Media Psychology Review, 3*(1), 103–115.

Frison, E., Bastin, M., Bijttebier, P., & Eggermont, S. (2019). Helpful or harmful? The different relationships between private Facebook interactions and adolescents' depressive symptoms. *Media Psychology, 22*(2), 244–272. https://doi.org/10.1080/15213269.2018.1429933

Frison, E., & Eggermont, S. (2015). The impact of daily stress on adolescents' depressed mood: The role of social support seeking through Facebook. *Computers in Human Behavior, 44*, 315–325. https://doi.org/10.1016/j.chb.2014.11.070

Frison, E., & Eggermont, S. (2016a). Exploring the relationships between different types of Facebook use, perceived online social support, and adolescents' depressed mood. *Social Science Computer Review, 34*(2), 153–171. https://doi.org/10.1177/0894439314567449

Frison, E., & Eggermont, S. (2016b). "Harder, better, faster, stronger": Negative comparison on Facebook and adolescents' life satisfaction are reciprocally related. *Cyberpsychology, Behavior, and Social Networking, 19*(3), 158–164. https://doi.org/10.1089/cyber.2015.0296

Frison, E., & Eggermont, S. (2020). Toward an integrated and differential approach to the relationships between loneliness, different types of Facebook use, and adolescents' depressed mood. *Communication Research, 47*(5), 701–728. https://doi.org/10.1177/0093650215617506 Eurostat. (2020). Being young in Europe today - digital world. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Being_young_in_Europe_today_-_digital_world

Fujita, F. (2008). The frequency of social comparison and its relation to subjective well-being. In M. Eid & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 239–257). The Guilford Press.

Gerson, J., Plagnol, A. C., & Corr, P. J. (2017). Passive and Active Facebook Use Measure (PAUM): Validation and relationship to the reinforcement sensitivity theory. *Personality and Individual Differences, 117*, 81–90. https://doi.org/10.1016/j.paid.2017.05.034

Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology, 76*(1), 129–142. https://doi.org/10.1037/0022-3514.76.1.129

Guimond, S., Branscombe, N. R., Brunot, S., Buunk, A. P., Chatard, A., Désert, M., Garcia, D. M., Haque, S., Martinot, D., & Yzerbyt, V. (2007). Culture, gender, and the self: Variations and impact of social comparison processes. *Journal of Personality and Social Psychology, 92*(6), 1118–1134. https://doi.org/10.1037/0022-3514.92.6.1118

Haferkamp, N., Eimler, S. C., Papadakis, A.-M., & Kruck, J. V. (2012). Men are from Mars, women are from Venus? Examining gender differences in self-presentation on social networking sites. *Cyberpsychology, Behavior, and Social Networking, 15*(2), 91–98. https://doi.org/10.1089/cyber.2011.0151

Haferkamp, N., & Krämer, N. C. (2011). Social comparison 2.0: Examining the effects of online profiles on social-networking sites. *Cyberpsychology, Behavior, and Social Networking, 14*(5), 309–314. https://doi.org/10.1089/cyber.2010.0120

Hanna, E., Ward, L. M., Seabrook, R. C., Jerald, M., Reed, L., Giaccardi, S., & Lippman, J. R. (2017). Contributions of social comparison and self-objectification in mediating associations between Facebook use and emergent adults' psychological well-being. *Cyberpsychology, Behavior, and Social Networking, 20*(3), 172–179. https://doi.org/10.1089/cyber.2016.0247

Hori, M., & Kamo, Y. (2018). Gender differences in happiness: The effects of marriage, social roles, and social support in East Asia. *Applied Research in Quality of Life, 13*(4), 839–857. https://doi.org/10.1007/s11482-017-9559-y

Hu, Y. T., & Liu, Q. Q. (2020). Passive social network site use and adolescent materialism: Upward social comparison as a mediator. *Social Behavior and Personality: An International Journal*, *48*(1), 1–8. https://doi.org/10.2224/sbp.8833

Huang, C. (2017). Time spent on social network sites and psychological well-being: A meta-analysis. *Cyberpsychology, Behavior, and Social Networking, 20*(6), 346–354. https://doi.org/10.1089/cyber.2016.0758

Hwang, H. S. (2019). Why social comparison on Instagram matters: Its impact on depression. *KSII Transactions on Internet and Information Systems (TIIS)*, *13*(3), 1626–1638.

Jackson, L. A., & Wang, J.-L. (2013). Cultural differences in social networking site use: A comparative study of China and the United States. *Computers in Human Behavior, 29*(3), 910–921. https://doi.org/10.1016/j.chb.2012.11.024

Jang, K., Park, N., & Song, H. (2016). Social comparison on Facebook: Its antecedents and psychological outcomes. *Computers in Human Behavior, 62*, 147–154. https://doi.org/10.1016/j.chb.2016.03.082

Kim, H. S., Sherman, D. K., & Taylor, S. E. (2008). Culture and social support. *American Psychologist, 63*(6), 518–526. https://doi.org/10.1037/0003-066X

Kim, J., & Lee, J.-E. R. (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*(6), 359–364. https://doi.org/10.1089/cyber.2010.0374

Kim, Y.-H. (2019). SNS (Social Networking Site) usage trend and usage behavior analysis. *KISDI STAT Report, 19*, 2–7.

Kim, Y.-N. (2016, December 18). "They are not in the same league"...1020 Facebook·Instagram vs. 4050 Band·Kakao Story. *Yonhapnews*. https://www.yna.co.kr/view/AKR20161216160400017?input=1195m

Kim, Y., Sohn, D., & Choi, S. M. (2011). Cultural difference in motivations for using social network sites: A comparative study of American and Korean college students. *Computers in Human Behavior, 27*(1), 365–372. https://doi.org/10.1016/j.chb.2010.08.015

Krasnova, H., Veltri, N. F., Eling, N., & Buxmann, P. (2017). Why men and women continue to use social networking sites: The role of gender differences. *The Journal of Strategic Information Systems, 26*(4), 261–284. https://doi.org/10.1016/j.jsis.2017.01.004

Krasnova, H., Widjaja, T., Buxmann, P., Wenninger, H., & Benbasat, I. (2015). Research note—Why following friends can hurt you: An exploratory investigation of the effects of envy on social networking sites among college-age users. *Information Systems Research, 26*(3), 585–605. https://doi.org/10.1287/isre.2015.0588

Kross, E., Verduyn, P., Sheppes, G., Costello, C. K., Jonides, J., & Ybarra, O. (2021). Social media and well-being: Pitfalls, progress, and next steps. *Trends in Cognitive Sciences, 25*(1), 55–66. https://doi.org/10.1016/j.tics.2020.10.005

LaRose, R., Connolly, R., Lee, H., Li, K., & Hales, K. D. (2014). Connection overload? A cross cultural study of the consequences of social media connection. *Information Systems Management*, *31*(1), 59–73.

Lee-Won, R. J., Shim, M., Joo, Y. K., & Park, S. G. (2014). Who puts the best "face" forward on Facebook?: Positive self-presentation in online social networking and the role of self-consciousness, actual-to-total Friends ratio, and culture. *Computers in Human Behavior, 39*, 413–423.

Li, X., Chen, W., & Popiel, P. (2015). What happens on Facebook stays on Facebook? The implications of Facebook interaction for perceived, receiving, and giving social support. *Computers in Human Behavior, 51*, 106–113. https://doi.org/10.1016/j.chb.2015.04.066

Lian, S., Sun, X., Niu, G., & Zhou, Z. (2017). Upward social comparison on SNS and depression: A moderated mediation model and gender difference. *Acta Psychologica Sinica, 49*(7), 941–952. https://doi.org/10.3724/SP.J.1041.2017.00941

Lin, L., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., Beth, L. H., Giles, L. M., & Primack, B. A. (2016). Association between social media use and depression among U.S. young adults. *Depression and Anxiety, 33*(4), 323–331. https://doi.org/10.1002/da.22466

Lin, S., Liu, D., Niu, G., & Longobardi, C. (2020). Active social network sites use and loneliness: The mediating role of social support and self-esteem. *Current Psychology*. Advance online publication. https://doi.org/10.1007/s12144-020-00658-8

Liu, D., Ainsworth, S. E., & Baumeister, R. F. (2016). A meta-analysis of social networking online and social capital. *Review of General Psychology, 20*(4), 369–391. https://doi.org/10.1037/gpr0000091

Liu, D., Baumeister, R. F., Yang, C.-c., & Hu, B. (2019). Digital communication media use and psychological well-being: a meta-analysis. *Journal of Computer-Mediated Communication, 24*(5), 259–273. https://doi.org/10.1093/jcmc/zmz013

Liu, D., Wright, K. B., & Hu, B. (2018). A meta-analysis of social network site use and social support. *Computers & Education, 127*, 201–213. https://doi.org/10.1016/j.compedu.2018.08.024

Lup, K., Trub, L., & Rosenthal, L. (2015). Instagram# instasad?: Exploring associations among Instagram use, depressive symptoms, negative social comparison, and strangers followed. *Cyberpsychology, Behavior, and Social Networking, 18*(5), 247–252. https://doi.org/10.1089/cyber.2014.0560

Macrynikola, N., & Miranda, R. (2019). Active Facebook use and mood: When digital interaction turns maladaptive. *Computers in Human Behavior, 97*, 271–279. https://doi.org/10.1016/j.chb.2019.02.012

McLean, S. A., Wertheim, E. H., Masters, J., & Paxton, S. J. (2017). A pilot evaluation of a social media literacy intervention to reduce risk factors for eating disorders. *International Journal of Eating Disorders, 50*(7), 847–851. https://doi.org/10.1002/eat.22708

Meier, A., Gilbert, A., Börner, S., & Possler, D. (2020). Instagram inspiration: How upward comparison on social network sites can contribute to well-being. *Journal of Communication, 70*(5), 721–743. https://doi.org/10.1093/joc/jqaa025

Meier, A., & Schäfer, S. (2018). The positive side of social comparison on social network sites: How envy can drive inspiration on Instagram. *Cyberpsychology, Behavior, and Social Networking, 21*(7), 411–417. https://doi.org/10.1089/cyber.2017.0708

Mingoia, J., Hutchinson, A. D., Gleaves, D. H., & Wilson, C. (2019). The impact of a social media literacy intervention on positive attitudes to tanning: A pilot study. *Computers in Human Behavior, 90*, 188–195. https://doi.org/10.1016/j.chb.2018.09.004

Moreno, M. A., 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*(6), 447–455. https://doi.org/10.1002/da.20805

Mundy, L. K., Canterford, L., Moreno-Betancur, M., Hoq, M., Sawyer, S. M., Allen, N. B., & Patton, G. C. (2021). Social networking and symptoms of depression and anxiety in early adolescence. *Depression and Anxiety, 38*(5), 563–570. https://doi.org/10.1002/da.23117

Mussweiler, T., Rüter, K., & Epstude, K. (2006). The why, who, and how of social comparison: A social-cognition perspective. In S. Guimond (Ed.), *Social comparison and social psychology: Understanding cognition, intergroup relations, and culture* (pp. 33–54). Cambridge University Press.

Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.

Nesi, J., & Prinstein, M. J. (2015). Using social media for social comparison and feedback-seeking: Gender and popularity moderate associations with depressive symptoms. *Journal of Abnormal Child Psychology, 43*(8), 1427–1438. https://doi.org/10.1007/s10802-015-0020-0

Nternet Stats. (2019). Instagram by the numbers: Stats, demographics & fun facts. https://www.omnicoreagency.com/instagram-statistics/

Orben, A., Dienlin, T., & Przybylski, A. K. (2019). Social media's enduring effect on adolescent life satisfaction. *Proceedings of the National Academy of Sciences, 116*(21), 10226–10228. https://doi.org/10.1073/pnas.1902058116

Ozimek, P., & Bierhoff, H.-W. (2020). All my online-friends are better than me – three studies about ability-based comparative social media use, self-esteem, and depressive tendencies. *Behaviour & Information Technology, 39*(10), 1110–1123. https://doi.org/10.1080/0144929X.2019.1642385

Pang, H. (2021). Unraveling the influence of passive and active WeChat interactions on upward social comparison and negative psychological consequences among university students. *Telematics and Informatics, 57*, Article 101510. https://doi.org/10.1016/j.tele.2020.101510

Paradise, A. W., & Kernis, M. H. (2002). Self-esteem and psychological well-being: Implications of fragile self-esteem. *Journal of Social and Clinical Psychology, 21*(4), 345–361. https://doi.org/10.1521/jscp.21.4.345.22598

Park, N. (2014). Gender difference in social networking on smartphones: A case study of Korean college student smartphone users. *International Telecommunications Policy Review, 21*(2), 1–18.

Park, S. Y., & Baek, Y. M. (2018). Two faces of social comparison on Facebook: The interplay between social comparison orientation, emotions, and psychological well-being. *Computers in Human Behavior, 79*, 83–93. https://doi.org/10.1016/j.chb.2017.10.028

Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in Human Behavior, 62*, 155–167. https://doi.org/10.1016/j.chb.2016.03.084

Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D., Colditz, J. B., Radovic, A., & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine, 53*(1), 1–8. https://doi.org/10.1016/j.amepre.2017.01.010

Pujazon-Zazik, M., & Park, M. J. (2010). To tweet, or not to tweet: Gender differences and potential positive and negative health outcomes of adolescents' social internet use. *American Journal of Men's Health, 4*(1), 77–85. https://doi.org/10.1177/1557988309360819

Reevy, G. M., & Maslach, C. (2001). Use of social support: Gender and personality differences. *Sex Roles, 44*(7–8), 437–459. https://doi.org/10.1023/A:1011930128829

Riehm, K. E., Feder, K. A., Tormohlen, K. N., Crum, R. M., Young, A. S., Green, K. M., Pacek, L. R., Lareina, N. L. F., & Mojtabai, R. (2019). Associations between time spent using social media and internalizing and externalizing problems among US youth. *JAMA Psychiatry, 76*(12), 1266–1273.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Sakurai, R., Nemoto, Y., Mastunaga, H., & Fujiwara, Y. (2021). Who is mentally healthy? Mental health profiles of Japanese social networking service users with a focus on LINE, Facebook, Twitter, and Instagram. *Plos One*, *16*(3), Article e0246090. https://doi.org/10.1371/journal.pone.0246090

Saunders, J. F., & Eaton, A. A. (2018). Snaps, selfies, and shares: How three popular social media platforms contribute to the sociocultural model of disordered eating among young women. *Cyberpsychology, Behavior, and Social Networking, 21*(6), 343–354. https://doi.org/10.1089/cyber.2017.0713

Schmuck, D., Karsay, K., Matthes, J., & Stevic, A. (2019). "Looking up and feeling down". The influence of mobile social networking site use on upward social comparison, self-esteem, and well-being of adult smartphone users. *Telematics and Informatics, 42*, Article 101240. https://doi.org/10.1016/j.tele.2019.101240

Seo, M., Kim, J., & Yang, H. (2016). Frequent interaction and fast feedback predict perceived social support: Using crawled and self-reported data of Facebook users. *Journal of Computer-Mediated Communication, 21*(4), 282–297. https://doi.org/10.1111/jcc4.12160

Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior, 58*, 89–97. https://doi.org/10.1016/j.chb.2015.12.059

Smith, A., & Anderson, M. (2018). *Social media use in 2018*. Pew Research Center. https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2018/02/PI_2018.03.01_Social-Media_FINAL.pdf

Song, H., Cramer, E. M., & Park, N. (2019). Cultural differences in social comparison on Facebook. *Behaviour & Information Technology, 38*(2), 172–183. https://doi.org/10.1080/0144929X.2018.1519037

Stokes, J. P., & Wilson, D. G. (1984). The inventory of socially supportive behaviors: Dimensionality, prediction, and gender differences. *American Journal of Community Psychology, 12*(1), 53–69. https://doi.org/10.1007/BF00896928

Tandoc, E. C., Jr., & Goh, Z. H. (2021). Is Facebooking really depressing? Revisiting the relationships among social media use, envy, and depression. *Information, Communication & Society*. Advance online publication. https://doi.org/10.1080/1369118X.2021.1954975

Thelwall, M., Wilkinson, D., & Uppal, S. (2010). Data mining emotion in social network communication: Gender differences in MySpace. *Journal of the American Society for Information Science and Technology, 61*(1), 190–199. https://doi.org/10.1002/asi.21180

Tifferet, S. (2020). Gender differences in social support on social network sites: A meta-analysis. *Cyberpsychology, Behavior, and Social Networking, 23*(4), 199–209. https://doi.org/10.1089/cyber.2019.0516

Tiggemann, M., & Anderberg, I. (2020). Social media is not real: The effect of 'Instagram vs reality' images on women's social comparison and body image. *New Media & Society, 22*(12), 2183–2199.

Tinajero, C., Martínez-López, Z., Rodríguez, M. S., Guisande, M. A., & Páramo, M. F. (2015). Gender and socioeconomic status differences in university students' perception of social support. *European Journal of Psychology of Education, 30*(2), 227–244. https://doi.org/10.1007/s10212-014-0234-5

Trifiro, B. M., & Gerson, J. (2019). Social media usage patterns: Research note regarding the lack of universal validated measures for active and passive use. *Social Media + Society, 5*(2). https://doi.org/10.1177/2056305119848743

Turner, R. J. (1981). Social support as a contingency in psychological well-being. *Journal of Health and Social Behavior, 22*(4), 357–367. https://doi.org/10.2307/2136677

Utz, S., & Breuer, J. (2017). The relationship between use of social network sites, online social support, and well-being. *Journal of Media Psychology, 29*(3), 115–125. https://doi.org/10.1027/1864-1105/a000222

Utz, S., Muscanell, N., & Khalid, C. (2015). Snapchat elicits more jealousy than Facebook: A comparison of Snapchat and Facebook use. *Cyberpsychology, Behavior, and Social Networking, 18*(3), 141–146. https://doi.org/10.1089/cyber.2014.0479

Valkenburg, P. M., Beyens, I., Pouwels, J. L., van Driel, I., & Keijsers, L. (In press). Social media browsing and adolescent well-being: Challenging the "passive social media use hypothesis". *Journal of Computer-Mediated Communication*.

Valkenburg, P. M., van Driel, I. I., & Beyens, I. (2021). The associations of active and passive social media use with well-being: A critical scoping review. *New Media & Society*. Advance online publication. https://doi.org/10.31234/osf.io/j6xqz

Verduyn, P., Gugushvili, N., Massar, K., Täht, K., & Kross, E. (2020). Social comparison on social networking sites. *Current Opinion in Psychology, 36*, 32–37. https://doi.org/10.1016/j.copsyc.2020.04.002

Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., Ybarra, O., Jonides, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General, 144*(2), 480. https://doi.org/10.1037/xge0000057

Verduyn, P., Ybarra, O., Résibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review, 11*(1), 274–302. https://doi.org/10.1111/sipr.12033

Wang, J.-L., Gaskin, J., Rost, D. H., & Gentile, D. A. (2018). The reciprocal relationship between passive social networking site (SNS) usage and users' subjective well-being. *Social Science Computer Review, 36*(5), 511–522. https://doi.org/10.1177/0894439317721981

Waterloo, S. F., Baumgartner, S. E., Peter, J., & Valkenburg, P. M. (2018). Norms of online expressions of emotion: Comparing Facebook, Twitter, Instagram, and WhatsApp. *New Media & Society, 20*(5), 1813–1831. https://doi.org/10.1177/1461444817707349

Weinstein, E. (2018). The social media see-saw: Positive and negative influences on adolescents' affective well-being. *New Media & Society, 20*(10), 3597–3623. https://doi.org/10.1177/1461444818755634

White, K., & Lehman, D. R. (2005). Culture and social comparison seeking: The role of self-motives. *Personality and Social Psychology Bulletin, 31*(2), 232–242. https://doi.org/10.1177/0146167204271326

Winter, J. (2013, July 23). Selfie-Loathing: Instagram is even more depressing than Facebook. Here's why. *Slate*. https://slate.com/technology/2013/07/instagram-and-self-esteem-why-the-photo-sharing-network-is-even-more-depressing-than-facebook.html

Yang, C.-c. (2016). Instagram use, loneliness, and social comparison orientation: interact and browse on social media, but don't compare. *Cyberpsychology, Behavior, and Social Networking, 19*(12), 703–708.

Yang, C.-c., & Brown, B. B. (2013). Motives for using Facebook, patterns of Facebook activities, and late adolescents' social adjustment to college. *Journal of Youth and Adolescence, 42*(3), 403–416. https://doi.org/10.1007/s10964-012-9836-x

Yang, C.-c., & Robinson, A. (2018). Not necessarily detrimental: Two social comparison orientations and their associations with social media use and college social adjustment. *Computers in Human Behavior, 84*, 49–57. https://doi.org/https://doi.org/10.1016/j.chb.2018.02.020

Yang, H.-S., Kim, J.-H., & Seo, M.-H. (2014). Does Facebook make us happy?: Examining the relationship among college students' Facebook use, upward social comparison and life satisfaction. *Korean Journal of Journalism & Communication Studies, 58*(6), 215–244.

Yin, X.-Q., de Vries, D. A., Gentile, D. A., & Wang, J.-L. (2019). Cultural background and measurement of usage moderate the association between social networking sites (SNSs) usage and mental health: A meta-analysis. *Social Science Computer Review, 37*(5), 631–648. https://doi.org/10.1177/0894439318784908

Yoon, S., Kleinman, M., Mertz, J., & Brannick, M. (2019). Is social network site usage related to depression? A meta-analysis of Facebook–depression relations. *Journal of Affective Disorders, 248*, 65–72. https://doi.org/10.1016/j.jad.2019.01.026

Zhang, M., Zhang, J., Zhang, F., Zhang, L., & Feng, D. (2018). Prevalence of psychological distress and the effects of resilience and perceived social support among Chinese college students: Does gender make a difference? *Psychiatry Research, 267*, 409–413. https://doi.org/10.1016/j.psychres.2018.06.038

Zhang, R. (2017). The stress-buffering effect of self-disclosure on Facebook: An examination of stressful life events, social support, and mental health among college students. *Computers in Human Behavior, 75*, 527–537. https://doi.org/10.1016/j.chb.2017.05.043

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*(1), 30–41. https://doi.org/10.1207/s15327752jpa5201_2

About Authors

Jounghwa Choi (Ph.D., Michigan State University) is a professor in the Department of Advertising & Public Relations at Hallym University. Her current research interests focus on the roles of mass media and communication technologies in health promotion/health behaviors as well as health/risk message strategies for public communication campaigns.

✉ **Correspondence to**

Jounghwa Choi, Department of Advertising & Public Relations, Hallym University, 1 Hallymdaehak-Gil, Chuncheon, 24252, South Korea, jhchoi@hallym.ac.kr