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Individualist – Collectivist Differences in the Influences
of Social Media Use on Perceived Social Capital and
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Abstract in English

This study aims to employ the individualist-collectivist dimension as a theoretical framework in order to detect how differently individualistic and collectivistic persons use social media and its relationship to social capital formation and perceived psychological well-being. An online survey with an international sample was employed to examine the moderating effects of an individual's level of individualism and collectivism on the relationship of social media use, social capital formation and perceived psychological well-being. The findings indicate that social media use for 'social monitoring' and 'information sharing' leads to forming online social capital, however, lowers the level of psychological well-being as a consequence. Concerning the role of the individualism-collectivism dimension, the moderating effect was found only in the relation between social media use for 'information sharing' and online bridging social capital.

Keywords: Social Media, Facebook, Instagram, Online Social Capital, Psychological Well-being, Individualism, Collectivism

Abstract in German

Diese Studie nutzt die Dimensionen des Individualismus und des Kollektivismus als theoretische Grundlage, um festzustellen, wie sich die Nutzung der Sozialen Medien von individualistischen und kollektivistischen Personen unterscheidet. Darüber hinaus wird auch die Beziehung der Theorie zum Aufbau von sozialem Kapital und geistigem Wohlbefinden untersucht. Für die Studie wurde eine Onlineumfrage mit einem internationalen Sample erstellt. Gegenstand der Untersuchung war der mäßigende Effekt des individualistischen bzw. kollektivistischen Niveaus einer Person auf die Bildung von sozialem Kapital und geistigem Wohlbefinden. Das Ergebnis zeigt, dass die Nutzung der sozialen Medien für „social monitoring“ und das Teilen von Information zur Bildung von sozialem Kapital führt, jedoch das geistige Wohlbefinden reduziert. In Bezug auf die Dimensionen des Individualismus und des Kollektivismus wurde der mäßigende Effekt nur in Verbindung mit der Nutzung von Sozialen Medien für das Teilen von Information und „Brücken schlagendes“ soziales Kapital gefunden.

Schlüsselwörter: soziale Medien, Facebook, Instagram, soziales Kapital, psychologisches Wohlbefinden, Individualismus, Kollektivismus

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Introduction

In recent years South Korea (hereafter, Korea) has become the highest suicide rate among the countries of the Organization for Economic Cooperation and Development (hereafter, OECD). More specifically, suicide is the leading cause of death for Korean youths aged 15 to 24 (OECD, 2020).

As the recent highly publicized cases of suicide in Korea involve social media, the topic of social media use and psychological well-being has gained more attention from the media as well as the academia of the related disciplines such as communication and psychology studies. Korea has stood out as one of the most heavily connected societies in the world with 96% of adults reporting internet use (The Korean Herald, 2018). However, when it comes to quality of social support network, Korea shows a very low sense of community, indicating, in other words, very low quality of social support network among the OECD countries (OECD, 2020).

The aforementioned statistics regarding life indices of Korea implies that people are suffering and even dying from disconnection in the most heavily connected society in the world. Some previous research has proven that the detrimental effects of mobile phone use on psychological well-being of Korean youths. In surveys of Korean college students, 78% of the respondents reported that they felt anxiety when they did not have their cell phones with them (Sohn, 2007) and a positive association existed between mobile phone addiction and loneliness (Park, 2005). Therefore, the present study assumes that Korean youths might be using social media differently or even wrongly from those in other societies and those differences in social media use would have certain influences on building social capital and psychological well-being.

In order to detect those differences, the Individualist – Collectivist dimension is employed as a theoretical frame for the current study since several previous studies within this field (Park, 2005; Whitty & McLaughlin, 2007; Sohn, 2007; Igarashi, Motoyoshi & Yoshida, 2008) have

already mentioned that social media use varies in the different levels of individualism and collectivism of individuals.

Literature Review

Social Media Use and Social Capital

Social media refer to web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, view and traverse their list of connections and those made by others within the system (Boyd & Ellison, 2007).

Social capital broadly refers to the resources accumulated through the relationships among people (Coleman, 1988). Putnam (2000) distinguishes between bridging and bonding social capital. The former is linked to what network researchers refer to as “weak ties,” which are loose connections between individuals who may provide useful information or new perspectives for one another but typically not emotional support (Granovetter, 1982). Alternatively, bonding social capital is found between individuals in tightly-knit and emotionally close relationships, such as family and close friends.

A growing body of literature on social media has shown a positive relationship between social media use and social capital, both bridging social capital and bonding social capital, resulting from social interaction and network building (Ellison, Steinfield, & Lampe, 2007; Steinfield, Ellison, & Lampe, 2008; Valenzuela, Park, & Kee, 2009). Researchers have emphasized the importance of Internet-based linkages for the formation of weak ties, which serve as the foundation of bridging social capital. Bridging social capital might be augmented by social media, which support loose social ties, allowing users to create and maintain larger, diffuse network of relationships from which they could potentially draw resources (Donath & Boyd,

2004). As well as bridging social capital, according to previous studies (Boase, Horrigan, Wellman, & Rainie, 2006) bonding social capital may have a positive link with social media use; for instance, these studies have shown that online users are more likely to have a larger network of close ties than non-Internet users, and that Internet users are more likely than non-users to receive help from core network members.

Social Capital and Psychological Well-being

Social capital researchers have found that various forms of social capital, including bridging and bonding social capital, are related to indices of psychological well-being, such as self-esteem and life satisfaction (Bargh, McKenna, & Fitzsimons, 2002; Helliwell & Putnam, 2004). Most research has examined the connections between psychological well-being and strong ties and emphasized the importance of family, intimate relationships, and close friends (Bishop & Inderbitzen, 1995; Keefe & Berndt, 1996). There are a few studies concerning the linkages between psychological well-being and the kinds of weak ties. Constant, Sproull, and Kiesler (1996) argue that people can gain self-esteem when they provide technical advice to strangers over the Internet.

Social Media Use, Social Capital and Psychological Well-being

Previous research has proven that social media use can lead to building social capital and psychological well-being. Yu and his colleagues (2014) have argued that the intensity and functions of social media use affect individuals' social capital and psychological well-being status. They used two components to classify functions of social media use, the social informational purpose of social media use (hereafter, SIF) and the entertaining recreational purpose of social media use (hereafter, ERF). The results indicate that social media use for the SIF purpose predicts the increase of bridging social capital which leads to the higher level of

psychological well-being. By contrast, no relations between SIF and bonding social capital have been found. ERF, in fact, cannot predict any kinds of individuals' social capital but increases their perceived loneliness and also is positively associated with the amount of time spent on social media. These results can infer that individuals may feel isolated due to their dependence on social media.

The Individualist – Collectivist Dimension

The individualist – collectivist dimension has been used extensively across a variety of disciplines to examine cultural variability in behaviour and thought patterns and was first measured empirically by Hofstede (1980). His empirical index for the dimension shows Western countries clustered toward the individualist end, Whilst Asian nations are clustered toward the collectivist end.

Cross-culturally, individualism is characterized by an independent self-construal, emotional independence, and behaviour regulated by the individual's attitudes, whereas collectivism is characterized by an interdependent self-construal, emotional interdependence, and behaviour regulated by in-group norms (Markus & Kitayama, 1991; Triandis, 1989; Triandis, 2018).

Although there are certain countries that are predominantly either individualistic or collectivistic, such dimension also varies among cultures as well as different people in a same society (Zhang et al., 2007). In other words, in a given society some members score higher than others on measures of these constructs.

For example, it is especially problematic when applied to college populations who are exposed to multiple cultural influences, including exposure to the global communications network that is the Internet. Therefore, in the present study the individualist – collectivist dimension is being measured at the individual level rather than at the cultural level.

Individualist - Collectivist Differences in Social Media Use

Most research on the impact of connection technologies has been conducted in the United States, but studies of Asian and European populations are also found. For instance, a survey of Northern Ireland college students showed a positive correlation between internet use and loneliness (Whitty & McLaughlin, 2007). In surveys of Korean college students, 78% reported that they felt anxiety when they did not have their cell phones with them (Sohn, 2007) and a positive association existed between mobile phone addiction and loneliness (Park, 2005). The frequency of text messages correlated positively with psychological and behavioural symptoms similar to alcoholic and drug dependencies among Japanese high school students, which was thought to be a manifestation of a collectivistic and interdependent culture that emphasizes social relationships (Hofstede, 1980).

Comparative studies of social media and their impacts are sparse. In a study that compared the use of SNSs between Chinese and American students (Chu & Choi, 2010), the use of SNSs for bonding social capital was greater among American college students than their Chinese counterparts, but the use of SNSs for bridging social capital did not differ between two countries. Although the average social network size was almost five times larger among American students than Korean students, the amount of time spent on SNSs was almost the same (Kim, Sohn, & Choi, 2011). The use of SNSs for entertainment was greater for Americans than Koreans, while the opposite pattern was observed in relation to the use of SNSs for social support. These results suggest that Korean students use SNSs to reinforce existing social networks, thereby providing social support to each other. This might go some way toward explaining the beneficial impact of SNSs among Koreans (Lee et al., 2011). However, this is a double-edged sword, as collectivistic cultures can impose burdens on people when they use SNSs. For instance, in a qualitative study (Kim & Yun, 2008), some Korean participants

reported that they got stressed due to the norm of reciprocity in SNSs that required them to visit and leave comments on their friends' sites.

Hypotheses

Therefore, these findings may suggest the following hypotheses:

(Individualism-Collectivism → Time Spent on Social Media)

H1: People who report a high level of collectivist would spend more time on using social media than people who report a high level of individualist.

(Social Media Use for 'Self-disclosure' → Online Bonding Social Capital → Psychological Well-being)

H2-a: The more time collectivistic people use social media for 'self-disclosure', the less 'bonding social capital' they would achieve.

H2-b: The more time individualistic people use social media for 'self-disclosure', the more 'bonding social capital' they would achieve.

H2-c: The less 'bonding social capital' collectivistic people achieve through using social media for 'self-disclosure', the lower level of 'psychological well-being' they would reach.

H2-d: The more 'bonding social capital' individualistic people achieve through using social media for 'self-disclosure', the higher level of 'psychological well-being' they would reach.

(Social Media Use for 'Social Monitoring' → Online Bonding Social Capital → Psychological Well-being)

H3-a: The more time collectivistic people use social media for 'social monitoring', the less 'bonding social capital' they would achieve.

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H3-b: The more time individualistic people use social media for ‘social monitoring’, the more ‘bonding social capital’ they would achieve.

H3-c: The less ‘bonding social capital’ collectivistic people achieve through using social media for ‘social monitoring’, the lower level of ‘psychological well-being’ they would reach.

H3-d: The more ‘bonding social capital’ individualistic people achieve through using social media for ‘social monitoring’, the higher level of ‘psychological well-being’ they would reach.

(Social Media Use for ‘Information Sharing’ → Online Bridging Social Capital →

Psychological Well-being)

H4-a: The more time collectivistic people use social media for ‘information sharing’, the more ‘bridging social capital’ they would achieve.

H4-b: The more time individualistic people use social media for ‘information sharing’, the more ‘bridging social capital’ they would achieve.

H4-c: The more ‘bridging social capital’ collectivistic people achieve, the higher level of ‘psychological well-being’ they would reach.

H4-d: The more ‘bridging social capital’ individualistic people achieve, the higher level of ‘psychological well-being’ they would reach.

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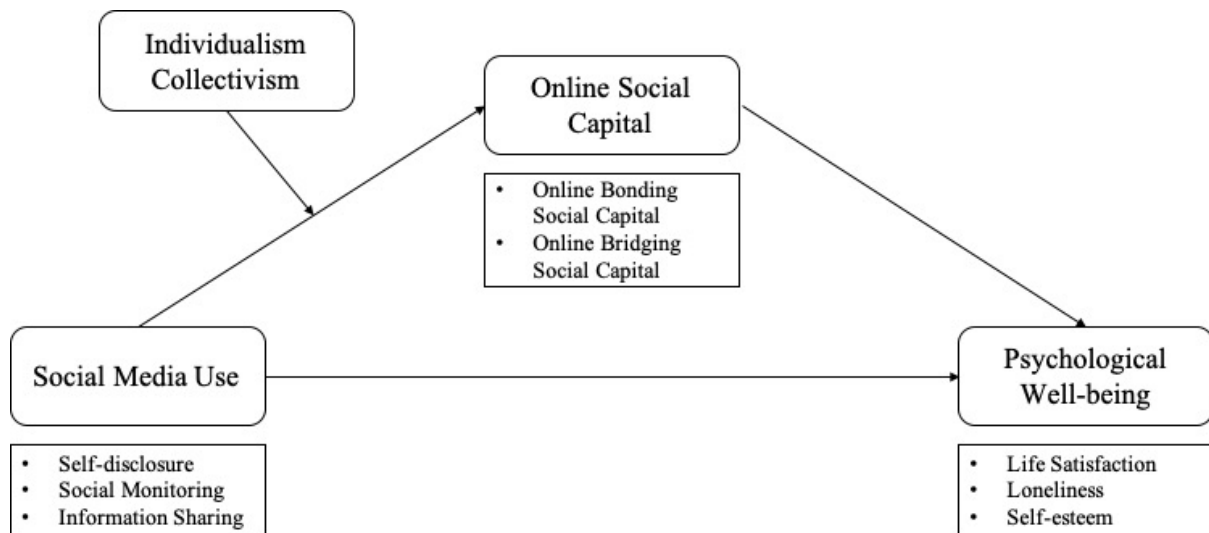


Figure 1 Conceptual Model

Methodology

An online survey of international students who can understand English and have accounts on Facebook or Instagram or both was conducted. The original questionnaire was written in English. The survey was distributed to international students all over the world via social media, personal emails, international student online communities and so on.

A total of 265 responses was collected, of whom 165 participants (62%) were female and 100 participants (38%) were male. 40% of the samples were between 23 – 27 years old, 35% were between 28 and 32 years old, 16% were over 33 years old, and 9% were between 18 and 22 years old. 33 different nationalities participated in the survey, of whom 45% were Korean, 15% were Austrian, 8% were German, 5% were British, 4% were Italian and 3% were American.

Measures

Social Media Use. The measure for social media use was adapted from Lee and her colleagues' scales (2016). To assess the three dimensions of social media use, which are 'self-disclosure' 'social monitoring' and 'information sharing', 10 items regarding social media behaviours

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were employed. The 10 items were: ‘Post photos, videos or music’ ‘Read others’ comments to my postings’ ‘Add friends’ ‘Update my status’ ‘Keep up with friends’ statuses’ ‘Visit friends’ pages’ ‘Reply to friends’ status updates’ ‘Chat with friends’ ‘Share links (photos, videos, etc.)’ and ‘Search for information related to studies’. The answers to these items were reported on an eight-point Likert-type scale ranging from (1) ‘never’, (2) ‘less than every few months’, (3) ‘every few months’, (4) ‘every few weeks’, (5) ‘1-2 days a week’, (6) ‘3-5 days a week’, (7) ‘about once a day’, to (8) ‘several times a day’.

In order to assess the underlying structure of the 10 items of social media use purposes, a factor analysis was conducted. The three factors were labelled as ‘self-disclosure’ (Cronbach’s alpha = .852), ‘social monitoring’ (Cronbach’s alpha = .865), and ‘information sharing’ (Cronbach’s alpha = .751). The means of the scales in each factor were used as variables. In addition to the three types of social media use purposes, interpersonal communication was added to the questionnaire and analysis.

In order to assess the intensity of individuals’ social media use, the amount of time the participants spend on using social media was reported by answering an open-ended question: “How many minutes per day have you spent on social media on average in the past week?”

Items	<i>Self-disclosure</i>	<i>Social Monitoring</i>	<i>Information sharing</i>
Post photos, videos or music	.819	.263	.182
Read others’ comments to my postings	.750	.334	.245
Add friends	.684	.142	.343
Update my status	.676	.437	.172
Keep up with friends’ status	.279	.842	.104

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Visit friends' pages	.207	.835	.254
Reply to friends' status updates	.492	.672	.167
Share links (photos, videos, etc)	.204	.111	.889
Search for information related to studies	.335	.296	.748
Eigenvalue	5.020	.983	.714
% of variance	55.778	10.938	7.938
Cronbach's Alpha	.852	.865	.751

Table 1 Factor Analysis Results of Social Media Use

Social Capital. 10 items to measure the two dimensions of social capital, bridging social capital and bonding social capital, were used being adapted from Williams's scales (2006). The items were rated on a five-point Likert-type scale from (1) 'not at all' to (5) 'very much'. The items for bridging social capital were: 'interacting with people online makes me interested in things that happen outside of my town'; 'interacting with people online makes me interested in what people unlike me are thinking'; 'talking with people online makes me curious about other places in the world'; 'interacting with people online makes me feel like part of a larger community'; and 'I come in contact with new people online all the time'. The items for bonding social capital were: 'There are several people online I trust to help solve my problems'; 'when I feel lonely, there are several people online I can talk to'; 'if I needed an emergency loan of \$30, I know someone online I can turn to'; 'the people I interact with online would put their reputation on the line for me'; 'the people I interact with online would help me fight an injustice'.

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Psychological Well-being. Regarding psychological well-being, four items adapted from the Satisfaction with Life Scale (SWLS) were used to measure individuals' perceived life satisfaction, three items adopted from the UCLA Loneliness Scale were used to measure individuals' perceived loneliness, and seven items will be used to measure individuals' perceived self-esteem. The items for measuring life satisfaction were: "The conditions of my life are excellent"; "I am satisfied with my life"; "In most ways, my life is close to my ideal" "If I could live my time over, I would change almost nothing". The items for detecting loneliness were: "I feel a lack of companionship"; "I feel lonely"; "I feel no one really knows me". The items for self-esteem were: "I feel that I'm a person of worth, at least on an equal plane with others"; "I feel that I have a number of good qualities"; "All in all, I am inclined to feel that I am a failure" (reversed); "I am able to do things as well as most other people"; "I feel I do not have much to be proud of" (reversed); "I take a positive attitude toward myself"; "On the whole, I am satisfied with myself".

Individualism – Collectivism. The level of individualism-collectivism was measured with Wagner and Moch's (1986) 11-item scale. The Wagner and Moch scale operationalised individualism-collectivism as the difference between the focus on self versus group interests in a group context. The 11 items used in the present research were: "My work group is more productive when its members do what they want to do rather than what the group wants them to do" (reversed); "My work group is most efficient when its members do what they think is best rather than what the group wants them to do" (reversed); "My work group is more productive when its members follow their own interests and concerns" (reversed); "I prefer to work with others in my work group rather than work alone"; "Given the choice, I would rather do a job where I can work alone rather than do a job where I have to work with others in my work group" (reversed); "I like it when members of my work group do things on their own,

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rather than working with others all the time’ (reversed); ‘People in my work group should be willing to make sacrifices for the sake of the work group (such as working late now and then, going out of their way to help, etc.)’; ‘People in my work group should realise that they sometimes are going to have to make sacrifices for the sake of the work group as a whole’; ‘People in my work group should recognise that they are not always going to get what they want’; ‘People should be made aware that if they are going to be part of a work group, they are sometimes going to have to do things they don’t want to do’; ‘People in my work group should do their best to cooperate with each other instead of trying to work things out on their own’.

Wagner and Moch identified three structural dimensions of individualism-collectivism. The first dimension is called *beliefs* and measured statements of truth or fact as they relate to whether the work group is perceived more productive or efficient when members are more or less collectivistic. The second dimension is called *values* and measured the respondent’s general preferences about working in a more collectivistic environment versus a more individualistic environment. The third dimension is called *norms* and measured the respondent’s specific prescriptions for the behaviour of other work group members. These prescriptions described either individualistic or collectivistic work behaviours.

Construct	<i>Number of Items</i>	<i>Cronbach’s Alpha</i>	<i>SD</i>	<i>Mean</i>
Self-disclosure	4	.852	1.65	4.20
Social Monitoring	4	.865	1.71	5.83
Information Sharing	2	.751	1.86	3.65
Online Bonding Social Capital	5	.910	1.07	2.57

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Online Bridging Social Capital	5	.890	.95	3.31
Life Satisfaction	4	.914	.91	3.59
Loneliness	3	.920	1.12	2.73
Self-esteem	7	.939	.87	3.89
Individualism Collectivism	11	.949	1.71	2.24

Table 2 Internal Reliability Tests for the Items for each Construct

Control Variables. To ensure the effects of the variables, a number of control variables, including demographical information of the participants such as age, gender, and education, were measured.

Results

Effect of the Level of Individualism-Collectivism on the Time Spent on Social Media

In order to investigate H1, a simple linear regression was performed. The outcome variable was time spent on social media and the predictor variable for the analysis was the level of individualism and collectivism.

A significant regression equation was found ($F(1, 263) = 4.576, p < .05$), with an R^2 of .017. Individuals' predicted time spent on using social media increased 15.341 minutes for each unit of an individual's perceived level of individualism-collectivism. Thus, H1 is supported.

Moderated Mediation Effects on Psychological Well-being

To test the moderated mediation model proposed in H2 – H4, Model 7 in the PROCESS macro (Hayes 2013) was employed. This SPSS macro uses an ordinary least squares regression-based path analytical framework to estimate the direct and indirect effects in mediator models. 5,000 bootstrap samples were used to estimate the 95% bias-corrected bootstrap confidence intervals (BCIs) for inferences regarding indirect effects and conditional effects.

One moderated mediation model for each purpose of social media use was conducted, thus three models in total were performed to examine the hypotheses regarding the direct and indirect effects as well as the moderated mediation effects.

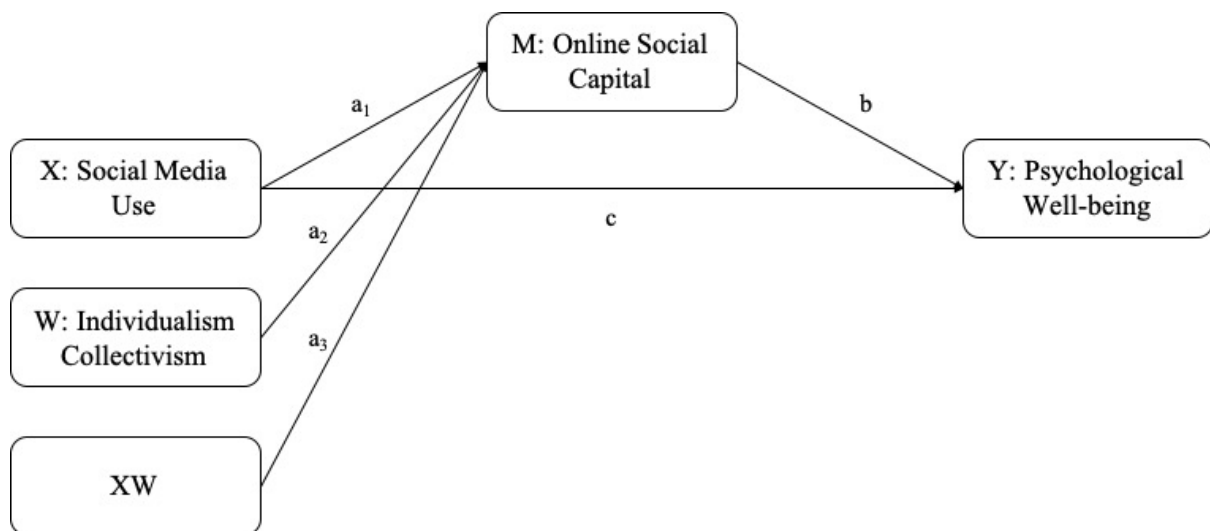


Figure 2 Statistical Model

Moderated Mediation Model 1

In the first moderated mediation model, social media use for ‘self-disclosure’ was used as the independent variable, online bonding social capital built through using social media for ‘self-disclosure’ as the mediator, the level of individualism-collectivism as the moderator and perceived psychological well-being as the dependent variable. Social media use for ‘social

monitoring' 'information sharing' and online bridging social capital were included as covariates.

The results showed that there was a significant direct effect of the social media use for 'self-disclosure' on the perceived psychological well-being ($b = -.1792, p < .001$). In addition, a significant interaction effect between social media use for 'self-disclosure' and online bonding social capital ($b = -.0508, p < 0.01$), suggesting the level of individualism-collectivism moderates the relationship between social media use for 'self-disclosure' and online bonding social capital.

At -1SD on the level of individualism-collectivism, indicating the group of the individualistic participants, the effect was positive and significant ($b = .3270, p < .001$). Therefore, H2-b is supported.

At the mean of the level of individualism-collectivism, the effect of social media use for 'self-disclosure' was positive and significant ($b = .2400, p < .001$).

Nevertheless, the slopes are becoming less positive as the level of collectivism moves from low to high, suggesting that both individualistic and collectivistic participants built a higher level of online bonding social capital as they used social media for the purpose of disclosing themselves to their audiences. Therefore, H2-a is not supported.

The difference between those two groups is that the individualistic group showed a steeper slope than the other, indicating that individualistic people accumulate more bonding social capital by expressing themselves online than collectivistic people do.

However, the index of moderated mediation was insignificant (index of moderated mediation = .0034, boot SE = .0045, BCI [-.0014, .0162]), thus H2-c and H2-d are not supported.

|

Model 1. X: SMU for ‘Self-disclosure’ M: Online Bonding Social Capital Y: Psychological Well-being			
Direct/Indirect Effects	<i>b</i>	<i>SE</i>	<i>p</i>
a ₁	.3536	.0524	.0000
a ₂	.4366	.0831	.0000
a ₃	-.0508	.0182	.0056
b	-.0664	.0490	.1771
c	-.1792	.0320	.0000

Table 3 Direct/Indirect Effects of the Moderated Mediation Model 1

Model 1-1. X: SMU for ‘Self-disclosure’ Y: Online Bonding Social Capital			
Individualism Collectivism (W)	<i>b</i>	<i>BootLLCI</i>	<i>BootULCI</i>
.5227	.3270	.2371	.4170
2.2368	.2400	.1721	.3078
3.9510	.1529	.0599	.2459

*Table 4 Conditional Effects of ‘Self-disclosure’ on Online Bonding Social Capital at the
Level of individualism-collectivism = mean and $\pm 1SD$*

Moderated Mediation Model 2

In the second moderated mediation model, social media use for ‘social monitoring’ was used as the independent variable, online bonding social capital formed by using social media for ‘social monitoring’ as the mediator, the level of individualism-collectivism as the moderator and perceived psychological well-being as the dependent variable. Social media use for ‘self-disclosure’ ‘information sharing’ and online bridging social capital were included as covariates.

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The results showed a significant direct effect of ‘social monitoring’ on perceived psychological well-being ($b = -.1093$, $p < .001$), whereas there was no interaction effect between ‘social monitoring’ and the level of individualism-collectivism.

Additionally, the index of moderated mediation was also insignificant (index of moderated mediation = .0012, boot SE = .0073, BCI [-.0050, .0223]), thus H3-a, H3-b, H3-c, and H3-4 are not supported.

Model 2. X: SMU for ‘Social Monitoring’ M: Online Bonding Social Capital Y: Psychological Well-being			
Direct/Indirect Effects	<i>b</i>	<i>SE</i>	<i>p</i>
a ₁	.2141	.0578	.0003
a ₂	.3032	.1193	.0116
a ₃	-.0094	.0193	.6258
b	-.1234	.0487	.0119
c	-.1093	.0306	.0004

Table 5 Direct/Indirect Effects of the Moderated Mediation Model 2

Moderated Mediation Model 3

In the last moderated mediation model, social media use for ‘information sharing’ was used as the independent variable, online bridging social capital built through using social media for ‘information sharing’ as the mediator, the level of individualism-collectivism as the moderator and perceived psychological well-being as the dependent variable. Social media use for ‘self-disclosure’ ‘social monitoring’ and online bonding social capital were included as covariates. The interaction between social media use for ‘information sharing’ and an individual’s level of individualism and collectivism was statistically significant ($b = -.1035$, $p < .001$), suggesting

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the level of individualism-collectivism moderated the effect of social media use for ‘information sharing’ on online bridging social capital.

At -1SD on the level of individualism-collectivism, indicating the group of individualistic participants, the effect was positive and significant ($b = .3967, p < .001$). Therefore, H4-b is supported.

At the mean of the level of individualism-collectivism, the effect of social media use for ‘information sharing’ was also positive and significant ($b = .2193, p < .001$).

However, at +1SD, the group of collectivistic participants, the effect was insignificant ($p = .2953$). Thus, H4-a are not supported.

The index of moderated mediation was significant (index of moderated mediation = .0188, boot SE = .0083, BCI [.0032, .0363]). Two of the conditional effects were negative (at -1SD, $b = -.0719$; at mean, $b = -.0398$) and significant (as the null of 0 does not fall between the lower and upper limit of the 95% confidence interval), thus H4-d is not supported. At +1SD, the conditional effect was insignificant, H4-c is thus not supported.

Model 3. X: SMU for ‘Information Sharing’ M: Online Bridging Social Capital Y: Psychological Well-being			
Direct/Indirect Effects	<i>b</i>	<i>SE</i>	<i>p</i>
a ₁	.4507	.0601	.0000
a ₂	.4392	.0773	.0000
a ₃	-.1035	.0208	.0000
b	-.1813	.0578	.0019
c	-.0921	.0294	.0019

Table 6 Direct/Indirect Effects of the Moderated Mediation Model 3

Model 3-1. X: SMU for ‘Information Sharing’ Y: Online Bridging Social Capital			
Individualism Collectivism (W)	<i>b</i>	<i>BootLLCI</i>	<i>BootULCI</i>
.5227	.3967	.2969	.4964
2.2368	.2193	.1632	.2754
3.9510	.0420	-.0369	.1208

*Table 7 Conditional Effects of ‘Information Sharing’ on Online Bridging Social Capital at
the Level of individualism-collectivism = mean and $\pm 1SD$*

Model 3-2. X: SMU for ‘Information Sharing’ M: Online Bridging Social Capital Y: Psychological Well-being			
Individualism Collectivism (W)	<i>Effect</i>	<i>BootLLCI</i>	<i>BootULCI</i>
.5227	-.0719	-.1329	-.0151
2.2368	-.0398	-.0728	-.0080
3.9510	-.0076	-.0274	.0065

*Table 8 Conditional Effects of ‘Information Sharing’ on Online Bridging Social Capital at
the Level of individualism-collectivism = mean and $\pm 1SD$*

Conclusion and Discussion

This study addressed the moderator role of an individual's level of individualism-collectivism on the relationship between social media use behaviours, social capital formation and perceived psychological well-being. The purpose of the study was mainly twofold. First, it re-examined the relationship of the intensity and functions of social media use, individuals' social capital formation and psychological well-being status. Second, it aimed to provide new insights into the pre-existing 'three step model' by detecting the moderating effects of individuals' level of individualism-collectivism.

With the respect of the first aim, the significant and negative direct effects of the intensity and functions of social media use were found in the three different purposes of social media use. Moreover, the results showed that participants who are more collectivistic than individualistic spent more time using their social media. These findings confirm the notion that collectivistic people are inclined to use social media more intensively than individualistic people and the intensity of the time spent on social media may have detrimental effects on their psychological well-being.

Additionally, in terms of the mediating role of online social capital formation in the relationship between social media use and psychological well-being, the significant and negative indirect effects of social media use on psychological well-being via the formation of online social capital were detected in Model 2 and Model 3. These findings show that social media use for 'social monitoring' leads to forming more bonding social capital online, however it affects psychological well-being in a negative way. Also, social media use for 'information sharing' helps people connect with people that they do not know in real life online, however the formation of online bridging social capital has a negative effect on perceived psychological well-being.

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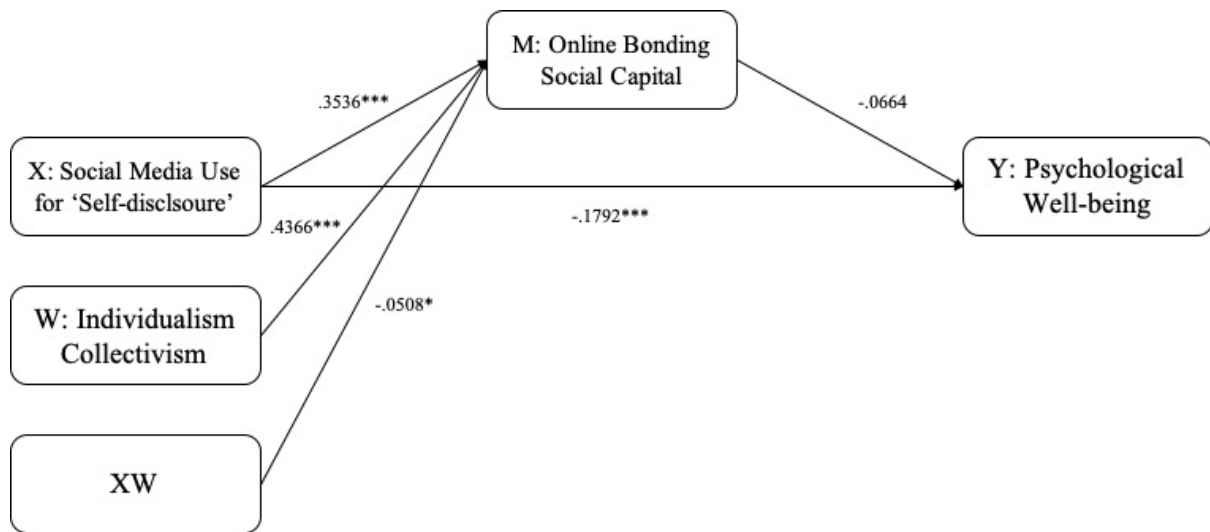


Figure 3 Direct and Indirect Effects of Model 1

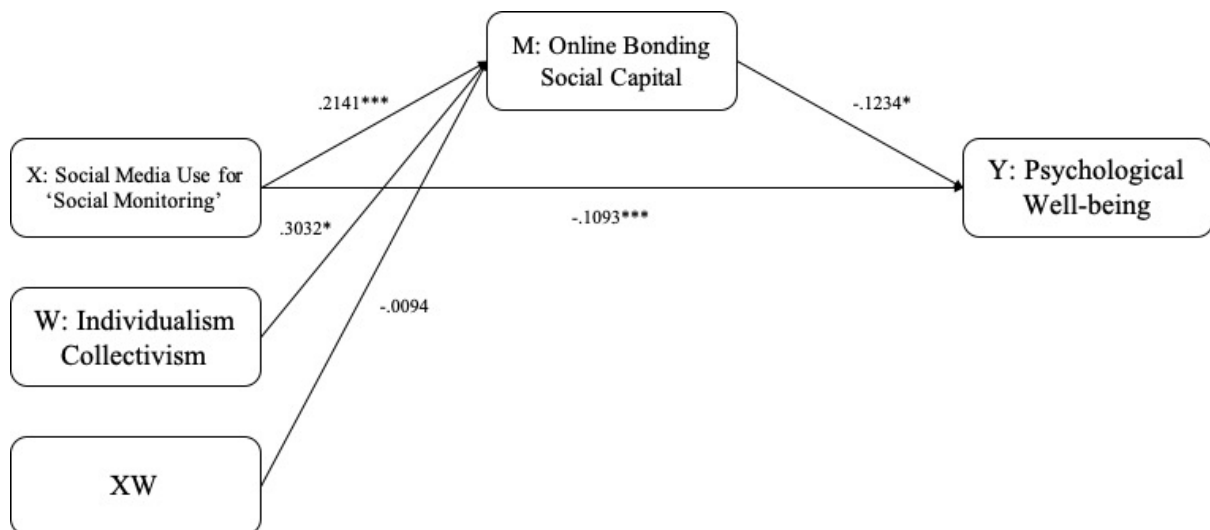


Figure 4 Direct and Indirect Effects of Model 2

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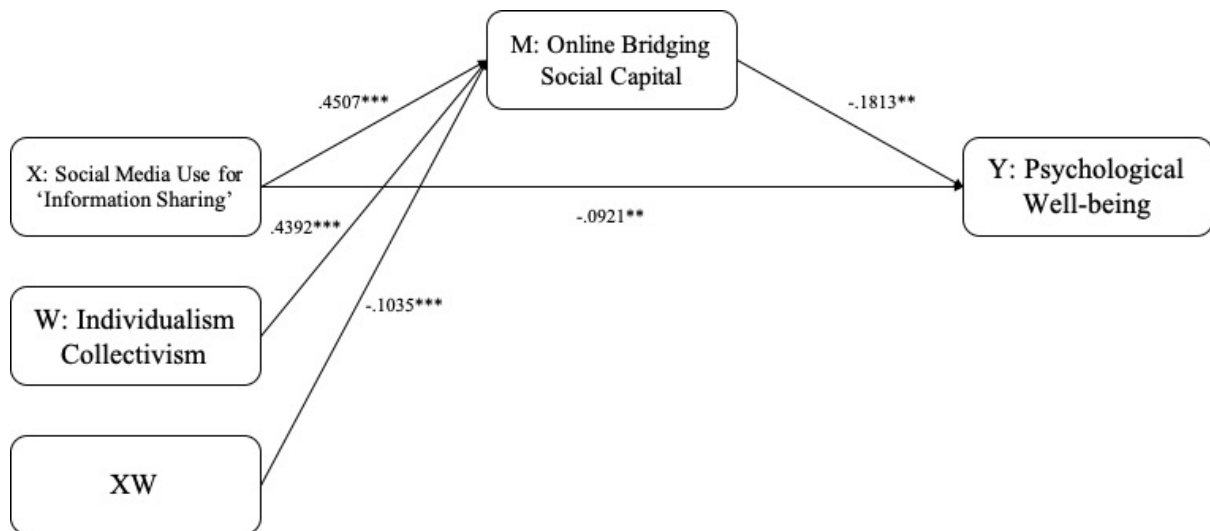


Figure 5 Direct and Indirect Effects of Model 3

Concerning the second aim, the present study demonstrates that the level of individualism-collectivism acts as a moderator in the relationship between social media use for ‘information sharing’, online bridging social capital, and psychological well-being. The results address that collectivistic participants built more online bridging social capital than the participant who scored the medium level of collectivistic characteristics, which led to a lower level of psychological well-being.

Even though there have been plenty of studies which attempted to connect the lines between social media, social capital and psychological health, this study has stood out by employing the individualist-collectivist dimension into the pre-existing model. Furthermore, this theoretical frame was measured at the individual level rather than at the cultural level since although there are certain countries that are predominantly either individualistic or collectivistic, such dimension also varies among cultures as well as different people in a same society (Zhang et al., 2007). In other words, in a given society some members score higher than others on measures of these constructs.

Although the present study provides new insights, it does contain some limitations. For instance, this study could not be able to control the effect of the global pandemic caused by

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COVID-19. Due to the lockdowns and restrictions to force people to stay home, the link between social media use, social capital formation and psychological well-being must have been significantly changed before and during the crisis.

Moreover, the number of the participants for the survey was not sufficient. The sample of 266 responses after cleaning the invalid cases was used for the analysis. Therefore, in order to achieve the generalization of the findings to a larger group, future studies can expand a number of participants as well as a variety of nationalities.

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Appendix

Questionnaire

1. Social Media

- Do you have accounts on either Facebook or Instagram?

2. Demographic Variables

Gender

Age

Education

Country of origin

Country of residence

3. The Intensity of Social Media Use

- How many minutes per day have you spent on social media on average in the past week?

4. Social Media Usage Type

Measured on an eight-point Likert-type scale ranging from (1) 'never', (2) 'less than every few months', (3) 'every few months', (4) 'every few weeks', (5) '1-2 days a week', (6) '3-5 days a week', (7) 'about once a day' to (8) 'several times a day'.

Self-disclosure

- 'Post photos, videos or music'
- 'Read others' comments to my postings'
- 'Add friends'
- 'Update my status'

Social Monitoring

- ‘Keep up with friends’ statuses’
- ‘Visit friends’ pages’
- ‘Reply to friends’ status updates’
- ‘Chat with friends’

Information Sharing

- ‘Share links (photos, videos, etc.)’
- ‘Search for information related to studies’

5. Online Social Capital

Measured on a five-point Likert-type scale from Williams’s scales from (1) ‘not at all’ to (5) ‘very much’.

The items for bonding capital

- ‘There are several people online I trust to help solve my problems’
- ‘When I feel lonely, there are several people online I can talk to’
- ‘If I needed an emergency loan of \$30, I know someone online I can turn to’
- ‘The people I interact with online would put their reputation on the line for me’
- ‘The people I interact with online would help me fight an injustice’

The items for bridging capital

- ‘Interacting with people online makes me interested in things that happen outside of my town’
- ‘Interacting with people online makes me interested in what people unlike me are thinking’
- ‘Interacting with people online makes me curious about other places in the world’

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- ‘Interacting with people online makes me feel like part of a larger community’
- ‘I come in contact with new people online all the time’

6. Psychological Well-being

Measured on a five-point Likert-type scale (1) ‘not at all’ to (5) ‘very much’.

Life Satisfaction

- ‘The conditions of my life are excellent’
- ‘I am satisfied with my life’
- ‘In most ways, my life is close to my ideal’
- ‘If I could live my time over, I would change almost nothing’

Loneliness

- ‘I feel a lack of companionship’
- ‘I feel lonely’
- ‘I feel no one really knows me’

Self-esteem

- ‘I feel that I’m a person of worth, at least on an equal plane with others’
- ‘I feel that I have a number of good qualities’
- ‘All in all, I am inclined to feel that I am a failure’ (reversed)
- ‘I am able to do things as well as most other people’
- ‘I feel I do not have much to be proud of’ (reversed)
- ‘I take a positive attitude toward myself’
- ‘On the whole, I am satisfied with myself’

7. Individualism – Collectivism

Measured on a five-point Likert-type scale (1) ‘not at all’ to (5) ‘very much’.

Beliefs

- ‘My work group is more productive when its members do what they want to do rather than what the group wants them to do’ (reversed)
- ‘My work group is most efficient when its members do what they think is best rather than what the group wants them to do’ (reversed)
- ‘My work group is more productive when its members follow their own interests and concerns’ (reversed)

Values

- ‘I prefer to work with others in my work group rather than work alone’
- ‘Given the choice, I would rather do a job where I can work alone rather than do a job where I have to work with others in my work group’ (reversed)
- ‘I like it when members of my work group do things on their own, rather than working with others all the time’ (reversed)

Norms

- ‘People in my work group should be willing to make sacrifices for the sake of the work group (such as working late now and then, going out of their way to help, etc.)’
- ‘People in my work group should realise that they sometimes are going to have to make sacrifices for the sake of the work group as a whole’
- ‘People in my work group should recognise that they are not always going to get what they want’
- ‘People should be made aware that if they are going to be part of a work group, they are sometimes going to have to do things they don’t want to do’
- ‘People in my work group should do their best to cooperate with each other instead of trying to work things out on their own’