# The Influence of Social Media Engagement on Social Desirability and Empathy of Chinese Youth in Hong Kong

Raymond Chi Fai Chui[1*] and Isaac Ip[2]

[1] Associate Professor, Department of Social Work, Hong Kong Shue Yan University, HKSAR, China

[2] Ph.D. Candidate, The Chinese University of Hong Kong, HKSAR, China

cfchui@hksyu.edu

**Abstract.** Limited previous studies have focused on the benefits of social media engagement on psychosocial well-being. The present study explores the relationship between social media engagement, social desirability, and empathy. It is hypothesised that social media engagement enhances empathy directly and indirectly via its positive influence on social desirability. The present study obtained 224 samples of Hong Kong Chinese youth (mean age=20.24; 70 males and 168 females). The short form of the Social Media Engagement Scale (SMES), the Chinese Marlowe-Crowne Social Desirability – Short Form (MCSD-SF-C) and the Empathy sub-scale of the Chinese Interpersonal Reactivity Index (C-IRI) were adopted in this study. The mediation model of this study was examined by the macro "PROCESS" for SPSS. Social desirability was added as a mediator to the relationship between social media engagement and empathy. The results of the study revealed that social media engagement is negatively related to social desirability ($t=-3.33$, $p=.001$) but positively related to empathy ($t=2.79$, $p=.01$). Moreover, social desirability is positively related to empathy ($t=4.95$, $p<.001$). The direct effect of social media engagement is significant ($t=2.80$, $p=.01$) but the total effect of social media engagement on empathy is not significant ($t=1.67$, $p=.10$). In line with the hypotheses, the direct effect of social engagement on empathy is positive.

media engagement on empathy via social desirability suppresses the direct positive effect of social media engagement on empathy. Further study can be conducted to examine further the relationship between social media engagement and social desirability.

**Keywords:** Social Media Engagement, Social Desirability, Empathy, Chinese Youth.

# 1     Introduction

Apart from the negative effects, numerous studies have revealed the psychosocial benefits of social media (Ostic et al., 2021; Rosen et al., 2022; Sendra et al., 2020; Yang et al., 2021). Social Media can offer emotional and social support to minimise loneliness (Rosen et al., 2022). Social media use facilitates close relationships with family members and friends, build social networks that lead to social belongingness and enhances psychological well-being (Ostic et al., 2021). Using social media to connect to existing personal relationships positively affects the social support and well-being of youth (Chui, 2017). Another study on middle-aged and older adults also revealed that social media use is positively associated with perceived social support and a sense of connectedness (Yu et al., 2015). Social media enables a comfortable context for social interaction that helps highly shy individuals express themselves and facilitate their relationships with others (Baker & Oswald, 2010).

Empathy is important for developing and maintaining quality social relationships and individual well-being. Empathy enhances prosocial behavior and reduces stereotypic bias and discrimination via perspective-taking (Galinsky & Moskowitz, 2000; Yoo et al., 2013). People with high levels of empathy feel connected with others and experience satisfaction with life, happiness and positive affect (Wei et al., 2011). Other studies also revealed the benefits of collectivistic culture in Chinese societies, which values relationships among community members and social responsibility,

leading to greater empathy and the cognitive control of the emotion of Chinese people (Kornilova & Zhou, 2021). All these show that cultivating empathy is vital for youth development and identifying the antecedents of empathy is necessary. The present study explores whether social media engagement facilitates the empathy of youth.

## 1.1   Social media engagement and empathy

Previous studies have revealed inconsistent results on the relationship between social media engagement and empathy. The relationship between social media use and empathy is negative in American studies while the relationship is positive in European studies (Martingano et al., 2022). Spending more time online may reduce the time spent with people offline to practice empathy skills, become depersonalized, and lack recognition of other people's humanity. The increase in individualistic and self-centered attitudes promoted in social media can lead to desensitization of others' sentiments (Alloway et al., 2014). However, social media provide a platform for users to express their sympathetic feelings that they may be relucent to express in offline situations (Wandel, 2009). Exposure to prosocial media will facilitate higher empathic concern and prosocial behaviors (Guan et al., 2019). Informational and emotional support can also be received from social media. A recent study has revealed that the perceived social support obtained via social media can enhance empathy toward others during the Covid-19 pandemic (Qin et al., 2022). People with larger social media engagement tend to receive more support and increase their empathy. The inconsistent results may be due to cultural differences, especially in the way of usage (Martingano et al., 2022). Despite the inconclusive results, the present study focuses on the relationship between social media and empathy in the Chinese cultural context.

## 1.2   Social desirability and empathy

Previous studies mainly focus on how social desirability tendency affects the disclosure of deviant behaviors (Brassard et al., 2022; Donat et al., 2020; Kämpfe et al., 2009).

These studies considered social desirability as a control variable that may distort the results of self-reported studies. The present study considers social desirability to be a predictor of empathy. Empathy is positively related to social desirability because empathy is believed to be socially desirable (Litten et al., 2020). People with strong social desirability tend to behave in a socially acceptable way and avoid deviating from social norms (Donat et al., 2020). Empathy may also be considered a necessary social skill in everyday life (Bezerra et al., 2022). Individuals who are more socially desirable are more willing to put themselves into another person's place (Kämpfe et al., 2009). People with strong social desirability tend to present a positive self-image and avoid behaving deviating from desirable social norms (Donat et al., 2020). The present study anticipates that social desirability and empathy are positively related.

## 1.3    Social media and social desirability

Social media provides an environment for social comparison. Higher engagement in and exposure to social media will lead to individuals having more social desirability to represent themselves in a manner which is acceptable and favourable, especially in the presentation of self and appearance (Tremolada et al., 2022). A study has revealed that youths who frequently take and post selfies on social media tend to be more sympathetic and cooperative (Bandyopadhyay & Banerjee, 2019). Social media provide a platform especially for shy, extrovert and narcissistic individuals to present themselves in a socially desirable way (Guadagno et al., 2013; Zalk et al., 2014). The present study anticipates that social media engagement and social desirability are positively related.

## 2    The present study

A recent survey revealed that social media penetration in Hong Kong is nearly 90% (de Guzman, 2023). The negative impact of social media on social bonds, addiction, cyberbullying, loneliness, and distress has been widely discussed. However, limited studies have focused on the benefits of social media engagement on psychosocial well-

being. The present study aims to explore the relationship between social media engagement, social desirability, and empathy. Based on the discussion of previous studies, the present study anticipates that people with strong social desirability tend to behave in a socially acceptable way to offer empathy and avoid deviating from social norms because empathy is believed to be socially desirable. Therefore, it is hypothesized that social media engagement will enhance empathy directly and indirectly via its positive influence on social desirability.

## 2.1    Methods

This study adopted a quantitative design to use online survey to collect information from Chinese youth in Hong Kong. Student helpers assisted in distributing questionnaires to their peers and classmates in the period between late-January and mid-February 2023. The study successfully obtained 224 valid samples of Hong Kong Chinese youth aged between 16 and 30 with a mean age of 20.24. There were 65 males (29.0%) and 159 females (71.0%). A mediation model that considers social media engagement as an independent variable, empathy as a dependent variable and social disability as a mediator was tested by Hayes Process macro with SPSS version 27.

## 2.2    Measurement

**Social Media Engagement.** The Social Media Engagement Scale (SMES) was used to measure the social media engagement (Ni et al., 2020). Th scale has 11 items with a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The score range is between 11 and 55, higher scores imply higher levels of social media engagement. Example of scale items include statements such as, "I often use social media to relax in habit" and "Compared to the real world, I am happier when I socialize on social media". 0.79

**Social Desirability.** The Chinese Marlowe-Crowne Social Desirability – Short Form

(MCSD-SF-C) was adopted to measure social desirability tendency (Tao et al., 2009). The scale has 13 items, including 5 reversing items. Respondents were asked to respond either true or false to each item. Ture with 1 score while false with two scores. Scores of all items were summed to form a total score. Higher scores indicate a higher tendency of social desirability. Example of scale items include statements such as, "It is sometimes hard for me to go on with my work" and "Compared to the real world, I am happier when I socialize on social media".

**Empathy.** The Empathy sub-scale of the Chinese Interpersonal Reactivity Index (C-IRI) were adopted in this study (Siu & Shek, 2005). The Empathy sub-scale has 11 items with a 5-point Likert scale from 0 (does not describe me well) to 4 (describes me very well). The scale has three reversing items. Higher scores of the subscale imply a higher functioning in empathy. Example of scale items include statements such as, "Don't feel pity when someone is treated unfairly" and "Quite touched by things that I see happen".   0.75

## 3    Results

A correlational analysis was conducted to examine the association among social media engagement, social desirability and empathy. The results indicate that social media engagement is negatively related to social desirability but it is not significantly related to empathy. Moreover, social desirability is positively related to empathy (see Table 1).

**Table 1.** Correlation Matrix for Social Media Engagement, Social Desirability and Empathy (n = 224)

|  | 1 | 2 | 3 | M | SD |
|---|---|---|---|---|---|
| 1. Social Media Engagement | - |  |  | 39.49 | 5.30 |
| 2. Social Desirability | -.22** | - |  | 19.17 | 2.63 |
| 3. Empathy | .11 | .28*** | - | 38.37 | 5.43 |

Note: Social Media Engagement = scores on Social Media Engagement Scale (SMES); Social Desirability = scores on the Chinese Marlowe-Crowne Social Desirability – Short Form (MCSD-SF-C); Empathy = scores on the Empathy sub-scale of the Chinese Interpersonal Reactivity Index (C-IRI).

*$p$ <.05. **$p$ <.01. ***$p$ <.001.

The results of the mediation analysis from PROCESS revealed that social media engagement is negatively related to social desirability (t=-3.33, p=.001) but positively related to empathy (t=2.79, p=.01). Moreover, social desirability is positively related to empathy (t=4.95, p<.001). The direct effect of social media engagement is significant (t=2.80, p=.01) but the total effect of social media engagement on empathy is not significant (t=1.67, p=.10). Social media engagement has direct and positive effect on empathy, but it has an indirect negative effect on empathy via social desirability.

# 4    Discussion and Conclusion

In line with the hypotheses, the direct effect of social media engagement on empathy is positive (see Figure 1). However, it is interesting to reveal a suppression effect in the relationship between social media engagement and social desirability. Since youths with higher levels of social media engagement have less social desirability which in turn leads to low levels of empathy (see Figure 2). This indirect negative effect suppresses the direct positive effect of social media engagement on empathy. In contrast to the expectation, higher social media engagement led to lower social desirability. Exposure to heterogeneous information in social media enables individuals to share and discuss different viewpoints on social issue to promote diverse understanding and tolerance (Bakshy et al., 2015). Some views from the media will encourage prosocial behavior while others will promote individualist values which discourage such behavior. Therefore, high levels of social media engagement will be less likely to develop one unique socially desirable attitude. Moreover, other variables, such as personality traits may serve as a moderator to the mediation of social desirability on the relationship

between social media engagement and empathy. Further study can be conducted to examine more deeply the relationship between social media engagement and social desirability.
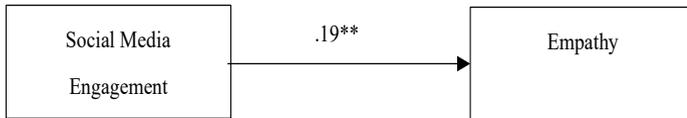


Note: *p<.05, **p<.01, ***p<.001

**Figure 1.** The direct effect of social media engagement on empathy
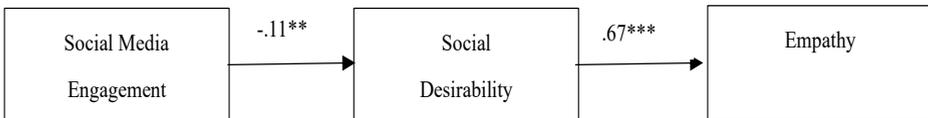


Note: *p<.05, **p<.01, ***p<.001

**Figure 2.** The indirect effect of social media engagement on empathy via social desirability

Results of the present study suggest that social media engagement can promote empathy. Social media offers a platform for participants to exposure to different empathic contents which can enhance their understanding of various cultures and values to change their attitudes towards other people. Collectivistic values in Chinese culture also promote the empathy of Hong Kong youths. However, the reduction in social desirability due to social media engagement may reduce the positive effect of collectivistic values on empathy. Further research can be conducted to explore the mediating effect of collectivistic values on the relationship between social desirability

and empathy as well as the relationship between social media engagement and empathy.

The present study has a few limitations. A cross-sectional approach is employed to collect data; therefore, the results are unable to identify the causal relationship among variables. Moreover, convenience rather than random sampling was adopted, and the gender proportion is unbalance, results of this study is unable to present the general Chinese youth population. A longitudinal design with random sampling in future study is suggested to further confirm the relationship between these variables. Despite the limitations, this study offers an initial insight on the benefits of social media engagement on promoting empathy. Further studies can also be conducted to explore the influence of social media engagement on other relevant outcomes such as compression and prosocial intention.

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