

The association between the use of selected forms of social media and the emotional intelligence of undergraduates of a state university in Sri Lanka

D Keara, P de Zoysa

Abstract

Background

Social media (SM) permit self-presentation and social interactions. Emotional intelligence (EI) is known to be associated with satisfaction with life and personal and professional performance. Youth are involved with SM which may have an impact on their EI.

Aims

This study aimed to assess the association between the use of selected forms of SM, namely Facebook, WhatsApp, Instagram, and the EI of undergraduates in a state university in Sri Lanka. The study also evaluated selected correlates associated with the amount of time spent on SM and EI.

Methods

An online cross-sectional study was conducted among 110 undergraduates of a state university in Sri Lanka. A pre-piloted social networking questionnaire, specially designed for this study, and the pre-piloted Wong and Law EI Scale were used to gather data.

Results

Participants reported a mean of 3.3 hours on WhatsApp, 2.2 hours on Facebook, and 1.1 hours on Instagram, per day, during weekdays. The distribution of the means of each item of EI ranged from 4.83 to 5.21. There was a significant negative association between the time spent on WhatsApp and EI. The age and gender of the participants did not indicate any significant influence on the time spent on SM. The age and year of study of the participants were significantly associated with EI. However, gender did not have a significant association with EI.

Conclusions

This online survey found a negative impact on EI with one form of SM, namely, WhatsApp, however, more studies in this area are needed among university students in Sri Lanka to determine the exact impact of SM on EI and related factors.

Key words: Emotional intelligence, online networking, Facebook, social media, undergraduates

SL J Psychiatry 2022; 13(2): 13-17

Introduction

Emotional intelligence (EI) is the ability of an individual to understand and evaluate emotions and feelings of self and others and use them to manage relationships better (1). EI is known to be associated with happiness, greater life satisfaction, and better performance in both academic and professional life (2-5). Emotionally intelligent individuals are reported to perceive and regulate their emotions effectively and tend to be socially competent (6-7). They associate with others in a friendly manner and are more capable of coping with stress and solving problems (6-7).

Social media (SM) offer opportunities to easily connect with others, as well as to form professional networks

(8-9). The above characteristics are associated with the fact that youth tend to disclose themselves to others via SM (10). During the COVID-19 pandemic, most people, including youth, appeared to use online platforms more, because of the limitations in face-to-face encounters due to the restrictions imposed by the pandemic (11-12). Youth have been found to engage with SM to overcome pandemic-related stress and to express their emotions (11,13).

The association between the use of SM and EI is not straightforward (8). SM allows a person to interact with other people, even though they may rarely meet each other in person. Such online communication seems to increase actual time spent with friends and improve the

quality of existing friendships, leading individuals to perceive greater social support (14). However other studies report that the increased use of SM has been associated with depression, anxiety, and social isolation and therefore reduces the quality of life and EI (15-17).

The objectives of this study were to assess the association between the use of selected forms of SM, namely Facebook, WhatsApp and, Instagram and EI of a group of undergraduates in a state university in Sri Lanka, and to evaluate selected correlates associated with the amount of time spent on SM and EI.

Method

A cross-sectional study was conducted among first, second, third, and final-year undergraduates of the University of Moratuwa, Sri Lanka.

The data was collected from February to March 2021 through a Google form and its link was emailed to the batch representatives, where they were requested to circulate it among their respective batches in an estimated sample size of 384 (18,19).

The Google form was designed in a manner so that participants could access the study instruments only after reading the information sheet and granting their consent to participate in the study.

A social networking questionnaire was specially designed for this study by referring to relevant literature and by modifying a questionnaire used in a previous study conducted in another country (9, 20-21). This questionnaire assessed sociodemographic data (5 items), the amount of time spent on SM (18 items), preferences and experiences in using SM (14 items), and experiences in interpersonal relationships (7 items) (2). EI was assessed using the Wong and Law Emotional Intelligence Scale (WLEIS) scale (4,5). It contains sixteen statements and assesses EI with seven response options (i.e., 1 – strongly disagree, 2 – disagree, 3 – slightly disagree, 4 – neither disagree nor agree, 5 – slightly agree, 6 – agree and, 7 – strongly agree). These items correspond to the four components of EI, self-emotion appraisal (SEA), regulation of emotions (ROE), use of emotions (UOE) and others’ emotion appraisal (OEA) (1). Both questionnaires were in the English language and were piloted before conducting the survey.

Ethical clearance was obtained from the Ethics Review Committee of the Faculty of Medicine, University of Colombo and from relevant authorities in the selected university.

Results

The mean age of the study participants was 23.4 years and 69.1% of the sample were females (Table 1). All participants were using WhatsApp, 83.6% had a Facebook profile, and 43.6% were users of Instagram. Table 1 gives the mean time spent on the three different SM platforms by students on a weekday. Out of the sample, 36.4% reported that they frequently used SM for online academic group discussions while 30.9% reported that they used SM to obtain relief from academic stress. Out of the study population, 35.5% reported that they use SM to stay connected with their relatives/ friends. Of the study participants, 23.6% of participants reported never having used any form of SM to socialize whilst 41.8% indicated that they rarely use SM.

Table 2 depicts the participants’ scores on each component of EI: Self-emotion appraisal, regulation of emotions, use of emotions, and others’ emotion appraisal.

The association between EI and SM was assessed in relation to the mean time spent on SM namely, Facebook, WhatsApp, and Instagram (Table 3).

Table 1. Time spent (per day) on social media on weekdays

Social media platform	Mean time spent on weekdays (hours)	Std. Deviation
Facebook	2.23	±1.76
WhatsApp	3.34	±2.94
Instagram	1.05	±0.59

Table 2. Participants’ EI in its subcomponents

EI component	Mean	Std. Deviation
Self-emotion appraisal	20.86	±5.178
Regulation of emotions	19.30	±6.220
Use of emotions	19.52	±5.468
Others’ emotion appraisal	20.28	±5.321
Total EI Score	79.96	±18.327

Table 3. Correlation between mean EI scores and average time spent on SM on weekdays for Facebook, WhatsApp and, Instagram

		Self-emotion appraisal score	Regulation of emotions score	Use of emotions score	Others' emotion appraisal score	Total EI score
Facebook use mean time	r-value	0.036	0.127	-0.108	-0.212	-0.041
	Sig. (2-tailed)	0.731	0.226	0.306	0.042*	0.697
WhatsApp use mean time	r-value	-0.284	-0.230	-0.184	-0.300	-0.300
	Sig. (2-tailed)	0.003**	0.016*	0.055	0.001**	0.001**
Instagram use mean time	r-value	-0.078	-0.116	0.014	0.029	-0.045
	Sig. (2-tailed)	0.601	0.434	0.927	0.847	0.763

**Significant (P<0.01) *Significant (P<0.05)

There was no significant relationship between the mean time spent on Facebook and the total EI score. The mean time spent on Facebook and the mean score of others' emotion appraisal showed a significantly low negative association. However, none of the other correlations between Facebook use and EI sub-components suggested any significant relationship.

There was a significant negative association between the mean time spent on WhatsApp and the total EI score. The mean time spent on WhatsApp and the scores of self-emotion appraisal, and others' emotion appraisal also showed significantly moderate negative correlation. The mean time spent on WhatsApp and the regulation of emotions component indicated a significant low negative association.

We explored the association between the age and the gender with time spent on SM, neither of which showed any significant association with time spent on SM.

There was a significant positive association between the age and EI except for the component of regulation of emotions. Gender showed no significant association with EI. The year of study was significantly associated with EI and its components.

Discussion

WhatsApp was the most used SM platform by the participants, followed by Facebook and Instagram. A study done among German-speaking participants reported that the combination of WhatsApp and Instagram was more prevalent among undergraduates (22). This difference may be due to Instagram being only

recently becoming popular in Sri Lanka, unlike Facebook and WhatsApp. The total time spent per week on Facebook and WhatsApp is higher than in previous studies, including that of a previous study from Sri Lanka (9-10,14). One possible reason for the increased time spent on SM in our study could be due to the social restrictions due to the COVID-19 pandemic which resulted in limitations in physical meetings (11-12).

A considerable number of participants in this study reported that they did not use SM for socializing and/or to look at others' activities on SM. It could be hypothesized that this may be due to the social desirability bias in responding where the present study's participants may have felt awkward in sharing their true motives in using SM. Another reason could be that, during lockdown periods, some participants may have spent time with family members, hence reducing SM use. In fact, some research has indicated that lockdown situations have strengthened family relationships (11). Our study also indicated that participants frequently used SM for getting information, for academic activities, and to communicate with friends/relatives, similar to studies done elsewhere (22-25). We also found that our study participants did not report on problematic or excessive use of SM, a finding also found in previous studies in undergraduates (23-24).

In our study, there was no significant association between age and time spent on SM, however, these findings could be due to the participants being within a narrower age range than reported in other studies (22). We did not find a significant association between gender with the time spent on SM either, as was reported in a previous study (8).

Dynamics of emotional intelligence

The mean scores of each component of EI indicate that our study population had a higher than reported EI as compared to a previous study by Li et al (26). This might be due to cultural factors relevant to Sri Lanka. Our findings also indicated a significant positive association between age and EI except for the component of regulation of emotions which is similar to findings of studies done elsewhere (3, 27).

Gender was not associated with EI in our study. However, studies done elsewhere report both positive and negative associations (8, 27-29). A significant association between gender and EI reported in those studies could be due to cultural factors and differences in nurturing of female participants in our setting, leading to higher EI scores among females (30). We found that higher levels of EI were found among the participants from the final year than those from the first and second years. It may be assumed that the undergraduate curriculum and/or the experiences of university life improve the EI of students though it is also likely that age may act as a confounding factor in this case.

Association between social media use and emotional intelligence

Our results indicate that most components of EI are negatively associated with the amount of time spent on WhatsApp, however previous studies report both negative as well as positive association between EI and the time spent on social media (3, 12, 15, 17, 31-32).

There are some studies which indicate that SM use may positively influence the emotional well-being of the person (9-10,14). However, the directionality of the association between the time spent on SM and EI cannot be determined solely by our findings because our study was a cross-sectional study done among a small number of participants.

According to some authors, online communication could enhance the quality of friendships and time spent with existing friends as it allows individuals to disclose themselves and self-disclosure in SM could be considered an important factor influencing one's well-being (10, 14). A possible reason for our findings could be that the participants had restrictions in actual face-to-face meetings due to the pandemic which resulted in them spending more time on SM without meeting each other as they did before. Another possibility could be that those who spend more time on SM tended to isolate themselves from others.

Limitations

We could only collect data from 110 participants even though our calculated sample size was 384. Caution should be exercised in generalizing our findings to all

undergraduates in Sri Lanka due to the small sample size and also because our study was limited to participants from only one course of study. Our study focused on the use of only Facebook-owned ("Meta") SM platforms, as these are the most used. The social networking questionnaire used in this study was not a previously validated one which is a limitation too.

Conclusions

The association between time spent on SM and EI appears to be complex in this group of undergraduates. More studies in this area are needed among university students in Sri Lanka to determine the impact of SM on EI and related factors.

Acknowledgements

The authors wish to thank all study participants.

Statement of contribution

DK and PZ designed the study. DK collected and analyzed the data. Both authors interpreted the findings and wrote the paper, and both approved the final manuscript.

Declaration of interest


There are no conflicts of interest.

D Keara, Department of Allied Health Sciences, Faculty of Medicine, University of Colombo, Sri Lanka

P de Zoysa, Department of Psychiatry, Faculty of Medicine, University of Colombo, Sri Lanka

Corresponding author: P de Zoysa

E-mail: ptdz@sltnet.lk

 <http://orcid.org/0000-0002-7382-6503>

References

1. Salovey P, Mayer JD. Emotional intelligence. *Imagin Cogn Pers* 1990; 9(3): 185-211.
2. Guerra-Bustamante J, León-del-Barco B, Yuste-Tosina R, López-Ramos VM, Mendo-Lázaro S. Emotional intelligence and psychological well-being in adolescents. *Int J Environ Res Public Health* 2019; 16(10): 1720.
3. Chen Y, Peng Y, Fang P. EI mediates the relationship between age and subjective well-being. *Int J Aging Hum Dev* 2016; 83(2): 91-107.
4. Ranasinghe P, Wathurapatha WS, Mathangasinghe Y, Ponnampereuma G. Emotional intelligence, perceived stress and academic performance of Sri Lankan medical undergraduates. *BMC Med Educ* 2017; 17(1): 1-7.

5. Wong CS, Law KS. The effects of leader and follower EI on performance and attitude: An exploratory study. In: *Leadership Perspectives*. Routledge, 2017: 97-128.
6. Brackett MA, Rivers SE, Shiffman S, Lerner N, Salovey P. Relating emotional abilities to social functioning: a comparison of self-report and performance measures of EI. *J Pers Soc Psychol* 2006; 91(4): 780-95.
7. Forushani NZ, Besharat MA. Relation between EI and perceived stress among female students. *Procedia Soc Behav Sci* 2011; 30: 1109-12.
8. Chandel PK, Gupta N. The Impact of time spent on social media on emotional intelligence of adolescents. *J Emerge Tech Innov Res* 2018; 5(9): 577-97.
9. De Zoysa P, Wickrama T, Wickramasuriya T. Online social networking and its perceived life satisfaction among Sri Lankan medical students. *South-East Asian J Med Educ* 2015; 9(2): 33.
10. Wang J, Wang H. The predictive effects of online communication on well-being among Chinese adolescents. *Psychology* 2011; 2(04): 359.
11. Salzano G, Passanisi S, Pira F, et al. Quarantine due to the COVID-19 pandemic from the perspective of adolescents: the crucial role of technology. *Ital J Pediatr* 2021; 47(1): 40.
12. Steinert S. Corona and value change. The role of social media and emotional contagion. *Ethics Inf Technol* 2020; 23(1): 1-10.
13. Zou ML, Li MX, Cho V. Depression and disclosure behavior via social media: A study of university students in China. *Heliyon* 2020; 6(2): e03368.
14. Valkenburg PM, Peter J. Online communication and adolescent well-being: Testing the stimulation versus the displacement hypothesis. *J Comput-Mediat Com* 2007; 12(4): 1169-82.
15. Lin LY, Sidani JE, Shensa A, et al. Association between social media use and depression among US young adults. *Depress Anxiety* 2016; 33(4): 323-31.
16. Muzaffar N, Brito EB, Fogel J, Fagan D, Kumar K, Verma R. The association of adolescent Facebook behaviours with symptoms of social anxiety, generalized anxiety, and depression. *J Can Acad Child Adolesc Psychiatry* 2018; 27(4): 252-60.
17. Primack BA, Shensa A, Sidani JE, et al. Social media use and perceived social isolation among young adults in the US. *Am J Prev Med* 2017; 53(1): 1-8.
18. Charan J, Biswas T. How to calculate sample size for different study designs in medical research?. *Indian J Psychol Med* 2013; 35(2): 121-6.
19. McGuirk PM, O'Neill P. Using questionnaires in qualitative human geography. In: Hay I, ed. *Qualitative Research Methods in Human Geography*. Australia: Oxford University Press, 2005; 147-62.
20. Casas JA, Ruiz-Olivares R, Ortega-Ruiz R. Validation of the internet and social networking experiences questionnaire in Spanish adolescents. *Intl J Clin Health Psychol* 2013; 13(1): 40-8.
21. Gupta S, Bashir L. Social networking usage questionnaire: Development and validation in an Indian higher education context. *Turk Online J Distan Educ* 2018; 19(4): 214-27.
22. Marengo D, Sindermann C, Elhai JD, Montag C. One social media company to rule them all: associations between use of Facebook-owned social media platforms, sociodemographic characteristics, and the big five personality traits. *Front Psychol* 2020; 11: 936.
23. Ellison NB, Steinfield C, Lampe C. The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *J Comput Mediat Commun* 2007; 12(4): 1143-68.
24. Blankenship M. How SM can and should impact higher education. *Educ Diges* 2011; 76(7): 39-42.
25. Ahn J. The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *J Am Soc info Sci Technol* 2011; 62(8): 1435-45.
26. Li T, Saklofske DH, Bowden SC, Yan G, Fung TS. The measurement invariance of the Wong and Law emotional intelligence scale (WLEIS) across three Chinese university student groups from Canada and China. *J Psychoeduc Assess* 2012; 30(4): 439-52.
27. Naeem N, Van Der Vleuten C, Muijtjens AM, et al. Correlates of emotional intelligence: results from a multi-institutional study among undergraduate medical students. *Med Teach* 2014; 36(Supl1): S30-5.
28. Wijekoon CN, Amaratunge H, de Silva Y, Senanayake S, Jayawardane P, Senarath U. EI and academic performance of medical undergraduates: a cross-sectional study in a selected university in Sri Lanka. *BMC Med Educ* 2017; 17(1): 176.
29. Lankashini MS, Lakmali VG, Lenagala SA, Liyanage AL, Arambepola C. Level of emotional intelligence and its association with person-related characteristics among grade 8 students in a suburban setting. *Ceylon J Med Sci* 2017; 54(1): 27-34.
30. Bhaskaran U, Dharshan B, Kulkarni V, et al. Association of emotional intelligence with academic performance among medical students in South India. *Asian J Pharm Clin Res* 2015; 8(2): 300-2.
31. Boers E, Afzali MH, Newton N, Conrod P. Association of screen time and depression in adolescence. *JAMA Pediatr* 2019; 173(9): 853-9.
32. Nie NH, Hillygus DS, Erbring L. Internet use, interpersonal relations, and sociability. *The Internet in everyday life* 2002: 215-43.