Social media stress and mental health: A brief report on the protective role of emotional intelligence

Linda M. S. Sundvik[1] · Sarah K. Davis[1]

Abstract

Evidence on whether social media use is associated with poor mental health and stress remains mixed and controversial. It is suggested that this effect may vary according to individual differences. Emotional intelligence (EI) is considered a protective resource that can buffer the effects of stressors in certain contexts. We examine whether this protective effect extends to the experience of social media stress. 201 young adults (mean age 26.12; 83.6% female) completed measures of EI (trait; ability), social media stress (SMS), anxiety, depression and wellbeing. SMS related to poorer mental health (symptoms and wellbeing) whilst higher EI was linked to reduced levels of SMS and better mental health. Data show the relationship between SMS and depression is moderated by trait (not ability) EI, such that those with lower levels of trait EI, who experience high levels of SMS, report higher levels of depression symptoms compared to those with higher TEI. Implications and directions for research are explored.

Keywords Emotional intelligence · Mental health · Depression · Anxiety · Wellbeing · Social media stress

Introduction

Evidence on whether social media use is associated with poor mental health and stress remains mixed and controversial; whilst online connectivity can afford many advantages, such as increasing social capital and reducing loneliness (Wilson et al., 2012), prolonged use has also been associated with anxiety and depression (Seabrook et al., 2016). It is acknowledged that some if the inconsistency in reported effects may depend on differences in measurement approaches (e.g., cross-sectional vs. longitudinal tracking of effects), and in the operationalisation of social media 'use' (see e.g., Coyne, et al., 2020, Odgers & Jensen, 2020). When conceived as a stressor, researchers have tended to use either general measures of general stress symptoms to index the *negative affective* component of social media stress, such as 'social media fatigue' (Bright et al., 2015), or have inferred stress from *use* or *dependency* (van der Schuur et al., 2018).

Social media stress (SMS) (van der Schuur et al., 2018), offers a way to capture both excessive use and negative affect, that can stem from processing demands (e.g., coping with continuous information flow—'push notifications') and the key socio-emotional factors (e.g., seeking endorsement; fear of missing out on updates) that have been associated with anxiety and depression (e.g., Hunt et al., 2018). Indeed, it has been suggested that certain individual-level characteristics may act as risk factors for social media stress, including self-efficacy and sensitivity to social comparisons and influence (Laumer & Maier, 2021).

To better understand the role of individual differences in this relationship, our study seeks to examine whether emotional intelligence (EI)—our capacity to identify, understand and manage emotions—may be useful for managing social media stress to maintain mental health. EI can be measured in two different ways – as an ability EI (AEI), indexing maximal emotional knowledge and skill in perceiving, using, understanding and managing emotion, or a trait (TEI), capturing self-perceptions of emotional competencies. Therefore, whilst the former is a distinct form of intelligence for processing emotional information (Mayer et al., 2008), the latter is partially determined by personality and can be viewed as our emotional self-efficacy (Petrides, 2009). Early critics of EI suggested it was too ill-defined to be meaningful and lacked distinctiveness from existing measures of broadband personality or intelligence to offer

✉ Sarah K. Davis
  sarah.davis@worc.ac.uk

[1] School of Psychology, University of Worcester,
    Henwick Grove WR2 6AJ, UK

new insights (Matthews et al., 2004), however, there is now evidence that EI can be measured reliably and can incrementally predict variance in adaptive outcomes (see e.g., MacCann et al., 2020). Thus, TEI and AEI are useful complementary approaches to understanding how emotionally knowledgeable a person is (AEI), and how readily they put this knowledge into practice in everyday life (TEI).

Both TEI and AEI are significantly associated with indicators of mental health, although effects are usually more robust for TEI than AEI (Martins et al., 2010; Sánchez-Álvarez et al., 2016) and each operates differently within stress-mental health pathways – protective effects are dependent upon stressor type and outcome examined (Davis & Humphrey, 2012a, b; Lea et al., 2019). Whilst evidence suggests that TEI relates to reduced levels of problematic social media use (Arrivillaga et al., 2022), and may be useful for managing negative affect arising from detecting 'fake news' on social media (Preston et al., 2021), researchers have yet to directly examine whether EI can *modify* the effects of social media stress. This is important since EI can be effectively trained through intervention (Hodzic et al., 2017).

Thus, the current study explored the relationships between EI (trait or ability) mental health (wellbeing and disorder) and social media stress to answer: *Does EI moderate the effects of social media stress on mental health?* Based on previous literature (e.g., Martins, et al., 2010), we predicted that measures of ability EI and trait EI would be negatively related to indicators of disorder (here measured as depression and anxiety symptoms), and positively related to wellbeing, although relationships would be more robust for trait rather than ability EI. In the Salovey and Mayer (1990), Mayer and Salovey (1997) four-branch model of ability EI, emotion management and understanding represent 'strategic' vs. 'experiential EI skills (emotion perception and use), and these skills have been most consistently implicated as predictors of mental health outcomes hence their inclusion here (see e.g., e.g., Bastian et al., 2005; Goldenberg et al., 2006).

Given the absence of studies examining the relationship between EI and social media stress, we anticipated that both trait and ability EI would be related negatively to social media stress, following literature examining the relationship between EI and both acute (Lea et al., 2019) and chronic stressors (e.g., Davis & Humphrey, 2012a).

Method

Participants and Procedure

201 opportunity-sampled social media users (83.6% female; mean age 26.12, *SD* = 8.86) consented to complete an online battery of measures (20 min duration). Participants were recruited via social media networks. To capture time spent on social media, participants were asked: "In the last 30 days, on an average day, how many hours did you use the internet for social networking?". Following Bányai et al., (2017), participants selected an appropriate time category with 40.8% of the sample spent 2–3 h on social networking sites per day (30 min = 3.5%; 1 h = 12.5%; 4–5 h = 21.4%; 6 + hours = 21.9%).

Materials

Social Media Stress The 10-item Social Media Stress Scale (van der Schuur et al., 2018) indexes *emotional responses* and *excessive social media use* via a 5-point scale, 0 (*never*) to 5 (*completely true*) [total score: 0–50]. Example items include "Have you felt tense or restless when you could not use social media?' 'Neglected other activities to use social media?'

Emotional Intelligence The Trait Emotional Intelligence Questionnaire–Short Form (Petrides, 2009) requires participants to use a 7-point scale, 1 (*completely disagree*) to 7 (*completely agree*) to rate 30-items indicating *sociability, emotionality*, *self-control, well-being,* [global TEI score: 30–210], e.g., "Many times, I can't figure out what emotion I'm feeling." Strategic ability emotional intelligence was indicated by the Situational Test of Emotion Management-Brief (Allen et al., 2015), where participants choose the most effective course of action for managing emotion (anger, sadness, fear) across 18 scenarios [total score: 0–18]. For example, "Jumah has been working at a new job part-time while he studies. His shift times for the week are changed at the last minute, without consulting him. *What action would be the most effective for Jumah?* (a) Refuse to work the new shifts. (b) Find out if there is some reasonable explanation for the shift changes. (c) Tell the manager in charge of shifts that he is not happy about it. (d) Grumpily accept the changes and do the shifts." The Situational Test of Emotion Understanding-Brief (Allen et al., 2014) assesses knowledge relating to 14 different emotions through 19 multiple-choice scenarios scored as correct/incorrect [0–19], e.g., "Clara receives a gift. Clara is most likely to feel? (a) happy (b) angry (c) frightened (d) bored (e) hungry".

Wellbeing The 14-item Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al., 2007) requires participants rate how closely a statement matches their experience over the past 2 weeks using a 5-point scale, 1 (*none of the time*) to 5 (*all of the time*) [14–70], e.g., "I've been feeling cheerful".

Anxiety and Depression Symptoms The Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983) requires participants to rate 14 statements using a 4-point scale, 0

(*never*) to 3 (*most of the time*) with higher scores indicating higher levels of symptoms [depression 0–21, e.g., "I look forward with enjoyment to things"; anxiety 0–21, e.g., "worrying thoughts go through my mind"].

Results

Screening revealed one univariate outlier (z-scores > 3.29 *SD* from the mean) but no multivariate outliers (Mahalanobis distances > X^2 (7), 24.32, $p < 0.001$) thus all cases were retained. Nonparametric re-sampling was employed to adjust for non-normality (positive skew depression/anxiety data) in main analyses (Preacher & Hayes, 2008).

Table 1 displays descriptive statistics and significant associations between Social Media Stress (SMS), wellbeing/symptoms and Emotional Intelligence (Trait emotional intelligence TEI; ability emotional intelligence AEI-EM/AEI-EU) in the expected directions (Martins et al., 2010; Sánchez-Álvarez et al., 2016). TEI related robustly to greater wellbeing and fewer anxiety/depression symptoms, whilst AEI related moderately to fewer depressive symptoms only. Males reported higher levels of depression than females ($M = 7.30$, $SD = 4.07$, t (199) = 2.44, $p < 0.05$). Age was negatively associated with SMS ($r = -0.21$, $p < 0.01$) and AEI (understanding: $r = -0.19$, $p < 0.01$; management: $r = -0.15$, $p < 0.05$. Social media use (5-point scale from 0 *[< 30 min]* through to 5 *[6 + hours]*) was significantly associated with SMS ($r_s = 0.21$, $p < 0.01$). These patterns were clarified through OLS regression analyses which tested combined predictive models for each of the three mental health outcomes (with age, sex, social media use, EI and social media stress as predictors—see supplementary materials, Table 1). Wellbeing, depression and anxiety were predicted by social media stress and TEI, whilst AEI emotion management and emotion understanding predicted fewer depression symptoms only. All other variables were non-significant.

The Moderating Effect of EI on Social Media Stress and Mental Health

Nine path models estimated the effects of social media stress on mental health outcomes (wellbeing; anxiety; depression symptoms), with EI as moderator (TEI; AEI emotion understanding; AEI emotion management) using PROCESS for SPSS version 3.5.3 (Hayes, 2018). Variables were mean centred prior to analyses. Control variables (age; sex; social media use), EI, social media stress (SMS) and the interaction term (EI x SMS) were regressed on each mental health indicator. Neither measure of AEI interacted with SMS to predict mental health (see supplementary materials, Tables 2 and 3). However, TEI significantly modified the effect SMS on depression (F (6, 194) = 23.46, $p < 0.001$; $R^2 = 0.421$, with the interaction term contributing to 1.3% of the change in variance, $\Delta R^2 = 0.013$, F (1, 194) 4.34, $p = 0.03$ (see Table 2). Figure 1 shows the interaction probed at conditional values of trait EI (+ 1 SD; -1 SD mean). In those with lower levels of trait EI, the effect of social media stress on depression is amplified ($\beta = 0.13$, $p < 0.001$ [0.06, 0.20]) relative to those higher in trait EI ($\beta = 0.04$, $p = 0.30$ [-0.03, 0.10]). Interactive TEIxSMS models predicting wellbeing and anxiety symptoms were n.s., see supplementary material).

Conclusions

Our preliminary data show that emotionally intelligent individuals experience reduced levels of social media stress. However, on the potential usefulness of EI for mitigating the

Table 1 Bivariate correlations, reliabilities and descriptive statistics for predictor variables

	TEI	AEI-EU	AEI-EM	SMS	Wellbeing	Depression	Anxiety
TEI	-						
AEI-EU	.27**	-					
AEI-EM	.23**	.58**	-				
SMS	-.30**	-.18*	-.18*	-			
Wellbeing	.67**	.10	.01	-.29**	-		
Depression	-.60**	-.39**	-.29**	.33**	-.61**	-	
Anxiety	-.62**	-.11	-.13	.31**	-.57**	.56**	-
Mean *SD*	139.36 (22.70)	11.14 (3.06)	10.29 (3.05)	26.72 (8.34)	45.78 (8.90)	5.87 (3.75)	9.56 (4.30)
Range	74–200	2–17	2.42–15.08	10–48	25–70	0–20	0–19
Alpha α	.89	.66	.80	.89	.90	.77	.82
Omega ω	.89	.66	.81	.89	.91	.77	.83

TEI: trait emotional intelligence; AEI-EU: ability emotional intelligence, emotion understanding; AEI-EM: ability emotional intelligence, emotion management; SMS: social media stress * $p < .05$ ** $p < .01$

Table 2 Moderating effect of trait EI on the relationship between social media stress and depression symptoms

Variable	B	SE	Bias corrected 95% CI	
			Lower 2.5%	Upper 2.5%
Sex	-.72	.58	-1.87	.42
Age	.04	.02	-.01	.09
Social media use	-.22	.20	-.62	.18
SMS	.08*	.03	.03	.14
Trait EI	-.09**	.01	-.11	-.07
TEI x SMS	-.01*	.00	-.01	-.00

SMS: social media stress; TEI: trait emotional intelligence. Unstandardized estimates presented; predictor variables mean-centerd prior to analysis to aid interpretation (in line with guidelines from Hayes, 2018). Bias-corrected bootstrapped parameter estimates and confidence intervals (5,000 resamples). *$p < .05$; ** $p < .001$

effects of social media stress (SMS), findings are outcome *and* EI specific; only TEI directly moderated the effects of social media stress, and for depression symptoms only. Whilst strategic AEI (emotion management; understanding) could *directly* predict depression symptoms (in line with Martins et al., 2010), neither skill significantly interacted with SMS to predict mental health outcomes, which accords with previous findings of the specificity of interactive effects for chronic stressors (e.g., Davis & Humphrey, 2012a).

This suggests that emotional *self-confidence*, rather than emotional *skill*, is important for maintaining mental health when experiencing SMS. This is in line with findings that TEI, not AEI, is effective for managing mood deterioration in socially stressful situations (Lea et al., 2019) and

for managing negative affect online (Preston et al., 2021). 'Offline' stress research shows that having a clear and stable sense of self is important for maintaining manageable levels of negative affect through cognitive appraisals (e.g., Lee-Flynn et al., 2011), and that higher levels of emotional self-confidence (as TEI) may support effective implementation of adaptive coping techniques to reduce the impact of stressors on mental health (Davis & Humphrey, 2012b). More research is needed to unpack these mechanisms in relation to online stress. Through experimental investigation of social media stress in real-time, with physiological markers to enhance self-report data, we may also find AEI plays a role in mood recovery in situ (see e.g., Lea et al., 2019). Since we explored strategic AEI only, other experiential components – perceiving and using emotion—could now also be examined using this fine-grained approach. It will also be important to explore the potential interaction of EI skills and self-confidence to predict lower levels of depression over time.

We offer the first, preliminary analysis of relationships between EI and *social media stress*—construed as a composite of dependency *and* negative affect arising from engagement with social media. However, this work should be considered exploratory owing to the modest sample size and the potential role that common method variance (i.e., multiple self-report; single-respondent; single-occasion) may play in artificially inflating relationships. Harman's single-factor test (Podsakoff & Organ, 1986) identified multiple factors underlying our criterion and predictor variables (eigenvalues > 1 = 32; first factor accounting for only 13.73% cumulative variance), indicating that our data were not unduly

Fig. 1 Data plot of the simple slope interaction for trait emotional intelligence (Trait EI) x social media stress on depression
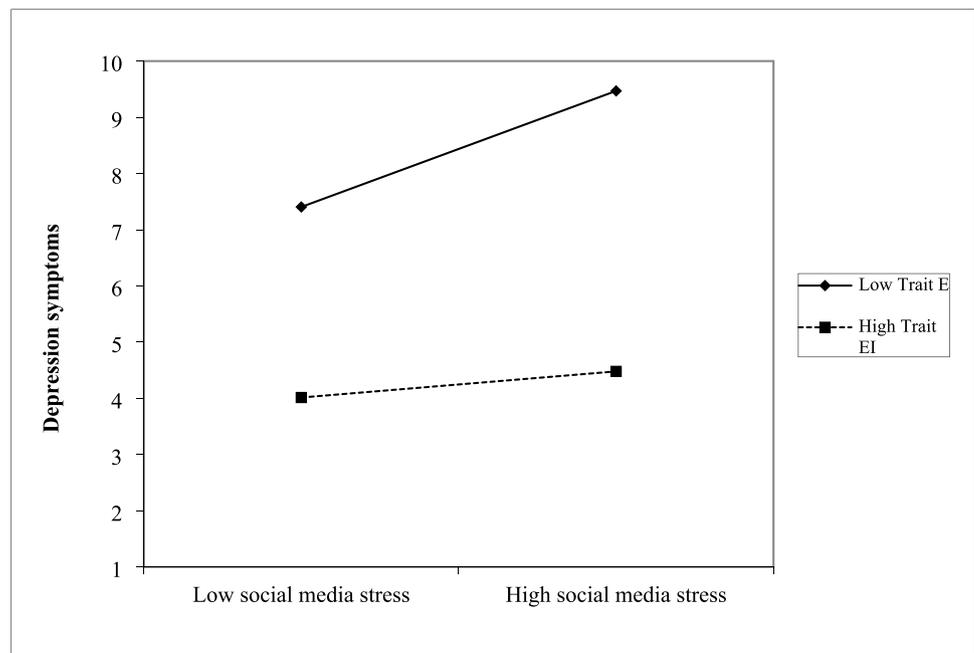
affected by this source of bias. Moreover, TEI-mental health associations do appear robust to socially desirable responding (Choi et al., 2011) and criterion contamination (Williams et al., 2010). However, these questions should now be definitively addressed in a larger data set utilising additional, multimodal measures of EI, and objective social media use alongside self-report (e.g., Johannes et al., 2021).

Whilst preliminary, our findings offer tentative support to the rationale for training TEI, and we suggest benefits may extend to managing virtual as well as in-person contexts.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12144-022-03035-9.

Authors' Contributions Both authors contributed to the study conception and design. Material preparation and data collection was performed by LMS and analysis by SD. The final draft of the manuscript was co-written by LMS and SD and both authors commented on draft versions of the manuscript. Both authors read and approved the final manuscript.

Declarations

References

Allen, V. D., Weissman, A., Hellwig, S., MacCann, C., & Roberts, R. D. (2014). Development of the situational test of emotional understanding – brief (STEU-B) using item response theory. *Personality and Individual Differences, 65*, 3–7. https://doi.org/10.1016/J.PAID.2014.01.051

Allen, V. D., Rahman, N., Weissman, A., MacCann, C., Lewis, C., & Roberts, R. D. (2015). The Situational Test of Emotional Management - Brief (STEM-B): Development and validation using item response theory and latent class analysis. *Personality and Individual Differences, 81*, 195–200. https://doi.org/10.1016/j.paid.2015.01.053

Arrivillaga, C., Rey, L., & Extremera, N. (2022). A mediated path from emotional intelligence to problematic social media use in adolescents: The serial mediation of perceived stress and depressive symptoms. *Addictive Behaviors, 124*, 107095. https://doi.org/10.1016/j.addbeh.2021.107095

Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., ... & Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PloS One, 12*(1), e0169839.

Bastian, V. A., Burns, N. R., & Nettelbeck, T. (2005). Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities. *Personality and Individual Differences, 39*(6), 1135–1145. https://doi.org/10.1016/j.paid.2005.04.006

Bright, L. F., Kleiser, S. B., & Grau, S. L. (2015). Too much Facebook? An exploratory examination of social media fatigue. *Computers in Human Behavior, 44*, 148–155.

Choi, S., Kluemper, D. H., & Sauley, K. S. (2011). What if we fake emotional intelligence? A test of criterion validity attenuation. *Journal of Personality Assessment, 93*(3), 270–277.

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

Davis, S. K., & Humphrey, N. (2012a). Emotional intelligence as a moderator of stressor-mental health relations in adolescence: Evidence for specificity. *Personality and Individual Differences, 52*(1), 100–105. https://doi.org/10.1016/j.paid.2011.09.006

Davis, S. K., & Humphrey, N. (2012b). The influence of emotional intelligence (EI) on coping and mental health in adolescence: Divergent roles for trait and ability EI. *Journal of Adolescence, 35*(5), 1369–1379.

Goldenberg, I., Matheson, K., & Mantler, J. (2006). The assessment of emotional intelligence: A comparison of performance-based and self-report methodologies. *Journal of Personality Assessment, 86*(1), 33–45. https://doi.org/10.1207/s15327752jpa8601_05.

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford.

Hodzic, S., Scharfen, J., Ripoll, P., Holling, H., & Zenasni, F. (2017). How efficient are emotional intelligence trainings: A meta-analysis. *Emotion Review*, 175407391770861. https://doi.org/10.1177/1754073917708613

Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No more FOMO: Limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology, 37*(10), 751–768. https://doi.org/10.1521/jscp.2018.37.10.751

Johannes, N., Nguyen, T., Weinstein, N., & Przybylski, A. K. (2021). Objective, subjective, and accurate reporting of social media use: No evidence that daily social media use correlates with personality traits, motivational states, or well-being. *Technology, Mind, and Behavior, 2*(2). https://doi.org/10.1037/tmb0000035

Laumer, S., & Maier, C. (2021). Social media stress: A literature review and future research directions. In Lee, Z. W. Y., Chan, T.K.H. & Cheung, C. M. K. (Eds.) *Information technology in organisations and societies: Multidisciplinary perspectives from*

AI to echnostress (pp 203–242). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83909-812-320211008

Lea, R. G., Davis, S. K., Mahoney, B. K., & Qualter, P. (2019). Does emotional intelligence buffer the effects of acute stress? A systematic review. *Frontiers in Psychology, 10*, 810. https://doi.org/10.3389/FPSYG.2019.00810

Lee-Flynn, S. C., Pomaki, G., DeLongis, A., Biesanz, J. C., & Puterman, E. (2011). Daily cognitive appraisals, daily affect, and long-term depressive symptoms: The role of self-esteem and self-concept clarity in the stress process. *Personality and Social Psychology Bulletin, 37*(2), 255–268. https://doi.org/10.1177/0146167210394204

MacCann, C., Jiang, Y., Brown, L. E., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin, 146*(2), 150.

Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the relationship between Emotional Intelligence and health. In *Personality and Individual Differences* (Vol. 49, Issue 6, pp. 554–564). Pergamon. https://doi.org/10.1016/j.paid.2010.05.029

Matthews, G., Roberts, R. D., & Zeidner, M. (2004). Seven myths about emotional intelligence. *Psychological Inquiry, 15*(3), 179–196.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). Perseus Books Group.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist, 63*(6), 503–517. https://doi.org/10.1037/0003-066X.63.6.503

Odgers, C. L., & Jensen, M. R. (2020). Annual Research Review: Adolescent mental health in the digital age: Facts, fears, and future directions. *Journal Child Psychology & Psychiatry, 61*, 336–348. https://doi.org/10.1111/jcpp.13190

Petrides, K. V. (2009). *Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue)*. London Psychometric Laboratory.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531–544.

Preacher, K. J., & Hayes, A. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891. https://doi.org/10.3758/brm.40.3.879

Preston, S., Anderson, A., Robertson, D. J., Shephard, M. P., & Huhe, N. (2021). Detecting fake news on Facebook: The role of emotional intelligence. *PLoS ONE, 16*(3), e0246757. https://doi.org/10.1371/journal.pone.0246757

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Sánchez-Álvarez, N., Extremera, N., & Fernández-Berrocal, P. (2016). The relation between emotional intelligence and subjective well-being: A meta-analytic investigation. *The Journal of Positive Psychology, 11*(3), 276–285. https://doi.org/10.1080/17439760.2015.1058968

Seabrook, E. M., Kern, M. L., & Rickard, N. S. (2016). Social networking sites, depression, and anxiety: A systematic review. *JMIR Mental Health, 3*(4), e50. https://doi.org/10.2196/mental.5842

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*(1), 63. https://doi.org/10.1186/1477-7525-5-63

van der Schuur, W. A., Baumgartner, S. E., & Sumter, S. R. (2018). Social media use, social media stress, and sleep: Examining cross-sectional and longitudinal relationships in adolescents. *Health Communication, 0236*, 1–8. https://doi.org/10.1080/10410236.2017.1422101

Williams, C., Daley, D., Burnside, E., & Hammond-Rowley, S. (2010). Does item overlap account for the relationship between trait emotional intelligence and psychopathology in preadolescents? *Personality and Individual Differences, 48*(8), 867–871.

Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A Review of facebook research in the social sciences. *Perspectives on Psychological Science, 7*(3), 203–220. https://doi.org/10.1177/1745691612442904

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica, 67*(6), 361–370. https://doi.org/10.1111/j.1600-0447.1983.tb09716.x