
Original Paper

Modulating Internet Behaviours on Social Media Platforms

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Abstract

The current research sought a comprehensive understanding about the consequences of information-sharing behaviour on social media, given public concerns for privacy violations. We used a mixed-methods approach to investigate the influence of the self on “revealing” and emotional “healing” experiences online. Respondents completed a survey measuring sense of self, motivations for using social media, as well as revealing and healing attitudes, and behaviour. We conducted a principal component factor analysis on separate parts of the survey and ran Pearson correlations relating the emerging factors. Qualitative data describing experiences of online self-disclosure were used to illustrate the correlational findings. The “revealing” factors contrasted adaptive posting (i.e., self-regulated and concerned) with maladaptive, trusted, and naïve posting practices. The sense of self, as well as motivations for social media use, driven by social or emotional needs, influenced whether users engaged in destructive posting behaviours. The “healing” factors were associated with positive motivations for self-disclosure, seeking a supportive online community, and building resilience. Correlational data revealed that respondents with a secure sense of self did not feel the need to self-disclose online as much as those who were asocial or insecure. Motivations to self-disclose online and experiences of “healing,” with the help of a supportive online community, depended on whether the sense of self was secure, insecure, or asocial.

Keywords: Revealing, healing, social media, sense of self, self-disclosure

Introduction

The frequency of user activity on social media has led to concerns about user dependency, as shown by 40% of Americans who report that abandoning social media would be difficult (Perrin & Anderson, 2019). Social media’s dominating presence gave rise to questions about its influence on users, including matters of privacy. For instance, the public perceives their online privacy to be invaded across social, informational, physical, and psychological domains (von Pape et al., 2017). These public perceptions appear to be on the rise, since privacy concerns have increased for both infrequent and frequent Facebook users (Tsay-Vogel et al., 2018). This leads to worries about adaptive and maladaptive behaviour in social media engagement.

One concept that is relevant to this issue is the *Privacy Paradox*, which refers to a discrepancy between one’s concerns about privacy while simultaneously revealing personal information on social media (Dienlin & Trepte, 2015). This may be driven by a need for instant gratification and social rewards (e.g., relationship building) which are attained through self-disclosure (Cozby, 1972; Kramer & Schawal, 2020; Liu & Wang, 2018). However, the *Privacy Paradox* effect vanishes if one worries about future consequences (Hallam & Zanella, 2017). Past studies on the behaviours and dispositions that contribute to this discrepancy show that experiences with self-disclosure are complex and multilayered. On one hand, a deficiency in conscious self-regulation, obsessive internet-related thoughts, and dependency for mood regulation may drive depressed or lonely individuals to engage in problematic internet use (Caplan, 2010). This implies that personal needs may inappropriately lead users to engage with the internet in problematic ways. Risks to social media use and self-disclosure include identity theft, exposure to negative user content, misuse of personal content, inappropriate messages, diminished relationship quality, and cyberbullying (Willoughby, 2019; Christofides et al., 2012).

On the other hand, users may also reap significant emotional and social benefits from practicing online

self-disclosure. An individual's sense of self can influence the relationship between social media behaviours and social needs being met. For instance, lonely and anxious individuals are more likely to socialize online to compensate for their poor offline social connectedness and social skills (Teppers et al., 2014; Valkenburg & Peter, 2007). Online interactions may fulfill needs for relatedness (Chen, 2019) and relieve feelings of loneliness (Błachnio et al., 2016). Since asocial users rely on digital media to share emotions, beliefs, and interests with a larger network (Lee, 2013), they may have a greater sensitivity to user feedback. One study found frequency of online social interactions to be positively correlated with a user's perceived social support (Seo et al., 2016). Furthermore, the motivation to fulfill the need for social engagement and friendship can predict a greater tendency toward sharing personal stories (Lai & Yang, 2015), especially with more honesty and positivity (Hollenbaugh & Ferris, 2015).

A *Privacy Calculus* involves the practice of weighing the pros and cons before self-disclosing (Dienlin & Metzger, 2016; Kramer & Schawel, 2020). Those motivated by risk aversion and a concern for impression management may avoid posting content for fear of retribution, conflict, and identity theft (Child et al., 2012). However, users motivated by social needs may be more likely to self-disclose online. In fact, past studies suggest that positive effects of Internet activity on social relationship quality and well-being result from frequent online self-disclosure (Valkenburg & Peter, 2009). More online interaction specifically leads to frequent or more intimate self-disclosures (Tidwell & Walther, 2002), a sense of social connectedness, and social support, leading to improved well-being (Chen & Li, 2017; Shaw & Gant, 2002; Utz, 2015). Moreover, readers of other users' personal posts can experience second-hand or vicarious emotional satisfaction and a sense of community (Grumme & Gordon, 2016). As an exception, socially competent individuals may be more inclined to use social media as an additional avenue for social interactions and, thus, do not rely on social media for their social or emotional needs (Kraut et al., 2002).

The research literature suggests that concerns about privacy on social media and online disclosure behaviours are greatly influenced by self-esteem. As it is harder to detect negative feedback that may be observed during face-to-face interactions, individuals with lower self-esteem may perceive social media as a safe space for social interaction (Leighton et al., 2018). However, they are not tuned to opportunities for interpersonal connections and social benefits, unlike their higher-self esteem counterparts (Forest & Wood, 2012; Leighton et al., 2018). This may be due to the kinds of content they post, which appear to be negative in nature or unappealing to their audiences (Forest & Wood, 2012). The need for interpersonal connection in low self-esteemed users may, regrettably, lead to problematic social media use and addiction, social comparison, and oversharing of personal information (Marino et al., 2018; Saiphoo et al., 2020; Tateno et al., 2019).

Current Study

Previous research has investigated explanatory variables for online self-disclosure and subsequent consequences. However, the literature has yet to combine the two to form a holistic view of human activity or behaviour on social media. This leads to our main research question: how does one's sense of self influence motivations to use social media, self-disclosure behaviours, and the resulting experiences of crisis or healing? We investigated this question in the current study using concurrent nested mixed methods. Specifically, we used a survey to collect both quantitative and qualitative data. The qualitative data of respondents with the highest factor scores were used to illustrate the factor and correlational findings.

A strong sense of self is characterized by a stable identity associated with concrete values and beliefs (Flury & Ickes, 2007). During the COVID pandemic, Cupchik et al. (2023) found that students with a strong and resilient sense of self experienced positive affect as well as personal agency and were optimistic about their futures. Of relevance to the current project, they were discriminating and only shared credible information on social media with family and friends. In contrast, others with a weak sense of self may have unstable identities with fluctuating opinions, values, and beliefs across social situations (Flury & Ickes, 2007). Users with a weak sense of self are expected to "reveal" more personal information on social media, be less disposed to regulate their behaviour online, and experience more instances of crisis. With regards to "healing," it is hypothesized that individuals with a strong sense of self will use social media as a tool that contributes to their healing process. Conversely, someone with a

weak sense of self is hypothesized to share personal situations online as a cathartic practice, so they will neither benefit from the positive qualities of social media nor recover from situational distress.

Methods

Respondents were recruited through advertisements placed on mental health-related Facebook pages and a mental health forum on Reddit. An external link to the study was provided with the advertisement posts. The second means of collection took place on an online platform where university students could sign up to participate in studies for compensation in credits. The inclusion criterion was that participants must feel comfortable with sharing an episode of when they disclosed a personal story on social media. There were no exclusion criteria for this study.

Participants who chose to participate provided consent before starting the questionnaire. Upon completing the questionnaire, participants were directed to a debriefing form and provided contact information of mental health resources. Qualitative and quantitative data were collected simultaneously. The qualitative data were used to interpret and support the quantitative results.

Materials

The *Experiences on Social Media Questionnaire* was used by three separate studies (i.e., “Revealing” and “Healing,” which are combined in this paper and a separate study on fan fiction). These studies shared the same series of demographic and social media activity items. They all also had a quantitative section that contained a Sense of Self scale (10 items) measuring one’s sense of self, along with a Social Media Uses scale (20 items) measuring motivations for and outcomes of social media activities.

In the Revealing study, the dedicated questionnaire continued with a section inquiring about *Revealing* experiences on social media and included three measures. The Revealing scale consisted of 15 items measuring online privacy attitudes and behaviours. The next qualitative measure asked for a description of an instance where the participant experienced a crisis resulting from self-disclosure on social media. The Revealing section concluded with five reflection questions that measured awareness and concern regarding privacy threats online.

The Healing study had a different series of items, which involved *Healing* experiences and included three measures. The Healing measure comprised 15 items asking about participants’ sense of emotional support, self-expression tendencies, and positive experiences on social media. A qualitative measure required a description of an episode when participants shared a personal story on their social media, and how the responses to their posts contributed to their healing or coping process. The final measure consisted of 10 reflection items measuring changes in participants’ attitudes towards self-disclosure online and their disclosed situation, along with how this experience impacted their relationship with online peers who responded to the initial post. All sections of the Experiences on Social Media questionnaire, except for the personal accounts, were based on a 7-point Likert scale system.

Participants

There were 948 participants in total (78.0% female, 18.2% male, 3.8% other). It should be noted that data collection for the *Self* and *Social Media Uses* sections was part of a larger project. Consequently, the sample size contributing to these two sections was larger than the sample for the *Revealing* (214) and *Healing* (239) sections. Specifically, the *Self* scale was completed by 948 subjects, and 887 completed the *Social Media Uses* scale. Data collection for *Self* and *Social Media Uses* used the same recruitment methods.

Results

Overview

The primary goal of the quantitative analysis was to provide data on participants’ traits, perceptions of online communities, and self-disclosure tendencies. To meet this goal, we analyzed our data with the resulting sample for the Sense of Self (N = 948), Social Media Uses (N = 887), Revealing (N = 214), and Healing (N = 239) scales of the Experiences on Social Media questionnaire. The Self and Social Media Uses scales were completed by all participants, whereas the Revealing and Healing scales were completed by separate groups. Participants with missing data were removed. A series of principal

component factor analyses were conducted using Varimax rotation, with Kaiser normalization, on SPSS to uncover sets of latent variables among the four assessed measures. Factor analyses of scale items were conducted twice; the second time excluding items with factor loadings under .5 or which loaded on more than one factor. Factors with an Eigenvalue greater than 1.00 were treated as significant. The individual factors were then treated as criterion or dependent measures in Pearson correlation coefficients.

Qualitative profiles were developed following the correlations among the measures. The purpose of this was to clarify and illustrate the correlational findings on the self-disclosure behaviours and experiences of students. The focus was on *positive motivations* (Healing) to self-disclose and *maladaptive posting* (Revealing), factors that accounted for the greatest variance. We developed qualitative profiles to “illustrate” how the correlations with these two factors are represented in the students’ responses. These students had the highest weights on each factor, implying that they were particularly sensitive to it. We examined their written accounts, using an interpretivist paradigm and a data-driven thematic approach, then selected representative examples based on key words from the items that loaded on the correlating factors. For the remainder of the paper, the title of the *Sense of Self* scale is abbreviated to *Self*.

Self Measure

Three factors emerged from the Self scale (N=948) with Eigenvalues of 2.78, 1.47, and 1.04, accounting for 30.94%, 16.35%, and 11.58% of the total (58.87%) variance, respectively (see Table 1). Factor 1, labeled *Insecure Sense of Self*, encompasses a concern about the reasons behind one’s actions, incomplete identity formation, and a tendency to carry background emotions. The second factor, *Secure Sense of Self*, is characterized by a sense of satisfaction and confidence in one’s identity, as well as a sense of control of their life. Factor 3 reflects an *Asocial* trait, which involves presenting a different version of the self online and avoiding social interactions and interpersonal relationships.

Table 1. Factor Loadings for the Principal Components Factor Analysis of the Self Scale

Factor and Eigenvalue	Constituent Item	Loading
1. Insecure sense of self 2.78	I am constantly thinking about my reasons for doing things.	.82
	I am trying to figure myself out.	.81
	I carry around background emotions like sadness, anger, or fear.	.59
2. Secure sense of self 1.47	My life is determined by my own actions.	.75
	I am confident in my identity, morals, and abilities.	.73
	I am confident I am everything I want to be.	.66
3. Asocial self 1.04	I keep people at a distance and avoid close interpersonal relationships.	.78
	I am an outgoing and sociable person.	-.71
	I am different offline than I am online.	.58

Social Media Uses Measure

Data from 61 participants out of 948 were removed due to missing answers for the items in the Social Media Uses scale. The principal component factor analysis on the remaining 887 participants yielded three factors with Eigenvalues of 3.31, 1.51, and 1.34, accounting for 29.65%, 12.33%, and 11% of the total 52.98% of the variance (see Table 2). The first factor reflects an *Anxious Need for Self-Validation*, consisting of anxiety about negative feedback and a fragile self-esteem. This anxiety can be related to accomplishment comparisons, body dysphoria, imitation, and self-loathing. Factor 2, *Need for External Stimulation*, reveals a spontaneous or unconscious use of social media, particularly social media browsing, to relieve boredom. The third, *Authentic Self-Presentation*, encompasses social media use based on a desire for self- and world-insight, along with a trust towards online users.

Table 2. Factor Loadings for the Principal Components Factor Analysis of Social Media Uses

Factor and Eigenvalue	Constituent Item	Loading
1. Anxious Need for Self-Validation 3.31	I worry about receiving negative feedback from content that I post.	.75
	When people unfollow/unfriend me, it hurts my self-esteem.	.74
	I often compare myself with others with respect to what I have accomplished in life.	.71
	I have felt unhappy about my body after I saw others' content on social media.	.62
	I try to imitate (i.e., opinions, aesthetic, lifestyle, actions, etc.) people I admire on social media.	.55
	Sometimes, when I see my posts from previous years, I dislike the person I once was.	.53
2. Need for External Stimulation 1.51	I go on social media when I am bored.	.82
	I go on social media without consciously thinking about it.	.73
	I spend more time browsing on social media than interacting with others by liking, sharing, commenting, etc.	.57
3. Authentic Presentation 1.34	Using social media helps me understand myself better.	.76
	I trust that those whom I meet online are exactly who they are offline.	.71
	Using social media helps me understand the world better.	.65

Correlations among the Self and Social Media Uses Factors

Six correlations between the Self and Social Media Uses factors were significant. *Insecure Sense of Self*, $r(885)=.32$, $p<.01$ and *Asocial*, $r(885)=.18$, $p<.01$ were both positively correlated with *Anxious Need for Self-Validation*. Moreover, *Anxious Need for Self-Validation* had a negative relationship with *Secure Sense of Self*, $r(885)= -.29$, $p<.01$. As expected, insecure and asocial individuals are more likely to be anxious about feedback from social media, whereas individuals with a secure sense of self do not feel the need for validation online. An *Insecure Sense of Self*, $r(885)=.28$, $p<.01$, was strongly correlated with a *Need for External Stimulation*, reflecting a disposition to engage with social media for browsing purposes when bored.

Revealing Measures

A principal component factor analysis ($N=214$) was conducted on the 15 items on the *Revealing* measure and the five reflection questions that followed the personal accounts. Five factors were derived with Eigenvalues of 3.74, 2.59, 1.57, 1.25, and 1.08, accounting for 21.99%, 15.24%, 9.26%, 7.38%, and 6.35% of the total variance (53.87%), respectively (see Table 3). Factor 1, *Maladaptive Posting*, consists of an emotion-driven sense of obligation to post personal details on social media. Outcomes of maladaptive posting include oversharing, online conflict, and violating the privacy of friends and family on social media. Conversely, factor 2, *Self-Regulated Posting*, encompasses valuing cautious posting and privacy, the belief that users experience similar consequences to online self-disclosure, and heightened situational awareness and pessimism after an instance of self-disclosure. The third factor reflects *Concerned Posting*, consisting of concerns about career consequences or offending someone after posting on social media. Users who practice *Concerned Posting* also believe their parents fear for their internet safety. In contrast, the fourth factor, *Trusted Posting*, is characterized by a belief that social media sites and followers respect the privacy of the user's content. The last factor, *Naïve Posting*, reflects a lack of knowledge of the privacy functions on social media, as well as an ignorance regarding the number of users who can view personal information.

Table 3. Factor Loadings for the Principal Components Factor Analysis of Revealing

Factor and Eigenvalue	Constituent Item	Loading
1. Maladaptive Posting 3.74	I find myself violating the privacy of friends and family when I post on social media.	.73
	I feel obligated to post personal information on my profile.	.70
	I find that I present personal information of myself when I'm emotional.	.70
	I find myself getting into conflict for what I've posted online.	.62
	I would say that people on social media know me as well as the people I am close to offline.	.60
2. Self-Regulated Posting 2.59	I believe it's important to be cautious when presenting yourself online to avoid future challenges.	.83
	I believe that others may be experiencing similar problems when presenting themselves on social media.	.83
	Based off what you just wrote, do you think there is a benefit to living a more private life?	.67
	This experience has made me pessimistic regarding social media sites.	.56
	At the time this event happened, I did not think that it was an issue as I do now.	.53
3. Anxious Posting 1.57	I'm concerned that what I post on social media can lead to consequences in my job/career.	.80
	I feel stressed about posting on social media because I worry that what I post will offend someone.	.71
	When I reveal information about myself online, my parents fear for my safety (against cyberbullying, being solicited by strangers online, stalkers etc.).	.62
4. Trusted Posting 1.25	I trust that none of my social media friends/ followers will share my content without my consent.	.85
	I trust that the social media platforms I am on will keep my information private.	.79
5. Naïve Posting 1.08	I know how to use the privacy functions on my social media profile.	-.76
	I find it hard to grasp how many people can see my personal information.	.56

Correlations among Revealing, Sense of Self, and Social Media Uses factors

Maladaptive Processes. Consistent with the Privacy Paradox, the strongest correlation was between *Maladaptive Posting* (Revealing Factor 1) and *Authentic Self-Presentation* (Social Media Uses Factor 3), $r(212)=.35$, $p<.001$. Individuals who engage in unregulated posting behaviours have a need to establish an authentic online identity. *Maladaptive Posting* was also positively correlated with *Anxious Need for Self-Validation* (Social Media Uses Factor 1), $r(212)=.29$, $p<.001$. Those who seek to have their identity validated by an online audience may be less self-regulated and engage in more harmful posting behaviour. Interestingly, *Maladaptive Posting*, $r(212)=-.24$, $p<.001$, as well as *Naïve Posting* (Revealing Factor 5), $r(212)=-.18$, $p=.009$, correlated negatively with *Need for External Stimulation* (Social Media Uses Factor 2). Individuals who engage in maladaptive posting practices or are unaware of online privacy concerns are less disposed to merely browsing social media.

The following correlations expand on processes associated with a need for self-validation. First, *Anxious Need for Self-Validation* correlated significantly with *Anxious Posting* (Revealing Factor 3), $r(212)=.27$, $p<.001$. Users who seek validation through self-disclosure appear anxious about potential negative

responses and possible offline consequences. *Anxious Need for Self-Validation* was also correlated with *Naïve Posting* (Revealing Factor 5), $r(212) = .24$, $p < .001$. Anxious users appear unaware of their audience and how to operate privacy settings. *Anxious Need for Self-Validation*, $r(212) = .23$, $p < .01$ was also positively correlated with *Trusted Posting* (Revealing Factor 4). The greater the need for self-validation, the more likely the user will naively trust in social media audiences to safeguard their personal information.

Adaptive Processes. *Self-Regulated Posting* (Revealing Factor 2) significantly correlated with *Need for External Stimulation*, $r(212) = .34$, $p < .001$. Those who regulate their output are more likely to only browse social media. *Secure Sense of Self* (Sense of Self Factor 2) correlated negatively with *Naïve Posting* (Revealing Factor 5), $r(212) = -.28$, $p < .001$. Those with a secure sense of self are likely to be conscious of their audience and how to operate privacy settings. *Authentic Self-Presentation* (Social Media Uses Factor 3) correlated positively with *Trusted Posting*, $r(212) = .24$, $p < .001$. Individuals who trust in their social media followers and platforms to respect their privacy noticeably perceive their social media platform as a trustworthy tool for gaining self- and world-insight.

Insecure Sense of Self correlated positively with *Concerned Posting*, $r(212) = .18$, $p < .01$, and *Self-Regulated Posting*, $r(212) = .17$, $p < .01$. Insecure users are more introspective and possess latent negative emotions (e.g., fear). These qualities present themselves as posting anxiety, reflecting a concern for negative outcomes to online self-disclosure. Driven by posting anxiety, insecure individuals appear to regulate their online output to avoid any aversive outcomes.

Maladaptive Qualitative Profile

In this section, we “illustrate” how correlations among factors are represented in the responses of the top 40 respondents with the highest loadings on the *Maladaptive Posting* factor (Revealing 1). Each subsection represents a Social Media Uses factor that significantly correlated with *Maladaptive Posting*. Most respondents embodied the *Maladaptive Posting* profile through a tendency to post personal information while in an emotional state, resulting in a negative outcome. There were multiple reports of a loss of control of their shared information as well as social consequences, particularly conflicts with family, friends, and partners.

Authentic Self-Presentation. Many users who engaged in frequent *Maladaptive Posting* used social media with the goal of understanding themselves and the world better (*Authentic Self-Presentation*, Social Media Uses Factor 3). They tended to share posts about their achievements, leisure activities, and emotional situations, as well as visual media of themselves. Their trust in social media users with personal information unfortunately backfired on them often, resulting in aversive feelings such as embarrassment, shame, betrayal, and vulnerability.

“An episode when I found myself in a difficult situation as consequence of sharing my private life in social media was when I shared a video of myself dancing and a man started messaging me when I was 16 years old. Even though he was well aware of my age. this took an emotional toll but thankfully the situation was resolved.” (Female, 18 years old)

“When I revealed that I received an award, I noticed in school [that] girls would [be] excessively disrespectful towards me and I later heard them gossiping about me. It made me feel sad, as I thought they would be happy for me.” (Female, 19 years old)

Anxious Need for Self-Validation. *Maladaptive Posting* individuals tended to disclose their personal situations with the *Anxious Need for Self-Validation* (Social Media Uses Factor 1). Pursuing this need often was done by posting personal information with a sense of obligation or pressure, and without taking enough time to reflect on the amount of self-exposure they would perform. Many of these users shared posts that included or depicted a friend or romantic partner. Such students also often reported feelings of shame, regret, and a heightened sense of insecurity.

“Sharing pictures of my boyfriend on social media caused me to become insecure of myself as I was sharing a personal aspect of my life to everyone I knew. This caused my insecurity to rise up because I thought people would think I was not good enough for him.” (Female, 20 years old)

“With my romantic relationship or personal friendships, I feel an obligation to post about them in order

for them to be appreciated or recognized by those who follow me online.” (Female, 18 years old)

Healing Measures

A principal component factor analysis (N=239) was conducted on the 15 items in the *Healing* scale and the five *Reflection* questions that followed the personal accounts. Three factors were derived with Eigenvalues of 6.67, 1.78, and 1.48, accounting for 41.66%, 11.14%, and 9.24% of the total variance (62.04%), respectively (see Table 4). The first factor relates to *Positive Motivations* to go on social media, such as a desire for emotional expression and perceiving online communities as reliable and supportive. The second factor, *Emotional Support and Community*, represents the emotional support received after one shared personal feelings to online communities. The third factor, *Resilience*, composes of the five reflection items and it reflects the degree to which an individual coped with a situation that they disclosed online.

Table 4. Factor Loadings for the Principal Components Factor Analysis of Healing

Factor and Eigenvalue	Constituent Item	Loading
1. Positive Motivations 6.67	Sharing my feelings online makes it easier to express my emotional states in everyday life.	.83
	Sharing my personal feelings online makes me feel better, even if I do not receive responses.	.80
	There are particular communities online I can rely on for emotional support.	.66
	It is easier to publicly share my feelings once than to repeat it over and over again in individual conversations (online or offline).	.66
	The feedback I get on my social media posts makes it okay to feel what I feel.	.65
	People on social media tend to be understanding and supportive.	.51
2. Emotional Support and Community 1.78	Positive responses on my postings provide me with a sense of community.	.78
	I have felt more accepting of a situation in my life after reading others' similar experiences on social media.	.77
	It is satisfying to see that online users experience the same issues as me.	.77
	Going on social media provides me with a temporary escape from the everyday life.	.67
	Social media has made me a more empathic person.	.63
	Past experiences of support on social media motivate me to help others who share their personal troubles.	.53
3. Resilience 1.48	The responses I received helped me come to accept the situation and move on.	.86
	Responses from other users impacted my relationships with them in some sort of manner. (i.e., they strengthened, maintained, weakened, etc.).	.82
	This experience has helped me in other situations in my life.	.79
	It was easier to share my story online than offline.	.59

Correlations among Healing, Sense of Self, and Social Media Uses

The strongest correlation among the *Healing*, *Social Media Uses*, and *Self* factors was a positive one between *Authentic Self-Presentation* (Social Media Uses Factor 3) and *Positive Motivations* (Healing Factor 1), $r(238)=.36$, $p<.001$. Those who want to better understand themselves and the world are motivated to self-disclose online, hoping that positive feedback would help them gain a deeper trust and understanding of their world. This desire to enhance sense-making capabilities leads them to trust that online communities can be reliable for emotional support and validation. A strong relationship was also found between *Authentic Self-Presentation* and *Emotional Support and Community* (Healing Factor 2), $r(238)=.30$, $p<.001$. Users who seek to increase self- and world-insight feel more rewarded from reading other users' similar experiences. They also become more empathic after receiving emotional support.

The most significant correlation between the *Sense of Self* and *Healing* factors was a positive one between *Insecure Sense of Self* and *Emotional Support and Community*, $r(277)=.23$, $p<.001$. This correlation suggests that insecure users benefit emotionally from a supportive online community, even if they are merely reading online posts describing other users' experiences. They gain a sense of community because of positive responses to their posts, and social media provides them with a temporary escape from the real world. Lastly, there was a strong positive relationship between the *Asocial self* and *Positive Motivations*, $r(277)=.19$, $p=.002$. While asocial individuals may worry about receiving negative feedback online, it appears they remain hopeful about receiving emotional support from self-disclosure on social media. This hope motivates them to share their feelings online.

Anxious Need for Self-Validation (Social Media Uses Factor 1) significantly correlated with *Positive Motivations*, $r(238)=.28$, $p<.001$, *Emotional Support and Community*, $r(238)=.26$, $p<.001$, and *Resilience* (Healing Factor 3), $r(238)=.20$, $p=.002$. Knowing about the possibility of receiving positive feedback on social media, individuals who anxiously desire acceptance and validation are more inclined to share their feelings online. They also gain emotional support from online communities, which in turn improves their coping methods for stressful life events.

There was a significant positive correlation between *Need for External Stimulation* (Social Media Uses Factor 2) and *Emotional Support and Community*, $r(238)=.18$, $p=.005$. *Emotional Support and Community* reflects feelings of acceptance and satisfaction from reading others' experiences. Therefore, this correlation suggests that, rather than sharing your personal story, reading others' posts about personal experiences can vicariously fulfill the need for stimulation simply through the satisfaction of relatability. Lastly, results showed a positive correlation between *Authentic Self-Presentation* and *Resilience*, $r(238)=.15$, $p=.025$. As relational experiences on social media help users gain a deeper understanding of themselves and the world, this knowledge becomes a protective factor that is fundamental to resilience in everyday life.

Positive Motivations Qualitative Profile

The qualitative responses of the top 40 students with *Positive Motivations* (Healing Factor 1) to self-disclose were consistent with the correlational results. Most students expressed *Positive Motivations* through a search for validation, reassurance, and comfort. After receiving positive user feedback (e.g., words of encouragement and relatability), many reported improved mood and resilience, thus desiring to engage again with supportive online communities.

Authentic self-presentation. Those with *Positive Motivations* tended to use social media with the intent of *Authentic Self-Presentation* (Social Media Uses Factor 3). The opportunity to enhance their self- and world-insight was seen as an additional reward (i.e., aside from "healing" from a situation) to disclosing their situations to a supportive and trustworthy online community.

"Once I shared a story about childhood bullying I experienced within an online community that shared similar interests with me. Everyone was very positive about the situation which definitely made me regret my decision to post this story less. Their responses also helped regain confidence in myself and understand that I deserve to share my experiences and receive support." (Male, 18 years old)

Asocial self. Many *Positive Motivations* users were found to possess an *asocial self* (Self Factor 3) profile. These *asocial* individuals enjoyed the opportunity to present themselves differently online than

they typically present offline. This control in online self-presentation would enhance their emotional courage and thus facilitate online self-disclosure. The emotional support they received from social media users appeared to meet the social needs that *asocial* users struggled to fulfill offline due to a lack of close relationships.

“I was feeling really antisocial since [university] started and I didn’t really feel like trying to make new friends. [I] posted on my private story how [university] was making me antisocial and how I hadn’t been to lectures or [university] in general for quite a few days. I got a bunch of replies from new and old friends asking how I was doing or feeling or just saying that they felt the same way, so it was nice to see that some people cared and also that I wasn’t the only one feeling this way.” (Female, 18 years old)

Anxious need for self-validation. Those who wished to fulfill their *Anxious Need for Self-Validation* (Social Media Uses Factor 1) on social media were more likely to be driven by *Positive Motivations*. Such users had a major tendency to compare themselves to others in relation to body image and accomplishments. Their poor self-esteem made them quite sensitive to negative feedback. However, they felt more comfortable sharing their situations online to a reliable virtual community whose feedback would validate their feelings and be soothing.

“I told people my time being a virgin at 19 years old. People commented saying they didn’t lose their virginity till they were 25+ so that made me feel really good about it knowing I was not the only one.” (Male, 19 years old)

Discussion

The current study aimed to understand the negative and positive implications of online self-disclosure. A mixed-methods research design was crucial for determining how sense of self influences self-disclosure on social media and the resulting experiences of crisis or healing. Our approach was to develop a holistic model that explains self-disclosure behaviour on social media as influenced by the sense of self. In short, the results indicate that (a) there are three types of selves (i.e., secure, insecure and asocial); (b) individuals use social media for self-validation, authentic self-presentation, and external stimulation; (c) there are five types of sharing activities that determine how public or private online users are; and (d) users are motivated to self-disclose online with the hope of “healing” through a caring online community.

Sense of Self and Social Media Uses

The results highlight two dominating themes that drive social media activity within asocial, insecure, and secure users. First, due to their fragile identity, insecure individuals may rely on user feedback to stabilize their sense of identity and self-esteem. This aligns with our hypothesis stating that a weaker sense of self would initiate more self-disclosure on social media. In this case, the need for self-validation drives sharing behaviours, and it is gained through self-disclosure and user feedback. Likewise, asocial individuals present themselves differently online for self-validating purposes. In contrast, secure individuals are stable enough in their identity not to need self-validation from social media audiences, so they may not feel as compelled to share personal information online.

Revealing

Through the correlations among the *Revealing*, *Sense of Self*, and *Social Media Uses* factors, we identified whether individuals will self-disclose in a maladaptive or an adaptive manner. These processes are differentiated by degrees of self-regulation. Specifically, adaptive processes are defined by conscious and concerned modes of self-regulation, while excessive self-disclosure involved maladaptive and naïve self-regulation.

Users who engage in *Maladaptive Regulation* exhibit dysfunctional posting habits despite their anxious attitudes towards self-disclosure. However, this may be an example of cognitive dissonance, which is the discomfort felt when there is a discrepancy between one’s attitudes and behaviours (Festinger, 1962). To reduce feelings of discomfort, one must reduce the discrepancy by changing either attitudes or behaviours so that they align (Festinger, 1962). In maladaptive regulation, attitudes are adjusted to become more trusting of social media so that posting-anxiety is alleviated and dysfunctional posting behaviours can continue. Attitudes are changed because the need to engage in unregulated posting dominates any posting anxiety. This rationale is supported by research showing that, despite privacy

concerns, trusting platforms enables one to feel more comfortable with self-disclosure (Kumar et al., 2018; Proudfoot et al., 2018; Teutsch et al., 2018). Past research explains that the observed discrepancy is due to the value placed on immediate rewards (Hallam & Zanella, 2017; Liu & Wang, 2018). Similarly, maladaptively regulated individuals value the immediate validation gained from social media feedback. To feel content with their identity, they seek self-validation from positive feedback on their posts and engaging in social comparison (Stapletin, 2017).

In contrast, individuals with adaptive behaviour show self-control by weighing the pros and cons to revealing online (Dienlin & Metzger, 2016). Private individuals are influenced by the disadvantages of social media and do not depend on validation from functions such as “likes” (Hallam & Zanella, 2017; Meeus et al., 2019). In the current study, the *Concernedly Regulated* anticipate harm from revealing online, and thus adopt reserved posting practices to avoid potential adversities. Consequently, this leads to passive browsing on social media. Similarly, those *Self-Regulated* (i.e., contentiously regulated) behave in ways that are consistent with their beliefs. By preserving their online privacy, self-regulated individuals can feel comfortable in their revealing and gain the perceived benefits of social media. In both cases, behaviours align with perceptions of there being greater benefit or greater costs to self-disclosure.

Healing

Interestingly, the findings of the present study were contrary to the hypotheses that *secure* individuals are significantly more likely to emotionally benefit from user responses to their personal stories, whereas *insecure* individuals practice self-disclosure on social media as a form of catharsis and thus do not benefit from user feedback. Participants with a secure sense of self neither turned to social media for emotional disclosure nor needed emotional support from an online community. They also displayed less of an anxious need for self-validation because they possess greater confidence and self-acceptance. The findings suggest that users with an insecure sense of self or with asocial tendencies are more inclined to self-disclose in hopes of receiving online emotional support. Insecure and asocial individuals are interpersonally (rejection) sensitive, making them reactive to perceived social rejection (Downey & Feldman, 1996; Marin & Miller, 2013; Wilhelm et al., 2004). This interpersonal sensitivity causes the positive feedback from social media users to be emotionally rewarding, thus they feel a sense of community online and are better able to accept their situations. They also experience satisfaction by reading posts from online users experiencing similar stressful events. This grants them greater self-awareness, consciousness of our world, trust in user authenticity, and enhanced resilience.

Asocial individuals are particularly more likely to seek social validation through online self-disclosure due to positive perceptions of an attentive support network. Despite anxious expectations, they are hopeful for emotional support from an online community, improved well-being, and closeness. Asocial users can also compensate for their lack of close offline relationships and gain self-validation by catering their online identities to online communities. Possessing an insecure sense of self contributes to a spontaneous search for external stimulation, which distracts users from the internal ambivalence they feel. Alternatively, past gratification may give the need for external stimulation an addictive quality that is beyond conscious thought. However, if the insecure individual merely uses social media for external stimulation, they may miss the opportunity to benefit from positive user feedback and to “heal” from their situation.

Findings regarding *Authentic Self-Presentation* imply that, regardless of type of self, users share emotions online to gain a deeper understanding of themselves and the world through user feedback. This leads them to trust that online communities are reliable for emotional support and validation.

Complementary Findings

Holistically, the processes behind the *Revealing* and *Healing* sections are complementary in the sense that they explain the difference between self-disclosure and experiencing positive versus negative outcomes. The first difference between *Revealing* and *Healing* is what triggers an individual to self-disclose online. Triggers can either stem from internal processes or external events. Internal triggers involve psychological processes like affect, self-esteem, and cognition. In the case of *Revealing*, maladaptive users are driven to self-disclose due to poor self-esteem and a need for self-validation.

Regarding *Healing*, insecure and asocial users are driven to self-disclose online after experiencing an aversive life event. In this case, the trigger is situational and separate from the user. As shown in the *Revealing* section, insecure individuals' worries about the consequences to online self-disclosure influence their privacy attitudes, which leads them to regulate their posting behaviours. However, although anxiety regarding user feedback is present, distressing life events lead insecure individuals to self-disclose on social media.

Paradoxically, after a social media user has been triggered by either negative external events or negative internal processes, they are driven to cope by self-disclosing on social media. In the case of *Revealing*, self-disclosing acts as a coping strategy because self-validating functions (e.g., positive user feedback) raises preexisting low self-esteem. For *Healing*, by disclosing a distressing event to a helpful online community, users are better able to accept their situations and rely on those with similar experiences. In both cases, self-disclosure is a means of coping with one's circumstances, yet one form of self-disclosure is healthy, while the other is harmful. Specifically, the *Revealing* results showed that self-disclosure online can be maladaptive in nature. One's revealing habits are uncontrolled and do not adjust to circumstances where information should be kept private. In an unrestrained attempt to relieve negative proximal processes, the user experiences harmful future consequences. Alternatively, as seen in the *Healing* section, self-disclosure can be managed in a helpful manner that is beneficial to the user's mental wellbeing. Asocial and insecure individuals are more selective, only self-disclosing when help is needed during distressing life events. They also share their personal stories to a community that seems empathetic and supportive. Due to a positively receptive audience and calculated posting practices, they are more likely to effectively heal after their self-disclosure.

Overall, the consequences of self-disclosure online can depend on three factors. First, proximal or distal triggers can lead an individual to share online. In both cases, the triggers elicit negative feelings, but the source of those feelings differs. Secondly, social media can be used as a coping mechanism, but the effectiveness of using social media as a coping tool depends on how controlled and thoughtful one is when sharing personal information. Finally, if users engage in destructive posting behaviours, they risk encountering more tribulations by depending on social media to satisfy their needs. Alternatively, healthy posting behaviours that allow one to heal from hardships can lead to feelings of closeness with an online community and increased resilience.

Implications

Future research should consider expanding on the topic of enhanced resilience by investigating the relationship between qualities of user feedback and "protective factors" such as taking initiative, mood regulation, achievements, community engagement, and acquiring self-mastery (Alvord et al., 2014; Meichenbaum, 2012). Although research has uncovered that social media can function as an intervention tool for mental health, more effort to build compensatory online mental health services is needed (Kazdin, 2017; Mechanic, 2014). Considering that the demand for mental health services on social media has been increasing before and during the COVID-19 pandemic (Naslund et al., 2019; Situmorang, 2020), along with the fact that mental illness is persistently one of the leading causes of disability globally (Vigo et al., 2016), efforts are needed to improve the accessibility and efficacy of mental wellness services online. It is also important to consider the likelihood that one's sense of self fluctuates with life events. It is possible that a secure individual may reach a difficult point in life that ultimately causes their sense of self to destabilize and become insecure. A destabilized sense of self may also be a product of a discrepancy between one's current and ideal self. This discrepancy has been suggested to enhance the need for validation on social media sites like Facebook (Cupchik, 2011). It is encouraged that future research considers investigating the dynamic and perceived sense of self in the context of online self-disclosure.

References

- Alvord, M. K., Rich, B. A., & Berghorst, L. H. (2014). Developing Social Competence Through a Resilience Model. In S. Prince-Embury & D. H. Saklofske (Eds.), *Resilience Interventions for Youth in Diverse Populations* (pp. 329–351). Springer New York. https://doi.org/10.1007/978-1-4939-0542-3_15

- Błażnio, A., Przepiorka, A., Bałakier, E., & Boruch, W. (2016). Who discloses the most on Facebook? *Computers in Human Behavior*, *55*, 664–667. <https://doi.org/10.1016/j.chb.2015.10.007>
- Caplan, S. E. (2010). Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior*, *26*(5), 1089–1097. <https://doi.org/10.1016/j.chb.2010.03.012>
- Chen, A. (2019). From attachment to addiction: The mediating role of need satisfaction on social networking sites. *Computers in Human Behavior*, *98*, 80–92. <https://doi.org/10.1016/j.chb.2019.03.034>
- Chen, H.-T., & Li, X. (2017). The contribution of mobile social media to social capital and psychological well-being: Examining the role of communicative use, friending and self-disclosure. *Computers in Human Behavior*, *75*, 958–965. <https://doi.org/10.1016/j.chb.2017.06.011>
- Child, J. T., Haridakis, P. M., & Petronio, S. (2012). Blogging privacy rule orientations, privacy management, and content deletion practices: The variability of online privacy management activity at different stages of social media use. *Computers in Human Behavior*, *28*(5), 1859–1872. <https://doi.org/10.1016/j.chb.2012.05.004>
- Christofides, E., Muise, A., & Desmarais, S. (2012). Risky Disclosures on Facebook: The Effect of Having a Bad Experience on Online Behavior. *Journal of Adolescent Research*, *27*(6), 714–731. <https://doi.org/10.1177/0743558411432635>
- Cupchik, G. C. (2011). The digitized self in the Internet age. *Psychology of Aesthetics, Creativity, and the Arts*, *5*(4), 318–328. <https://doi.org/10.1037/a0024820>
- Cupchik, G. C., Damasco, V. G., Kiosses, E., Rebello, C. B., Ignacio, A., Chum, A., Makarious, M., & Hilscher, M. (in press). Profiles in Pandemic Response: Situational Helplessness versus Coherent Resilience. *Canadian Journal of Behavioural Science*.
- Dienlin, T., & Metzger, M. J. (2016). An Extended Privacy Calculus Model for SNSs: Analyzing Self-Disclosure and Self-Withdrawal in a Representative U.S. Sample: THE EXTENDED PRIVACY CALCULUS MODEL FOR SNSs. *Journal of Computer-Mediated Communication*, *21*(5), 368–383. <https://doi.org/10.1111/jcc4.12163>
- Dienlin, T., & Trepte, S. (2015). Is the privacy paradox a relic of the past? An in-depth analysis of privacy attitudes and privacy behaviors: The relation between privacy attitudes and privacy behaviors. *European Journal of Social Psychology*, *45*(3), 285–297. <https://doi.org/10.1002/ejsp.2049>
- Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology*, *70*(6), 1327–1343. <https://doi.org/10.1037/0022-3514.70.6.1327>
- Festinger, L. (1962). Cognitive Dissonance. *Scientific American*, *207*(4), 93–106. <https://doi.org/10.1038/scientificamerican1062-93>
- Flury, J. M., & Ickes, W. (2007). Having a weak versus strong sense of self: The sense of self scale (SOSS). *Self and Identity*, *6*(4), 281–303. <https://doi.org/10.1080/15298860601033208>
- Forest, A. L., & Wood, J. V. (2012). When Social Networking Is Not Working: Individuals With Low Self-Esteem Recognize but Do Not Reap the Benefits of Self-Disclosure on Facebook. *Psychological Science*, *23*(3), 295–302. <https://doi.org/10.1177/0956797611429709>
- Grumme, V. S., & Gordon, S. C. (2016). Social Media Use by Transplant Recipients for Support and Healing: *CIN: Computers, Informatics, Nursing*, *34*(12), 570–577. <https://doi.org/10.1097/CIN.0000000000000276>
- Hallam, C., & Zanella, G. (2017). Online self-disclosure: The privacy paradox explained as a temporally discounted balance between concerns and rewards. *Computers in Human Behavior*, *68*, 217–227. <https://doi.org/10.1016/j.chb.2016.11.033>

- Hollenbaugh, E. E., & Ferris, A. L. (2015). Predictors of honesty, intent, and valence of Facebook self-disclosure. *Computers in Human Behavior*, *50*, 456–464. <https://doi.org/10.1016/j.chb.2015.04.030>
- Kazdin, A. E. (2017). Addressing the treatment gap: A key challenge for extending evidence-based psychosocial interventions. *Behaviour Research and Therapy*, *88*, 7–18. <https://doi.org/10.1016/j.brat.2016.06.004>
- Krämer, N. C., & Schäwel, J. (2020). Mastering the challenge of balancing self-disclosure and privacy in social media. *Current Opinion in Psychology*, *31*, 67–71. <https://doi.org/10.1016/j.copsyc.2019.08.003>
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet Paradox Revisited. *Journal of Social Issues*, *58*(1), 49–74. <https://doi.org/10.1111/1540-4560.00248>
- Kumar, S., Kumar, P., & Bhasker, B. (2018). Interplay between trust, information privacy concerns and behavioural intention of users on online social networks. *Behaviour & Information Technology*, *37*(6), 622–633. <https://doi.org/10.1080/0144929X.2018.1470671>
- Lai, C.-Y., & Yang, H.-L. (2015). Determinants of individuals' self-disclosure and instant information sharing behavior in micro-blogging. *New Media & Society*, *17*(9), 1454–1472. <https://doi.org/10.1177/1461444814528294>
- Lee, D.-H. (2013). Smartphones, mobile social space, and new sociality in Korea. *Mobile Media & Communication*, *1*(3), 269–284. <https://doi.org/10.1177/2050157913486790>
- Leighton, D. C., Legate, N., LePine, S., Anderson, S. F., & Grahe, J. (2018). Self-Esteem, Self-Disclosure, Self-Expression, and Connection on Facebook: A Collaborative Replication Meta-Analysis. *Psi Chi Journal of Psychological Research*, *23*(2), 98–109. <https://doi.org/10.24839/2325-7342.JN23.2.98>
- Liu, Z., & Wang, X. (2018). How to regulate individuals' privacy boundaries on social network sites: A cross-cultural comparison. *Information & Management*, *55*(8), 1005–1023. <https://doi.org/10.1016/j.im.2018.05.006>
- Marin, T. J., & Miller, G. E. (2013). The interpersonally sensitive disposition and health: An integrative review. *Psychological Bulletin*, *139*(5), 941–984. <https://doi.org/10.1037/a0030800>
- Mechanic, D. (2014). More People Than Ever Before Are Receiving Behavioral Health Care In The United States, But Gaps And Challenges Remain. *Health Affairs*, *33*(8), 1416–1424. <https://doi.org/10.1377/hlthaff.2014.0504>
- Meeus, A., Beullens, K., & Eggermont, S. (2019). Like me (please?): Connecting online self-presentation to pre- and early adolescents' self-esteem. *New Media & Society*, *21*(11–12), 2386–2403. <https://doi.org/10.1177/1461444819847447>
- Meichenbaum, D. (2012). *Roadmap to resilience: A guide for military, trauma victims and their families*. Institute Press.
- Naslund, J. A., Aschbrenner, K. A., McHugo, G. J., Unützer, J., Marsch, L. A., & Bartels, S. J. (2019). Exploring opportunities to support mental health care using social media: A survey of social media users with mental illness. *Early Intervention in Psychiatry*, *13*(3), 405–413. <https://doi.org/10.1111/eip.12496>
- Perrin, A., & Anderson, M. (2019, April 10). Share of U.S. adults using social media, including Facebook, is mostly unchanged since 2018. *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/>
- Proudfoot, J. G., Wilson, D., Valacich, J. S., & Byrd, M. D. (2018). Saving face on Facebook: Privacy concerns, social benefits, and impression management. *Behaviour & Information Technology*,

- 37(1), 16–37. <https://doi.org/10.1080/0144929X.2017.1389988>
- Seo, M., Kim, J., & Yang, H. (2016). Frequent Interaction and Fast Feedback Predict Perceived Social Support: Using Crawled and Self-Reported Data of Facebook Users. *Journal of Computer-Mediated Communication*, 21(4), 282–297. <https://doi.org/10.1111/jcc4.12160>
- Shaw, L. H., & Gant, L. M. (2002). In Defense of the Internet: The Relationship between Internet Communication and Depression, Loneliness, Self-Esteem, and Perceived Social Support. *CyberPsychology & Behavior*, 5(2), 157–171. <https://doi.org/10.1089/109493102753770552>
- Situmorang, D. D. B. (2020). Online/Cyber Counseling Services in the COVID-19 Outbreak: Are They Really New? *Journal of Pastoral Care & Counseling: Advancing Theory and Professional Practice through Scholarly and Reflective Publications*, 74(3), 166–174. <https://doi.org/10.1177/1542305020948170>
- Stapleton, P., Luiz, G., & Chatwin, H. (2017). Generation Validation: The Role of Social Comparison in Use of Instagram Among Emerging Adults. *Cyberpsychology, Behavior, and Social Networking*, 20(3), 142–149. <https://doi.org/10.1089/cyber.2016.0444>
- Teppers, E., Luyckx, K., A. Klimstra, T., & Goossens, L. (2014). Loneliness and Facebook motives in adolescence: A longitudinal inquiry into directionality of effect. *Journal of Adolescence*, 37(5), 691–699. <https://doi.org/10.1016/j.adolescence.2013.11.003>
- Teutsch, D., Masur, P. K., & Trepte, S. (2018). Privacy in Mediated and Nonmediated Interpersonal Communication: How Subjective Concepts and Situational Perceptions Influence Behaviors. *Social Media + Society*, 4(2), 205630511876713. <https://doi.org/10.1177/2056305118767134>
- Tidwell, L. C., & Walther, J. B. (2002). Computer-Mediated Communication Effects on Disclosure, Impressions, and Interpersonal Evaluations: Getting to Know One Another a Bit at a Time. *Human Communication Research*, 28(3), 317–348. <https://doi.org/10.1111/j.1468-2958.2002.tb00811.x>
- Utz, S. (2015). The function of self-disclosure on social network sites: Not only intimate, but also positive and entertaining self-disclosures increase the feeling of connection. *Computers in Human Behavior*, 45, 1–10. <https://doi.org/10.1016/j.chb.2014.11.076>
- Valkenburg, P. M., & Peter, J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 43(2), 267–277. <https://doi.org/10.1037/0012-1649.43.2.267>
- Valkenburg, P. M., & Peter, J. (2009). Social Consequences of the Internet for Adolescents: A Decade of Research. *Current Directions in Psychological Science*, 18(1), 1–5. <https://doi.org/10.1111/j.1467-8721.2009.01595.x>
- Vigo, D., Thornicroft, G., & Atun, R. (2016). Estimating the true global burden of mental illness. *The Lancet Psychiatry*, 3(2), 171–178. [https://doi.org/10.1016/S2215-0366\(15\)00505-2](https://doi.org/10.1016/S2215-0366(15)00505-2)
- von Pape, T., Trepte, S., & Mothes, C. (2017). Privacy by disaster? Press coverage of privacy and digital technology. *European Journal of Communication*, 32(3), 189–207. <https://doi.org/10.1177/0267323117689994>
- Wilhelm, K., Boyce, P., & Brownhill, S. (2004). The relationship between interpersonal sensitivity, anxiety disorders and major depression. *Journal of Affective Disorders*, 79(1–3), 33–41. [https://doi.org/10.1016/S0165-0327\(02\)00069-1](https://doi.org/10.1016/S0165-0327(02)00069-1)
- Willoughby, M. (2019). A review of the risks associated with children and young people's social media use and the implications for social work practice. *Journal of Social Work Practice*, 33(2), 127–140. <https://doi.org/10.1080/02650533.2018.1460587>