

The impact of social network sites on mental health

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ness, change and cultural diversity. Furthermore, the perception that migrants make a valuable contribution to society and the experience of positive contacts with migrants are predictors of more favorable attitudes^{3,5}.

In contrast, stronger national attachment, feelings of relative deprivation, perceived economic competition and cultural threats, and an authoritarian predisposition in which conformity to social norms is central, explain anti-immigrant sentiments³. Additionally, the perception that immigrants are a burden on society and challenge the *status quo*, and the direct exposure to massive increase in arrivals of refugees, increase hostility towards newcomers.

From a person x context interaction perspective, it can be expected that the role of these personal factors be not uniform. Psychological characteristics will matter more under some conditions than others. For example, people with an authoritarian predisposition are particularly prone to react with increased negativity towards culturally dissimilar immigrants (non-Western, Muslims), who are perceived as normative threatening, rather than towards culturally similar immigrants (Western, Christian). Another example is that people who have economic concerns and worries about crime are more negative towards Eastern European immigrants, whereas those who perceive cultural or terrorism-related threats have more negative views towards Muslim immigrants⁶.

Additionally, individual differences matter more for anti-immigrant attitudes when the proportion of immigrants is higher, the economic situation is declining, and the ideological climate in society is dominated by hierarchy enhancing and *status quo* preserving norms and values⁷. Further, stronger national attachment tends to be associated with stronger anti-immigrant attitudes in non-settler countries, but not in settler countries in which cultural diversity is a constitutive norm of the national identity. Information about immigrants can invoke both feelings of threat and countervailing humanitarian concerns, whereby the former can override the latter, but also the latter can override the former⁸. System justification motivations can be used by politicians and policy makers to garner support for refugees (e.g., "Open hearts and welcoming communities: it's the Canadian way"⁹).

In general, research has demonstrated that people tend to overestimate the number of immigrants and refugees entering their country, and that subjective perceptions are much more important for people's attitudes than actual changes and events. This means that how public policies are being framed and how immigrants are depicted in the media and by politicians is important. It matters whether newcomers are described as a potential threat to the host society or rather as making a valuable contribution and being in need of help.

Apart from those with very strong positive or negative views about immigration, most people are struggling with the challenges and uncertainties that the arrival of large numbers of newcomers imply. Taking their concerns and doubts seriously is critical for broadening public support for immigration and refugee settlement.

Public opposition to immigration can be a major social and political disruptive force and has negative implications for the opportunities of newcomers. Understanding what drives individuals to be positive or rather negative towards immigrants, and when and how the various psychological determinants become less or more important for their attitudes, is crucial for trying to avoid the divisive consequences of migration and increase the successful accommodation of newcomers.

Mass immigration is a global phenomenon affecting most countries, and there is much at stake for societies, communities and individuals, including the mental health of newcomers.

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The impact of social network sites on mental health: distinguishing active from passive use

Social network sites are part of modern life. With over 2.7 billion monthly active users, Facebook is the most popular social network site, though Instagram is rapidly catching up (particularly among adolescents and young adults), with over one billion monthly active users. Other widespread social network sites include Twitter and LinkedIn. Worldwide, people spend on average more than two hours on social network sites each day, sharing billions of messages¹.

Social network sites are a subcategory of social media, which are characterized by three features². Specifically, social network sites allow users to: a) create a personal profile, b) generate a list of online connections, and c) traverse a stream of frequently updated information (e.g., Facebook's News Feed). Many social network sites combine these features with a range of other functions, allowing their users to play games, chat, purchase goods, join groups, or advertise.

The massive adoption of social network sites and the many functions they offer may suggest that using them only has benefits. However, the rapid adoption of social network sites has been accompanied with a growing public concern that these sites undermine rather than enhance people's mental health. In response, a large number of studies examined whether this concern is justified.

Initial research provided mixed evidence, with some studies showing positive effects of social network sites on mental health indicators, while others revealed negative or non-significant effects. However, these studies adopted cross-sectional designs, which do not speak to how social network sites impact mental health indicators over time.

To overcome this hurdle, we conducted an experience sampling study³. Experience sampling involves text-messaging participants multiple times per day for several days, asking them to report on their current thoughts, feelings or activities (e.g., use of social network sites). This method is considered the golden standard to measure behavior and emotional experiences over time within the context of everyday life. Using this approach, we demonstrated that Facebook use predicts declines in mental health over time³.

Follow-up longitudinal studies, large-scale experimental research and meta-analyses converged on the conclusion that use of social network sites has a negative, albeit small and possibly reciprocal, relationship with mental health⁴. Unfortunately, these results have led some media to conclude that social network sites are inherently bad and should be avoided at all costs.

Social network sites allow for a wide range of activities, and evidence is accumulating that their impact critically depends on how the technology is used. A key distinction pertains to active versus passive use⁵. Active use refers to activities that facilitate direct exchanges with others, and encompasses both targeted one-on-one exchanges (i.e., direct communication) and non-targeted exchanges (i.e., broadcasting). Passive use refers to monitoring the online life of other people without engaging in direct exchanges with them. While active use is mainly about information production (e.g., posting a status update or sending private messages on Facebook), passive use deals with information consumption (e.g., scrolling through news feeds or looking at other users' profiles).

We conducted an experience sampling study to examine the possible differential impact of active and passive Facebook use on mental health⁵. We found that passive use predicted a decline in affective well-being over time, while active use did not influence well-being. Follow-up studies provided further evidence for a negative (possibly reciprocal) relationship between passive use of social network sites and mental health, and revealed that certain subcategories of active usage can have a positive effect on mental health⁶.

Overall, these findings illustrate that social network sites are not "good" or "bad". Their mental health consequences critically depend on how these sites are used. Unfortunately, usage statistics reveal that passive use is more frequent than active use, which implies that many people use social network sites in a suboptimal manner⁵.

Why do active and passive use differentially impact mental health? Many psychological mechanisms have been proposed, but social comparison and social capital accrual are the two mechanisms that have been implicated most frequently⁷.

Social comparison refers to upward (i.e., other is better) and downward (i.e., self is better) comparisons with other people on a particular dimension (e.g., appearance or success). People tend to portray a rosy picture of themselves on social network sites, by predominantly sharing their successes rather than their failures^{3,5}. Passively consuming this so-called success theatre often results in upward social comparisons, and associated feelings of envy or inferiority. A large number of studies has confirmed that the negative impact of passive use of social network sites on mental health is indeed driven by damaging social comparisons⁷.

Social capital accrual is often proposed to underlie the positive impact of active use of social network sites on mental health. Social capital accrual is further broken down in bridging (i.e., access to new information and perspectives typically provided by weak ties) and bonding (i.e., emotional and instrumental support typically provided by strong ties). Facebook's mission statement to "give people the power to build community and bring the world closer together" reflects the potential of social network sites to increase social capital. Consistently, a number of studies show that the positive consequences of active use on mental health are driven by increases in social capital⁷.

In sum, do social network sites threaten our mental health? The literature suggests that much depends on whether their use is active or passive, unless there are signs of social network site addiction⁸, or cyberbullying is involved. When engaging actively with social network sites, one may feel more connected, which positively influences mental health. In contrast, passive use of social network sites is negatively related to mental health, especially when this use results in feelings of envy or inferiority rather than social connection.

Future research examining subcategories of active and passive use, as well as research on additional explanatory psychological processes (e.g., distraction, multi-tasking, information overload, and social displacement)⁹ is needed to further refine our understanding of the impact of social network sites on mental health.

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