

Promising public health approaches to address the effects of social media use on the mental health and wellbeing of the community

A review of reviews and grey literature scan

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Declarations of Conflict of Interest

The authors have no conflicts to declare.

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EXECUTIVE SUMMARY

BACKGROUND & METHODS

Beyond Blue commissioned a rapid review of reviews and grey literature scan to respond to the questions:

What are promising public health interventions to address the effects of social media use on the mental health and wellbeing of the community?

1. What interventions are particularly effective within the domains of digital mental health service delivery, social marketing campaigns, and policy influence and dialogue?
2. Where do effective interventions map on the social ecological model (e.g. individual, relationship, community, and society levels)¹?

FINDINGS

Before reading the findings, the reader should consider that:

- The relationship between social media and mental health is complex and the science is not settled in many sub-topics

Individual – Digital mental health interventions involving social media

- There is clear support for the idea of supplementing face-to-face mental health interventions with social media-delivered information, education, and self-assessments.
- Some digital mental health psychotherapy interventions (which can be provided or advertised on social media) have been found to be as effective as face-to-face versions of those interventions.

Individual – Providing greater access to information and development of skills

- Social media literacy (which can be delivered via social media) can reduce “problematic” social media use and this is associated with better mental health outcomes.

Individual – Chatbots

- Some chatbot interventions were found to support the management of anxiety and depression.

Individual – Addressing social media use with therapeutic interventions

- Cognitive Behavioural Therapy has been shown to be effective at reducing social media use that is associated with negative mental health outcomes.

Individual – Body image

- Social media content that promotes positive body image is most effective when it diverges from appearance ideals.

Relationship – Accessing peer, family, and community support

- Social media platforms provide important opportunities for informational, social, emotional, and other forms of support from peers and larger communities.

¹ The social ecological model helps to conceptualise an issue within the diverse facts that might affect it. Built on the foundational theoretical work of Urie Bronfenbrenner, there are a range of adaptations of the model. Broadly speaking, it conceptualises an issue as being shaped by factors across individual, relationship, community, and societal level, as well as the interactions between those levels.

- Digital interventions (including those that use social media) that involve human support elements, such as professional, peer, or parent or other caregiver involvement, tend to be more effective, have higher adherence rates, and lower dropout rates compared to fully automated or self-administered interventions.

Community – Campaigns, advocacy, including increased reach and better targeting

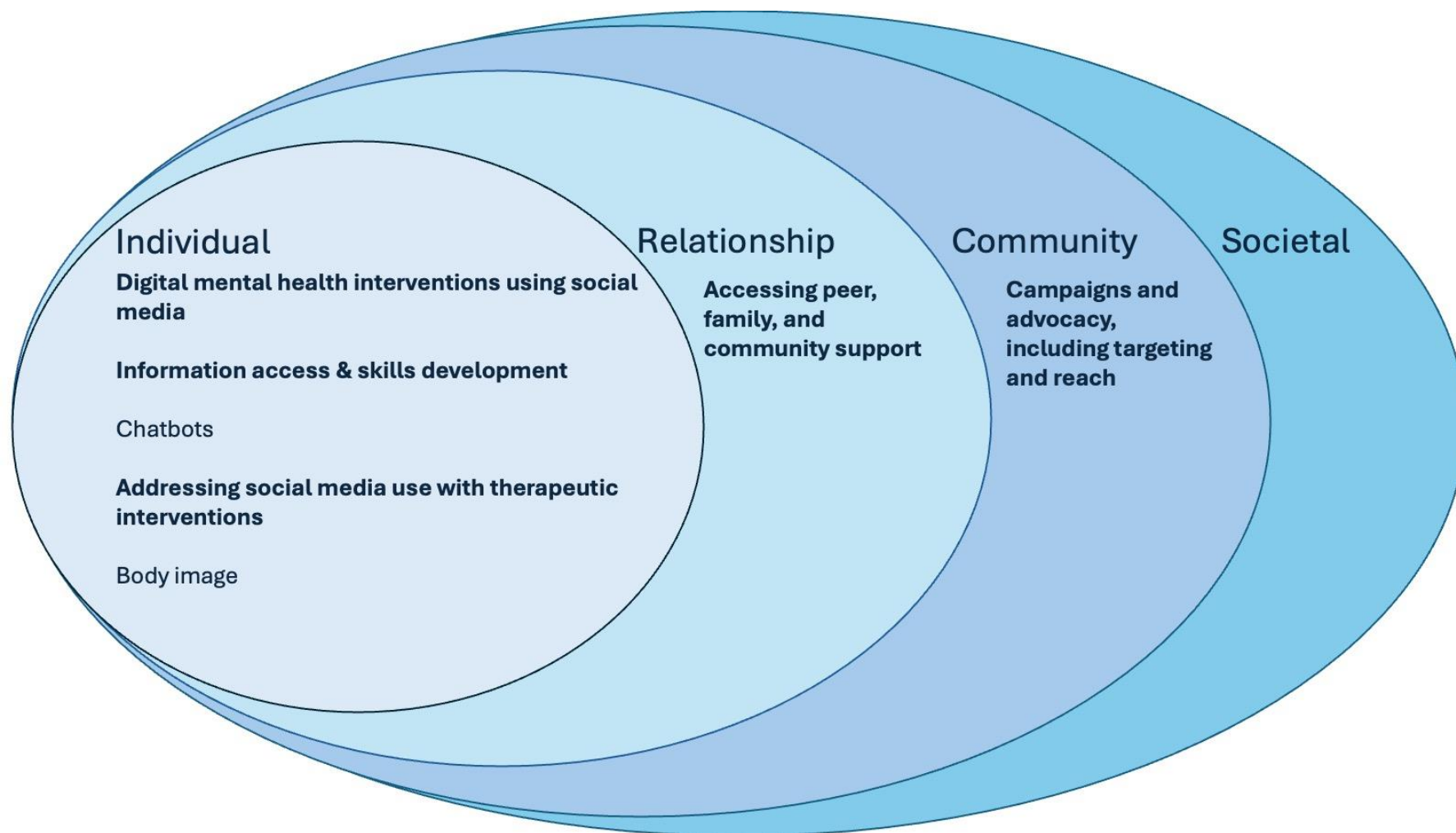
- Social media data can potentially be used to target people experiencing some mental health conditions.
- Social marketing campaigns are effective for awareness raising, and may also be effective for behaviour change, however these outcomes are difficult to measure.
- Celebrity disclosure of experience with mental health issues can support anti-stigma work, however, there are important caveats to consider when designing a campaign.

KEY CONSIDERATIONS AND WAYS FORWARD

Several of the included studies provided insights and suggestions as to how action can be taken in relation to the subjects included in the report. This section summarises the potential ways forward posed by included papers and do not necessarily represent the views of the authors of this report.

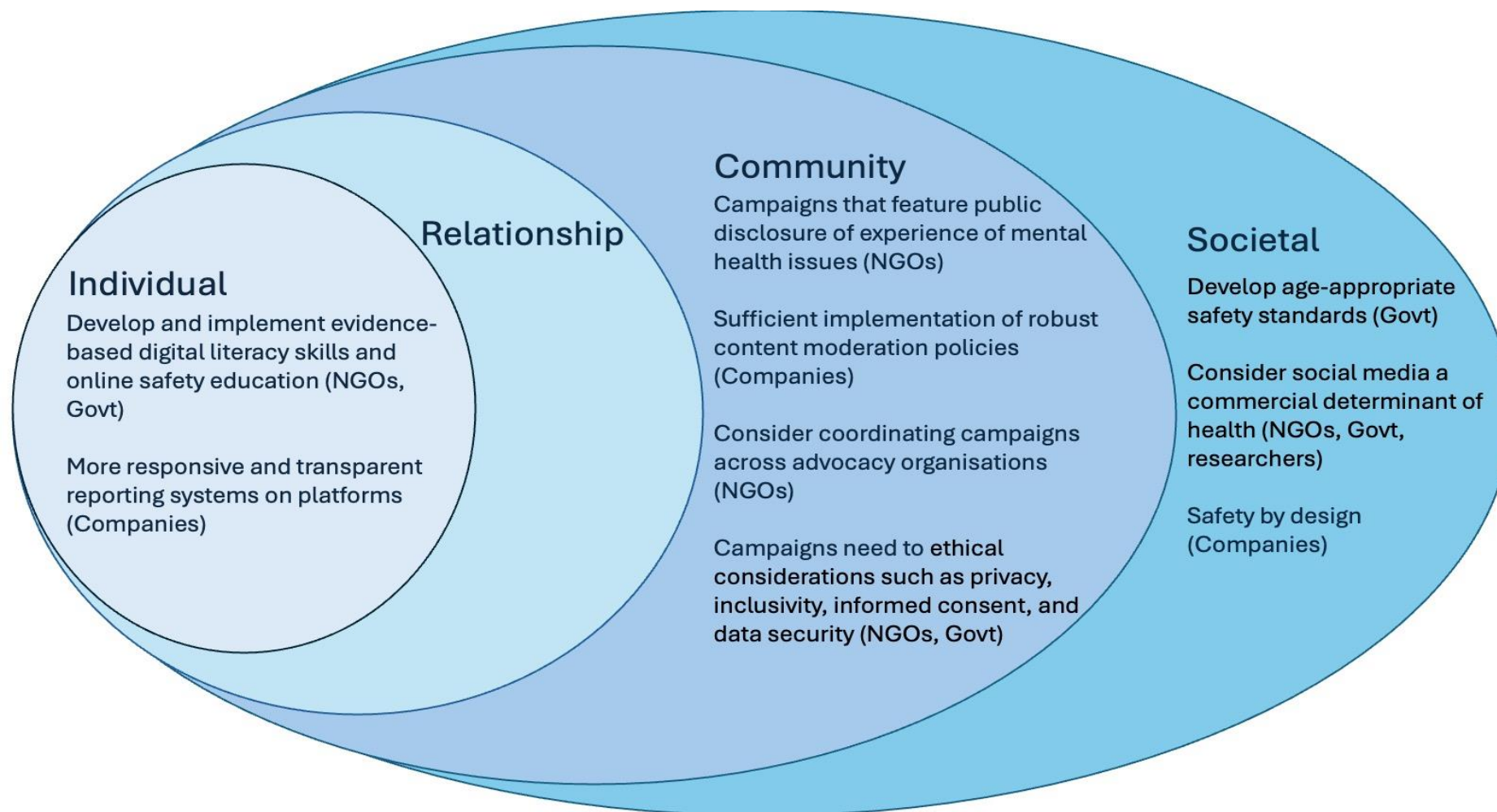
- Policymakers can develop age-appropriate health and safety standards for social media companies, create means to require higher data privacy standards relating to children, and support the continued development of evidence-based digital literacy initiatives.
- Policymakers and researchers can consider social media a commercial determinant of health.
- Advocacy organisations can better coordinate their efforts for greater impact in using social media to set the public agenda around social media and mental health, support the development and promotion of evidence-based digital literacy and safety education materials, engage end users in the design of interventions, and develop a better ability to consider ethical issues such as privacy, inclusivity, and data security to ensure responsible and effective use of these technologies.
- Several reports from the grey literature search also highlight that social media companies need to play a larger role in identifying and addressing issues raised in this report, including:
 - avoiding business practices and platform design approaches that prioritises engagement over risks to safety and rights and, rather, focus on safety by design
 - ensuring that content moderation policies and implementation approaches are up to the task of protecting people’s rights and safety, as well as equity focused, intersectional, and trauma-informed
 - developing greater transparency and responsiveness in reporting systems on social media companies
 - developing more opportunities to use social media companies’ proprietary data for research
 - ending opposition to macro-economic policies that place private sector interests above the health of the community
- Researchers should engage in longer-term research with adequate sample sizes, engage in further efforts to agree on key definitions, even in relation to social media itself; undertake more experimental and evaluation research to understand what works; and provide greater detail about the designs of platforms and the impact of content hosted on these platforms.

Figure 1. Overview of key findings mapped on the social ecological model²



² Please note several intervention types function on multiple social ecological models. Moreover, the absence of content on one level or another does not necessarily mean that there is no review-level evidence in this field, only that it was not captured by this review.

Figure 2. Ways forward suggested by reviewed papers and mapped on the social ecological model³



³ It is important for the reader to note that these 'ways forward' are summarised from the articles and reports reviewed and are not the result of an analytical process related to the report findings.

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OVERVIEW OF BACKGROUND, RESEARCH QUESTION, AND METHODS

BACKGROUND AND RESEARCH QUESTION

There is substantial discussion about how to better manage the effects of social media on our communities – among the proposed solutions are a ban for under 16-year-olds or adding warning labels to platforms.

The impact of social media use on mental health is complex. Social media has been shown to have both positive and negative effects, however, there is growing concern and desire for action to counter the most substantial negative effects of social media which include, but are not limited to:

- Cyberbullying
- Issues with body image
- Decreased life satisfaction
- Higher levels of psychological distress
- Prolonged use is associated with anxiety and depression
- Loneliness
- Sleep issues
- Disassociation

Moreover, social media has some demonstrated positive effects on mental health that should also be considered when designing programs and policies. These include but are not limited to:

- Finding social support and building of community
- Conveying messages that de-stigmatise mental health concerns
- Providing access to reliable expert health information.

Beyond Blue's Strategy 2023+ includes commitments to digital innovation as a way to support earlier intervention and provide leadership in positive systems and social change. As the national discussion in Australia about how to manage social media's negative effects intensifies, it is increasingly important to understand the evidence on what works to counter the negative effects of social media, as well as foster the potential positive role that social media can play in mental health.

To improve this understanding, Beyond Blue commissioned a rapid evidence review to identify public health approaches for addressing social media's negative effects and fostering its positive effects, including gaining an understanding of how approaches delivered via social media may benefit the community. Beyond Blue is seeking these insights to support their ability to deliver digital services, as well as contribute to policy positions, campaigns, informed debate and thought leadership about the role of social media. The process also included identifying where solutions map onto the social ecological model (e.g., individual, community, or societal levels) and where evidence gaps exist.

The research questions for this project were:

What are promising public health interventions to address the effects of social media use on the mental health and wellbeing of the community?

- What interventions are particularly effective within the domains of digital mental health service delivery, social marketing campaigns, and policy influence and dialogue?

- Where do effective interventions map on the social ecological model (e.g., individual, community, and society levels)?

METHODOLOGY

High-level overview (detail provided in Appendices)

This project was designed and implemented to address the research questions within the timeframe and scope of the project.

The report findings are based on a methodology that involved two components. First, a scoping review of reviews was undertaken by the research team. This method sought to gain a relatively comprehensive picture of what review-level evidence⁴ has been published on the research question since 2020. Frequently, when asking a broad research question like the one for this project, a review of reviews can most efficiently provide a high-level snapshot of the state of current academic knowledge on a subject. There are a few key aspects of the review of reviews method used to produce this report that should be mentioned here. The approach included:

- A comprehensive, reproducible search using multiple databases designed by a specialist librarian to ensure that the research team is able to identify as many relevant studies as possible
- The use of a pre-established set of inclusion and exclusion criteria, with two different individuals assessing each potential paper against those criteria to ensure that we have systematically identified all the relevant papers in the wider set that resulted from the search
- A systematic data extraction and thematic analysis process to identify trends across the included studies

Additional details about the methodology have been included in Appendices 1-3, relating to the review protocol/methods, search strings, and document selection process (using the Preferred Reporting Items for Systematic reviews and Meta-Analyses, PRISMA).

The second method used to produce this report was a non-systematic “hand search” of several academic and grey literature databases and document collections on organisational websites. Potentially relevant documents were compiled by a specialist librarian and research team member reviewed them for relevance and made a subjective decision about whether or not to include them in the analysis. The documents are identified in this component of the project or comprised of both peer-reviewed journal articles and grey literature from organisations like peak mental health bodies and think tanks and were assessed by the researchers for credibility. One member of the research team identified relevant text in each of the included documents and used thematic analysis to organise them.

Due to the overall purpose of this project, the findings from these two components are presented together to allow for a more cohesive narrative within the report. Documents identified using the review of reviews are denoted with an (*).

⁴ A review refers to a peer reviewed journal article that synthesises the results of several individual primary research projects that have been published. This report is based on a review of reviews that includes several different potential review methodologies including systematic reviews, narrative reviews, scoping reviews, among others.

Key Limitations

Limitation 1: Multiple complex concepts may limit the comparability of reviews

The project's research question included four complex concepts. The research team sought to ensure consistency within the review of reviews process by providing some key parameters about how each of the concepts were defined, for example:

- **Social media** could include many-to-many, one-to-many, or one-to-one communication. As a result, apps with one-to-one communications functionality (e.g., WhatsApp or mental health apps with messaging or video functions) as well as platforms like YouTube were includable
- **Addressing impact** could mean either a) approaches to promote positive and mitigate negative mental health impacts of social media and/or b) social media's use as a delivery mechanism for mental health focused interventions.
- **Public health interventions** were broadly understood based on Litvak et al.'s (2020) typology, which is quite inclusive. Litvak et al.'s (2020) typology broadly includes two categories: "(1) interventions targeted directly towards the population, including services provided by public health staff to individuals and groups, and (2) interventions targeted towards third parties who work with the population, and therefore carried out indirectly by public health teams..." (pg 67). Given that social media enables community- and/or population-level outreach for interventions focused on the individuals these were also included. The broad definitions used for social media and addressing impact, used in conjunction with this conceptualisation of public health interventions, meant that the author team encountered challenges in clearly typologising the interventions included in this review.
- **Mental health and wellbeing** outcomes were also advised to be considered in the broadest sense possible.

These parameters were established in the commissioning conversation with Beyond Blue. Although these parameters were provided, the complex and multifaceted nature of this review means that there are quite a wide range of interventions and study methodologies included, and therefore it is difficult to compare the findings across multiple reviews within the project without further consideration or study.

Limitation 2: Time and project scope constraints limited the team's ability to include all potentially relevant grey literature

The scope and time frame of the project limited the research team's ability to include all relevant documents. Indeed, a researcher could spend many weeks or months identifying additional relevant great literature on the subject. The research team is confident that the search identified several valuable documents and insights however, it is very likely that there are still several more highly relevant and useful documents that could be considered in a review responding to this question.

FINDINGS

DESCRIPTION OF PAPERS INCLUDED FROM THE REVIEW OF REVIEWS

The comprehensive search involving multiple databases resulted in 1,870 potential papers for inclusion in the review of reviews after the deduplication. Title and abstract screening resulted in 69 studies for full text screening. In the end, 28 papers were included in the review of reviews. Please see Appendix 3 for a diagram depicting this process.

The included study types were: 15 systematic reviews, 6 narrative reviews, 6 scoping reviews, and one meta-analysis.

Although many age groups are represented across the studies within the included reviews, there was a higher number of studies focused on young people.

Due to the broad nature of the research question, it was possible to include both reviews focused on interventions to address the effects of social media on mental health (12 papers), as well as reviews focused on interventions that use social media as a tool for delivering some form of mental health intervention (18). Two papers included primary studies with both of these foci.

Lastly, the methodological quality of the included reviews was overall very high, with only four of the 28 reviews achieving the quality score that is outside what the research team would consider a high-quality range.

For a detailed account of the content of each of the studies from the reviews of reviews, please refer to Table 1.

CRITICAL BACKGROUND AND CONTEXT FOR NARRATIVE FINDINGS

The relationship between social media and mental health is complex and the science is not settled in many sub-topics

While reading this report, it is of critical importance that the readers bear in mind that the relationship between mental health and social media is complex, multifaceted, and very frequently not settled science. There is evidence associating social media use with both positive and negative impacts on mental health and wellbeing (See Bradshaw, Samantha & Vaillancourt, Tracy, 2024; Ferguson, 2024; Harness et al., 2023; Hung, 2022; Weinstein, 2023*; Yue & Rich, 2023)

Several studies indicated that "...how, why, when, and by whom social media are used..." (See Yue & Rich, 2023, pg 157; Strudwick et al., 2021) can all meaningfully dictate the type of effect it has on mental health. This dynamic can be seen in the key issues highlighted by recent studies about different communities in Australia. For instance, LGBTIQ+ teens were found to experience negative impacts (e.g., hate speech, discrimination and non-consensual sharing of personal information) more intensely than the national average, but also more frequently take action in response to negative experiences (Australian eSafety Commissioner 2024), whereas another study found that to realise the potential benefits of social media for Indigenous young people, addressing internet access issues may be a critical component of program success (Walker et al., 2021).

This complex relationship demonstrates that there is a need for further research on the impacts of social media on mental health, as well as the interventions that are aimed at addressing negative impacts and those that promote positive ones.

There are several reviews that did not meet the inclusion criteria for this review but are relevant to considerations about which interventions to pursue and how to tailor social media messages for greater reach and more influence over behaviours

Several reviews without a specific focus on mental health (Castiglia et al., 2023; Saleem et al., 2021; Schroerer et al., 2021; Stark et al., 2022) find that social media is a valuable tool for supporting public health and health promotion interventions in relation to:

- Providing greater access to information
- Increasing the reach and/or better targeting of interventions
- Finding peer and community support
- Supplementing and improving the efficacy of other interventions
- Lowering intervention costs

Moreover, another review (De Vere Hunt & Linos, 2022) focused on social media and public health interventions provided a suggested framework for effective health promotion messaging via social media, including the need to:

- Tailor and target messages to specific populations
- Involve members of target populations in the development of messages
- Ensure that misinformation is identified and addressed
- Ensure that posts are designed in a manner that makes it easy to re-share them
- Build-in evaluation of real-world impacts into intervention designs

The authors of the above framework suggest that these approaches will create campaigns with greater reach and are more likely to influence behaviours.

PROMISING INTERVENTIONS OR APPROACHES

Individual – Digital mental health interventions⁵ involving social media

Key messages:

- **There is clear support for the idea of supplementing face-to-face mental health interventions with social media-delivered information, education, and self-assessments.**
- **Some digital mental health psychotherapy interventions (which can be provided or advertised on social media) have been found to be as effective as face-to-face versions of those interventions.**

⁵ *The research team identified a relatively rich literature on individual-focused interventions that used social media as a component of the intervention. Based on the definitions mentioned above, the research team included reviews that focused on interventions that may have expanded reach or access due to using social media as a component. Moreover, because the definition of social media included one-to-one forms of communication like video calling on WhatsApp, this opened the door for several modes of delivering digital mental health services as potentially includable.*

A review of social media in public health programs, without a specific focus on mental health, found that supplementing projects with social media-based components like sharing opportunities to participate in an intervention or information about self-management of health issues may be effective for increasing user engagement and encouraging behaviour change (Castiglia et al., 2023).

Specific to mental health, web-based or computer-based digital mental health programs, including social media-based components for psychoeducation, self-help therapy, journaling, assessments, medication reminders, and motivational interventions were seen as promising (Philippe et al., 2022*). Moreover, the study broadly found that digital mental health interventions were as effective as face-to-face treatment **when guided by a therapist** (Philippe et al., 2022*). They also found that synchronous contact (phone/video calls) is generally more effective for treatment and assessment, while asynchronous methods (text/email) are better for ongoing support and reminders (Philippe et al., 2022*). However, without guidance, effectiveness drops significantly (Philippe et al., 2022*).

Web- and smartphone-based mental health psychotherapy interventions for conditions like depression and anxiety (some of which may meet the social media definition applied in this study) were found to be as effective as face-to-face for children and young people (Liverpool et al., 2020). Similarly, the research on single session interventions (SSIs), which are defined as “specific, structured programs that *intentionally* involve just one visit or encounter with a clinic, provider, or program” (Schleider et al., 2020), suggests that due to their scalable, accessible nature, integrating SSIs delivered via social media into existing systems and care is an ideal step, especially in low-resource settings, but that this should not be seen as an alternative to established approaches (Ghosh et al., 2023*). It found that that single-session interventions delivered via social media have shown effectiveness for various mental health conditions, including depression and anxiety in young people, but they may not be as effective for all symptoms/behaviours (e.g., self-harm) (Ghosh et al., 2023*).

Digital mental health literacy interventions (some of which can be delivered via social media) have demonstrated efficacy for increasing knowledge and attitudes that are supportive of mental health as well as reducing reported symptoms of some mental health conditions. This finding was particularly prominent for digital mental health interventions in conjunction with other active treatment (Yeo et al., 2024). It also found that digital mental health interventions were as effective as face-to-face interventions (Yeo et al., 2024). Another study focused on digital mental health interventions for young people noted that they held promise for improving mental health, but further noted that young people were more inclined to engage with an intervention if they were implemented on credible platforms (e.g., trusted brand names that were familiar to them) and those that facilitated conversations with others as it gave them a sense of connectedness (Liverpool et al., 2020*). The key factors that influence engagement include usability, personalisation, and the ability to connect with others (Liverpool 2020*).

For suicide prevention, there is a critical need to better understand if a range of telehealth interventions (including those with a social media component) can effectively prevent suicide. The authors of one review indicated that such tools can provide a potentially valuable supplement to existing interventions, but they should not replace existing interventions with demonstrated effectiveness until more research has been done (Forte et al., 2021*).

Specific to mental health, self-help tools supporting victims of domestic violence, Su et al., (2022*) found that self-guided content can be empowering for users to manage their mental health independently, especially when used alongside social apps like WhatsApp or WeChat to gain social support or engage in online psychotherapeutic care. However, the authors

also warn that these interventions are often victim/survivor focused, thereby potentially placing responsibility for the mental health outcomes on victim/survivors, rather than on focusing on perpetrators or on community- or societal-level drivers of violence (Su et al. 2022*).

Lastly, a study focused on digital mental health interventions to support population mental health during the COVID-19 pandemic in Canada provides some useful insights into potential barriers and facilitators of the effectiveness of delivering mental health support via social media (Strudwick et al., 2021). It should be noted that the study considered mobile apps as well as a range of types of web-based resources, including telemedicine, virtual peer support⁶ groups, and discussion forums. Many of the design considerations noted by this review are likely directly applicable social media-based interventions. Strudwick et al., 2021 (pg 6) describes several barriers and facilitators that impact the adoption and utilisation of digital mental health interventions (related to the technology, the users, and the supporting context or processes in its uptake). Barriers included difficulties in using the technology, mistrust in its security, legal restrictions on certain care forms⁷, lack of data interoperability, challenges in forming therapeutic relationships due to technology issues (e.g., phone consultations can make it harder for physicians to build rapport and trust with patients), and poor connectivity. Facilitators, on the other hand, include organisational support such as help desks, access to necessary technology and training, availability of specific mental health care, affordability, and the option for users to remain anonymous if desired.

Individual – Providing greater access to information and development of skills

Key messages:

- **Social media literacy (which can be delivered via social media) can reduce problematic social media use⁸ and this is associated with better mental health outcomes.**

There is some evidence that social media literacy interventions (some of which are delivered via social media) can support modest improvements in mental health outcomes (Burnell et al., 2024*; Herriman et al., 2024*). Specifically, the Burnell et al., (2024*) study pertained to clinicians' clients and reflected that interventions that support individuals in having positive engagements with social media content, rather than encouraging abstinence, would be most effective (Burnell et al., 2024*). The authors described that clinicians tailor the types of media literacy programs they encourage their clients to use. At the centre of this approach ensuring that clients engage in literacy programs that educate them about the types of harmful content that they may encounter online. For example, some interventions focus on the “unrealistic nature of social media”, while others may focus on the “targeted nature of social media advertising”, or “how social media features are designed to keep users engaged and maximize profit for tech companies” (See pg 4). Their reviews finds some positive effects from exposure to body positive content, expressing gratitude, viewing the

⁶ Peer support was defined quite broadly across the reviews in this report and can encompass forms of support provided by both trained and untrained peers. Broadly, it included concepts like listening, sharing of experiences and encouragement. However, the level of detail provided by some reviews does not allow us to characterise the specific methods used in some cases.

⁷ E.g. limitations on obtaining a prescription for medication without an in-person visit to a clinician.

⁸ There is not consensus about the definition of problematic social media use (Bányai et al. 2017), however, the field is moving towards a definition that includes addiction-like symptoms (Shannon et al. 2022). The definition of problematic use in the Herriman review is not noted, as it is only one measure among several, used in only a subset of included papers. The U.S. Surgeon General indicates that young people who spend more than three hours per day on social media face double the risk of experiencing poor mental health outcomes, such as symptoms of depression and anxiety.

content of close friends, and reminiscing on positive past content, among others (Burnell et al., 2024*).

Herriman et al.'s (2024*) study pertained to participants of interventions designed to reduce the negative impact of highly visual social networking sites (e.g., Instagram) of any age, in any country and environment. The social media literacy programs were a "...2 [session] x 50 min social media literacy program (SoMe program); [a] 3 [session] x 50min social media literacy program (BOOST); [a] 5 [session] x1 hr social media literacy program; [and a] 1-hr interactive social media education session (Digital Bodies)..." (pg 122). All of the programs were clinician led and involved interactive group sessions. Depending on the focus and format of the program, they observed improvements in body satisfaction, self-esteem, problematic internet use, and depression and anxiety scores (Herriman et al., 2024*, see pg 122).

Related to the above findings, digital social capital interventions (some of which are delivered via social media), have been found beneficial in improving social health⁹. Digital social programs provide a safe and controlled environment for individuals to practice social interactions, potentially improving their comfort and proficiency in real-world social situations (Salehi et al., 2021*). These interventions provide open and flexible access to resources through supportive networks and provide a safe and controlled environment for individuals to practice social interactions, potentially improving their comfort and proficiency in real-world social situations (Salehi et al., 2021*). Self-help tools like these can enhance self-efficacy by providing resources and strategies that individuals can use to manage their social skills deficits, which can lead to improvements in confidence and independence (Salehi et al., 2021*). The authors argue on the basis of this study that "a combination of social skills training with guided discussions...[on]...social network services (e.g., Facebook) have a great potential in reducing loneliness, and enhancing the quantity ... quality of connections." (pg 783)

Individual – Chatbots

Key message:

- **Some chatbot interventions were found to support the management of anxiety and depression.**

A review investigating the application of AI-chatbots, which may be accessed via social media, provides insights into their effectiveness in supporting people's mental health during the COVID-19 pandemic. It found that AI chatbots played a significant role in addressing the negative impacts of the COVID-19 pandemic by improving healthcare access and quality through personalised, timely support and information (Mahdavi et al., 2023*). These services provided both monitoring and support services in situations like home quarantine, and in one case were found to help manage anxiety and depression (Mahdavi et al., 2023*). However, further research is needed to evaluate their effectiveness and usability in different healthcare areas (Mahdavi et al., 2023*).

One review (Okoro et al., 2024*) investigated the role, impact, and future directions of digital tools like social media, mobile applications, virtual reality, and artificial intelligence in mental health advocacy efforts. It found that chatbots and virtual mental health assistants utilise natural language processing and machine learning algorithms to interact with users, providing support, resources, and coping strategies (Okoro 2024).

⁹ This review leaves social health undefined, but social health outcomes were defined as "variables related to social aspects of health" (p. 781). They note that health and wellbeing can be influenced by social capital.

Individual – Addressing social media use with therapeutic interventions

Key message:

- **Cognitive Behavioural Therapy has been shown to be effective at reducing social media use that is associated with negative mental health outcomes.**

Additionally, a review of interventions designed to reduce the negative impacts of highly visual social networking sites, found that use reduction or abstinence interventions were effective (Herriman et al., 2024*). The study observed positive mental health outcomes related to affect, life satisfaction, social connection, and self-esteem (Herriman et al., 2024)*.

Cognitive Behavioural Therapy¹⁰ (CBT) was identified by multiple reviews as a therapeutic approach that is effective for reducing “problematic” social media use that might result in negative mental health outcomes. Weinstein (2023*) found that CBT-based short-term abstinence interventions for problematic social networking site (SNS) use improved emotional wellbeing, behavioural, and cognitive functions during and after abstinence from social media use. The review also found preliminary evidence to suggest that “detoxification” from social media can increase positive mood, reduce anxiety, and improve sleep among university students (Weinstein, 2023*). Another review of several therapy-based interventions, which included a range of therapies including CBT and group based psychological counselling, found that 83% of studies showed improvements in mental wellbeing (Plackett et al., 2023*). It also found that full abstinence focused programs had mixed results, with 42% of studies showing mixed effects, 33% showing no effect, and 25% showing improvements (Plackett et al., 2023*). Limited use was the least effective interventions with 60% of studies showing no effect, 20% showing improvements, and 20% showing mixed effects (Plackett et al., 2023*).

Individual – Body image

Key message:

- **Social media content that promotes positive body image is most effective when it diverges from appearance ideals.**

There is a growing body of evidence that supports the relationship between body positive social media content and lower levels of body image concerns, as well as higher levels of positive body image (Rodgers et al., 2022*). Image-based social media platforms like Instagram, Pinterest, Tumblr, and Flickr are increasingly used for health-related information and communication (Fung et al., 2020*). More than half of the studies in a review of the public health implications of image-based social media were related to mental health and substance abuse, with significant focus on issues like body image and eating disorders (Fung et al., 2020*). Notably, the portion of the review focused on mental health found that pro-anorexia content, “thinspiration” images, and fitspiration messages on platforms like Instagram and Pinterest contribute to body dissatisfaction and disordered eating behaviours (Fung et al., 2020*). Moreover, viewing “thinspiration” content was associated with poorer self-compassion, whereas self-compassion quote content or self-compassion quotes showed better body satisfaction, self-compassion, and reduced negative mood (Fung et al., 2020*).

A review exploring the empirical evidence of the types of social media content that can support positive body image found that there is good support for content that promotes positive body image, content that does not include images of individuals, and content that portrays appearances that diverge from appearance ideals (Rodgers et al., 2021*). The

¹⁰ Cognitive behavioural therapy is a form of psychotherapy focused on challenging and changing thoughts, beliefs, and attitudes and their associated behaviours.

authors also found that :“...through the use of algorithms that are designed to tailor content to personal interests with the goal of increasing engagement with the platforms (which generates profit), social media platforms tend to lead users towards engagement with increasingly polarised content that refracts and reflects interests and preoccupations...” (Rodgers et al., 2021,pg 34). However, the tailoring of content can work in potentially positive directions as well, for instance, if they indicate a preference for images with hashtags about images not having been altered (e.g., “#unedited”), they may reduce their personalised feed from being populated with potentially harmful content (Rodgers et al., 2021*). However, the empirical data supporting these findings are limited and not robust (Rodgers et al., 2021*). More research is needed to understand which types of body positive content are most effective in preventing and decreasing body image concerns. Additionally, this study notes that the effectiveness of images in supporting positive body image in individuals is complex and is the result of interactions between individuals, their environment, and the particular type of body positive content (Rodgers et al., 2022*).

Relationship – Accessing peer, family, and community support

Key messages:

- **Social media platforms provide important opportunities for informational, social, emotional, and other forms of support from peers and larger communities.**
- **Digital interventions (including those that use social media) that involve human support elements, such as professional, peer, or parent involvement, tend to be more effective, have higher adherence rates, and lower dropout rates compared to fully automated or self-administered interventions.**

There is work on social media’s use to access support that indicates that these platforms can provide important opportunities for informational, social, emotional, and other forms of support (Chen & Wang, 2021). Reviews focused on peer and community support indicated that social media holds promise for helping young people access social and emotional support, for recruiting individuals into interventions, and for promoting psychoeducation interventions (Kruzan et al., 2022*). Mental health outcomes commonly measured include depression, anxiety, wellbeing, stress, and social support (Kruzan et al., 2022*). Most studies reported significant improvements in these outcomes, though the effect sizes were generally small to moderate (Kruzan et al., 2022*). Moreover, young people tend to appreciate the ability to connect with peers and find emotional support and relief from distress by using social media platforms, YouTube, and online forums (Lupton, 2021*).

A review on digital health interventions targeting young people found that digital interventions (including those that use social media) that involve human support elements, such as professional, peer, or parent involvement, tend to be more effective, have higher adherence rates, and lower dropout rates compared to fully automated or self-administered interventions (Lehtimaki et al., 2021*). A review of youth and family engagement in mental health treatment found that social media being used in relation to information, social connectivity, and increasing agency increased the benefit of some interventions (Graham et al., 2024*). Effective engagement requires integrating family and youth voices at all levels of care. Integrating these technologies thoughtfully is essential to maximise benefits while addressing ethical and equity concerns (Graham et al., 2024*). Additionally, a review of digital health interventions for mental health treatment found that discussion groups, forums, and social media spaces likely increase patient engagement and adherence to treatment across several conditions (Philippe et al., 2022*). Another review reflected these findings specifically for LGBTQ+ youth, however, it also noted that online spaces come with greater potential risks for this cohort including discrimination, hate speech, and bullying (Liu et al., 2023*).

Overall, research suggests that social media platforms can provide safe online spaces for gaining peer and wider community support, however, because the scholarship on this topic is still emerging, many studies indicate that future interventions need to be carefully designed and studied/evaluated.

Community – Campaigns, advocacy, including increased reach and better targeting

Key messages:

- **Social media data can be used to potentially target people experiencing some mental health conditions.**
- **Social marketing campaigns are effective for awareness raising, and may also be effective for behaviour change, however these outcomes are difficult to measure.**
- **Celebrity disclosure of experience with mental health issues can support anti-stigma work, however, there are important caveats to consider when designing a campaign.**

A systematic review of the validity of screening¹¹ for depression using social media platforms found that there were observable differences between online behaviour of depressed individuals and people who were not depressed on Facebook, Instagram, and Twitter (Kim et al., 2021). These studies used a range of techniques to a) gather and analyse social media text and behavioural data from participants and b) assess their clinical depression status. Social media data were analysed either manually by human coders or using automated techniques like machine learning. On Facebook, one included study found that depressed people use more first-person pronouns, and may use several language markers, including using words related to pain, depressive symptoms, aggressive emotions, and rumination (Kim et al., 2021). Another study found that, on Twitter, users often use past focused and ruminative language if they are depressed. On Instagram, a study found that there were differences in “follower patters, photo posting and editing, and linguistic features between depressed and nondepressed people” (pg 367 Kim et al., 2021). Finally, one included found that there was a difference between depressed and individuals and those who are not in the number of negative emotions expressed in status updates (Kim et al., 2021). One study in the review even found some predictive modelling tools performed similarly to GPs in their ability to identify depressed individuals (Kim et al., 2021).

One review underlined the value of social media for raising awareness about mental health (Hamilton et al., 2023*). Digital interventions leveraging social media can be effective in promoting mental health outcomes among adolescents. These interventions include mindfulness and values-alignment strategies to help self-regulate social media use and limit excessive scrolling (Hamilton et al., 2023*).

Moreover, another review focused on social media as a tool for health promotion beyond awareness-raising found that social media can support interventions to change behaviours, but that such changes are difficult to measure and that changes may occur outside of campaign follow up periods (Ghahramani et al., 2022*). This review conceptualised two primary uses for social media in health promotion, a) to deploy interventions to make a change occur, or b) to observe changes occurring in a community. The review found that among the included studies, Facebook and YouTube were generally more frequently used for campaigns focused on behaviour change interventions, whereas Instagram and Twitter were generally used more so to observe changes in behaviour (Ghahramani et al., 2022*).

¹¹ Screening in this study refers to active detection of individuals with depression using text or behaviours in online environments.

Additionally, there is some evidence that indicates celebrity disclosure of mental health issues can support anti-stigma work (Gronholm & Thornicroft, 2022; Lupton, 2021*; Zhang et al., 2024*). However, there are important factors to consider with such interventions including, choosing a celebrity that is similar to the target audience, discussing personal experiences rather than general messages alone, and providing information about causes and effective treatments for the issue in question, among others (Gronholm & Thornicroft, 2022). Also, of concern, one review included one experimental study that found an increase in placing blame on individuals for their mental health after exposure to public disclosures about mental illness (Zhang et al. 2024*).

RISKS AND/OR UNINTENDED CONSEQUENCES

The reviews also highlighted a number of potential risks associated with the interventions included in this study.

- A review of empirical research on social media-based interventions aimed at improving adolescent and young adult mental health found that delivery via social media might **lead to privacy concerns and reluctance to participate** (Kruzan et al., 2022*).
- A review of the effects of social media disclosure of mental illness on stigma found that **in some cases disclosure increase the likelihood of some people placing blame on individuals** for their mental illness (Zhang et al., 2024*). Another stigma reduction review found that some interventions may also **inadvertently reinforce certain stereotypes or biases** (Lee et al., 2023).
- A review of digital health interventions for adolescents found that **fully automated interventions may not provide necessary support for severe mental health issues, leading to neglect of those in need** (Lehtimaki et al., 2021).
- A review of telehealth interventions for suicide prevention found that **digital communications may not allow practitioners or supporters to observe important non-verbal cues that may be observable in face-to-face assessments** (Forte et al., 2021*).
- A review to investigate the role, impact, and future directions of digital tools like social media, mobile applications, virtual reality, and artificial intelligence in mental health advocacy efforts found that **heavy reliance on technology can exclude individuals without access to digital tools; technology-driven initiatives might inadvertently create new forms of stigma and potentially exacerbating the digital divide; and misguided representations or insensitive language can perpetuate existing stereotypes** (Okoro et al., 2024*).
- Algorithms designed to tailor content to personal interests aim to increase user engagement, which generates profit. However, this can lead users towards more polarised content that amplifies their interests and concerns (Rodgers et al., 2021*).
- Intervention/Program participants may face issues like limited internet access, difficulty using digital programs, and low technology literacy which in turn can hinder the effectiveness of the interventions (Salehi et al., 2021*).
- Social media platforms may pose risks such as cyberbullying and discrimination, which can exacerbate depressive symptoms and psychological distress (Liu et al., 2023*)

KEY CONSIDERATIONS AND WAYS FORWARD

The following section is based on suggestions from the authors of the reviews and reports included in this review and does not necessarily reflect the perspectives of the research team who have compiled this report.

General Advocacy

One review (Okoro et al., 2024*) investigated the role, impact, and future directions of digital tools like social media, mobile applications, virtual reality, and artificial intelligence in mental health advocacy efforts. It found that technology, including **social media, can significantly enhance mental health advocacy by increasing accessibility, engagement, and support**. The authors also note that advocacy organisations need to address **ethical considerations such as privacy, inclusivity, informed consent, and data security to ensure responsible and effective use of these technologies**. Chatbots and virtual mental health assistants utilise natural language processing and machine learning algorithms to interact with users, providing support, resources, and coping strategies (Okoro et al., 2024*).

Policies and Policy Makers

An umbrella review of social media use and adolescent mental health and wellbeing suggested that a **code of practice from the U.K.'s Information Commissioners (2022)** has several strengths including how “detrimental use” might be defined (Sala et al., 2024). Should the reader be interested, identifying model legislation and codes of practice, the work of the U.K.'s Information Commissioners may be a good place to start.

Additionally, the U.S. Surgeon General's Advisory (2023) made several suggestions, including **developing age-appropriate health and safety standards for social media companies, create means to require higher data privacy standards relating to children, and support the continued development of evidence-based digital literacy initiatives**.

Mental Health-focused NGOs

An Australian study about using Twitter to promote mental health organisations found that Twitter (now called X) can be used as an effective tool to set youth mental health agendas by having organisations articulate how they frame these issues based on their organisational perspective and remit (Dadich & Khan, 2021). Additionally having multiple organisations in the space sharing related messages likely functioned to strengthen their corresponding organisational agendas (Dadich & Khan, 2021). **This indicates that such organisations should actively engage in public discourse on social media and potentially coordinate their efforts**.

The Y (2024) recommended in a recent submission that the Australian government should continue to **invest in high-quality resources for building children's digital capabilities of children**. This seems to be aligned with the preponderance of evidence identified through this review. The Y (2024) also highlight that it is important to ensure that **children and young people are involved in the process of designing digital literacy and safety education materials for which they are the intended users**.

Two reports also highlighted that **interventions should pay particular attention to how boys and men are being targeted/engaged**, because they are a) often involved in making online spaces psychologically toxic for others and b) there is some evidence that they are less likely to reach out for one-to-one support (Christidis, 2024; Dunn et al., 2023).

Social Media Companies

Several reports also highlight that social media companies need to play a larger role in identifying and addressing issues raised in this report. Some researchers argue the social media industry should be recognised as a commercial determinant of health due to features that elicit addictive behaviours and can be associated with distress and other negative mental health symptoms (Zenone et al., 2022).

Some suggestions of how social media companies can play a role include: **avoiding business practices that prioritise engagement over risks to safety and rights and focus on safety by design**¹² (Dunn et al., 2023; The U.S. Surgeon General’s Advisory, 2023); **ensure that content moderation policies and implementation approaches are up to the task of protecting people’s rights and safety, as well as equity focused, intersectional, and trauma-informed** (Dunn et al., 2023); **develop greater transparency and responsiveness in reporting systems and research findings based on their proprietary data** (Australian eSafety Commissioner, 2024; The U.S. Surgeon General’s Advisory, 2023); **adhere to and enforce age minimums for their services** (The U.S. Surgeon General’s Advisory, 2023); among others.

Research Gaps

A wide range of research gaps were indicated in the included studies. The following summarised the key gaps mentioned by the authors of the included reviews and does not necessarily reflect the perspectives of the authors of this report.

Better definitions and more use of theory

Herriman et al. (2024*) concluded that despite some positive results, the field requires more consistent terminology, theory-driven interventions, and improved methodological rigor to better assess the effectiveness of interventions.

Long-term research with adequate sample sizes

Several reviews concluded that longer-term studies with larger sample sizes were critical to move this field forward.

Zhang et al., (2024*) concluded that conducting long-term studies with adequate sample sizes to examine if the stigma reduction effects of public mental illness disclosure on social media can be sustained over time.

Kruzan et al. (2022*) found that the fact that most included studies had small sample sizes limited the generalisability of findings.

Ghosh et al. (2023*) concluded that further research should establish long-term effectiveness, explore cultural adaptations, and address barriers to implementation in diverse settings. They also found that more rigorous studies are required to evaluate the impact of single session interventions on self-harm and other specific mental health conditions.

Finally, Hamilton et al. (2023*) found that future research should focus on developing scalable interventions, for instance in relation to what works for interventions that support teens in caring for themselves and others online. Moreover, research should be designed to develop a better understanding long-term impacts and to address ethical concerns related to privacy and data use.

Experimental research / evaluations

Burnell et al. (2024*) and Drissi et al. (2021*) both concluded that further experimental research was required in some cases to develop and refine intervention strategies.

¹² The principles of safety by design are, according to the Australian eSafety Commissioner of Australia, are: service provider responsibility, user empowerment and autonomy, and transparency and accountability. It can involve a range of technical approaches to providing dignity and safety for users, for instance by removing features that may pose risks to some user groups like infinite scroll or enumerating number of likes.

Platforms, Message, and Content characteristics

Finally, a range of studies highlighted that more detail is required from studies about platform design and message characteristics.

In Zhang et al.'s (2024*) work on public disclosure of mental health conditions, they felt that research could be improved by investigating how variations in the messenger's characteristics (e.g., celebrity status, mental illness diagnosis) influence anti-stigma effects; how different aspects of the disclosure message (e.g., coping styles, supportive peer responses) impact stigma reduction; and the relationship between the audience and the messenger to better understand how it affects the audience's response to the disclosure.

Lupton (2021*) concluded that more research is needed on how young people use social media platforms and YouTube for health support, including the role of popular visual media like GIFs and memes. Rodgers et al. (2021*) found that more research on the effects of photos versus images (i.e., cartoons or line images that do not depict individuals although they might portray bodies), group versus individual photos, and non-appearance-related content is needed.

CONCLUSIONS

This report provides a wide range of insights into promising approaches to addressing the impacts of social media on mental health. There is clearly a growing evidence base about a number of promising interventions. Those with that have clear support from the documents included in this review include:

- Supplementing face-to-face mental health interventions with social media-delivered information, education, and self-assessments; as well as peer support.
- Delivering digital mental health psychotherapy interventions with, at least in part, social media technology. These have been found to be as effective as face-to-face versions of the same interventions in some cases, i.e. when supported by a peer, parent or caregiver or therapist.
- Providing social media literacy education and opportunities for social media skills development.
- Using social media platforms to provide safe, supported access to peer, family, and community support.
- Using behaviours on social media to better identify people who may be good candidates for supportive interventions.
- Using social media for social marketing campaigns to change a range of health-related behaviours as long as they are designed in a manner that tailors their content to the intended audience.

Although, there is a growing evidence base around a range of interventions, it is critical for organisations working in this field to consider who will benefit from an intervention, how it will function, and what the intended outcome is. Additionally, the grey literature scan highlighted that applying the principles of safety by design and underlining the critical responsibilities that social media companies and regulators can and should play in ensuring that online environments protect and promote communities' mental health. Moreover, researchers need to engage in longer-term, larger studies to determine if often complex interventions are truly effective.

Given the broad remit of this report, the authors suggest that subsequent reviews take a more targeted approach undertaking a review of primary studies on a specific type of intervention (e.g. social marketing campaigns using social media) or a specified group of interventions to address a particular outcome (e.g. problematic use). Such an approach could result in findings that are narrower in scope, but provide more robust detail.

Table 1. Review of Reviews data extraction table

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Burnell 2024 Narrative review 10/12	To review experimental studies on the positive and negative mental health effects of social media usage. Focus: Addressing effects of social media	Primarily adolescents and young adults, with some adult studies included as necessary. Outcomes: Wellbeing, body image, mood.	Cognitive Behavioural Therapy (CBT), Evaluation and management of health risks, Limited social media use, Peer-to-peer information sharing, Social marketing, mHealth self-help tools	Facebook, Instagram, TikTok	Social media platforms can have both positive and negative effects on mental health. Positive interactions and connections on social media can enhance wellbeing, while exposure to idealised content and dependence on social feedback can negatively impact mental health. Screening for the specific use of social media platforms is crucial. Clinicians should assess the platforms used, timing, interactions, and their impact on mood and self-esteem. Smartphone data can supplement subjective reports to provide a comprehensive view of clients' social media habits. Educating clients about the unrealistic nature of social media content and its design to maximise engagement can help reduce negative impacts. Media literacy programs that focus on these aspects have been effective in improving body image and overall wellbeing, especially for girls.	Modifying how individuals engage with social media, rather than encouraging complete abstinence, is more effective. Further experimental research is required to refine treatment strategies.	More studies are necessary to understand the long-term mental health impacts of social media, particularly among diverse populations. Additionally, research on effective intervention strategies is essential.	Abstinence-based interventions may exacerbate issues related to body image and self-esteem since it is not feasible to completely avoid harmful content and may also limit positive use

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Drissi 2021 Systematic review 5/13	To identify e-mental health interventions developed for healthcare workers during the COVID-19 pandemic. Focus: Delivery via social media	Healthcare workers during the COVID-19 pandemic. Outcomes: Anxiety, stress, depression, insomnia, PTSD symptoms, general mental health improvements.	Dissemination of information to the public, Evaluation and management of health risks, Peer-to-peer information sharing, Remote counselling and therapy, mHealth self-help tools	WeChat	E-mental health interventions using social media platforms, e-learning content, online resources, and mobile apps have been developed to support healthcare workers. These interventions include peer support via social media and comprehensive digital learning packages targeting mental health issues. The majority of these social media-based interventions have been developed for healthcare workers in China, with other significant portions targeting workers in the UK, US, Canada, Iran, and Malaysia, reflecting a global recognition of the mental health needs of healthcare workers during the pandemic. Challenges in implementing these interventions include a lack of empirical evaluation, cultural differences, and ethical concerns such as confidentiality, which hinder the effectiveness of e-mental health solutions delivered via social media.	The COVID-19 pandemic highlighted the critical need for effective e-mental health solutions for healthcare workers. Comprehensive evaluations and diverse interventions are necessary.	Empirical evaluation of interventions is required, considering cultural and technological barriers, and expanding the scope to include more diverse populations.	Over-reliance on digital tools may reduce face-to-face interactions and peer-to-peer support.

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Escobar-Viera 2021 Systematic review 9/13	To synthesise and critique evidence on engagement with social media-delivered interventions for improving health outcomes among sexual and gender minorities (SGM). Focus: Delivery via social media	Sexual and gender minorities (SGM). Outcomes: Anxiety, depression.	Dissemination of information to the public, Evaluation and management of health risks, Individual health promotion and preventive services, Peer-to-peer information sharing, Social marketing, Training sessions	Dating apps, Facebook, Twitter/X, WeChat, WhatsApp, YouTube	There has been a significant increase in studies on social media-delivered interventions for mental health since 2020, likely due to the COVID-19 pandemic's impact on mental health and digital engagement. Most studies focus on conditions such as depression, anxiety, stress, and distress. Social media platforms like Facebook, WhatsApp, Instagram, and forums are commonly used for these interventions, addressing various mental health conditions, including suicide, addiction, psychosis, and eating disorders. Cognitive behavioural therapy (CBT) is the most frequently mentioned intervention delivered through these social media platforms, highlighting their role in providing structured mental health support.	Consistent and comprehensive engagement measures are required to improve the understanding of social media interventions.	Additional research is needed to assess engagement among different SGM groups and explore health disparities beyond HIV, including mental health and chronic conditions.	None stated

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Forte 2021 Systematic review 12/13	<p>To provide an overview of the literature on the use of new technologies in adolescent suicide prevention.</p> <p>Focus: Delivery via social media</p>	<p>Adolescents at risk of suicide.</p> <p>Outcomes: Suicide prevention effectiveness, engagement levels.</p>	<p>Dissemination of information to the public, Evaluation and management of health risks, Peer-to-peer information sharing, Remote counselling and therapy, mHealth self-help tools</p>	<p>Facebook, Instagram, Reddit</p>	<p>New technologies such as telemedicine, mobile applications, and language detection algorithms are emerging as tools for adolescent suicide prevention. Telemedicine is the most adopted tool, with web-based approaches being prevalent. Mobile applications focus on screening depressive symptoms and suicidal ideation and for clinical monitoring through text messages.</p> <p>These technologies offer a fast and safe method to support and precede face-to-face clinical assessments. However, only a few studies have demonstrated efficacy in preventing suicide among adolescents through these interventions. Algorithms that recognise people at risk of suicide from social media posts are also being explored.</p> <p>Despite the promise of these technologies, they are currently better suited to supplement existing suicide prevention strategies rather than replace them. They are well accepted and tolerated by adolescents but need further validation to be considered effective preventive strategies in clinical practice.</p>	<p>Telemedicine and mobile applications could be integrated into preventive strategies for suicide, but more evidence is needed to confirm their efficacy.</p>	<p>Further research should establish the efficacy of these technologies and integrate them into preventive strategies.</p>	<p>Telemedicine and mobile apps may miss critical non-verbal cues essential in face-to-face assessments.</p>

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Fung 2020 Systematic review 11/13	<p>To summarise existing research on the public health implications of image-based social media platforms like Instagram, Pinterest, Tumblr, and Flickr.</p> <p>Focus: Addressing effects of social media</p>	<p>Various populations engaging with public health content on image-based social media.</p> <p>Outcomes: Depression, anxiety, wellbeing.</p>	Dissemination of information to the public, Group interventions in health promotion and prevention, Social marketing	Facebook, Flickr, Instagram, Pinterest, Tumblr, Twitter/X, WeChat, WhatsApp, YouTube	<p>Image-based social media platforms like Instagram, Pinterest, Tumblr, and Flickr are increasingly used for health-related information and communication. More than half of the studies reviewed were related to mental health and substance abuse, with significant focus on issues like body image and eating disorders.</p> <p>Studies have identified both positive and negative impacts of social media on mental health. Pro-anorexia content, "thinspiration" images, and "fitspiration" messages on platforms like Instagram and Pinterest contribute to body dissatisfaction and disordered eating behaviours. However, social media can also promote positive health behaviours and community support.</p> <p>The "echo chamber" effect in social media communities can reinforce harmful behaviours and attitudes, such as those related to pro-anorexia and fitspiration. Interventions aimed at countering these negative effects need to consider the strong community bonds formed on these platforms and develop strategies that leverage social media's potential for positive health communication.</p>	Image-based social media can be powerful tools for public health communication, but more rigorous studies are needed to understand their effectiveness.	Future research should focus on experimental designs to establish causal relationships, standardising methods for data sampling and retrieval, and exploring underrepresented health topics and diverse populations.	Public health messaging on social media can sometimes spread misinformation, leading to public confusion.

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Gabarron 2023 Scoping review 12/12	To provide an overview of the use of social media for delivering mental health interventions over time. Focus: Delivery via social media	Various populations, including adults, adolescents, parents, and patients. Outcomes: Anxiety, depression, stress, other mental health conditions.	Dissemination of information to the public, Evaluation and management of health risks, Social marketing	Facebook, Instagram, Twitter/X, WhatsApp	Social media platforms are widely used for mental health interventions, with a significant increase in research on this topic over the years. Platforms like Facebook, WhatsApp, Instagram, and forums are commonly utilised to deliver mental health support and interventions. The most frequently targeted mental health conditions are depression, anxiety, stress, and distress. Social media interventions often include components such as Cognitive Behavioural Therapy (CBT), self-help, and peer support, which have shown effectiveness in improving mental health outcomes. Despite the growing popularity of social media-based mental health interventions, there are ethical challenges such as ensuring privacy, confidentiality, and security. The effectiveness of these interventions can vary, and it is crucial to assess which social media tools are best suited for different mental health conditions to maximise clinical outcomes.	Social media tools offer promising avenues for mental health interventions, but further research is needed to identify the most effective platforms and strategies.	Future studies should assess the clinical outcomes of various social media tools and develop guidelines for effective social media-based mental health interventions.	Engagement in online mental health forums might lead to dependence on peer support rather than professional help.

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Ghahramani 2022 Systematic review 9/13	To explore the potential of social media in health promotion beyond creating awareness, focusing on methodologies used to assess behaviour change. Focus: Delivery via social media	Various populations engaging with health promotion content on social media. Outcomes: Behaviour change, wellbeing.	Dissemination of information to the public, Evaluation and management of health risks, Social marketing	Facebook, Instagram, Twitter/X, YouTube	The review included 28 studies on health promotion campaigns using social media platforms. These campaigns addressed various health behaviours, including mental health issues like smoking cessation, eating disorders, and suicide prevention. Quantitative methods were most commonly used to evaluate these campaigns, followed by mixed and qualitative methods. Social Cognitive Theory and the Transtheoretical Model were frequently applied to assess the effectiveness of social media interventions. Overall, the results indicate that using social media to promote behaviour change holds promise but key outcomes may often take place after a campaign has concluded. Evaluating the impact of social media campaigns is complex due to overlapping effects with other health promotion efforts.	Evaluating the effectiveness of social media campaigns in promoting sustainable health behaviour change is complex and requires more robust research designs.	Standardised methods for assessing long-term impact are needed, along with exploration of effectiveness across diverse populations and health topics.	Social media interventions might reinforce unhealthy behaviours or social comparisons.

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Ghosh 2023 Narrative review 12/12	To evaluate the effectiveness and potential for dissemination of digital single-session interventions (SSIs) for child and adolescent mental health. Focus: Delivery via social media	Children and adolescents experiencing mental health issues, including those in low- and middle-income countries. Outcomes: Symptoms of depression, anxiety, self-harm, overall mental health improvement.	Dissemination of information to the public, Evaluation and management of health risks, Remote counselling and therapy	Tumblr	The prevalence of mental health disorders among adolescents is significant globally, with social media platforms playing a role in both exacerbating and addressing these issues, especially during the COVID-19 pandemic. Single-session interventions (SSIs) delivered via digital platforms have shown effectiveness for various mental health conditions, including depression and anxiety. However, their impact on self-harm is less clear, with some studies reporting no improvement. Digital SSIs are promising due to their accessibility and scalability, particularly for marginalised populations like LGBTQ+ youths.	Digital SSIs offer a scalable and accessible approach to mental health care for young people, especially in low-resource settings. They should be integrated with existing health care systems to maximise their impact.	Further research should establish long-term effectiveness, explore cultural adaptations, and address barriers to implementation in diverse settings. More rigorous studies are required to evaluate the impact on self-harm and other specific mental health conditions.	Single-session interventions may provide only temporary relief without addressing underlying issues, leading to a false sense of security.

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Graham 2024 Narrative review 11/12	To explore the role of youth and family engagement in improving children's mental health outcomes. Focus: Delivery via social media	Children and adolescents receiving mental health care, and their families. Outcomes: Mental health outcomes, family functioning.	Group interventions in health promotion and prevention, Knowledge sharing events, Peer-to-peer information sharing, Remote counselling and therapy, Training sessions	Instagram, TikTok	Engaging youth and family voices in mental health care via social media platforms is crucial for improving outcomes. Historical programs have laid the groundwork, but more efforts are needed to fully operationalise and sustain these engagement models. There is increasing evidence for the benefits of using social media to engage young people and their families around mental health in relation to information, social connectivity, and increasing agency. Barriers to effective engagement on social media include not feeling validated and role confusion in peer support models. Inconsistent funding for these programs also poses a challenge. Digital innovations, including social media platforms, can enhance youth and family engagement in mental health care but also pose risks such as inequitable engagement and misinformation.	Effective engagement requires integrating family and youth voices at all levels of care. Integrating these technologies thoughtfully is essential to maximise benefits while addressing ethical and equity concerns.	Standardised engagement measures, exploration of long-term impacts, and optimisation of peer support models are needed, along with more studies on the integration of technology in family-centred mental health care.	Family engagement strategies might place additional pressure on family members, leading to increased stress.

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Hamilton 2024 Narrative review 10/12	To review how digital media, particularly social media, can be leveraged to promote youth mental health and prevent negative mental health outcomes. Focus: Addressing effects of social media, Delivery via social media	Youth, particularly adolescents. Outcomes: Social connection, mental health education, symptom tracking, intervention effectiveness.	Cognitive Behavioural Therapy (CBT), Dissemination of information to the public, Remote counselling and therapy, Social marketing	Instagram, Pinterest, TikTok, Tumblr, Twitter/X, YouTube	Social media platforms can facilitate social connections and support, which are crucial during adolescence. These platforms enable self-disclosure and strengthen offline relationships, contributing to a sense of belonging and community. Digital media, including social media, can be used to identify mental health risks through the analysis of distress posts and broader online mental health dialogues, allowing for timely interventions. References to media like "13 Reasons Why" have been linked to increased youth suicide deaths, while references to "1-800-273-8255" have been linked to increased help-seeking behaviours. One included study found social media to be effective for increasing awareness about mental health. Digital interventions leveraging social media can be effective in promoting mental health outcomes among adolescents with mental health symptoms. Emerging interventions that use mindfulness and values-alignment strategies can help young adults self-regulate social media use and limit excessive scrolling, particularly those who engage in deeper reflection.	Digital media can be an effective tool for mental health promotion and prevention, but further research is needed to understand how to best leverage these tools and measure their effectiveness.	Future research should focus on developing scalable interventions, understanding long-term impacts, and addressing ethical concerns related to privacy and data use. More studies are needed on diverse populations and different digital platforms.	New research that aims to use smartphone data to predict and prevent health risk behaviours like suicide, however this approach raises significant ethical concerns about privacy and data use.

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Herriman 2023 Scoping review 12/12	<p>To map existing literature on interventions designed to reduce the negative impact of highly visual social networking sites (HVSNS) on mental health outcomes.</p> <p>Focus: Addressing effects of social media</p>	<p>Various populations using HVSNS, such as Facebook, Instagram, and Snapchat.</p> <p>Outcomes: Body dissatisfaction, depression, anxiety, wellbeing, self-esteem.</p>	<p>Cognitive Behavioural Therapy (CBT), Dissemination of information to the public, Individual health promotion and preventive services, Limited social media use, Social marketing</p>	<p>Facebook, Instagram, Pinterest, TikTok, Tumblr, Twitter/X, YouTube</p>	<p>Most studies on highly visual social networking sites (HVSNSs) like Facebook and Instagram involve university students and community samples.</p> <p>Positive mental health outcomes from interventions to reduce HVSNS use or encourage abstinence include improvements in life satisfaction, social connection, and self-esteem. Negative outcomes like depressive symptoms and addiction are also frequently assessed, with a trend towards small improvements in wellbeing outcomes.</p> <p>Four studies also found that social media literacy interventions showed modest improvements in mental health outcomes.</p> <p>Interventions vary from exposure reduction approaches to social media literacy programs and psychology-informed initiatives.</p>	<p>Psychological interventions targeting the reduction of HVSNS use are promising but need to be theory-driven and methodologically sound. Further development and rigorous testing of these interventions are crucial.</p>	<p>Despite some positive results, the field requires more consistent terminology, theory-driven interventions, and improved methodological rigor to better assess the effectiveness of these strategies.</p>	<p>Highly visual social networking sites could perpetuate unrealistic body standards, negatively impacting self-esteem.</p>

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Kruzan 2022 Scoping review 12/12	To identify and review empirical research on social media-based interventions aimed at improving adolescent and young adult mental health. Focus: Delivery via social media	Adolescents and young adults (10-26 years old) with clinical or subclinical mental health conditions. Outcomes: Depression, anxiety, quality of life, social support, wellbeing.	Cognitive Behavioural Therapy (CBT), Dissemination of information to the public, Gamification, Individual health promotion and preventive services, Peer-to-peer information sharing, mHealth self-help tools	Facebook, Instagram, Pixtori, SOVA, Twitter/X	The review included various social media-based interventions, some using existing platforms like Facebook and Pixtori, while others employed purpose-built networks. Interventions ranged from 2 to 12 weeks, involving both small pilot trials and larger randomised controlled trials. Mental health outcomes commonly measured include depression, anxiety, wellbeing, stress, and social support. Most studies reported significant improvements in these outcomes, though the effect sizes were generally small to moderate.	There is preliminary evidence that social media platforms can effectively deliver mental health interventions to adolescents and young adults, but there is a need for standardised intervention frameworks and robust evaluation methods. In particular, their potential of interventions that involve existing peer and family networks and use social media as a means to identify and recruit individuals into interventions (e.g. single session on depression for adolescents). The authors did not find sufficient support for using social media data to provide “just in time” interventions at this time.	Challenges include small sample sizes and exploratory analyses, limiting the generalisability of findings. Future research should focus on leveraging existing peer networks, reaching non-treatment-engaged populations, and deploying individualised and just-in-time interventions to enhance effectiveness.	Interventions on social media might lead to privacy concerns and reluctance to participate.

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Lee 2023 Narrative review 12/12	To examine current digital interventions addressing stigma to improve PrEP uptake and adherence. Focus: Delivery via social media	“Racial, ethnic, and sexual minority populations” (p. 459) Outcomes: Anxiety, depression, stigma reduction.	Cognitive Behavioural Therapy (CBT), Dissemination of information to the public, Peer-to-peer information sharing, Public mental illness disclosures on social media, Real-time resource provision, Social marketing, mHealth self-help tools	Facebook, Instagram, Text messaging, Twitter/X	Digital interventions show promise for enhancing PrEP uptake and adherence by addressing various forms of stigma, including HIV-related, PrEP-related, and sexuality-related stigma. One study found that “community-driven and culturally relevant social media content that focuses on motivation, empowerment, and stigma reduction” (p 460) promoted PrEP use. Inconsistent measurement and conceptualisation of stigma across studies present challenges, highlighting the need for standardised tools and definitions to evaluate the effectiveness of these interventions. Integrating broader contextual elements is crucial for addressing structural stigma effectively.	More broadly, digital interventions can effectively reduce stigma and improve PrEP uptake and adherence among MSM and transgender women. Future research should focus on integrating these tools into broader health systems and addressing access disparities.	Future research should explore intersectional stigma and its impact on PrEP-related behaviours and outcomes, develop standardised measurement tools, and incorporate explicit measures of stigma in the design and evaluation of digital interventions for HIV prevention.	Stigma-reduction interventions might inadvertently reinforce certain stereotypes or biases.
Lehtimäki 2021 Systematic review 12/13	To synthesise the current evidence on digital health interventions targeting adolescents and young people with mental health conditions. Focus: Delivery via social media	Adolescents and young people aged 10-24 years with diagnosed or self-reported mental health conditions. Outcomes: Anxiety, depression, stress, wellbeing.	Cognitive Behavioural Therapy (CBT), Dissemination of information to the public, Real-time resource provision, Social marketing, mHealth self-help tools	Facebook	Digital mental health interventions for adolescents and young people show small to moderate effects in reducing anxiety, depression, and stress, particularly when compared to nonactive controls like waitlists or placebos. When compared to active controls, such as traditional face-to-face therapy, digital interventions appear similarly effective, suggesting that the digital format can retain its efficacy. Interventions that include human support elements, such as professional, peer, or parent involvement, tend to be more effective, have higher adherence rates, and lower dropout rates compared to fully automated or self-administered interventions.	Digital mental health interventions can supplement traditional treatment but require more rigorous evidence, especially on cost-effectiveness and applicability in low-resource settings.	Research should focus on the cost-effectiveness of digital interventions, the integration of human elements, and the generalisability of findings to low- and middle-income countries. Future research should focus on demonstrating cost-effectiveness and applicability in diverse settings.	Fully automated interventions may not provide the necessary support for severe mental health issues, leading to neglect of those in need.

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Liu 2023 Systematic review 4/13	To evaluate the effectiveness of digital interventions in improving mental health outcomes among LGBTQ+ youth. Focus: Delivery via social media	LGBTQ+ youth Outcomes: Depression, anxiety, stress, psychological distress, resilience, and social support	Gamification, Real-time resource provision	Facebook	The review categorises digital interventions into four types: Structured Formal (e.g., telehealth), Structured Informal (e.g., serious games), Unstructured Formal, (e.g., mobile applications) and Unstructured Informal (e.g., social media). Structured formal methods like telehealth and online programs are effective in reducing depressive symptoms and improving stress appraisal while unstructured formal methods like mobile apps show high acceptability and feasibility. Social media platforms can foster resilience but also pose risks like cyberbullying. Serious games have mixed success, with some showing potential in treating depressive symptoms.	Digital interventions like telehealth, serious games, and social media can effectively reduce mental health symptoms among LGBTQ+ youth. However, the effectiveness varies across different types of interventions, with structured methods generally showing more consistent results.	Integrating emerging technologies like virtual reality could enhance digital interventions for improving mental health. More inclusive research is needed to represent the full diversity of LGBTQ+ youth identities.	Social media platforms may pose risks such as cyberbullying and discrimination, which can exacerbate depressive symptoms and psychological distress.

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Liverpool 2020 Systematic review 8/13	To explore various digital mental health interventions for children and young people and highlight factors influencing usage, implementation, and engagement. Focus: Delivery via social media	Children and young people Outcomes: Anxiety, disruptive behaviour, depression, attention-deficit hyper activity disorder (ADHD)	Dissemination of information to the public, Gamification, Peer-to-peer information sharing, Virtual reality experiences	Facebook, Online forums, Text messaging	The study identified six modes of delivery for engaging children and young people (CYP) in digital mental health interventions: websites, games and computer-assisted programs, apps, robots and digital devices, virtual reality, and mobile text messaging. Features like text message reminders, videos, limited text, and the ability to connect with others were highlighted as encouraging factors for CYP. CYP were more inclined to use platforms that were credible platforms (e.g., trusted brand names that were familiar to them) and those that facilitated conversations with other as it gave them a sense of connectedness. Web-based and smartphone-based MH interventions showed efficacy comparable to face-to-face psychotherapy for conditions like depression and anxiety.	Digital health interventions such as websites, apps, and virtual reality, show promise in engaging CYP with mental health issues. This suggests that they can be effective and have high retention rates, they would be a valuable tool in mental health treatment for CYP. The key factors that influence engagement include usability, personalisation, and the ability to connect with others.	More research is needed to support the implementation of digital health interventions in CYP's mental health and to understand the impact of different functionalities on levels of engagement is crucial for developing more useful and engaging interventions.	None stated

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Loh 2023 Meta-analysis 16/16	To evaluate the effectiveness of social media-based interventions on various health metrics among adults with obesity and overweight. Focus: Delivery via social media	Obese and overweight adults in social isolation. Outcomes: Body weight, body mass index, body fat, energy intake, physical activity, waist circumference	Individual health protection services	Facebook, Instagram, LinkedIn, Pinterest, Snapchat, Twitter/X, YouTube	Social media-based interventions had small-to-medium significant effects on weight, BMI, waist circumference, body fat mass, and daily steps. However, the certainty of evidence quality for all outcomes ranged from very low to low. A significant majority of young adults between the ages of 18 and 24 are active on Instagram (76%), TikTok (55%), and Snapchat (75%). Conversely, the older demographic predominantly uses Facebook and YouTube as their social media platforms of choice.	Social media-based interventions can help reduce weight, BMI, waist circumference, fat mass, and energy intake while increasing daily steps among obese and overweight adults. However, due to the low certainty of evidence, their effectiveness in clinical practice remains uncertain, and they should be considered as an adjunct intervention for weight control. Longer intervention durations can lead to higher non-compliance and slow down weight loss outcomes	Future RCTs need larger sample sizes to estimate the effectiveness of interventions more accurately. Optimal sessions, lengths, frequency, and duration of interventions need to be defined in order to identify essential intervention features.	Prolonged use of social media platforms may overwhelm participants, reducing their engagement and the intervention's effectiveness.

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Lupton 2021 Narrative review 11/12	To provide a narrative review of social research studies that assess the types of digital technologies used by children and young people in the Global North for health-related purposes, identifies which technologies they find most useful. Focus: Addressing effects of social media	Young people aged 5-30 years living in the Global North. Outcomes: Digital health use	Peer-to-peer information sharing, Social media influencers/microcelebrities conveying health information	Facebook, Instagram, Online forums, Pinterest, Snapchat, Twitter/X, YouTube	Young people tend to appreciate the ability to connect with peers and find emotional support and relief from distress by using social media platforms, YouTube, and online forums. Social media influencers and microcelebrities play a significant role in conveying health information and providing emotional support. Social media platforms provide ready availability of health information and opportunities for young people to learn about health and fitness.	Young people in the Global North actively use digital health technologies, but still rely on older technologies like websites for information. They value online resources for learning about health and connecting with peers, but face challenges in navigating the vast information available and often seek help from trusted adults.	More research is needed on how young people use social media platforms and YouTube for health support, including the role of popular visual media like GIFs and memes.	There are concerns about the promotion of “health-detracting practices”, such as disordered eating and self-harm, on social media. There are also concerns about online privacy and the accuracy of information that young people access online.
Mahdavi 2023 Scoping review 12/12	To investigate the application of AI-chatbots to provide insights into their effectiveness in combating the COVID-19 pandemic. Focus: Delivery via social media	General public including older people, younger people, and healthcare providers. Outcomes: Information dissemination, self-assessment, connecting to health centers, combating misinformation, patient tracking, mental health support, exposure monitoring, and vaccine information	Chatbots and virtual mental health assistants, Dissemination of information to the public	Facebook, Telegram	Around 70% of chatbots were designed to play a preventive role, such as disseminating information and combating misinformation. Most chatbots were deployed on mobile apps, web, and social media platforms, with mobile-based chatbots being the most frequent.	AI chatbots played a significant role in combating the COVID-19 pandemic by improving healthcare access and quality through personalised, timely support and information. However, further research is needed to evaluate their effectiveness and usability in different healthcare areas.	Further research is needed to evaluate the usability and effectiveness of AI chatbots in different healthcare areas, including their impact on clinical outcomes and user experience.	Not stated

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Okoro 2024 Narrative review 7/12	<p>To investigate the role, impact, and future directions of digital tools like social media, mobile applications, virtual reality, and artificial intelligence in mental health advocacy efforts.</p> <p>Focus: Addressing effects of social media</p>	<p>Target population not stated.</p> <p>Outcomes: Mental health advocacy</p>	<p>Chatbots and virtual mental health assistants, Dissemination of information to the public, Peer-to-peer information sharing, Social media influencers/microcelebrities conveying health information</p>	<p>Facebook, Instagram, Twitter/X</p>	<p>Platforms like Twitter, Facebook, and Instagram are used to spread awareness, reduce stigma, and build supportive communities. These platforms allow advocates to respond quickly to current events, counter misinformation, and start meaningful conversations.</p> <p>Hashtags like #mentalhealthawareness and #endthestigma facilitate the viral spread of advocacy messages, fostering solidarity and amplifying the collective voice of the mental health community.</p> <p>Chatbots and virtual mental health assistants utilise natural language processing and machine learning algorithms to interact with users, providing support, resources, and coping strategies</p>	<p>Technology significantly enhances mental health advocacy by increasing accessibility, engagement, and support through digital platforms like social media, mobile apps, VR/AR, and AI though there is a need to address ethical considerations such as privacy, inclusivity, and data security to ensure responsible and effective use of these technologies.</p>	<p>More attention should be given to balancing innovation with ethical practices, ensuring inclusivity, and protecting user privacy.</p>	<p>Heavy reliance on technology can exclude individuals without access to digital tools.</p> <p>Technology-driven initiatives might inadvertently create new forms of stigma.</p> <p>Misguided representations or insensitive language can perpetuate existing stereotypes.</p>

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Philippe 2022 Systematic review 7/13	To assess the use, efficacy, appropriateness of digital health interventions for the treatment of mental health conditions. Focus: Delivery via social media	Patients with various mental health conditions. Outcomes: Mainly substance use disorders followed by mood, anxiety, traumatic stress disorders. Other conditions covered include pain, schizophrenia, dementia, feeding and eating disorders, developmental disorders, bipolar disorders, sleep-wake disorders, and ADHD.	Dissemination of information to the public, Peer-to-peer information sharing, Remote counselling and therapy	Discord, Facebook, Reddit, YouTube	Synchronous contact (phone/video calls) is generally more effective for treatment and assessment, while asynchronous methods (text/email) are better for ongoing support and reminders. Web-based discussion groups, forums, and social media allow patients with similar disorders to interact and support each other. They tend to increase patient engagement and adherence to treatment across all mental health conditions however, these are usually unmoderated and may lead to the spread of misinformation. Web-based or computer-based therapy programs, including psychoeducation, self-help therapy, journaling, assessments, medication reminders, and motivational interventions, are as effective as face-to-face treatment when guided by a therapist. However, without guidance, effectiveness drops significantly.	Synchronous and asynchronous communication, computerised therapy, and cognitive training are effective but need further study for less common mental health conditions while novel technologies like virtual reality, mobile apps, social media, and web-based forums have potential but require higher quality evidence.	More research is needed on digital interventions for understudied mental health conditions and marginalised population	Web-based discussion groups, forums, and social media use may lead to the spread of misinformation since they tend to be unmoderated.

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Plackett 2023 Systematic review 10/13	To synthesise literature on the effectiveness of social media use interventions on the mental wellbeing of adults. Focus: Addressing effects of social media	Adults (those aged 18 and over). Outcomes: Subjective and objective mental wellbeing or mental health measures including depression, life satisfaction, anxiety, loneliness, mindfulness, self-esteem, FOMO	Abstinence, Cognitive Behavioural Therapy (CBT), Limited social media use	Facebook, Instagram, Pinterest, Snapchat, TikTok, Tumblr, Twitter/X	The three intervention types examined included therapy-based interventions, full abstinence from social media, and limited social media use. Therapy-based interventions, particularly using techniques like CBT, were the most effective with 83% of studies showing improvements in mental wellbeing. Full abstinence had mixed results, with 42% of studies showing mixed effects, 33% showing no effect, and 25% showing improvements. Limited use was the least effective interventions with 60% of studies showing no effect, 20% showing improvements, and 20% showing mixed effects.	Overall, therapy-based social media use interventions are more effective in improving mental wellbeing, especially for depression, compared to limiting or abstaining from social media. However, the overall quality of studies was poor hence further research with more representative samples is required.	There is a need for more long-term studies to assess the sustainability of social media use interventions in addition to conducting more research with representative samples to generalise findings.	Some studies found that interventions, especially full abstinence, led to decreased life satisfaction and increased feelings of loneliness.

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Rodgers 2021 Scoping review 12/12	To conduct a scoping review of emerging literature on social media content that might support body positive image. Focus: Addressing effects of social media	Young women (some studies also included mixed-gender samples, but the emphasis was on young women). Outcomes: Appearance comparison, body appreciation, body dissatisfaction, body positive, functionality comparison	Dissemination of information to the public, Peer-to-peer information sharing, Social media influencers/microcelebrities conveying health information	Instagram	Images that do not portray individuals are most helpful for body image. Images showing appearances that diverge from traditional appearance ideals are beneficial. Highlighting the unrealistic nature of social media content in captions and comments can help mitigate negative effects. Viewing group images was associated with higher self-esteem compared to selfies. Body acceptance statements and hashtags have not consistently shown to improve body image.	Social media content that promotes positive body image is most effective when it diverges from appearance ideals and emphasises realism. However, the empirical data supporting these findings are limited and not robust.	More research on the effects of photos versus images (i.e., cartoons or line images that do not depict individuals although they might portray bodies), group versus individual photos, and non-appearance-related content is needed. Research should also be expanded beyond women to include men, adolescents, and pre-adolescents.	The visual and interactive nature of social media perpetuates appearance-focused content, making it challenging to shift away from these norms. Algorithms designed to tailor content to personal interests aim to increase user engagement, which generates profit. However, this can lead users towards more polarised content that amplifies their interests and concerns.

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Rodgers 2022 Narrative review 10/12	To explore the impact of body positive social media content on body image and investigate how exposure to such content affects body satisfaction, appearance comparison, and other dimensions of body image. Focus: Addressing effects of social media	Not explicitly stated however most research targets young women. Outcomes: Body satisfaction, appearance comparison	Dissemination of information to the public, Peer-to-peer information sharing, Social media influencers/microcelebrities conveying health information	Not stated	Viewing body positive content is linked to higher body satisfaction and appreciation however, since body positive content varies widely in imagery, messaging, and philosophical underpinnings, different types of content can have varying effects on body image. Including text that highlights the unrealistic nature of social media content can lower appearance anxiety among young women. Body positive content without human figures may be more beneficial as they avoid appearance comparisons.	There is a growing body of evidence that supports the relationship between body positive social media content and lower levels of body image concerns, as well as higher levels of positive body image. However, more research is needed to understand which types of body positive content are most effective in preventing and decreasing body image concerns. Body positive social media content can have a more beneficial impact by taking into account the interactions between individuals, their environment, and the particular type of body positive content.	More research is needed to understand the effects of different types of body positive content, such as static images, videos, and text as well as explore how different individuals, including those with diverse identities, respond to body positive content.	Some content may unintentionally highlight societal “flaws” that reinforces the appearance norms it intended to counter. Images showing the difference between posed and realistic views might increase pressure to alter one’s appearance. Despite gaining a strong presence on social media, body positive content still predominantly features “White, female bodies” failing to achieve true diversity and inclusiveness.

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Salehi 2021 Scoping review 12/12	To explore digital social capital interventions used for individuals with social skills deficits and identify the best social health outcomes achieved through these interventions. Focus: Addressing effects of social media, Delivery via social media	Individuals with social skills deficits. Outcomes: Improvements in social interactions, communication skills, and overall social wellbeing	Group interventions in health promotion and prevention, Peer-to-peer information sharing, Remote counselling and therapy, Virtual reality experiences, mHealth self-help tools	Facebook	A variety of the digital social capital interventions, from self-guided digital groups to virtual reality, were used in the studies. While advanced technologies showed increased effectiveness due to high engagement, especially among the young population, their feasibility is lower compared to low-tech solutions. Digital social programs provide a safe and controlled environment for individuals to practice social interactions, potentially improving their comfort and proficiency in real-world social situations. Self-Help Tools can enhance self-efficacy by providing resources and strategies that individuals can use to manage their social skills deficits. This can lead to improvements in confidence and independence. Online group treatments can provide a sense of community and belonging, reducing feelings of isolation. Web-based caregiver support services can also provide valuable resources and emotional support for caregivers. The use of social network services can help reduce feelings of loneliness and enhance social connections by providing a platform for communication and interaction.	Digital social capital interventions, which provide open and flexible access to resources through supportive networks, have been found beneficial in improving social health. Personalising interventions, i.e., choosing the right technology for the right audience (as opposed to using the most advanced technology for everyone), is crucial to ensure diverse consumer needs are met effectively.	None stated	Intervention/Program participants may face issues like limited internet access, difficulty using digital programs, and low technology literacy which in turn can hinder the effectiveness of the interventions.

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Su 2022 Narrative review 12/12	To examine the impact of COVID-19 on domestic violence victims' mental health and explores technology-based interventions as potential solutions Focus: Delivery via social media	Female domestic violence victims aged 15-49 years. Outcomes: Mental and psychological wellbeing	24/7 on-call services, Individual health protection services, Remote counselling and therapy, mHealth self-help tools	TikTok, WeChat, WhatsApp	Interventions are primarily developed at the individual level, placing the responsibility on victims rather than on community or societal levels. "all of these solutions are conceptual proposals, observational evidence, and/or insights from previous non-pandemic-related research" mHealth self-help tools like I-DECIDE provide self-guided support and empower victims to manage their mental health independently and can be used alongside apps (e.g., WhatsApp or WeChat) and platforms like TikTok to further care for their mental health. Online psychotherapeutic care offers remote counselling and therapy sessions, ensuring continuous mental health support without the need for physical presence. Web-based training for healthcare professionals enhances the skills and knowledge of healthcare providers to better support victims. Cross-state telepsychology services among licensed psychologists (similar to "Doctors Without Borders") have the potential to provide timely and tailored solutions to victims, leveraging global expertise and resources.	While technology-based interventions hold significant promise for addressing the mental health challenges of domestic violence victims, more rigorous research and policy-level support is required to address associated risks and improve these interventions.	There is a lack of long-term technology-based mental health solutions for domestic violence victims, which are crucial for addressing chronic mental health issues.	Privacy issues such as data breaches or cyberstalking. Victims may struggle with navigating technology due to poor eHealth literacy or fear of technology. Marginalised and underserved populations may lack access to high-speed internet and technological devices, limiting their ability to benefit from these interventions.

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Weinstein 2023 Narrative review 12/12	To summarise studies on problematic social networking site (SNS) use and social media addiction Focus: Addressing effects of social media	Various groups from different countries and age ranges, including adolescents, college students, and young adults. Outcomes: Low self-esteem, social anxiety, cyberbullying, emotional abuse, social comparison, "Peer phubbing" and fear of missing out (FoMO), depression, anxiety, ADHD, OCD, stress, eating disorders, body shame, and social physique anxiety	Abstinence, Cognitive Behavioural Therapy (CBT), Individual health protection services	Facebook, Instagram, WhatsApp	Cognitive Behavioural Therapy (CBT)-based short-term abstinence intervention for problematic social networking site (SNS) use. Emotional wellbeing, behavioural, and cognitive functions improved during and after abstinence. Preliminary evidence suggests that detoxification can increase positive mood, reduce anxiety, and improve sleep among university students.	Problematic social media use is linked to various mental health issues and impaired decision-making. Effective interventions, such as CBT, can significantly improve wellbeing.	More research that explores the cognitive and brain changes linked to problematic SNS use, as well as personality, gender differences, and treatment options is needed.	None stated

First author / Year / Review type / QA score	Study aim / Focus	Study population / Outcome(s)	Intervention type	Relevant platform	Key findings (in relation to intervention efficacy)	Key author conclusions	Author-stated research gaps and opportunities	Any unintended consequences
Zhang 2024 Systematic review 10/13	To explore the effects of public mental illness disclosure on social media on stigma toward people with mental illness. Focus: Addressing effects of social media	General public, including college students, online market research participants, and social media followers of celebrities and influencers. Outcomes: Stigma toward people with mental illness	Peer-to-peer information sharing, Public mental illness disclosures on social media, Social media influencers/microcelebrities conveying health information	Facebook, Instagram, Twitter/X, YouTube	Public mental illness disclosures on social media generally reduce stigmatising attitudes, but effects vary based on messenger and message characteristics. High-quality messages with good coping styles and supportive responses are more effective in reducing stigma. Messages with supportive peer responses increased empathy and decreased social distance (or increased social acceptance).	Public mental illness disclosures on social media can reduce stigma, with the effects varying based on the discloser's identity, relationship with the audience, and message content, but more rigorous studies are needed to confirm these findings.	Conducting long-term studies with adequate sample sizes to examine if the stigma reduction effects of public mental illness disclosure on social media can be sustained over time. Investigating how variations in the messenger's characteristics (e.g., celebrity status, mental illness diagnosis) influence the antistigma effects. Exploring how different aspects of the disclosure message (e.g., coping styles, supportive peer responses) impact stigma reduction. Examining the relationship between the audience and the messenger to understand how it affects the audience's response to the disclosure.	Despite mostly positive responses, some social media users still posted stigmatising comments toward individuals with mental illness. One experiment found that exposure to public disclosure increased perceptions of placing blame on individuals for their own mental illness. The presence of social media bots that disseminated and amplified stigmatising messages was identified in one study.

REVIEW OF REVIEWS – INCLUDED STUDIES

- Burnell, K., Fox, K. A., Maheux, A. J., & Prinstein, M. J. (2024). Social Media Use and Mental Health: A Review of the Experimental Literature and Implications for Clinicians. *Current Treatment Options in Psychiatry*, 11(1), 1–16. <https://doi.org/10.1007/s40501-024-00311-2>
- Drissi, N., Ouhbi, S., Marques, G., de la Torre Díez, I., Ghogho, M., & Janati Idrissi, M. A. (2021). A systematic literature review on e-mental health solutions to assist health care workers during COVID-19. *Telemedicine and E-Health*, 27(6), 594–602.
- Escobar-Viera, C. G., Melcher, E. M., Miller, R. S., Whitfield, D. L., Jacobson-López, D., Gordon, J. D., Ballard, A. J., Rollman, B. L., & Pagoto, S. (2021). A systematic review of the engagement with social media–delivered interventions for improving health outcomes among sexual and gender minorities. *Internet Interventions*, 25. <https://doi.org/10.1016/j.invent.2021.100428>
- Forte, A., Sarli, G., Polidori, L., Lester, D., & Pompili, M. (2021). The role of new technologies to prevent suicide in adolescence: A systematic review of the literature. *Medicina (Lithuania)*, 57(2), 1–13. <https://doi.org/10.3390/medicina57020109>
- Fung, I. C.-H., Blankenship, E. B., Ahweyevu, J. O., Cooper, L. K., Duke, C. H., Carswell, S. L., Jackson, A. M., Jenkins, J. C., Duncan, E. A., Liang, H., Fu, K.-W., & Tse, Z. T. H. (2020). Public Health Implications of Image-Based Social Media: A Systematic Review of Instagram, Pinterest, Tumblr, and Flickr. *Permanente Journal*, 24(1). <https://doi.org/10.7812/TPP/18.307>
- Gabarron, E., Reichenpfader, D., & Denecke, K. (2023). Exploring the Evolution of Social Media in Mental Health Interventions: A Mapping Review. *Yearbook of Medical Informatics*, 32(1), 152–157. <https://doi.org/10.1055/s-0043-1768730>

- Ghahramani, A., de Courten, M., & Prokofieva, M. (2022). The potential of social media in health promotion beyond creating awareness: An integrative review. *BMC Public Health*, 22(1), 2402.
- Ghosh, A., McDanal, R., & Schleider, J. L. (2023). Digital Single-Session Interventions for Child and Adolescent Mental Health: Evidence and Potential for Dissemination Across Low- and Middle-Income Countries. *Advances in Psychiatry and Behavioral Health*, 3(1), 129–138. <https://doi.org/10.1016/j.ypsc.2023.03.016>
- Graham, Y., Spencer, A. E., Velez, G. E., & Herbell, K. (2024). Engaging Youth Voice and Family Partnerships to Improve Children’s Mental Health Outcomes. *Child and Adolescent Psychiatric Clinics of North America*, 33(3), 343–354. <https://doi.org/10.1016/j.chc.2024.02.004>
- Hamilton, J. L., Torous, J., Szlyk, H. S., Biernesser, C., Kruzan, K. P., Jensen, M., Reyes-Portillo, J., Primack, B. A., Zelazny, J., & Weigle, P. (2024). Leveraging Digital Media to Promote Youth Mental Health: Flipping the Script on Social Media-Related Risk. *Current Treatment Options in Psychiatry*. <https://doi.org/10.1007/s40501-024-00315-y>
- Herriman, Z., Taylor, A. M., & Roberts, R. M. (2023). Interventions to Reduce the Negative Impact of Online Highly Visual Social Networking Site Use on Mental Health Outcomes: A Scoping Review. *Psychology of Popular Media*, 13(1), 111–139. <https://doi.org/10.1037/ppm0000455>
- Kruzan, K. P., Williams, K. D., Meyerhoff, J., Yoo, D. W., O’Dwyer, L. C., De Choudhury, M., & Mohr, D. C. (2022). Social media-based interventions for adolescent and young adult mental health: A scoping review. *Internet Interventions*, 30, 100578.
- Lee, J. J., Li Verdugo, J., Xiao, A. Y., & Vo, K. (2023). Digital Interventions to Enhance PrEP Uptake and Adherence Through Stigma Reduction. *Current HIV/AIDS Reports*, 20(6), 458–469. <https://doi.org/10.1007/s11904-023-00685-7>
- Lehtimäki, S., Martić, J., Wahl, B., Foster, K. T., & Schwalbe, N. (2021). Evidence on digital mental health interventions for adolescents and young people: Systematic overview. *JMIR Mental Health*, 8(4), e25847.

- Liu, Y., Wu, Y. C., Fu, H., Guo, W. Y., & Wang, X. (2023). Digital intervention in improving the outcomes of mental health among LGBTQ+ youth: A systematic review. *Frontiers in Psychology, 14*. <https://doi.org/10.3389/fpsyg.2023.1242928>
- Liverpool, S., Mota, C. P., Sales, C. M., Čuš, A., Carletto, S., Hancheva, C., Sousa, S., Cerón, S. C., Moreno-Peral, P., & Pietrabissa, G. (2020). Engaging children and young people in digital mental health interventions: Systematic review of modes of delivery, facilitators, and barriers. *Journal of Medical Internet Research, 22*(6), e16317.
- Loh, Y. L., Yaw, Q. P., & Lau, Y. (2023). Social media-based interventions for adults with obesity and overweight: A meta-analysis and meta-regression. *International Journal of Obesity, 47*(7), 606–621. <https://doi.org/10.1038/s41366-023-01304-6>
- Lupton, D. (2021). Young people's use of digital health technologies in the global north: Narrative review. *Journal of Medical Internet Research, 23*(1). <https://doi.org/10.2196/18286>
- Mahdavi, A., Amanzadeh, M., Hamedan, M., & Naemi, R. (2023). Artificial Intelligence-Based Chatbots to Combat COVID-19 Pandemic: A Scoping Review. *Shiraz E Medical Journal, 24*(11). <https://doi.org/10.5812/semi-139627>
- Okoro, Y. O., Ayo-Farai, O., Maduka, C. P., Okongwu, C. C., & Sodamade, O. T. (2024). The Role of technology in enhancing mental health advocacy: A systematic review. *International Journal of Applied Research in Social Sciences, 6*(1), 37–50.
- Philippe, T. J., Sikder, N., Jackson, A., Koblanski, M. E., Liow, E., Pilarinos, A., & Vasarhelyi, K. (2022). Digital Health Interventions for Delivery of Mental Health Care: Systematic and Comprehensive Meta-Review. *JMIR Mental Health, 9*(5). <https://doi.org/10.2196/35159>
- Plackett, R., Blyth, A., & Schartau, P. (2023). The Impact of Social Media Use Interventions on Mental Wellbeing: Systematic Review. *Journal of Medical Internet Research, 25*. <https://doi.org/10.2196/44922>
- Rodgers, R. F., Paxton, S. J., & Wertheim, E. H. (2021). #Take idealized bodies out of the picture: A scoping review of social media content aiming to protect and promote

positive body image. *Body Image*, 38, 10–36.

<https://doi.org/10.1016/j.bodyim.2021.03.009>

Rodgers, R. F., Wertheim, E. H., Paxton, S. J., Tylka, T. L., & Harriger, J. A. (2022). #Bopo: Enhancing body image through body positive social media- evidence to date and research directions. *Body Image*, 41, 367–374.

<https://doi.org/10.1016/j.bodyim.2022.03.008>

Salehi, A., Salehi, E., Mosadeghi-Nik, M., Sargeant, S., & Fatehi, F. (2021). Strengthening positive social pathways via digital social applications in individuals with social skills deficits: A scoping review. *International Journal of Social Psychiatry*, 67(6), 779–787.

<https://doi.org/10.1177/0020764020963354>

Su, Z., Cheshmehzangi, A., McDonnell, D., Chen, H., Ahmad, J., Šegalo, S., & da Veiga, C. P. (2022). Technology-Based Mental Health Interventions for Domestic Violence Victims Amid COVID-19. *International Journal of Environmental Research and Public Health*, 19(7). <https://doi.org/10.3390/ijerph19074286>

Weinstein, A. M. (2023). Problematic Social Networking Site use-effects on mental health and the brain. *Frontiers in Psychiatry*, 13. <https://doi.org/10.3389/fpsy.2022.1106004>

Zhang, Z., Morgan, A., Armstrong, G., Campbell, A., & Reavley, N. (2024). Public Mental Illness Disclosure on Social Media and the Effects on Stigma Toward People With Mental Illness: A Systematic Review. *Stigma and Health*.

<https://doi.org/10.1037/sah0000531>

SUPPLEMENTAL GREY LITERATURE AND PEER-REVIEWED LITERATURE SEARCH REFERENCES

Bányai F, Zsila Á, Király O, Maraz A, Elekes Z, Griffiths MD, Andreassen CS, Demetrovics

Z. Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. *PLoS One*. 2017 Jan 9;12(1):e0169839.

doi: 10.1371/journal.pone.0169839.

<https://dx.plos.org/10.1371/journal.pone.0169839>

Bradshaw, S., & Vaillancourt, T. (2024). *Freedom of thought, social media and the teen brain*. CIGI. <https://www.cigionline.org/publications/freedom-of-thought-social-media-and-the-teen-brain/>

Burnell, K., Fox, K. A., Maheux, A. J., & Prinstein, M. J. (2024). Social Media Use and Mental Health: A Review of the Experimental Literature and Implications for Clinicians. *Current Treatment Options in Psychiatry*, 11(1), 1–16.

<https://doi.org/10.1007/s40501-024-00311-2>

Castiglia, P., Dettori, M., Arghittu, A., Campus, G., & De Vito, D. (2023). Use of digital technologies in public health: A narrative review. *Acta Biomedica Atenei Parmensis*, 94(S3), e2023164. <https://doi.org/10.23750/abm.v94iS3.14589>

Chen, J., & Wang, Y. (2021). Social Media Use for Health Purposes: Systematic Review. *Journal of Medical Internet Research*, 23(5), e17917. <https://doi.org/10.2196/17917>

Christidis, R. (2024). *What parents worry about: Carer concerns for youth mental health and wellbeing*. <https://about.au.reachout.com/our-research/our-publications>

Dadich, A., & Khan, A. (2021). Using Twitter to promote a youth mental health agenda. *Health Promotion International*, 36(1), 235–249.

<https://doi.org/10.1093/heapro/daaa016>

De Vere Hunt, I., & Linos, E. (2022). Social Media for Public Health: Framework for Social Media-Based Public Health Campaigns. *Journal of Medical Internet Research*, 24(12), e42179. <https://doi.org/10.2196/42179>

- Drissi, N., Ouhbi, S., Marques, G., de la Torre Díez, I., Ghogho, M., & Janati Idrissi, M. A. (2021). A systematic literature review on e-mental health solutions to assist health care workers during COVID-19. *Telemedicine and E-Health*, 27(6), 594–602.
- Dunn, S., Vaillaincourt, T., & Brittain, H. (2023). *Supporting safer digital spaces: Special report*. CIGI. <https://www.cigionline.org/publications/supporting-safer-digital-spaces/>
- Australian eSafety Commissioner. (2024). *Tipping the balance: LGBTIQ+ teens' experiences negotiating connection, self-expression and harm online*. <https://www.esafety.gov.au/research/the-digital-lives-of-young-lgbtqi-people#:~:text=Tipping%20the%20balance%3A%20LGBTIQ%2B%20teens,17%2C%20who%20identified%20as%20LGBTIQ%2B>
- Escobar-Viera, C. G., Melcher, E. M., Miller, R. S., Whitfield, D. L., Jacobson-López, D., Gordon, J. D., Ballard, A. J., Rollman, B. L., & Pagoto, S. (2021). A systematic review of the engagement with social media–delivered interventions for improving health outcomes among sexual and gender minorities. *Internet Interventions*, 25. <https://doi.org/10.1016/j.invent.2021.100428>
- Ferguson, C. J. (2024). Do social media experiments prove a link with mental health: A methodological and meta-analytic review. *Psychology of Popular Media*. <https://doi.org/10.1037/ppm0000541>
- Forte, A., Sarli, G., Polidori, L., Lester, D., & Pompili, M. (2021). The role of new technologies to prevent suicide in adolescence: A systematic review of the literature. *Medicina (Lithuania)*, 57(2), 1–13. <https://doi.org/10.3390/medicina57020109>
- Friel, S., Collin, J., Daube, M., Depoux, A., Freudenberg, N., Gilmore, A. B., Johns, P., Laar, A., Marten, R., McKee, M., & Mialon, M. (2023). Commercial determinants of health: Future directions. *The Lancet*, 401(10383), 1229–1240. [https://doi.org/10.1016/S0140-6736\(23\)00011-9](https://doi.org/10.1016/S0140-6736(23)00011-9)
- Fung, I. C.-H., Blankenship, E. B., Ahweyevu, J. O., Cooper, L. K., Duke, C. H., Carswell, S. L., Jackson, A. M., Jenkins, J. C., Duncan, E. A., Liang, H., Fu, K.-W., & Tse, Z. T. H. (2020). Public Health Implications of Image-Based Social Media: A Systematic

- Review of Instagram, Pinterest, Tumblr, and Flickr. *Permanente Journal*, 24(1).
<https://doi.org/10.7812/TPP/18.307>
- Gabarron, E., Reichenpfader, D., & Denecke, K. (2023). Exploring the Evolution of Social Media in Mental Health Interventions: A Mapping Review. *Yearbook of Medical Informatics*, 32(1), 152–157. <https://doi.org/10.1055/s-0043-1768730>
- Ghahramani, A., de Courten, M., & Prokofieva, M. (2022). “The potential of social media in health promotion beyond creating awareness: An integrative review.” *BMC Public Health*, 22(1), 2402. <https://doi.org/10.1186/s12889-022-14885-0>
- Ghosh, A., McDanal, R., & Schleider, J. L. (2023). Digital Single-Session Interventions for Child and Adolescent Mental Health: Evidence and Potential for Dissemination Across Low- and Middle-Income Countries. *Advances in Psychiatry and Behavioral Health*, 3(1), 129–138. <https://doi.org/10.1016/j.ypsc.2023.03.016>
- Graham, Y., Spencer, A. E., Velez, G. E., & Herbell, K. (2024). Engaging Youth Voice and Family Partnerships to Improve Children’s Mental Health Outcomes. *Child and Adolescent Psychiatric Clinics of North America*, 33(3), 343–354.
<https://doi.org/10.1016/j.chc.2024.02.004>
- Gronholm, P. C., & Thornicroft, G. (2022). Impact of celebrity disclosure on mental health-related stigma. *Epidemiology and Psychiatric Sciences*, 31, e62.
<https://doi.org/10.1017/S2045796022000488>
- Hamilton, J. L., Dreier, M. J., & Boyd, S. I. (2023). Social media as a bridge and a window: The changing relationship of adolescents with social media and digital platforms. *Current Opinion in Psychology*, 52, 101633.
<https://doi.org/10.1016/j.copsyc.2023.101633>
- Harness, J., Domoff, S. E., & Rollings, H. (2023). Social Media Use and Youth Mental Health: Intervention-Focused Future Directions. *Current Psychiatry Reports*, 25(12), 865–871. <https://doi.org/10.1007/s11920-023-01476-y>
- Herriman, Z., Taylor, A. M., & Roberts, R. M. (2024). Interventions to reduce the negative impact of online highly visual social networking site use on mental health outcomes:

- A scoping review. *Psychology of Popular Media*, 13(1), 111–139.
<https://doi.org/10.1037/ppm0000455>
- Hung, J. (2022). Digitalisation, Parenting, and Children's Mental Health: What Are the Challenges and Policy Implications? *International Journal of Environmental Research and Public Health*, 19(11), 6452. <https://doi.org/10.3390/ijerph19116452>
- Kim, J., Uddin, Z. A., Lee, Y., Nasri, F., Gill, H., Subramanieapillai, M., Lee, R., Udovica, A., Phan, L., Lui, L., Iacobucci, M., Mansur, R. B., Rosenblat, J. D., & McIntyre, R. S. (2021). A Systematic review of the validity of screening depression through Facebook, Twitter, Instagram, and Snapchat. *Journal of Affective Disorders*, 286, 360–369. <https://doi.org/10.1016/j.jad.2020.08.091>
- Kruzan, K. P., Williams, K. D., Meyerhoff, J., Yoo, D. W., O'Dwyer, L. C., De Choudhury, M., & Mohr, D. C. (2022). Social media-based interventions for adolescent and young adult mental health: A scoping review. *Internet Interventions*, 30, 100578.
- Lee, J. J., Li Verdugo, J., Xiao, A. Y., & Vo, K. (2023). Digital Interventions to Enhance PrEP Uptake and Adherence Through Stigma Reduction. *Current HIV/AIDS Reports*, 20(6), 458–469. <https://doi.org/10.1007/s11904-023-00685-7>
- Lehtimäki, S., Martić, J., Wahl, B., Foster, K. T., & Schwalbe, N. (2021). Evidence on digital mental health interventions for adolescents and young people: Systematic overview. *JMIR Mental Health*, 8(4), e25847.
- Litvak, E., Dufour, R., Leblanc, É., Kaiser, D., Mercure, S.-A., Nguyen, C. T., & Thibeault, L. (2020). Making sense of what exactly public health does: A typology of public health interventions. *Canadian Journal of Public Health*, 111(1), 65–71.
<https://doi.org/10.17269/s41997-019-00268-3>
- Liu, Y., Wu, Y. C., Fu, H., Guo, W. Y., & Wang, X. (2023). Digital intervention in improving the outcomes of mental health among LGBTQ+ youth: A systematic review. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1242928>
- Liverpool, S., Mota, C. P., Sales, C. M., Čuš, A., Carletto, S., Hancheva, C., Sousa, S., Cerón, S. C., Moreno-Peral, P., & Pietrabissa, G. (2020). Engaging children and

- young people in digital mental health interventions: Systematic review of modes of delivery, facilitators, and barriers. *Journal of Medical Internet Research*, 22(6), e16317.
- Lupton, D. (2021). Young people's use of digital health technologies in the global north: Narrative review. *Journal of Medical Internet Research*, 23(1).
<https://doi.org/10.2196/18286>
- Mahdavi, A., Amanzadeh, M., Hamedan, M., & Naemi, R. (2023). Artificial Intelligence-Based Chatbots to Combat COVID-19 Pandemic: A Scoping Review. *Shiraz E Medical Journal*, 24(11). <https://doi.org/10.5812/semj-139627>
- Okoro, Y. O., Ayo-Farai, O., Maduka, C. P., Okongwu, C. C., & Sodamade, O. T. (2024). The Role of technology in enhancing mental health advocacy: A systematic review. *International Journal of Applied Research in Social Sciences*, 6(1), 37–50.
- Philippe, T. J., Sikder, N., Jackson, A., Koblanski, M. E., Liow, E., Pilarinos, A., & Vasarhelyi, K. (2022). Digital Health Interventions for Delivery of Mental Health Care: Systematic and Comprehensive Meta-Review. *JMIR Mental Health*, 9(5).
<https://doi.org/10.2196/35159>
- Plackett, R., Blyth, A., & Schartau, P. (2023). The Impact of Social Media Use Interventions on Mental Wellbeing: Systematic Review. *Journal of Medical Internet Research*, 25(1), e44922. <https://doi.org/10.2196/44922>
- Rodgers, R. F., Paxton, S. J., & Wertheim, E. H. (2021). #Take idealized bodies out of the picture: A scoping review of social media content aiming to protect and promote positive body image. *Body Image*, 38, 10–36.
<https://doi.org/10.1016/j.bodyim.2021.03.009>
- Rodgers, R. F., Wertheim, E. H., Paxton, S. J., Tylka, T. L., & Harriger, J. A. (2022). #Bopo: Enhancing body image through body positive social media- evidence to date and research directions. *Body Image*, 41, 367–374.
<https://doi.org/10.1016/j.bodyim.2022.03.008>

- Sala, A., Porcaro, L., & Gómez, E. (2024). Social Media Use and adolescents' mental health and wellbeing: An umbrella review. *Computers in Human Behavior Reports*, 14, 100404. <https://doi.org/10.1016/j.chbr.2024.100404>
- Saleem, M., Kühne, L., De Santis, K. K., Christianson, L., Brand, T., & Busse, H. (2021). Understanding Engagement Strategies in Digital Interventions for Mental Health Promotion: Scoping Review. *JMIR Mental Health*, 8(12), e30000. <https://doi.org/10.2196/30000>
- Salehi, A., Salehi, E., Mosadeghi-Nik, M., Sargeant, S., & Fatehi, F. (2021). Strengthening positive social pathways via digital social applications in individuals with social skills deficits: A scoping review. *International Journal of Social Psychiatry*, 67(6), 779–787. <https://doi.org/10.1177/0020764020963354>
- Schleider, J. L., Dobias, M. L., Sung, J. Y., & Mullarkey, M. C. (2020). Future Directions in Single-Session Youth Mental Health Interventions. *Journal of Clinical Child & Adolescent Psychology*, 49(2), 264–278. <https://doi.org/10.1080/15374416.2019.1683852>
- Schroerer, C., Voss, S., Jung-Sievers, C., & Coenen, M. (2021). Digital Formats for Community Participation in Health Promotion and Prevention Activities: A Scoping Review. *Frontiers in Public Health*, 9, 713159. <https://doi.org/10.3389/fpubh.2021.713159>
- Shannon, H., Bush, K., Villeneuve, P. J., Hellemans, K. G., & Guimond, S. (2022). Problematic Social Media Use in Adolescents and Young Adults: Systematic Review and Meta-analysis. *JMIR mental health*, 9(4), e33450. <https://doi.org/10.2196/33450>
- Stark, A. L., Geukes, C., & Dockweiler, C. (2022). Digital Health Promotion and Prevention in Settings: Scoping Review. *Journal of Medical Internet Research*, 24(1), e21063. <https://doi.org/10.2196/21063>
- Strudwick, G., Sockalingam, S., Kassam, I., Sequeira, L., Bonato, S., Youssef, A., Mehta, R., Green, N., Agic, B., Soklaridis, S., Impey, D., Wiljer, D., & Crawford, A. (2021). Digital Interventions to Support Population Mental Health in Canada During the

- COVID-19 Pandemic: Rapid Review. *JMIR Mental Health*, 8(3), e26550.
<https://doi.org/10.2196/26550>
- Su, Z., Cheshmehzangi, A., McDonnell, D., Chen, H., Ahmad, J., Šegalo, S., & da Veiga, C. P. (2022). Technology-Based Mental Health Interventions for Domestic Violence Victims Amid COVID-19. *International Journal of Environmental Research and Public Health*, 19(7). <https://doi.org/10.3390/ijerph19074286>
- The U.S. Surgeon General's Advisory. (2023). *Social media and youth mental health*.
<https://apo.org.au/node/322809>
- the Y. (2024). *Submission to the Joint Select Committee on Social Media and Australian Society*.
- Walker, R., Usher, K., Jackson, D., Reid, C., Hopkins, K., Shepherd, C., Smallwood, R., & Marriott, R. (2021). Connection to... Addressing Digital Inequities in Supporting the Wellbeing of Young Indigenous Australians in the Wake of COVID-19. *International Journal of Environmental Research and Public Health*, 18(4), 2141.
<https://doi.org/10.3390/ijerph18042141>
- Weinstein, A. M. (2023). Problematic Social Networking Site use-effects on mental health and the brain. *Frontiers in Psychiatry*, 13. <https://doi.org/10.3389/fpsyt.2022.1106004>
- Yeo, G., Reich, S. M., Liaw, N. A., & Chia, E. Y. M. (2024). The Effect of Digital Mental Health Literacy Interventions on Mental Health: Systematic Review and Meta-Analysis. *Journal of Medical Internet Research*, 26, e51268.
<https://doi.org/10.2196/51268>
- Yue, Z., & Rich, M. (2023). Social Media and Adolescent Mental Health. *Current Pediatrics Reports*, 11(4), 157–166. <https://doi.org/10.1007/s40124-023-00298-z>
- Zenone, M., Kenworthy, N., & Maani, N. (2022). The Social Media Industry as a Commercial Determinant of Health. *International Journal of Health Policy and Management*, 1.
<https://doi.org/10.34172/ijhpm.2022.6840>
- Zhang, Z., Morgan, A., Armstrong, G., Campbell, A., & Reavley, N. (2024). Public Mental Illness Disclosure on Social Media and the Effects on Stigma Toward People With

Mental Illness: A Systematic Review. *Stigma and Health*.

<https://doi.org/10.1037/sah0000531>

APPENDIX 1 – REVIEW PROTOCOL

What are proven and promising public health interventions to address the effects of social media use on the mental health and wellbeing of the community? A Rapid Review of Reviews

1. Project Timeline and Overview

Anticipated start and completion date

18 June 2024 - 1 August 2024

Status of review

Screening complete. About to begin extraction.

Named contact and organisational affiliation

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Review team members and their organisational affiliations

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Funding sources/sponsors

Beyond Blue

Conflicts of interest

There are no known conflicts of interest.

1. Introduction

There is substantial discussion about how to better manage the effects of social media on our communities – among the proposed solutions are a ban for under 16 year olds or adding warning labels to platforms.

The impact of social media use on mental health is complex. Social media has been shown to have both positive and negative effects, however, there is growing concern and desire for action to counter the most substantial negative effects of social media which include, but are not limited to:

- Cyberbullying
- Issues with body image
- Decreased life satisfaction
- Higher levels of psychological distress
- Prolonged use is associated with anxiety and depression

Moreover, social media has some positive effects on mental health that may potentially merit fostering. The include but are not limited to:

- Finding social support and building of community
- Conveying messages that stigmatize mental illness
- provide access to potentially reliable expert health information.

Beyond Blue’s Strategy 2023+ contains commitments to digital innovation as a means to earlier intervention and leadership in positive systems and social change are made. As the national discussion in Australia about how to manage social media’s negative effects intensifies, it is increasingly important to understand the evidence on what works to counter those negative effects, as well as foster the potential positive roles that social media can play in mental health.

To gain this understanding, Beyond Blue has commissioned a seeking a rapid evidence review that will help to identify evidence-supported public health approaches to addressing social media’s negative effects and fostering its positive effects. Specifically, Beyond Blue would like to identify evidence that support their ability to deliver digital services, as well as contribute to policy positions, campaigns, informed debate and thought leadership about the role of social media. Moreover, identifying where solutions map onto the social ecological model (e.g. individual, community, or societal levels) and where evidence gaps may exist are of particular interest.

3. Method

This is a scoping review of reviews. This review will be supplemented by a hand search of additional academic and grey literature to contextualise the results of the review (this component is not subject to the inclusion and exclusion criteria listed below).

3.1 Search Strategy

We conducted a comprehensive literature search to identify review-level, peer-reviewed articles that examined any topic or subtopic within the field of the review

We searched the following electronic databases from 2020 to the date of the search

SCOPUS

Google Scholar

Elicit - an AI-driven search tool that is connected to the Semantic Scholar database

To develop the search terms used in the above databases, multiple members of the review team engaged in naive searching and developed a list of possible included terms, as well as list of candidate “gold set” documents (documents that will very likely be included in the review that can validate the final search terms).

We used a combination of free-text and controlled vocabulary terms to construct our search strategy. We used truncation, proximity operators, and Boolean operators to combine the terms. We did not apply date restrictions to our search but imposed a restriction to English language only. The full search strategy is presented in Appendix 1. We adapted the search strategy for other databases as appropriate.

3.2 Study Selection: Inclusion and Exclusion Criteria

	Include	Exclude
Publication Type	<ul style="list-style-type: none"> • Peer-reviewed journal review article (any type of review) • Grey literature 	<ul style="list-style-type: none"> • All other types
Language of Publication	<ul style="list-style-type: none"> • English 	<ul style="list-style-type: none"> •

Population / context	<ul style="list-style-type: none"> No Limit 	<ul style="list-style-type: none">
Study Focus	<ul style="list-style-type: none"> Studies primarily focused on the efficacy of (public health) interventions of any type to promote the benefits, or reduce the harms, of social media use 	
Outcomes	<ul style="list-style-type: none"> All outcomes 	
Date Range	<ul style="list-style-type: none"> 2020-present 	

3.3 Screening and Data Extraction

We imported all the records retrieved from the searches into Covidence, a web-based software for managing systematic reviews. We removed duplicates and screened the titles and abstracts of the remaining records for eligibility in duplicate against the inclusion and exclusion criteria. Any disagreements between the two screeners were resolved by either consensus, or by a third screener taking the final vote. We obtained the full texts of potentially relevant records and again assessed them in duplicate against the inclusion and exclusion criteria. We recorded the reasons for excluding any records at this stage. Again, disagreements between screeners were either resolved via consensus or a third screener.

- Review details (e.g. author, year, review type)
- Focus of the of the review (e.g. topic/subtopic, study populations, types of interventions)
- Key findings of the review in relation to effectiveness of interventions
- Key conclusions of review authors
- Research gaps and opportunities identified by the review authors

Upon completion of data extraction, reviewers will cross-check a selection of reviews (e.g., 10%) to ensure extraction accuracy.

3.4 Data Analysis and Reporting

The extracted data will be thematically analysed and narratively synthesised narratively and, where possible, using visualisations.

3.5 Quality assessment

Where appropriate quality appraisal will be undertaken. For reviews, the AMSTAR II tool (Shea et al., 2017) or SANRA (Baethge et al., 2019) will be used as appropriate according to the review design.

4. Dissemination

A report will be prepared and delivered to Beyond Blue. Should they see fit, an academic manuscript may also be prepared.

APPENDIX 2 – SEARCH STRINGS

SCOPUS

(((TITLE-ABS-KEY ("social media*" OR "social network*" OR "facebook" OR "youtube" OR "instagram" OR "whatsapp" OR "tiktok" OR "wechat" OR "facebook messenger" OR "telegram" OR "snapchat" OR "twitter")) AND ((TITLE-ABS-KEY(intervention OR program* OR strateg* OR incentiv* OR experiment* OR campaign* OR trial OR initiative* OR policy OR policies OR promote* OR promotion OR foster* OR strengthen* OR motivat* OR strateg* OR engage* OR "outreach" OR "health promot*" OR "health prevent*" OR "group intervention" OR "social marketing" OR "mass media" OR "dissemination of information" OR "health risk*" OR "media relations" OR "public awareness" OR "alliance*" OR lobbying OR "community development" OR "knowledge sharing" OR framework OR guidance OR orientation OR training OR "communit* of practice" OR "determinants of health" OR initiative OR evaluation OR feedback OR mentoring OR consultation OR cooperation OR partnership OR "population W/1 services")) OR (TITLE-ABS-KEY(efficacy OR effectiveness OR effectivity OR importance OR value OR usefulness OR utility OR validity OR "desired output" OR "successful outcome" OR "expected outcome" OR "self-efficacy" OR "what works" OR "what does not work")))) AND (((TITLE-ABS-KEY("public health" OR "health promot*" OR "population health" OR "community health" OR "safety by design" OR "digital mental health")) OR (TITLE-ABS-KEY("responsibl* W/1 use*")) OR (TITLE-ABS-KEY("digital* trace*"))) OR (TITLE-ABS-KEY("mental health" OR "mental wellbeing" OR "mental wellbeing" OR "mental well*being" OR "mental ill-health" OR "mental illhealth" OR "mental ill*health" OR "mental disorder*" OR "mental illness" OR "psychological health" OR "psychological wellbeing" OR "psychological well*being" OR "psychological wellbeing")) OR (TITLE-ABS (encourag* OR support* OR "help seeking" OR "mental health literacy" OR "reduc* stigma*" OR "destigmati*" OR "stigma*" OR "romantici*" OR "social connect*" OR "community preparedness" OR resilience OR "targeted intervention*" OR "social* W/1 isolat*" OR "social* W/1 withdraw*" OR depression OR anxiety OR "self-harm" OR suicide OR "message board*" OR "chat room*" OR cyberbully* OR cyberstalk* OR "anorexia nervosa" OR bulimia OR obesity OR "body sham*" OR "behavio* contagion" OR "challenge contest*" OR "disrupted sleep*" OR "sleep disorder*" OR "screen W/2 behavi*")) OR (TITLE-ABS ("self-concept development" OR "social comparison" OR "socially compar*" OR "social feed-back" OR "social feedback" OR "social feed*back" OR "social inclusion" OR "social exclusion" OR "risky posting" OR "self-presentation" OR "social media envy" OR "benign envy"))) AND PUBYEAR > 2019 AND PUBYEAR < 2025) AND (LIMIT-TO (SUBJAREA,"MEDI") OR LIMIT-TO (SUBJAREA,"PSYC")) AND (LIMIT-TO (DOCTYPE,"re")) AND (LIMIT-TO (LANGUAGE,"English"))

Google Scholar

"social media"|"social network" "mental health"|"public health"|"community health" intervention|efficacy|effectiveness

Dimensions

((("social media*" OR "social network*") AND (intervention* OR program* OR strateg* OR campaign* OR efficac* OR effectiveness))

APPENDIX 3 – PRISMA DIAGRAM



Promising public health interventions to address the effects of social media use on mental health - spotlight on the role of social media companies¹

Background and context

The impact of social media use on mental health is complex. Social media has been shown to have both positive and negative effects, however, there is growing concern and urgent need for action to counter the most substantial negative effects of social media.

To contribute to emerging evidence on this issue, Beyond Blue commissioned BehaviourWorks at Monash University to undertake a rapid evidence review to identify public health approaches that could help address social media's negative effects while fostering its positive effects, such as providing information, education and a platform for social and emotional support. The rapid review included relevant academic literature and select grey literature published since 2020.

Key findings included the important role of social media literacy interventions, and the need for social media companies to take seriously the principles of **safety by design**.² There are clear opportunities for policymakers, researchers and advocacy organisations to advance this agenda.

Beyond Blue has produced two briefing notes from this rapid review, focused on:

- the role of social media companies in mitigating mental health harms from their platforms
- opportunities to improve mental health and wellbeing outcomes through social media literacy interventions.

Findings spotlight – the role of social media companies

Beyond Blue acknowledges the challenge of regulating social media platforms, and the extensive work led by the Australian eSafety Commissioner on progressing the agenda on safety by design. Recent international examples include the European Union's Digital Services Act, which provides a clear regulatory framework for digital services, including



specific requirements for ‘very large online platforms’ such as Meta, Snapchat, TikTok and X (formerly Twitter).

Social media companies have a key role in identifying and addressing critical risks inherent in their platforms, including those posed to young people. Some researchers argue the social media industry should be recognised as a commercial determinant of health due to features that elicit addictive behaviours and can be associated with distress and other negative mental health symptoms.³

The rapid review highlighted the importance of social media companies prioritising safety by design and tackling the negative impacts of their platforms, including:

- **avoiding business practices and platform design approaches that prioritise engagement over risks to safety and rights of users⁴** – this includes considering features such as push notifications, autoplay, infinite scroll, and the design and implementation of algorithms;⁵
- **making online platforms more accountable for reducing online harm**, including measures and tools that adequately allow users to manage their own safety, and that are set to the most secure privacy and safety levels by default;⁶
- ensuring that their content moderation policies and implementation approaches are up to the task of protecting people’s rights and safety, as well as being equity focused and trauma-informed;⁷
- **ensure default settings for children are set to highest safety and privacy standards;⁸**
- developing greater transparency and responsiveness in reporting systems and research findings based on their proprietary data;⁹
- focusing on **mitigating the risks of cyberbullying and discrimination**, which can exacerbate depressive symptoms and psychological distress;¹⁰
- adhere to and enforce age minimums for their services.¹¹

Policymakers can focus efforts on the following:

- develop age-appropriate health and safety standards for social media companies, and create means to require higher data privacy standards relating to children;
- support the continued development of evidence-based digital literacy initiatives^{12,13}, including those that demonstrate to the participant how platforms are designed to grab and maintain their attention;¹⁴
- improvements to privacy, inclusivity, informed consent and data security on social media platforms;¹⁵
- strengthen requirements for increased transparency and responsiveness from social media companies in reporting systems, including making available their proprietary data for research.¹⁶

¹ The research question: What are promising public health interventions to address the effects of social media use on the mental health and wellbeing of the community?

² Safety by Design is described by the Australian E-Safety Commissioner as 'the ways technology companies can minimise online threats by anticipating, detecting and eliminating online harms before they occur. It encourages technology companies to alter their design ethos from 'moving fast and breaking things' or 'profit at all costs' to 'moving thoughtfully', investing in risk mitigation at the front end and embedding user protections from the get-go.' For an explanation of Safety by Design principles, see <https://www.esafety.gov.au/industry/safety-by-design#safety-by-design-principles>

³ Zenone, M., Kenworthy, N., & Maani, N. (2022). The Social Media Industry as a Commercial Determinant of Health. *International Journal of Health Policy and Management*, 1. <https://doi.org/10.34172/ijhpm.2022.6840>

⁴ Dunn, S., Vaillancourt, T., & Brittain, H. (2023). Supporting safer digital spaces: Special report. CIGI. Available from <https://www.cigionline.org/publications/supporting-safer-digital-spaces/> last accessed 26 August 2024

⁵ Algorithms designed to tailor content to personal interests aim to increase user engagement, which generates profit. However, this can lead users towards more polarised content that amplifies their interests and concerns. Rodgers, R. F., Paxton, S. J., & Wertheim, E. H. (2021). Take idealized bodies out of the picture: A scoping review of social media content aiming to protect and promote positive body image. *Body Image*, 38, 10–36.

⁶ Australian eSafety Commissioner. (2024). Tipping the balance: LGBTIQ+ teens' experiences negotiating connection, self-expression and harm online. Available from <https://www.esafety.gov.au/research/the-digital-lives-of-young-lgbtqi-people> last accessed 26 August 2024

⁷ Dunn, S., Vaillancourt, T., & Brittain, H. (2023). Supporting safer digital spaces: Special report. CIGI. Available from <https://www.cigionline.org/publications/supporting-safer-digital-spaces/> last accessed 26 August 2024

⁸ The U.S. Surgeon General's Advisory. (2023). Social media and youth mental health. Available from <https://apo.org.au/node/322809> last accessed 26 August 2024

⁹ Australian eSafety Commissioner. (2024). Tipping the balance: LGBTIQ+ teens' experiences negotiating connection, self-expression and harm online. Available from <https://www.esafety.gov.au/research/the-digital-lives-of-young-lgbtqi-people> last accessed 26 August 2024

¹⁰ Liu, Y., Wu, Y. C., Fu, H., Guo, W. Y., & Wang, X. (2023). Digital intervention in improving the outcomes of mental health among LGBTIQ+ youth: A systematic review. *Frontiers in Psychology*, 14.

¹¹ The U.S. Surgeon General's Advisory. (2023). Social media and youth mental health. Available from <https://apo.org.au/node/322809> last accessed 26 August 2024

¹² the Y. (2024). Submission to the Joint Select Committee on Social Media and Australian Society. Available from https://ymca.org.au/wp-content/uploads/2024/06/FINAL_The-Y_Submission-to-the-Joint-Select-Committee-on-Social-Media-and-Australian-Society.pdf last accessed 26 August 2024

¹³ The U.S. Surgeon General's Advisory. (2023). Social media and youth mental health. Available from <https://apo.org.au/node/322809> last accessed 26 August 2024

¹⁴ Burnell, K., Fox, K. A., Maheux, A. J., & Prinstein, M. J. (2024). Social Media Use and Mental Health: A Review of the Experimental Literature and Implications for Clinicians. *Current Treatment Options in Psychiatry*, 11(1), 1–16.

¹⁵ Okoro, Y. O., Ayo-Farai, O., Maduka, C. P., Okongwu, C. C., & Sodamade, O. T. (2024). The Role of technology in enhancing mental health advocacy: A systematic review. *International Journal of Applied Research in Social Sciences*, 6(1), 37–50.

¹⁶ Australian eSafety Commissioner. (2024). Tipping the balance: LGBTIQ+ teens' experiences negotiating connection, self-expression and harm online. Available from <https://www.esafety.gov.au/research/the-digital-lives-of-young-lgbtqi-people> last accessed 26 August 2024

Promising public health interventions to address the effects of social media use on mental health - spotlight on social media literacy interventions¹

Background and context

The impact of social media use on mental health is complex. Social media has been shown to have both positive and negative effects, however there is growing concern and urgent need for action to counter the most substantial negative effects of social media.

To improve this understanding, Beyond Blue commissioned BehaviourWorks at Monash University to undertake a rapid evidence review to identify public health approaches that could help address social media's negative effects while fostering its positive effects, such as providing information, education and a platform for social and emotional support. This included relevant academic literature and select grey literature published since 2020.

Key findings included the important role of social media literacy interventions, and the need for social media companies to take seriously the principles of safety by design.² There are clear opportunities for policymakers, researchers and advocacy organisations to advance this agenda.

Beyond Blue has produced two briefing notes from this rapid review, focused on:

- the role of social media companies in mitigating mental health harms from their platforms
- opportunities to improve mental health and wellbeing outcomes through social media literacy interventions.

Findings spotlight – social media literacy interventions

Social media literacy is focused on the development of different abilities that range from the technical to the social-emotional.³ Recently developed social media literacy frameworks are based on the concept that social media literacy can not only minimise harms associated with social media use, but maximise positive opportunities.⁴ The rapid review found that social media literacy interventions



that focus on improving user knowledge of how to engage safely and meaningfully online can reduce problematic social media use,⁵ and this is associated with better mental health outcomes.

Governments should continue to invest in high-quality, evidence-based social media literacy resources

Australian governments should continue to **invest in high-quality resources for building the digital capabilities of children.** Evidence highlights the importance of young people taking an active role in the process of designing digital literacy and safety education materials for which they are the intended users.⁶ There is a key role for the eSafety Youth Council established by the eSafety Commissioner in the public conversation on useful social media literacy approaches, alongside broader strategies to mitigate harm and promote the positive benefits of social media for young people.

The eSafety Commissioner has produced a suite of classroom resources that can be filtered by classroom level and topic, and covers issues such as data security, disinformation, cyber-bullying, privacy, and online boundaries and consent.⁷ These resources can be self-directed or led by the educator, and they provide an evidence-based platform to discuss concerns relevant to young people.

Social media literacy interventions tailored to need

The rapid review included promising evidence on interventions focused on promoting healthier engagement with social media, rather than encouraging 'abstinence.' The authors suggest a tailored approach dependent on how an individual engages with social media:

For example, some interventions focus on the 'unrealistic nature of social media', while others may focus on increasing the individual's understanding of social media advertising, or how platforms are specifically designed to maintain user engagement and increase profit for social media companies. Social media literacy programs that focus on these aspects have been **effective in improving body image and overall wellbeing, especially for girls.**^{8,9}



For population level social media literacy interventions, we suggest it is beneficial to maintain a focus on material that covers **how social media platforms are deliberately designed to maximise users' attention,**¹⁰ rather than just placing the onus on individuals to change their behaviour.

Promising social media literacy interventions identified in the literature included the following elements:

- **Increasing user awareness of the influential nature of social media**, particularly Highly Visual Social Networking Sites (HVSNs) such as Instagram, Facebook and Snapchat, and the potential negative impact on mental health outcomes. This includes strategies to manage associated pressures.¹¹
- Reducing body dissatisfaction from online appearance comparisons and unrealistic ideals.¹² This approach focuses on **positive engagement with social media** through exposure to body positive content and practicing self-compassion.¹³
- Psychoeducation, **whereby young people are supported to critically engage with social media content** to better understand mental health challenges that are related to their social media use.¹⁴

More tailored individual interventions can focus on education about passive and active use of social media, addressing the dangers of scrolling through harmful content (e.g. idealised, highly visual content) and how targeted use (e.g., viewing the content of close friends and reminiscing on positive past content) may be more beneficial.¹⁵

Social media as a platform to promote mental health

Social media also plays an important role in promoting good mental health, including through delivery of mental health information. Web and smartphone-based mental health psychotherapy interventions for conditions like depression and anxiety- some of which were delivered by social media - were found to be as effective as face-to-face for children and young people.¹⁶

The review included promising evidence on the role of single-session interventions (SSI) delivered through social media platforms for treating anxiety and depression. It is therefore critical that policymakers consider the benefit of social media as a scalable and accessible¹⁷ way to deliver mental health interventions to young people when changing or limiting access to these platforms.

- ¹ The research question for the rapid review was What are promising public health interventions to address the effects of social media use on the mental health and wellbeing of the community?
- ² Safety by Design is described by the Australian E-Safety Commissioner as ‘the ways technology companies can minimise online threats by anticipating, detecting and eliminating online harms before they occur. It encourages technology companies to alter their design ethos from ‘moving fast and breaking things’ or ‘profit at all costs’ to ‘moving thoughtfully’, investing in risk mitigation at the front end and embedding user protections from the get-go.’ For an explanation of Safety by Design principles, see <https://www.esafety.gov.au/industry/safety-by-design#safety-by-design-principles>
- ³ Polanco-Levicán K, Salvo-Garrido S. Understanding Social Media Literacy: A Systematic Review of the Concept and Its Competences. *International Journal of Environmental Research and Public Health*. 2022; 19(14):8807
- ⁴ Schreurs, L., & Vandenbosch, L. (2020). Introducing the Social Media Literacy (SMILE) model with the case of the positivity bias on social media. *Journal of Children and Media*, 15(3), 320–337; Cho, H., Cannon, J., Lopez, R., & Li, W. (2024). Social media literacy: A conceptual framework. *New Media & Society*, 26(2), 941-960.
- ⁵ There isn’t consensus about the definition of problematic social media use, however, the field is moving towards a definition that includes addiction-like symptoms (Shannon, H., Bush, K., Villeneuve, P. J., Hellems, K. G., & Guimond, S. (2022). Problematic Social Media Use in Adolescents and Young Adults: Systematic Review and Meta-analysis. *JMIR mental health*, 9(4).
- ⁶ Graham, Y., Spencer, A. E., Velez, G. E., & Herbell, K. (2024). Engaging Youth Voice and Family Partnerships to Improve Children’s Mental Health Outcomes. *Child and Adolescent Psychiatric Clinics of North America*, 33(3), 343–354.
- ⁷ eSafety Commissioner, Australian Government ‘Classroom Resources’ available from <https://www.esafety.gov.au/educators/classroom-resources> last accessed 3 September 2024
- ⁸ Kellner, P., Tsering D., Ngo, C., Delafosse V., Promising public health approaches to address the effects of social media use on the mental health and wellbeing of the community: A review of reviews and grey literature scan, BehaviourWorks Australia, Monash University, prepared for Beyond Blue, August 2024
- ⁹ Burnell, K., Fox, K. A., Maheux, A. J., & Prinstein, M. J. (2024). Social Media Use and Mental Health: A Review of the Experimental Literature and Implications for Clinicians. *Current Treatment Options in Psychiatry*, 11(1), 1–16.
- ¹⁰ Herriman, Zoe & Taylor, Amanda & Roberts, Rachel. (2023). Interventions to Reduce the Negative Impact of Online Highly Visual Social Networking Site Use on Mental Health Outcomes: A Scoping Review. *Psychology of Popular Media*. 13; also Burnell, et al, 2024
- ¹¹ Herriman, Z. et al (2023)
- ¹² Herriman, Z. et al (2023)
- ¹³ Burnell, K. et al (2024)
- ¹⁴ Burnell K. et al (2024)
- ¹⁵ Jungselius B, Weilenmann A. Keeping memories alive: a decennial study of social media reminiscing, memories, and nostalgia. *Social Media + Society*. 2023;9(4):1–15; Burnell, K., et al (2024)
- ¹⁶ Liverpool, S., Mota, C. P., Sales, C. M., Čuš, A., Carletto, S., Hancheva, C., Sousa, S., Cerón, S. C., Moreno-Peral, P., & Pietrabissa, G. (2020). Engaging children and young people in digital mental health interventions: Systematic review of modes of delivery, facilitators, and barriers. *Journal of Medical Internet Research*, 22(6)
- ¹⁷ Ghosh, A., McDanal, R., & Schleider, J. L. (2023). Digital Single-Session Interventions for Child and Adolescent Mental Health: Evidence and Potential for Dissemination Across Low- and Middle-Income Countries. *Advances in Psychiatry and Behavioral Health*, 3(1), 129–138.