Social media: a literature review of its impact on adolescents with mental health disorders

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Abstract

Introduction: In the last few years, there have been several public enquiries into the impact of social media on mental health. The discussion of how the use of social media can affect adolescents with current psychiatric diagnoses has become relevant to the public interest. This narrative review explores three common psychiatric illnesses in young people: depression, body dysmorphic disorder, and attention deficit hyperactivity disorder, and how adolescents with these diagnoses are affected by social media.

Methods: Initially, three searches were conducted in PubMed (2012-2018) for articles with ‘social media’, ‘adolescent’, or ‘teenager’ used alongside the three terms ‘depression’, ‘body dysmorphic disorder (BDD)’, or ‘attention deficit hyperactivity disorder (ADHD)’ in the title or abstract; that were assessing the impact of social media on adolescent psychiatric disorders.

Results: The review shows that adolescents with psychiatric disorders are much more vulnerable to social media addiction and are more likely to partake in hazardous activities online. Adolescents with diagnosed depression who used social media excessively were more likely to be affected by social isolation, altered sleep, and low mood than those who do not use social media excessively. The progression of body dysmorphic disorder was shown to be accelerated by highly-visual social media such as Snapchat and Instagram, with hashtags and filters currently allowing unrealistic comparisons with peers. Social media addiction was also shown to exacerbate traits of impulsivity and disinhibition that are common in adolescents with attention deficit hyperactivity disorder with violence as a potential consequence.

Conclusions: Social media use has been associated with negative effects in adolescents with three common psychiatric disorders. Nevertheless, punitive action and withholding access to social media from adolescents is not a feasible option to solve this issue. However, further investigation is required into methods of positive engagement that can increase help-seeking and provide healthcare professionals with therapeutic tools that the patient can use when accessing social media.
1 Introduction

In the last decade, there has been an upsurge in the number of adolescents described as ‘extreme internet users’. Technology and social media have recently become an integral part of 21st century adolescent life, with over 71% reporting regularly viewing more than one social media site (Lenhart, 2015). It is common for children to begin creating an online presence as early as eight years of age, and the impacts of this early exposure remain unknown. Clinicians and parents alike are becoming increasingly concerned about the impact of social media on adolescents today (Walsh & Walsh, 2017), and modern media articles reinforce these fears, with the British Broadcasting Company claiming, ‘social media is bad for mental health’ (Ridley, 2017). The Science and Technology Committee held a 2018 inquiry into the impact of social media on adolescents’ mental health and well-being and concluded that the negative effects outweigh the positive effects (The Children’s Commissioner, 2018). The aim of this review is to discuss the challenges faced by adolescents with three current psychiatric diagnoses when it comes to having an online presence and to pose future research opportunities into the topic.

The Organisation for Economic Cooperation and Development Wellbeing study demonstrated that in the UK, 37.3% of 15 year olds will use the Internet for longer than six hours outside of school time. These adolescents are described as ‘extreme internet users’ (Beardmore, 2015). The Office of National Statistics found a ‘clear association’ between mental health problems and length of time spent on social media (Frith, 2017). Sampasa-Kanyinga et al. showed that adolescents who reported an unmet need for mental health service support were statistically more likely to spend more than two hours a day on social media compared to those who have no identified unmet need for support. The study also found that individuals who spent over two hours a day on social media experienced more instances and increased severity of self-harm and suicidal ideation (Sampasa-Kanyinga & Lewis, 2015). A discussion into the impact of excessive social media use on adolescent mental health is imperative and the topic of several experimental studies and reviews. However, little is known about the impact social media and its excessive use has on an adolescent currently experiencing a severe mental health disorder, which will be discussed in this review.

1.1 Definition of keywords

‘Feedback addiction’ describes the difficulty of development while attempting to navigate a complex online world that provides instant gratification in the form of likes, comments, follows, retweets and shares (Wiederhold, 2017). The modern teenager gains instant approval through these platforms, but may not have the appropriate developmental maturity to differentiate this from real life relationships. Therefore, the insatiable need for approval can become an addiction and begin to impact their mental health.

‘Social currency’ is the measure of an individual’s value based on their social media presence. Social currency can allow an individual to express themselves, launch and advertise personal projects and demonstrate their sense of individuality. However, if they receive negative reviews or their online presence is rejected, it is possible to lose hope and confidence. This can have a similar psychological impact to losing one’s financial currency (Alecks, 2017). While an adolescent is experiencing emotional and physical development they must also contend with unpredictable relationships and the juxtaposition between dependence on authority figures and the gaining of independence. This makes it more difficult to navigate the online world whilst maintaining adequate mental health. In addition, adolescents with current psychiatric diagnoses remain vulnerable and can be more easily influenced by external factors. This leaves them at even greater risk of declining mental well-being because of social stimuli than those without a psychiatric diagnosis.

‘Deliberate self-harm (DSH)’, now recognised in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition as ‘non-suicidal self-injury disorder’ is defined as ‘deliberate, direct, self-inflicted destruction of body tissue without suicidal intent and for purposes not socially sanctioned’ (Zetterqvist, 2015a). DSH can occur alongside several psychiatric disorders, including, depression, post-traumatic stress disorder and eating disorders. However, it can be a unique clinical entity, entirely separable from other psychiatric diagnoses. Often patients will engage in DSH to somehow solve an interpersonal issue or escape from damaging thought patterns or emotions (Zetterqvist, 2015b).

‘Suicidal ideation’ is thoughts that one has about taking one’s own life, and can range from a well-defined plan to a fleeting thought or feeling. Most people with suicidal ideation do not end up acting on their thoughts or feelings (Nordqvist, 2018).

‘Depression’ is defined as the presence of low mood, low self-esteem and anhedonia for at least two weeks, accompanied by at least five additional symptoms of depression, such as hypersomnia/insomnia, loss of concentration and loss of appetite (World health organisation, 2012).

Depression, DSH and suicidal ideation are distinct but interlinked diagnoses/behaviours. In most cases, an adolescent will demonstrate one or two of them at a time. However, in some circumstances the patient will experience complex trauma and may demonstrate all three of these diagnoses/behaviours (Refaat, 2017).

‘Body dysmorphia’ or ‘body dysmorphic disorder (BDD)’ is defined as a distressing preoccupation with imagined or slight defects in body image and can be a distinguishable clinical diagnosis that can cause a patient significant psychosocial impairment (Björnsson, 2010). Nevertheless, the link between body dysmorphia and eating disorders such as anorexia nervosa is strong, and it can often be the principal cause or trigger of the eating disorder (Phillipou, Castle, & Rossel, 2017). BDD is under diagnosed due to trends that lean towards a non-pathological preoccupation with exercise, fitness, and physical beauty.

Social media provides a daily platform for several overlapping and unhealthy messages related to attractiveness and weight management that can lead to rumination on the three fundamental symptoms of BDD:

1. Idealisation of a slender body image
2. An irrational fear of fat

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3. A conviction that body image and shape are central determinants of one’s identity

A meta-analysis showed a strong link between BDD and suicidality (Angelakis, Gooding, & Panagioti, 2016). Therefore, awareness of this disorder and its treatment is imperative for medical professionals.

‘Attention deficit hyperactivity disorder (ADHD)’, is defined by the National Institute of Mental Health as an ongoing pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning and development (National institute of mental health, 2016). ADHD is a common clinical condition affecting 3.62% and 0.85% of boys and girls aged five-fifteen, respectively (Asherson, 2017). It is often well controlled by medications and regular outpatient clinic appointments to review progress and any side effects. However, it can often be complicated by other psychiatric comorbidities that may mask the symptoms of ADHD (Arthur, 2009). ADHD is an important comorbidity that can act as an antecedent of anti-social personality disorder in adults (Loeber, Burke, & Lahey, 2002). These disorders are more difficult to define clinically as they can be recognised as traits of ‘a troubled child’ (Beauchaine & Neuhaus, 2008). Adolescents with conduct disorder tend to disrespect social norms and take little consideration of the rights of others; they are often dishonest and may cause damage to other people, animals, and property. An insecure attachment, involving an imbalance between the primary caregiver and the child in terms of receipt of comfort and care, is overrepresented in those with conduct disorder and anti-social personality disorder. This leads to an inability to regulate one’s emotions and redirect one’s anger appropriately (Theule, Germain, Cheung, Hurl, & Markel, 2015). The complex nature of a patient with ADHD and conduct disorder can lead to an increased likelihood of criminal activity and violent behaviours and can be a prelude to adult criminal activity (Underwood & Washington, 2016).

2 Methods

2.1 Data sources, search methods, sifting and validation

A PubMed search was conducted for relevant papers in June 2018 using the above-mentioned methods. Papers that highlighted the impact of social media using quantitative evidence were then included and backwards citation was used to identify further useful papers with any applicable theoretical information.

2.2 Refining the inclusion process

The screening process was refined following the initial search. For example, a more restrictive PubMed search that only allowed for the words ‘adolescents’ and ‘social media’ was extended to include the word ‘teenagers’ as an alternative, to allow for a wider net of included papers. In addition, having initially searched for those words within the titles of papers the search was extended to include those found in the abstract, to avoid missing relevant papers. This enabled a broader view to be taken of the topic to write this review. In addition, no studies were included that suggested social media as a cause for any of the psychiatric disorders included, as this review is specifically looking at those adolescents who have a currently diagnosed psychiatric disorder.

2.3 Inclusion and exclusion criteria

Papers were included that were published in English, with a publication date (print or electronic) between 1 January 2012 and 1 June 2018. A six-year span was deemed sufficient to collect enough research on this novel topic. In addition, the rise of social media has been most prominent in recent years and knowledge of its impact of psychiatric disorders has not been studied widely prior to 2012. Popular social media platforms such as Snapchat and Instagram were not available to the public prior to this date (Royal society for Public Health, 2017). Three PubMed searches were conducted, all three had the words ‘adolescents’ or ‘teenagers’ and ‘social media’ in the title or abstract. This was done to narrow the search to ensure that the review was answering the appropriate questions about the impact that social media use has on adolescents, rather than children or adults. The additional words used in the three different searches were as follows:

1. ‘Depression’
2. ‘Body Dysmorphic Disorder’ or ‘BDD’
3. ‘Attention Deficit Hyperactivity Disorder’ or ‘ADHD’

If the study mentioned ‘adolescents’ or ‘teenagers’, ‘social media’ and one of the above disorders within the title or the abstract it was included. However, if the study focussed on a different physical or psychiatric disorder it was excluded from the search. Controlled trials were also excluded if the studies were done on less than 100 patients or patients who did not fit the remit of an adolescent between the ages of 11 and 19 years (Ridley, 2017).

3 Results

In this section, a total of 39 papers are discussed and analysed, these were a mixture of review articles and primary research papers. Twelve articles on depression, 11 on body dysmorphic disorder (BDD) and 16 on attention deficit hyperactivity disorder (ADHD).

3.1 Depression

The link between excessive social media use and depression has been widely studied in recent years, with the idea of ‘Facebook depression’ coming to light on common media platforms. The idea of ‘social comparison’ was described as the main causative feature (Steers, Wickham, & Acitelli, 2014). Individuals will compare themselves to peers and rank their most positive and most negative qualities against those of others. This manufactures envy within an individual that has been shown to increase levels of anhedonia, a primary depressive symptom, in adolescents [vogel2014]. A cohort of 1,500 young people aged 11-25, were asked to track their mood whilst using the five most popular social media outlets; results showed that Snapchat and Instagram were the most likely to arouse feelings of inadequacy, with YouTube providing
the most positive influence. This is suggested to be due to YouTube content being unrelated to social status and the reduction in comparison with known individuals (Royal society for Public Health, 2017).

There has been less research into the impact of excessive social media use on those adolescents already diagnosed with depression and its correlated features. A six-month study showed a deterioration of low mood in depressed adolescents who used the Internet excessively: out of 628 respondents, 49% of teenagers reported lower mood and feelings of social isolation when they used social media (Van-den Eijnden, Meerkerk, Vermulst, Spijkerman, & Engels, 2008). Depression may influence the selection and maintenance of adolescent friendships, as teenagers tend to socialise with peers experiencing a similar level of depression, this is known as homophily (Kiuru, Burk, Laursen, Nurmi, & Salmela-Aro, 2012). Due to homophily, social media feeds are often individually tailored micro-societies of people with similar ideologies, and depressed adolescents may withdraw from existing social networks and seek solace with similarly isolated individuals (Nalin, 2016).

Given adolescents’ limited capacity for self-regulation and susceptibility to peer pressure, the risks of social media use are of special concern (O’Keeffe & Clarke-Pearson, 2011). An ability to view, share, and rate unrestricted content daily was shown to validate the posting of riskier content on social media to receive amplified validation and increase social currency. During a depressive episode, adolescents were found to publish hyperbolic posts and tweets more frequently than when not identifying as depressed (Mikal, Conway, & Hurst, 2017). ‘Likes’ and ‘shares’ from peers can somehow bridge a gap that is no longer filled by real-life relationships, exacerbating anhedonia, sleep deprivation and reduced appetite and augmenting risk-taking behaviours (Sherman, Payton, Hernandez, Greenfield, & Dapretto, 2016). One study showed several social media groups were dedicated to isolated individuals considering deliberate self-harm or suicide. Within these groups, there appeared to be an idolisation of people who may have successfully committed suicide and many groups had organised suicide pacts. Peer pressure and a sense of community reduce the doubts and fears of adolescents who are ambivalent towards the idea of suicide (Baume, 1997).

Adolescent and parental reports of social media use by depressed teens have shown an increase in reported loneliness and decreased help-seeking and decreased engagement with Child and Adolescent Mental Health Services with greater time spent on social media sites (Barry, Sidoti, Briggs, Reiter, & Lindsey, 2017). In addition, 2,293 adolescents diagnosed with depression were assessed for depressive symptoms and social media use at diagnosis and then one year later. For the purposes of this study, social media ‘addiction’ is defined as use of social media above six hours per day. They were divided into an ‘incidence’ group (125 participants), where the patient was not ‘addicted’ to social media at first, but developed the addiction after a year, and a ‘remission’ group (71 participants), where they were ‘addicted’ at initial research but were no longer addicted to social media after one year. It was found that the number and severity of depressive symptoms were more enhanced in the incidence group than those in the remission group. This suggests a correlation between high levels of social media use and increased depressive symptoms in vulnerable teenagers (Ko et al., 2014).

3.2 Body dysmorphic disorder

The growth of mass media, such as television, magazines and the Internet has a multidimensional link with negative self-and body-image. This issue is particularly pertinent when associated with a developing adolescent, who is struggling to come to terms with their own identity. However, there appears to have been a shift in recent years with the increasing popularity of social media. More specifically, highly-visual social media platforms such as Instagram and Snapchat, are being accessed more frequently. Repeated use of highly-visual social media, over two hours per day, was found to be related to internalising symptoms of BDD, with those using them the longest reporting the most significant body image concerns (Marengo, Longobardi, Fabris, & Settanni, 2018). Clinicians report that half of 14-24 year olds state that Instagram made them feel worse about their body image (Wakefield, 2018). In addition, image concern is exacerbated using popular hashtags on Instagram including, #thinspiration, #fitspiration and #bodygoals. These allow tailored images to appear on an individual’s Instagram feed, accessing the most popular content first. Despite intending to motivate oneself to get healthy, these have an unintended detrimental effect on the most vulnerable adolescents, and those already experiencing BDD or eating disorders (Aziz, 2016).

A ‘dieting mentality’, with no discrimination of ethnicity or social class, is commonly demonstrated on social media, with constant portrayals of the positive features of being ‘thin’ and the negative features of being ‘fat’ (Roberts & Good, 2010). A study by Khanna and Sharma found that adolescent girls with BDD and a level of neuroticism, were much more likely to be affected by regular appearance-focussed internet adverts than those who did not have BDD, suggesting a vulnerability related to an emotionally charged, self-schema for appearance (Khanna & Sharma, 2017).

Rumination and excessive preoccupation with physical appearance can lead to significant impairment of the quality of life of an adolescent. There may be constant anxiety-led checking behaviours such as mirror checking or putting on excessive amounts of make-up. The steep growth of the selfie culture and the obsession with the ‘insta-famous’ has led to a constant anxiety-led verification, comparing one’s flaws to others perceived perfection (Tiggemann & Slater, 2017). Filters and image manipulation techniques that were once only found in public advertisements now demonstrate an idealised image of beauty in an adolescent’s peers, to which they have personal contact. Moreover, this rose-tinted image of one’s peers can, for a vulnerable adolescent, be devastating for self-esteem and aggravate pathological ruminations (Olinek-Shemesh, 2017).

Adolescents who do not conform to the constructed image of ‘beauty’ or express alternative views, particularly in terms of ‘diverse sexuality’, can find themselves at risk of cyberbullying on social media. In an analysis of a 2016 study of 4,500 adolescents aged 12-17, those with BDD were more likely to be cyber victims as their posts were significantly more likely to relate to body image and this would attract a torrent of abuse that could impact even the most resilient of teenagers (Higgins & Wysong, 2018). Adolescents with BDD sometimes require constant reassurance regarding their perceived flaws. However, cyber bullying can maliciously focus on that which is most detrimental to the individual’s self-esteem and this
can lead to alterations in the patient’s entire thinking process, where reassurance no longer has a positive effect. This caused patients to avoid physical contact with their social support network, often having a major impact on their physical as well as mental health. They were shown to be unable to escape their virtual reality even to attend psychiatric appointments (Mufaddel, Osman, Almugaddam, & Jafferany, 2013).

Studies have shown that neurobiological factors are implicated in the development of BDD and with excessive social media use (Phillips & Menard, 2006). Abnormal serotonergic and dopaminergic functions can be caused by social media addiction and are linked aetio logically with BDD development. This leads to a self-perpetuating cycle, where BDD can make an adolescent more susceptible to social media addiction (Phillips & Menard, 2006). In addition, psychiatric comorbidity such as obsessive compulsive disorder, major depressive disorder and suicidal ideation are common in those with BDD and social media addiction. One study showed 79.5% of 126 subjects with a long history of BDD had experienced at least one of these comorbidities (Phillips et al., 2005).

### 3.3 Attention deficit hyperactivity disorder

The dependence of our culture on social media has had a marked impact on the development of adolescents. There is an increased focus on visual stimuli relative to audio communication and children are more likely to engage with short snippets of communication, disengaging from longer sentences or paragraphs. This shift is attractive to those adolescents who are diagnosed with ADHD (Weiss, Baer, Allan, Saran, & Schibuk, 2011). A prospective study of adolescents with psychiatric diagnoses showed that ADHD was the most significant predictor for the development of Internet addiction (Ko et al., 2005). One study showed that adolescents with ADHD demonstrated greater addiction than controls and were more distressed when screen time was taken away from them (Bioulac, Arfi, & Bouvard, 2008).

Traits associated with ADHD, such as disinhibition, low self-esteem, extraversion and impulsivity have been correlated with the addicted brain and with the presence of excess use of social media (Sun et al., 2009). Therefore, it is no surprise that the use of social media can provide solace and comfort for an overactive mind. Nevertheless, the vulnerable nature of the addicted adolescent with ADHD can cause several problems when it comes to social functioning as well as exacerbation of psychiatric symptomatology. For example, hours spent on the Internet can consolidate a child’s impulsive nature, including their hyper-focused reactivity. Patients with ADHD can be more sensitive to reward pathways, with an apparent aversion to delayed reward and preference for immediate reward reported as an endophenotype of ADHD (Castellanos & Tannock, 2002). The opportunities for self-expression provided by social media sites provide ample incentive for overuse (Yen, Ko, Yen, Wu, & Yang, 2007).

Social involvement is then reduced due to lack of impulse control, depriving the patient of creative activities that may condense the use of important brain functions such as working memory, attention, executive functioning and patience (Nimrod, 2013). This could lead to an exacerbation of ADHD symptoms and a reduced quality of life for the patient.

ADHD can often be accompanied by comorbidities such as conduct disorder, substance abuse, anxiety and depression. Adolescent boys with ADHD reported greater frequency of conduct disorder symptoms, earlier age of onset and greater dependence on dangerous substances (Vitulano, Fite, & Wimsatt, 2012). In addition, excessive social media use has been repeatedly linked with decreased attention and hyperactivity; aggression and antisocial behaviour and poor sleep quality due to physiological arousal (Alava, Frau-Meigs, & Hassan, 2017). These effects make it much more likely for comorbidities and violent or risk-taking behaviours to occur. At risk youth are provided with abundant exposure to violent narratives that can shape a troubled mind. The use of ‘hypermedia seduction’, where vivid images of events that evoke psychological, emotional and potentially violent reactions are made familiar to young people online. This may offer them a cause or a purpose that is distorted from cultural norms (Alava et al., 2017).

Gang membership is easily formed on social media that can lead to ‘identity fusion’, where children with ADHD, who may previously have been ‘solitary actors’, find their need for belonging satisfied in a radicalised group identity (Swann & Buhrmester, 2015). The creation of these groups, such as gangs, leads to the illusion of ‘ex timacy’, where virtual meetings and virtual encounters allow 24-hour access to intimate connections and predisposed adolescents can easily be coerced into public acts of violence or anti-social behaviour (Shapiro & Margolin, 2015). Social media is not shown as a cause of violent behaviour, but can encourage and exacerbate detrimental decision-shaping in an adolescent suffering from disorders such as ADHD.

ADHD has been shown to be more prominent in socially deprived, inner-city areas and often these children are affected by an insecure attachment as described by Bowlby (Wilson & Lipsey, 2003). Family difficulties, domestic violence, parental conflict or childhood neglect all lead to an insecure attachment and an overall feeling of rejection (Bowlby, 1988). Insecure attachments, lack of impulse control, and rejection by peers online provides a basis for adolescents to seek deviant peer cliques on sites such as Facebook, creating a narrow sphere of influence. Their newsfeeds feature violent videos, sexualised images, crime related statuses and inappropriate language. Soon the expectation is that this is ‘normal’ and creates an unbreakable cycle where the patient’s self-worth lies simply in their aggressive actions (Allen, Moore, Kuperminc, & Bell, 1998; Damon, Lerner, Kuhn, Siegler, & Eisenberg, 2012). ADHD symptoms can lead to a reduced ability to weigh up the consequences that impulsive actions online may have on those around them. When an adolescent is exposed to a public platform such as Facebook, Twitter, or Instagram they have no choice but to prescribe to the ‘anti-social child’ label, to which they may have been assigned (Lillis, 2015).

### 4 Discussion

Although the construct of social media has not been shown to directly cause psychiatric illness, these online communities can cause vulnerable adolescents to become confined in a virtual reality that can exacerbate psychiatric symptoms. Social currency increases pressure on young people having to meet certain standards to achieve acceptance among their peer...
groups, whilst feedback addiction in the form of likes, shares and retweets provides instant gratification to a child with an unsettled mind. Homophily causes all, to a certain extent, to narrow their online sphere to those whose views, experiences and interests most reflect their own. However, in the case of vulnerable adolescents, this is exacerbated by being subjected to the constant censure and judgement of their peers, which can increase feelings of isolation and depression. In addition, this social censure causes teens to seek out those who will ‘accept’ them. Examples could include being groomed by an older man, or seeking online communities in the form of violent gangs. Therefore, these online communities can encourage vulnerable adolescents to engage in more dangerous behaviours to gain the approbation of their ‘virtual peers’, even organising criminal activities or making suicide pacts.

Depression, body dysmorphic disorder and attention deficit hyperactivity disorder are illnesses that leave a patient vulnerable to the negative impacts of excessive social media use and have been described by several studies. However, there are increasing online social networks that are tailored to support these teenagers and are used as adjuncts to traditional therapies. One pertinent question could be: is there a way for healthcare professionals, schools, and web content developers to work together to utilise modern technological advances to provide more positive engagement and more active support networks for vulnerable users? This could be used particularly in the case of the most popular social media sites such as Facebook, Instagram, and Snapchat who could use external applications to enhance user-experience. Patients who find it difficult to engage with Child and Adolescent Mental Health Services and traditional methods may feel more connected to user-controlled therapies and online networks and thus promote help-seeking behaviours. The use of these and other therapeutic methods could also increase resilience, heightening the threshold required for professional intervention in milder cases, as well as being utilised by professionals as a tool during more severe psychiatric distress. Perhaps educational services and youth offending teams can be used to advance creative means of self-expression through social media, to improve mental health outcomes.

The promotion of creative expression is widely available on social media sites. Graphic design and website development are two such means that could inspire a more positive relationship between adolescents with mental health disorders and social media. When describing adolescents with mental health problems Claire Lillis notes ‘these volatile young people are fragile and need consistent support networks. They must develop the self-esteem and interpersonal skills to become responsible adults with fulfilling careers and relationships’ (Lillis, 2015). It is important to note that positive alternative engagement, rather than punitive restriction of social media use, is more likely to influence successful mental health outcomes. Further research is required into which methods of engagement are most beneficial to adolescents with specific psychiatric disorders.

4.1 Strengths and limitations

The search and data extraction methods used were thorough and overarching, providing a relevant overview of the literature on this important topic. However, although PubMed is extensive, it is not exhaustive and some relevant papers may have been overlooked.

The topic of social media and its impact on adolescents with psychiatric disorders is novel and relevant. However, the fact that the topic is unique means that quantitative research was difficult to access and not many extensive studies have been conducted. Nevertheless, this highlights the importance of this review to establish this topic as a sufficient concern for researchers and clinicians to consider further.

Another limitation related to the lack of empirical data collected is that certain conclusions are speculative and leave room for interpretation. This means that researchers can use ideas emphasised within this review as a basis for further exploration. Positive aspects of social media on adolescents with mental health disorders were not explored in great depth. However, not much research has come to this conclusion.

The criteria of ‘excessive social media use’ is subjective and another potential limitation to this type of research. Different papers highlighted alternative cut-off points for what is ‘excessive’. Following extensive research, a definition we would like to propose as ‘excessive’, is the use of social media for over four hours in a twenty-four hour period.

This review was also limited in that it does not highlight the many other psychiatric diagnoses that affect adolescents. The impact of social media is wide reaching and can affect those with other disorders such as bipolar disorder. On the other hand, by focussing on three of the most commonly impacted disorders the review could focus on specifically identified traits that can be affected by excess use of social media. The review was also able to link these three disorders to psychiatric traits such as suicidal ideation and deliberate self-harm that are common in adolescents with these diagnosed disorders.

5 Conclusions

This review highlights the impact of excessive social media use on adolescents currently diagnosed with depression, body dysmorphic disorder, and attention deficit hyperactivity disorder. Online risk taking behaviours are more prevalent in these cohorts, and more research is recommended into how this can be avoided. In addition, clear correlations were noted with symptomatic exacerbation linked with excessive use of social media, emphasizing the need for novel help-seeking methods that avoid serious consequences. This review recommends that utilisation of social media as a help-seeking resource, rather than punitive restriction of its use will improve the prognosis of these disorders for currently diagnosed adolescents. Further research is required into methods of utilisation.

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No conflicts of interest have been declared by any authors.

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