

Mindfulness Practices for Adolescence and Young Adults with Social Media Compulsion

by

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Abstract

Social media use has been on the rise, especially among teenagers and young adults, making a life with the latest technology and applications almost impossible. The generation of adolescents today have grown up with smart phones and the access to social media. This paper consists of a literature review, showing that adolescents uphold their social connections easiest through social media. However, this behaviour can also lead to an excessive use of social media platforms. While the effects of social media compulsion need further scientific exploration, some studies found detrimental effects of social media compulsion. One of these are feeling more isolated than connected, experience higher psychological distress, as well as this. The negative effects of social media use have been measured with the *Bergen Social Media Addiction Scale* (BSMAS) or the *Digital Addiction Scale* (DAS). Mindfulness practices could be an interesting intervention for adolescents or young adults, as it has been shown to alleviate psychological distress, as well as bring a sense of awareness and management of emotions to the person.

Keywords: *mindfulness practices, youth, social media, social media compulsion, mental health*



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Chapter 1: Introduction

In 2021 there have been around 4.2 billion social media users daily worldwide, indicating an increase of more than 300% in the last decade (Lambert, 2022). With this increase in consumption of social media, adolescence and young adults have been using their smartphone daily to explore and connect to others. However, internet use is a slippery slope, as much as this technology has helped bring people closer together, it has also inherent risk factors for young adults and adolescents.

I want to acknowledge that language is a powerful tool and has a strong impact on how we perceive ourselves and the world around us. To actively fight oppression and stigma, I made the choice to change the wording of my topic from addiction to compulsion. The term addiction has a pathologizing undertone and can lead to further alienation and isolation of an already stigmatized population. While I will be referring to journal articles and other form of scientific research that uses the term *addiction*, I choose to actively change the term to *compulsion*, *compulsive behaviour*, and *overuse*.

Overview of the Topic

When we think about compulsions or addictions, we often disregard one of the more common denominators: Social isolation (Christie, 2021; Zeng et al., 2022). Like opioid use, we can think of the addictiveness of social media in a similar way, and social isolation being the driving factor (Christie, 2021). The irony of this statements is clear, namely that social media may not be so social after all.

It is important to take the topic of social media use seriously, as people who visit the internet spend most of the time on social media platforms (Ozer, 2014), making the topic of social media and its effects even more relevant for a large population. This increase in social

media use (Lambert, 2022) led 6-15% of users to require clinical intervention (ElSalhy et al., 2019). If we now fast forward to 2020, we are located midst a pandemic. The Covid-19 pandemic led to more physical isolation, more use of the internet, and therefore also more use of social media apps (Ozer, 2014; Zhao & Zhou, 2021). And for many adolescents, the only way to connect with friends was to use social media applications or websites (Paulus et al., 2022).

To start off the topic of social media use and mindfulness, it is crucial to gain insight into what is considered misuse or compulsion. The BSMAS accounts for the key points of other recognized addictions, such as withdrawal, conflict, and relapse (Luo et al., 2021). While this paper is not using the term “addiction,” the BSMAS can work as a guideline for compulsive behaviour. It has been shown that these criteria could help differentiate between regular social media use and disordered social media use (Luo et al., 2021). If one wants to refrain from formal assessment or screening tools, it could be helpful to use open-ended questions or unstructured interviews to learn more about the youth’s social media use. This may be interesting for mental health care workers, such as clinical counsellors, as almost 77 % of practitioners use primarily assessments that are not standardized (Cook et al., 2017). The author of this paper also wants to highlight that it may be difficult to find a measurement that encompasses the entire experience of the youth or young adult because the concept of social media compulsion is still in need of further investigation.

The next question that must be answered is, why social media is addictive in the first place and what people motivates to use social media? As Whiting and Williams (2013) describe, not only does it serve entertaining purposes, but it also helps people to relax, it is convenient, and it helps connect with others. Furthermore, especially young people display *FOMO* at times, which is an acronym and stands for “fear of missing out” (Bharathi, 2020). This is also an

indicator that people seek psychological attachment, and have the need to belong (Bharathi, 2020). While it is a bit clearer what the rationale for social media use/misuse may be, it is still unclear who is affected the most and how exactly.

Van Den Eijnden and colleagues (2018) conducted a longitudinal study on the difference between disordered and non-disordered social media use (SMU), as well as the differences between gender, life satisfaction, perceived social competencies, and GPA. Such measurements, ranging from subjective to objective, giving an excellent insight into the topic around social media use and addiction (Van Den Eijnden et al., 2018). Their primary findings were that social media addiction has a negative effect on adolescents GPA (primarily girls), on life satisfaction, as well as a negative effect on psychosocial health of youth (Van Den Eijnden et al., 2018). Interestingly, the researcher differentiated between disordered and engaged use of social media (Van Den Eijnden et al., 2018). When the use was considered engaged and not disordered, there have been positive effects on people's social interactions and social connection (Van Den Eijnden et al., 2018). Overall, the study supports the notion that overuse of social media can have detrimental outcomes for adolescents (Van Den Eijnden et al., 2018). Most likely to develop a social media addiction are in the age group addressed in this paper (adolescent, young adults), females, individuals with narcissistic tendencies, are single, or display low self-esteem (Alderson, 2020).

Another study shows that the "excessive usage of online platform" may lead to online addiction (Chatterjee, 2021, p.16). The author brought in the connection of depression as a measurement to negative outcomes of social media engagement (Chatterjee, 2021). The higher the social media use, the higher the measure for depressive symptoms (Chatterjee, 2021). The studies in this paragraph highlighted the negative effects of social media addiction and

detrimental outcome to one's mental health. Yet, how much is known around the mindfulness in this context?

There is limited information around the efficacy around mindfulness for youth with a social media compulsion. On the one hand, behavioural addictions are more difficult to define and measure. And on the other hand, social media is with around 15 years a new technology, giving limited insights into the long-term effects of the use, as well as its intervention. To connect the two topics of social media compulsion and mindfulness, the following studies investigated the connection between mindfulness and well-being, as well as effects that mindfulness may have on people with social media compulsion. In this context, researchers demonstrated a connection between mindfulness and anxiety or worry of not being able to access one's phone, called *nomophobia* (Arpaci et al., 2019). And vice versa, people who were more mindful, were also less anxious around the abstinence from their phone (Arpaci et al., 2019). While this does not measure the compulsion to social media itself, the study portrays a valuable picture around phone use and compulsion (absence of phone = anxiety). This is especially interesting because the primary phone use evolves around social media (Arpaci et al., 2019). Further, other researchers also found that mindfulness and cell phone use are negatively correlated (Wang et al., 2021). Thus, mindfulness may be seen as a beneficial tool to combat social media compulsion as well.

The research that is illuminated in this paper has shown that social media compulsion or excessive social media use has a myriad of negative outcomes on young adults and adolescents. Most studies demonstrate that social media addiction could lead to unwanted emotions. The most common outcomes were feelings of isolation (Zheo, & Zhou, 2021), depression (Chatterjee, 2021; ElSalhy et al., 2019), high stress-levels (Zheo, & Zhou, 2021), anxiety (Eijnden et al.,

2018). Further, mindfulness can help with the symptoms that have been described above, such as depression, anxiety, stress-levels (Wang et al., 2021). There have been only a few articles that connected the mindfulness-based intervention with the problematic effects of social media compulsion. Wang and colleagues (2021), as well as Arpaci and colleagues (2019), pointed out that there is a strong negative correlation between mindfulness and cell phone dependence. These trends show that there is more potential to explore and to work towards concrete interventions that can function as practical help for youth and young adults.

Other mechanisms that may lead to addictive behaviours were fostered during the pandemic, such as social isolation, stress, and anxiety (Zheo, & Zhou, 2021). Hereby, intimacy and connection are important developmental factors for youth, of which both are being met by the engagement on social media platforms (Zheo, & Zhou, 2021). This form of social connection is also described to be sought after by 88% of participants in a study in 2013 (Whiting, & Williams). Interestingly, the use of social media sites has the opposite effect on young people's social life. The lack of real face-to-face interactions and the constant comparison to other people's lives can lead to adverse outcomes (Luo et al., 2021). Social media compulsion seems to lead to cognitive and behavioural problems such as depression, anxiety, loneliness, insomnia, and can serve as a maladaptive coping mechanism (ElSalhy et al., 2019).

Furthermore, a study found out that the earlier a person is first exposed to the internet, the higher the likelihood of the development of a compulsion (ElSalhy et al., 2019). Additionally, growing up with social media may have adverse effects on the developing brain of an adolescent (Firth et al., 2019). The grey matter in the brain is reduced in kids that engage in social media growing up. This may lead to problems around attention, memory, and knowledge (Firth et al., 2019). Another study shows similar results in changes in the brain (He et al., 2017). Similar to

Firth and colleagues (2019), in He and colleagues (2017) study the grey matter is reduced in people that use social media.

On the one hand, it has been shown that mindfulness practices have a positive effect on stress and anxiety in college students (Bamber, & Schneider, 2016). This speaks for the use of mindfulness tools in the context of social media addiction and underlines the importance of this paper. On the other hand, mindfulness practices have also been shown to be effective in treatment for youth with other compulsions and are said to “work as mental training programs boost neurocognitive deficits that were developed during the course of the addiction” (Alizadehgoradel et al., 2020, p. 665). This means that mindfulness practices may be able to reverse changes that the brain went under during the phase of the compulsion (Alizadehgoradel et al., 2020). It is unclear if the same would happen during the treatment of social media compulsion, but since the side effects of mindfulness practices are miniscule, it may be an interesting form of intervention to test. Thus, studies must be conducted that show the changes in the brain of individuals with a social media compulsion before and after the mindfulness-based intervention. Yet, so far there are only studies that show changes in the brain due to social media use (Firth et al., 2019; He et al., 2017).

Purpose Statement

The rationale behind this paper was to highlight the effects of social media on adolescents and youth; as well as to see if there are potential benefits in mindfulness-based practices for this population. The motivation is to find ways to support youth as a clinician, teacher, or primary caregiver. While times and technology progress, so should the ways we support folks alongside those changes. Thus, mindfulness practices may be an interesting form of intervention to bring a

sense of being grounded and physically and emotionally regulated in a fast-paced (virtual) environment we live in.

In the following paper, I will discuss the impact of social media (compulsion) on youth and potential benefits of mindfulness practices in this context. While many kids use social media for their enjoyment (Whiting & Williams, 2013) and to foster connections (Swirsky et al., 2022) it can turn into a social media compulsion (SMC), leading to potential problems of these age groups, i.e., repercussions for their social lives and for their mental health (Zheo, & Zhou, 2021).

This paper explores how mindfulness practices may influence adolescence and young adults that use social media in a compulsive and excessive manner. While the lines between overuse and normal consumption of social media seem to be blurred, the use of social media in general is rather high. Therefore, the research question that arises is: Why is social media so appealing? Why are young people particularly susceptible to social media compulsion, and could mindfulness practices be an appropriate form of intervention?

Conceptual Framework of the Study

This paper will be a part of a capstone project consisting of three chapters. The focus of the study is based on a literature review of the topic. In this paper, the conceptual framework gives the reader an idea about the areas of study that might be of interest for the topic. The primary field of study consists of psychology, counselling, psychiatry, neuropsychology, and in market research. For this study, the paper will be concentrating on the psychological viewpoint of the topic with clinical implications for counsellors. The main variables in the study are mindfulness practice, adolescents, young adults, social media, compulsion (addiction), and social media compulsion. While many studies have investigated the impact of mindfulness exercises on young people, as well as the problems and benefits around social media, not many have drawn

the connection between mindfulness practice for social media compulsion or overuse. Most people know that excessive use of social media (i.e., engaging in social media activities on one's phone multiple hours daily), which could be seen as 6-11 hours per day according to a recent study, has a negative effect on one's mental and/or physical health (Alotaibi et al., 2022). However, the generation that was born in the 2000s is the first generation that grew up with smartphone technologies. Some studies point towards negative impacts on the brain (He et al., 2017), as well as changes to the brain that negatively impact cognitive abilities of youth (Firth et al., 2019). However, specialists cannot identify all the inherent consequences of social media use. Therefore, this study will aim towards solutions in form of mindfulness practices that may aid the wellbeing of youth with social media compulsion in the context of supporting youth facing struggles around social media use or compulsion.

Contribution to the Field

As such, it is crucial for parents, educators, and society as a whole to guide adolescents and young adults in using social media responsibly and strike a balance between online and offline interactions. By promoting a healthy and mindful approach to social media usage, we can ensure that adolescents and young adults continue to enjoy the benefits of social connection and entertainment while safeguarding their overall well-being.

Study Methodology

This study is based on a systematic literature review of studies that have been conducted primarily in the past five to ten years. It was important to this topic to stay with relatively current studies because technologies around social media are ever evolving and changing, which would make it difficult to collect relevant information that is dated back to 2010 for example. There are several benefits that support the use of a literature review. On the one hand, reviewing existing

literature gives the opportunity to sift through everything that has been studied so far. Not only does this help to paint a picture of the current events, but it also spared the researcher the task of conducting new studies. As Helen Aveyard describes, in literature review one can see the entire “jigsaw” and not just one piece (2010, p.6). Further, a well-executed literature review may point out information that has not been identified before by making connections between studies that have not been noticed (Aveyard, 2010).

When one operates from the standpoint of a literature review, it means that the researcher does not require to collect new data. On the topic of social media compulsion and mindfulness, it would be inevitable to use human subjects. This is often connected to a wide range of ethical considerations as human subjects are involved, which is also more expensive to conduct and is more time consuming overall.

The body of research on mindfulness practices has been growing in the past decade and becoming a field that is well measured (Pratt, 2021). In the last 55 years, research on mindfulness went from zero to over 16000 scholarly articles just in one database (Pratt, 2021). Similarly, social media use has been well researched, from a health point of view in terms of psychiatry and clinical counselling, but also from a market research view.

Personal Positioning

Being born in 1989, I grew up with accessible technology such as a computer, but it was not until my teenage years until many peers, including myself, had access to a cell phone. The first smartphone that is remotely comparable to a modern device came out in the early 2000s, and the first Apple smartphone was released in 2007. By this time, I was 17-18 years old, and my childhood was entirely smartphone free.

The first time I have heard of social media was in the same year, 2007, in which I joined Facebook during a trip in Spain to stay connected to folks that I met there. Thus, the intention for me to join social media was to keep in touch with friends that live all over the world, which gave social media (Facebook) an almost wholesome reputation. Fast forward, 16 years later companies have realized that social media platforms are a billion-dollar industry, seeking new ways to draw their users' attention, indifferent about the users' age or well-being.

I see myself belonging to the last generation that had no influence from smartphones during their childhood (until late teens). Nevertheless, I find myself spending hours each week on social media sites, often feeling pulled towards the quick "dopamine rush" and the instant gratification one can get from scrolling through videos of friends, pets, hacks & co. On the downside, my senses seem overwhelmed and my perceived anxiety levels rise. One can say that the "high" from my social media visits is rather short lived. This makes me especially intrigued on how bad the influence of social media is on youth that has never known a life without the constant access to social media, its entertainment, and its permanent connection to friends.

While my use of social media subjectively increases my anxiety levels, I have found that activities that are grounding and calming are especially helpful to counteract negative emotions associated with social media use. So, I started meditating and practicing mindfulness exercises and feeling positive effects of it. While there is a lot of scientific literature on mindfulness practices and its efficacy, I am intrigued to see if it may also aid in youth with social media use or compulsion.

Definition of Terms

Adolescents: This is an age group that ranges from 13-18 years old.

Compulsion: An irresistible need or urge to engage in a certain behaviour, which may influence one in a negative way, such as deteriorating aspects of one's mental health, social, or work life (Geller, 2022).

Mindfulness practice: A variety of methods to access one's awareness of the present moment, aiding in decreasing one's levels of anxiety, potentially increasing overall well-being.

Mindfulness: "The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding experience moment by moment" (Kabat-Zinn, 2003, p.145).

Social Media Compulsion: A person that uses social media platforms excessively, leading to interferences with one's mood or functioning in daily life, i.e., at work, socially, in school.

Social Media: An online platform usually an application primarily on smartphones that is meant to foster connection among users, create groups of specific interests, and gives the user the opportunity to develop an online identity, presence, or profile. Examples include, but are not limited to, Instagram, TikTok, Facebook, Twitter, Snapchat, BeReal, Pinterest, etc.

Young Adults: This is an age group that ranges from 19-24 years old.

Outline of the Capstone Paper Chapters

The following paper will be structured in three main parts. You have just read the first part, which was the introduction into the topic, including the conceptual framework, my personal positioning, and the definition of key terms. The next chapter will entail a literature review. I will begin by introducing the topic through the social media user's lens, highlighting why adolescents are drawn to social media. The following part goes into more detail around the potential repercussions of social media compulsion or overuse. Next, we will be looking into mindfulness-based practices that can be accessible to teens and youth. Then, we will tie the two concepts,

social media compulsion and mindfulness practices, together. The last chapter of this capstone project will provide discussion and reflection as well as potential application to support this population. Here, we will reflect on the findings from chapter two. We will specifically discuss the potential benefits for adolescents and young adults with social media compulsion that can come from engaging in mindfulness.

Chapter 2: Literature Review

Why do Adolescents and Young Adults Use Social Media?

Adolescents and young adults often use social media to foster social connection, to avoid feeling left out (Roberts & David, 2020), and in order to self-soothe when exposed to stressors (Jarman et al., 2023), or experiencing symptoms of anxiety (Vannucci et al., 2017), or depression (Shensa et al., 2017). In the following section, we will gain a better understanding on the rationale of social media use and decipher the motivation behind engagement on social media platforms. One literature review on social media use developed seven categories of social media user motivation that encapsules the following section: “Social interaction, information seeking, pass time, entertainment, relaxation, communication utility; and convenience utility” (Whiting & Williams, 2013, p. 362). This is a comprehensive framework to work from and will guide parts of this next section, including the social and relaxation aspects of said literature review, which both play a role in the context of psychotherapy and client/person-wellbeing. The majority of the literature that seems relevant to this capstone project is based on the following three reasons for social media consumption: To connect with peers, especially ones that are also friends outside of social media (Reich et al., 2012); to avoid potentially missing out on events or news in the social circle (Mao & Zhang, 2023); and to cope with symptoms of anxiety, depression, and other daily stressors (Jarman et al., 2023).

Social Connection

One of the reasons why adolescents may be drawn to social media is that humans are social creatures and connecting to others is one fundamental need (Baumeister & Leary, 1995). And it seems that social media platforms meet exactly that need of connection, which motivates folks to engage with peers over applications such as Facebook, Instagram, Twitter, just to name a few. This need is also supported by a survey conducted by Pew Research in 2018 (Anderson & Jingjing). According to the survey, adolescents are inclined to use social media platforms to feel included and confident (Anderson & Jingjing, 2018).

There is further support that social engagement is another driver for social media use (Swirsky et al., 2022). Here, adolescents note that social media aids in achieving popularity amongst peers (Swirsky et al., 2022). When comparing this quantitative study with a qualitative study that was conducted in Australia, we can see that the study from Australia shows that social media platforms intensify the relationship between teenagers (Swirsky et al., 2022; West et al., 2021). The teenagers were describing the impact on their relationships as amplified, both in a positive and negative way (West et al., 2021). The authors noted that participants experienced a strengthening of their social connections through social media, as well as problematic situations such as bullying, disconnect from real-life interactions, miscommunication online, etc. (West et al., 2021). The aforementioned problems have a negative impact on youths' quality of interpersonal connection. However, Swirsky and colleagues (2022) did not point out any negative effects of social media use but were speaking more about the positive effects on adolescents' relationships and even increasing popularity among peers.

Youths' reason to seek popularity amongst peers can be tied back to the initial statement of social connections and how important it is for human beings, let alone for developing

adolescents, to connect and form bonds with others (Baumeister & Leary, 1995). The idea that social media may intensify bonds with existing friends (West et al., 2021) is also supported by a study from the journal of developmental psychology (Reich et al., 2012). The team of researchers determined that the individuals in their sample of two hundred and fifty-one students mostly connect with peers online that they also associate with in-person or in real life (Reich et al., 2012). This indicates that adolescents may improve their connections with friends via online platforms, as well as connecting with people that they also know or are friends with outside of the world wide web (Reich et al., 2012). Engaging with existing friends could potentially mean that young social media users have a more meaningful -- as well as safer -- online experience.

In a later section that discusses the effects of social media on adolescents, we will be picking up this thought again, discussing further if the form of connection is of importance to adolescents' overall well-being.

However, while social media seems to fulfill the fundamental need for social connection, it is essential to acknowledge the negative drivers associated with social media. As adolescents spend more time on social media, they may become susceptible to the negative repercussions.

FOMO – Fear of Missing Out

The need to connect with one another virtually can also turn into a strong urge; and if this urge is not met, in scientific as well as in colloquial terms it is described as *FOMO*, the fear of missing out (Alutaybi et al., 2020). It can be described as being left behind and therefore, feeling socially isolated or excluded, which can trigger a primal emotion of fear in adolescents (Bharathi, 2020).

Other researchers found similarly that people seek out social media, as they are worried to miss out in something that happened online (Roberts & David, 2020). While Robert and David

(2020) suggested that more social media use leads to more experiences like FOMO, a study during the COVID-19 pandemic supports those findings that more social media use is correlated to more FOMO (Scheinfeld & Voorhees, 2022) The previously mentioned sources stated that FOMO has negative implications, such as being associated to emotions of worry and uneasiness (Alutaybi et al., 2020; Bharathi, 2020; Roberts & David, 2020). Contrarily, Robert and David (2020) suggest that it may also lead people to seek out social connections and improve their overall wellbeing. As so often, both negative and positive outcomes are present, yet the negative effects seem to be dominating the literature, highlighting the experience of the majority of adolescents (Scheinfeld & Voorhees, 2022).

A study published in 2023, suggests that the concept of FOMO in the literature has been rather limited and provides a new perspective that there are multiple relationships between FOMO and social media (Mao & Zhang, 2023). It is interesting to note that Mao and Zhang (2023) agreed with other many other scientists (Robert and David, 2023; Alutaybi et al., 2020; Bharathi, 2020) on the potential negative effects of FOMO and social media use. However, Mao and Zhang (2023) also differentiated between active social media use and passive social media use. Thus, the intention behind scrolling on social media becomes an important factor to the impact of social media and feeling FOMO (Mao & Zhang, 2023). Therefore, active social media engagement, as opposed to passive scrolling, will ease some of the symptoms of fear of missing out in adolescents and young adults (Mao & Zhang, 2023). We will return to this study in the third chapter to make use of its findings, in order to find appropriate interventions that target detrimental engagement with social media and not just social media in itself.

Self-Soothing

Another reason for adolescents to turn to social media as a coping mechanism is to self-soothe to alleviate stress, loneliness, anxiety, and other emotional distress (Jarman et al., 2023). On the one hand, this exploration aims to delve into the reasons of utilizing social media for emotional support. On the other hand, this investigation also inevitably points towards drawbacks associated with this coping strategy. However, this section will focus on social media as a coping mechanism, whereas the following section (*Effects of social media use/overuse*) will discuss the issues related to this coping mechanism and the use in general. The author is aware that most research on this topic is correlational, as well as that most studies also investigate negative effects associated with social media use. Therefore, some of the studies that are mentioned in this section will reappear in the following section (*Effects of social media use/overuse*).

The concept of social media use to self-soothe and to release stress has been recently studied (Jarman et al., 2023). It appears that adolescents (as well as adults) use social media to relieve psychological distress (Jarman et al., 2023). However, it is important to note that the researcher found a bi-directional relationship; namely, that stress led to more social media use and that the increase in social media use also increased stress-levels (Jarman et al., 2023). The relationship of poor wellbeing predicting more social media use was stronger than social media use predicting more stress (Jarman et al., 2023). The study was conducted over a time span of one year, which speaks to interesting longitudinal findings (Jarman et al., 2023). However, as correlational studies are object to other variables, it is a limitation of this study that cannot rule out other factors leading to increased social media use or increased stress levels in youth and young adults.

In another study, researcher found that people turn to social media when feeling increased levels of stress, such as during the COVID-19 pandemic (Nilsson et al., 2022). One must note that adolescents' ability to make use of (or access) other coping mechanisms was limited due to the isolation rules during COVID-19. Yet, it is interesting to see that both papers underlined that people turn to social media to self-soothe, regardless of the source of the stressor, such as COVID-19 (Nilsson et al., 2022) or stressors that exist without COVID-19, like anxiety or depression (Jarman et al., 2023).

Lastly, the researcher of the literature review that was used as a foundation to this section offer an excellent insight into the motivation of social media use (Whiting & Williams, 2013). Knowing what drives folks to engage in social media activity, could be one of the keys to developing interventions. Thus, this literature review (Whiting & Williams, 2013) will also be mentioned in the last chapter of this project, when discussing supportive measure for youth.

By gaining a deeper understanding of the problematic use of social media usage, one can better comprehend its impact on mental well-being and promote a balanced approach to using these social media platforms while staying emotional regulated or feeling a sense of self-soothing. Unfortunately, some tools, such as social media, that are being used to self-soothe or alleviate stressors can also lead to compulsive behaviours.

Social Media Overuse and Compulsion

As discussed in the previous section, it is important to look at the motivation behind adolescents' behaviour and interaction on social media (Mao & Zhang, 2023). This can give an insight into the degree of harm social media may have on an individual (Mao & Zhang, 2023). But what happens when a teen or young adult spends too much time on the social media platforms? In the following section, I will briefly touch on scales and measurements of social

media compulsion, then I will outline potential effects of social media compulsion on an adolescent's life, as well as highlight some co-morbidities that may arise through the compulsive use of social media.

Definitions and Scales

As previously described, social media compulsion is often called social media addiction in recent literature (Basel et al., 2020). For the purposes of this paper and to actively fight stigma around the term addiction, we will be calling social media addiction, social media compulsion. Most sources view social media compulsion as “not being able to control impulses,” using social media to cope with life stressors, and the use of social media results in social or professional impairment of the individual (Basel et al., 2020). There is no consistent definition or measurement of social media compulsion across literature. While Basel and colleagues (2020) and Velthoven et al. (2018) discuss the definition of *Digital Addiction* (DA), other researcher have explored a measurement for social media compulsion, i.e. the *Bergen- Social- Media Addiction scale* (BSMAS) (Luo et al., 2021).

The BSMAS consists of six items that are answered on a 5-point Likert scale (Lin et al., 2017). It is an improved measurement that was derived from the Bergen Facebook Addiction Scale, which gave only a limited view on the impact of social media, as it looked only at the use of Facebook (Lin et al., 2017). The BSMAS measures “salience, mood modification, tolerance, withdrawal, conflict, and relapse” (Lin et al., 2017). Digital addiction on the other hand, does not only exist as a definition of social media overuse (van Velthoven et al., 2018), but also as a measurement, called the *Digital Addiction scale* (DAS) (Yaman Aktaş et al., 2022). The DAS measures social isolation, low self-perception, impulsivity, underperformance, deprivation (Yaman Aktaş et al., 2022). Interestingly, Velthoven et al (2018) see intermittent reinforcement

(social media user receive a reward in an inconsistent way, which is the most addicting form) as the underlying issue of the perpetual use of social media.

Effects of Social Media Use and Overuse

The use of social media may have negative repercussions that we will be addressing in the following section of this paper. Some of the negative outcomes on the wellbeing of adolescents and young adults include, but are not limited to: Loneliness (Uyaroglu et al., 2022), overall increase in mental health problems (Vannucci et al., 2017), social comparison, academic performance, sleep disturbances (ElSalhy et al., 2019). The focus is on the psychological impact social media use may have on adolescents. In this section, we will delve into one area of research that studies the psychological impact social media use may have on adolescents. By focusing on this critical aspect of research, we aim to shed light on the potential adverse effects of social media overuse and its implications for the mental well-being of young individuals.

It can be difficult to decipher whether social media led to psychological distress, or if psychological distress led to social media use, or if both can be true (Jarman et al., 2023). Adults have been found to feel stressed before and after social media use (soothing and distressing effect), whereas “for adolescents (...), there was a significant association between psychological distress and social media use,” but unclear about the direction of the relationship (Jarman et al., 2023).

Another important aspect of the effects of social media is the impact on adolescents and young adults’ social connection. As discussed in the previous section (Why do Adolescents and Young Adults Use Social Media?), it is detrimental when social media is used in a passive manner and not to strengthen social connections (Mao & Zhang, 2023). Overall, the literature seems to be a lack of consensus regarding social media and its effects on friendships. However,

there is also discussion around the question if people are able to form meaningful relationships and friendships via the virtual applications of if social media has negative effects on relationships (García-Huertas et al., 2022; Reich et al., 2012) Unlike Mao and Zhang (2023), authors from a study in Spain claimed that social media (Facebook specifically) does not aid in forming or strengthening social connection (García-Huertas et al., 2022). Contrarily, Reich et al. (2012) mention that online interactions can strengthen friendships and diversify connections in a safe way. This means that there is overlap between offline and online friends, and that there is a possibility to form safe relationships with peers online that add to the youth's life. Similarly, Mao and Zhang (2023) claim that active and purposeful interaction with social media can have positive effects on the youth. Whereas García-Huertas and colleagues (2022) conclude that it is not possible to form or uphold friendships on social media, making the name *social media* a misnomer.

While these three studies seem to yield in three different results, it is important to note their context and their ways of collecting data and interpreting findings. Two of the three studies used surveys as their primary method of data collection (García-Huertas et al., 2022; Reich et al., 2012). Yet, Mao and Zhang (2023) used three different scales to identify impacts of social media use. Thus, they claim that interacting with friends on social media (active use) may reduce in the fear of missing out (FOMO), which could be seen as a positive effect of social media use (Mao & Zhang, 2023). Yet, one could argue that the fear of missing out exists in the first place because of social media. García-Huertas and colleagues (2022) on the other hand, take a different approach. Here, the team measured different key pillars of friendship, such as “confidence and giving” (p. 241). Both which were deemed in the study as significant for a meaningful friendship (García-Huertas et al., 2022). So, one can see that friendship and

connections are difficult to measure, operationalize, quantify, and qualify in a study. This could also be a reason why results vary in this field of study.

Ultimately after reviewing the literature, there is a need for more research that determines causation of effects of social media use. This will help comprehend the impact that social media use has on adolescents and young adults better. Especially because the interventions for clinicians may look different depending on the causation of the issues. As we explore the intricacies of the issue around social media compulsion, we will uncover various factors contributing to negative outcomes that have a more pathological tendency and may require professional support.

Social Media Use/Compulsion and other Co-morbidities

In the following section, we will discuss the association between social media compulsion and symptoms of anxiety (Vannucci et al., 2017) and depression (Shensa et al., 2017), decreased cognitive function, such as decreased focus/attention, information processing, as well as physical changes to the brain (Basel et al., 2020; Firth et al., 2019; He et al., 2017; Nikkelen et al., 2014). As mentioned in the previous section (*Self-Soothing*) one must differentiate between correlational and causational studies. Most studies in this section will show an association between two variables, i.e., social media use and co-morbidities/distress. The author will speak to the differences in the findings and distinguish between correlations and causations.

Firstly, a team of researchers found that there is a positive correlation between social media use and anxiety (Vannucci et al., 2017). This study is based on a self-report measure and did not speak to the direction of the correlation, yet it showed that social media use and anxiety increase together (Vannucci et al., 2017). Similarly, another study that was conducted nationally

in the United States of America supports that there is also a strong correlation between social media use and other psychological problems (Shensa et al., 2017). Here, instead of symptoms of anxiety (Vannucci et al., 2017) the study revealed that there is a strong relationship between social media use and depressive symptoms in young adults (Shensa et al., 2017). What stands out in this study is that social media use was not pathologized and called an addiction, but rather called *problematic* (Shensa et al., 2017), which resonates with the perspective of this capstone paper. Another paper on the effects of social media, refrains from using the term *addiction* and also uses the term *compulsion* (Basel et al., 2020).

Similarly, Shensa et al. (2017) also support that the way social media is being used is more problematic than the use of social media itself. Shensa et al. (2017) state that the frequency of use of social media is more likely to increase depressive symptoms and not the overall time spent on the platforms. This may be an interesting factor for later discussions around reducing social media compulsions. Escobar-Viera and colleagues (2018) also support the notion that passive social media use increases depressive symptoms. This quantitative study shows an increase of 33% of participants' depressive symptoms (Escobar-Viera et al., 2018). McCrae and colleagues (2017) also support the notion that there is a relationship between social media and depressive symptoms. The team of researchers also note in their literature review that depressive symptoms often onset during adolescents' years (McCrae et al., 2017). Further, the authors indicate a correlational relationship between social media use and depressive symptoms, and it does not necessarily mean that social media causes those symptoms (McCrae et al., 2017). However, it signifies that adolescents are in a vulnerable stage of their life and should be protected from influences such as social media overuse that may worsen symptoms.

Both studies by Firth et al. (2019) and by He et al. (2017) support the notion that social media compulsion negatively impacts the brain. Both point towards their findings based on MRI scans; While Firth and colleagues (2019) base their findings on a literature review, He and colleagues (2017) support their findings on MRI scans on social media users. On the one hand, He et al. (2017) discusses the effects of social media compulsion (here called *addiction*) on the brain. The researchers also draw comparisons between social media compulsion and other behavioural addictions that have been studied further, such as substance or gambling disorders. This study also points towards the impulsive nature of social media compulsion and that those changes are visible in the brain, specifically in the users' grey matter of the brain (He et al., 2017). On the other hand, Firth and colleagues (2019) discusses the findings of their brain scans in the light of cognitive problems.

Poor academic performance, attention, memory and knowledge could be explained by a study in which social media users underwent MRI scans (Turel et al., 2018). In said MRI scans, participants' grey matter of the brain was visibly smaller in size, specifically in the area that is associated with decision making (Turel et al., 2018). Here, the behaviour of social media users was identified as compulsive and was compared to other behavioural addictions, which was consistent with the physiological changes in participants' brain (Turel et al., 2018). In this study, the researcher made the remarks that social media users may chase the quick dopamine release (Turel et al., 2018). For the context of this paper, the dopamine release can be simplified as human's mechanism for motivation that aids in goal pursuit; In other words, "Dopamine is a hormone associated with pleasure and a component of the body's reward system" (Almachnee & Cozzie, 2022, p. 1). However, the role that dopamine plays in the development of a compulsion is unclear to the scientific community (Gendreau & Potenza, 2014; Volkow et al., 2011).

Moreover, individuals struggling with social media compulsion may be prone to experiencing co-morbidities, such as anxiety, depression, and low self-esteem (Basel et al., 2020). The persistent urge to engage with social media platforms can intensify these challenges, impacting both cognitive functioning and emotional well-being (Alotaibi et al., 2022). Research indicates that an intensified involvement with social media platforms can exacerbate pre-existing mental health conditions and contribute to the development of a range of co-morbidities (Alotaibi et al., 2022).

The nature of the over-stimulating and fast-paced environment of social media gives reason to believe that social media use or compulsion may be related to attention-deficit/hyperactivity disorder (ADHD), or behaviours associated with ADHD (Nikkelen et al., 2014). A team of researcher identified through a meta-analysis that there is a positive relationship between social media compulsion and attention-deficit/hyperactivity disorder (ADHD) (Nikkelen et al., 2014). Firstly, this study pointed towards the lack of research at the time (almost 10 years ago) and the need to investigate the correlation as well as causation of social media use and attention-deficit/hyperactivity disorder (Nikkelen et al., 2014). However, these findings are in line with research that discusses symptoms of ADHD. This does not lead to a diagnoses of ADHD, yet it supports that social media use may trigger ADHD-related symptoms, such as impulse control and inhibition issues (He et al., 2017) attention deficit and cognitive issues (Firth et al., 2019).

Surprisingly, there is not a lot of research on social media use and ADHD (related symptoms), despite parents' and caregivers' concern and the presence of the topic in the popular media (Howard, 2018). On a similar note of attention deficits, the instant gratification and perpetual stimulation offered by social media platforms can erode adolescents' capacity to

maintain attention on tasks requiring prolonged cognitive engagement (Whiting & Williams, 2013). Consequently, individuals' academic performance may suffer, and the development of effective study habits may be hindered (Van Den Eijnden et al., 2018). Nevertheless, it is unclear what the exact relationship between ADHD and social media compulsion is.

Substance abuse could also emerge as a co-morbidity linked to excessive social media use (Daniels et al., 2021). One explanation for the coexisting of substances use and social media use could be that adolescents face heightened stress, anxiety, or loneliness (Daniels et al., 2021). Yet, it is still unclear which behaviour triggers which behaviour, indicating that there is correlation but no causation (Daniels et al., 2021). This would mean that, social media users might turn to substance use as a coping mechanism, perhaps due to previously mentioned psychological discomfort (Daniels et al., 2021). Alternatively, that substance use may lead folks to seek quick and rewarding behaviour such as social media engagement (Daniels et al., 2021). Another team of researcher found that both social media use and substance use may arise as self-indulgent behaviours (Pavić & Livazović, 2023). However, more research needs to be done to control a potential third variable such as social isolation, which could feed into psychological distress (Abu-Taieh et al., 2022; Christie, 2021).

While there is limited research on the hypothesis of social media compulsion and substance use, it is worth thinking about the fusion of the two behaviours among adolescents. When reviewing a study on social isolation and substance use (in this case opioid use), the connection between the two variables is made (Christie, 2021). And since we have established beforehand that social media can give the sense of feeling left out and alone (i.e. FOMO), this may be an interesting study to conduct and replicate (Christie, 2021). The short-term positive

effects of opioids use and the lack of social connection establishes a feedback loop, further compromising one's psychological well-being (Christie, 2021).

To summarize, the co-morbidities that can stem from excessive social media use and compulsion among adolescents encompass an array of psychological challenges, including heightened symptoms of anxiety and/or depression (McCrae et al., 2017), internalizing or externalizing problems (Riehm et al., 2019), having difficulty with attention (Ra et al., 2018), and potentially being more vulnerable to other behavioural or substance use problems (Christie, 2021). Yet, the direction of cause and effect is mostly unclear. A statement that can be made with more certainty is that social media compulsion can lead to physiological changes to the brain (Firth et al., 2019; He et al., 2017). It is crucial for clinicians, educators, parents, and policymakers to acknowledge the potential impact of social media on adolescents' mental and physical health. By taking proactive measures to promote balanced and responsible digital engagement, collaborative efforts can help mitigate adverse consequences, fostering an environment conducive to the comprehensive well-being of adolescents. In the following section, the author will introduce the concept of mindfulness practices with the potential to be a tool for social media users.

Mindfulness and its Practices

Over 2500 years, the practices of meditation, mindfulness, and Buddhism have persisted through time, leaving behind a legacy of wisdom and self-awareness that resonates with people globally (Follette & Hazlett-Stevens, 2016). At the core of these transformative practices lies mindfulness, a profound approach to connecting with life's present moment (Kabat-Zinn, 2003). By fostering undivided attention and a non-judgmental mindset, mindfulness enables one to fully embrace whatever unfolds, immersing oneself in the here and now—the very essence of

existence (Kabat-Zinn, 2003). This timeless practice empowers individuals to reclaim control over their lives, fostering harmony between mind, body, and soul, and evoking a profound sense of serenity and purpose (Beattie et al., 2019; Kabat-Zinn, 2003). In this subsection, we delve into the different options for mindfulness practices, exploring their profound impact on personal well-being, and discovering which ones are appropriate for adolescents, as well as how they may help those individuals.

Mindfulness Practices for Youth and Adolescents

Mindfulness practices can be highly beneficial for adolescents, helping them navigate the challenges of adolescence and aid in the development of important life skills (Dunning et al., 2019). In the following section we will be looking into several mindfulness practices that are suitable for adolescents. It is important to note that the willingness to participate and to immerse oneself in the mindfulness practice is crucial to the effectiveness and the outcome (Lagor et al., 2013). It is also crucial that mindfulness practice can look different for different individuals, depending on their needs (50 Mindfulness Techniques for Children & Teens, 2015). Some practices include, but are not limited to: Breath awareness, body scan, mindful walking, mindful eating, guided imagery, journaling, mindful listening, loving-kindness meditation, mindful technology use, mindful breathing in stressful moments (Crowley et al., 2018).

Breath awareness or breathing in stressful moments teaches adolescents to focus on their breath, which can be a simple yet effective way to introduce mindfulness. It may encourage them to observe the sensation of their breath as it goes in and out of their body. When their minds wander, the person guiding the exercise can gently redirect them back to their breath without judgment. Adolescents can then focus on extending their outbreath, which increases heart rate variability and the person should enter a calm state of mind and body (Birdee et al., 2023).

Focusing on the breath and shifting it gently to a slow outbreath may aid in calming the physical arousal (Birdee et al., 2023). It can shift the activation from the sympathetic nervous system (associated with states such as fight or flight), to the activation of the parasympathetic nervous system (associated with the states such as rest and digest) and reduce perceived stress or anxiety (Birdee et al., 2023).

A body scan is an exercise in which adolescents can be guided to focus their attention on different parts of their body from head to toe (O'Bryan, 2021). This practice may help develop body awareness and a connection between physical sensations and emotional experiences; this was one of the mindfulness practices that was studied in a population of children and adolescents receiving cancer treatment, successfully combating feelings of anxiety and sadness (Murphy et al., 2022). While this is not the population this paper is studying, it gives an insight into the power and effectiveness of mindfulness practices like the body scan. It could be of interest to practice body scans in order to tap into potential needs of the body instead of reaching for the phone and gaining a quick release of dopamine (Volkow et al., 2011)

Mindful walking encourages adolescents to connect with the present moment and sensations that arise while walking. When paying attention to the sensation of the feet touching the ground, the movement of their legs, and the environment, this practice can be particularly useful for grounding and relaxation (*50 Mindfulness Techniques for Children & Teens*, 2015). Further, adolescents can practice mindfulness by mindful eating (Crowley et al., 2018) by paying full attention to the sensory experience of eating. This involves noticing the texture, taste, and aroma of the food, as well as the act of chewing and swallowing.

Guided imagery exercises can help adolescents relax and connect with their imagination, as it was shown in a study with adolescent cancer survivors (Lathren et al., 2018). This can then allow

folks to be guided to visualize calm and peaceful scenes, fostering a sense of tranquility and reducing stress, and feel safe and grounded (Lathren et al., 2018).

In order to reduce stressful experiences, adolescents may benefit from journaling, such as exploring their gratitude (Pulkit & Singh, 2021). *Mindful journaling* involves encouraging adolescents to write about their thoughts and emotions without judgment. This practice can help process feelings and gain insight into inner experiences (Pulkit & Singh, 2021).

While there was no scientific article on this method, *mindful listening* may also be appropriate for adolescents (*50 Mindfulness Techniques for Children & Teens*, 2015). Adolescents can engage in mindful listening by focusing on various sounds around them, whether it's nature sounds, music, or even the noise of their surroundings. This practice also cultivates an attentive awareness of the present moment.

Another interesting mindfulness practice is *loving-kindness meditation*. Adolescents can practice sending positive intentions to themselves and others through loving-kindness meditation. This practice promotes self-compassion and empathy. This form of mindfulness meditation has shown to improve peoples' life, such as social support and purpose in life (*50 Mindfulness Techniques for Children & Teens*, 2015).

Lastly, to tie the topic of mindfulness practices back to social media, there is also the concept of *mindful technology use* (Chang et al., 2023). This practice encourages adolescents to mindfully engage with technology by setting specific times for social media and technology use. This helps them become aware of their digital habits and promotes a balanced approach.

How can mindfulness help?

Mindfulness practices can have a positive impact on people and their physical and mental well-being, as well as improve their cognitive abilities (Baminiwatta & Solangaarachchi, 2021).

The application of mindfulness practices for adolescents has gained considerable attention due to the unique challenges they face during adolescence; This developmental stage is marked by significant changes in emotional regulation, self-identity, and social interactions (Dunning et al., 2019). It is especially important to think of supporting adolescents, as teenage years are a time of drastic change for individuals, and support may be required.

Numerous studies have explored the benefits of mindfulness practices on physical and mental well-being (Baminiwatta & Solangaarachchi, 2021). Mindfulness practice has been associated with reduced stress, anxiety, and symptoms of depression (Joana & Esther, 2021). It can also enhance emotional regulation and resilience, leading to improved coping skills and overall psychological functioning (Kock et al., 2021; Monsillion et al., 2021). By promoting self-awareness and acceptance, mindfulness practices can help individuals better manage their emotions and respond more effectively to inevitable changes in one's life (Finkelstein-Fox et al., 2018).

Moreover, mindfulness practices have been shown to have a positive impact on cognitive abilities; by practicing mindfulness individuals focus on the present moment and refrain from rumination, so mindfulness may enhance cognitive functioning (Marciniak et al., 2020; Singh & Sharma, 2017). This improved cognitive functioning can lead to better performance in various tasks and academic settings (Bishop et al., 2004; Riggs et al., 2015).

Mindfulness practices for adolescents are often tailored to suit their specific needs and developmental stage (Dunning et al., 2019). Mindfulness-based interventions (MBIs) designed for teenagers typically incorporate age-appropriate activities and exercises to engage young minds; these interventions can take place in various settings, including schools, community

centres, and clinical settings, making mindfulness accessible and relevant to adolescents from diverse backgrounds (Joana & Esther, 2021; Marciniak et al., 2020; Monsillion et al., 2021) .

Research exploring the effects of mindfulness interventions has yielded promising results (Fung et al., 2019; Munk et al., 2022). Adolescents who participate in mindfulness programs often report reduced levels of stress, anxiety, and symptoms of depression (Joana & Esther, 2021). Engaging in mindfulness practices may also lead to improved emotional regulation skills and increased self-awareness, positively impacting their relationships and overall well-being (Munk et al., 2022).

Furthermore, mindfulness practices have been linked to enhanced academic performance among adolescents (Munk et al., 2022). By improving attention and concentration, mindfulness can lead to better focus in the classroom and improved learning outcomes (Munk et al., 2022). This enhanced cognitive functioning can contribute to better academic achievement and overall success in their educational pursuits (Munk et al., 2022).

In conclusion, mindfulness practices offer a wide range of benefits for individuals of all ages, and pertinent for this project: For adolescents. By fostering self-awareness, emotional regulation, and cognitive abilities, mindfulness interventions can empower adolescents to navigate the challenges of adolescence and cultivate resilience for a healthier life and future (Munk et al., 2022). As more research continues to explore the specific effects of mindfulness practices on adolescents, the potential for incorporating mindfulness into various aspects of their lives holds great promise for supporting their growth and development, as well as potentially navigating through aspects of social media use and compulsion.

Mindfulness in the context of social media compulsion for youth

Moreover, we will discuss the significance of understanding and addressing these concerns to promote healthier social media habits among adolescents and safeguard their psychological well-being in an increasingly digital world.

One crucial mechanism through which mindfulness practices could potentially mitigate social media compulsion is by enhancing self-regulation (Finkelstein-Fox et al., 2018); Adolescents with heightened engagement in social media may struggle with impulsivity and difficulty in delaying gratification (Whiting & Williams, 2013). Mindfulness practices, such as focused attention meditation, may train individuals to observe their thoughts and sensations without immediate reaction, but rather responding to their underlying needs, such as connecting to others (Dunning et al., 2019). This practice may extend to their interactions with social media, allowing them to recognize impulses to check platforms compulsively and giving them the cognitive space to make deliberate choices. While there is still more research needed, one could conclude from the previously mentioned findings that practicing managing one's emotional reaction and increase self-regulation could reduce the urge of social media engagement and empower adolescents to disengage from compulsive behaviors.

Additionally, mindfulness practices may equip adolescents with tools to navigate emotional challenges associated with social media use (Dunning et al., 2019). Mindfulness cultivates emotional awareness, enabling adolescents to identify these emotions as they arise (Finkelstein-Fox et al., 2018). With this awareness, they can adopt a non-reactive stance, acknowledging their feelings without succumbing to them (Kabat-Zinn, 2003). By addressing underlying emotional triggers, mindfulness may be able to reduce the need for impulsive social media engagement as a coping mechanism and promote healthier ways of managing emotions.

Mindfulness practices also contribute to a heightened sense of self-awareness (Kock et al., 2021). Adolescents engaging in social media compulsion may lose sight of their genuine interests, values, and aspirations. Mindfulness may encourage introspection and introspective insight, helping adolescents reconnect with themselves (Chang et al., 2023). This heightened self-awareness can prompt them to reassess their motivations for social media use, distinguishing between genuine connection and compulsive behavior driven by external influences.

Furthermore, mindfulness practices facilitate a greater appreciation for the present moment (Kabat-Zinn, 2003). Adolescents frequently immersed in the digital realm may miss out on the richness of offline experiences; Mindfulness encourages individuals to engage fully with their immediate surroundings (Kabat-Zinn, 2003), promoting a sense of presence and fulfillment beyond the online world. This shift in focus could potentially help adolescents gradually reduce the attraction of compulsive social media use as they experience the rewards of being fully engaged in real-life interactions.

In conclusion, the growing challenge of social media compulsion among adolescents necessitates innovative mediations that address the intricate interplay between digital engagement and psychological well-being. Mindfulness practices, grounded in their ability to enhance self-regulation, emotional awareness, self-identity, and presence, offer a promising avenue for supporting adolescents in managing and mitigating social media compulsion. By cultivating mindfulness skills, adolescents can develop a more balanced relationship with digital technology, fostering their psychological resilience and promoting their holistic well-being in an increasingly interconnected world.

Outlook on Mindfulness and Social Media Use

As many authors showed, it is about the way teens and young adults interact with the social media apps (Escobar-Viera et al., 2018; Mao & Zhang, 2023; Shensa et al., 2017). As Shensa et al. (2017) describe, it is about the frequency of use that makes adolescents depressive and perhaps not the time that they spend on social media. Others pointed to the relationship between passive social media use and depressive symptoms (Escobar-Viera et al., 2018). It is fair to assume that social media will remain a part of adolescents, young adults, and adults' lives. At the same time mindfulness practices gaining popularity. Therefore, it may be beneficial to reduce the frequency and passivity of social media use to minimize the negative effects these platforms may have on youth. When connecting these goals to the principles of mindfulness, there might be a way to decrease frequency instead of limiting time overall (i.e., there are apps and settings on phones to restrict time. Perhaps it would be better to use a mindfulness app or method that targets and reduces the frequency of social media use, as well as conscious engagement.

As discussed previously, social media compulsion can significantly affect cognition, resulting in decreased focus, attention, and information processing. Moreover, individuals struggling with this compulsion may be prone to experiencing co-morbidities, such as anxiety, depression, and low self-esteem. The persistent urge to engage with social media platforms can intensify these challenges, impacting both cognitive functioning and emotional well-being.

Limitations and Ethical Considerations

Lastly, it is crucial to speak to the limitations of the topic of social media use, compulsion, and mindfulness practices. Something that stands out when combining social media use/compulsion and mindfulness practices together, is that it would fuse tradition (mindfulness practice) with the modern world (social media use). However, there are ethical considerations to

be aware of. It is crucial to at least mention that there are potential risk factors of cultural appropriation of Buddhist tradition and westernizing an ancient practice. Monteiro and colleagues (2017) discuss the ethics around mindfulness practices. The answer is unclear. Someone who practices mindfulness may see this practice in the light of Buddhist religion, yet how does one accomplish that (Monteiro et al., 2017)? The authors mention that the reason for using mindfulness may be more important to consider than aligning their values with Buddhism (Monteiro et al., 2017). The authors ask the important question of, “is mindfulness helpful in reducing suffering?” (Monteiro et al., 2017, p. 39) A caveat when implementing mindfulness into people’s lives would be to respect the practice by focusing on supporting humans and staying away from using mindfulness as a tool to placate employees or students in their respective settings (Monteiro et al., 2017).

In the realm of cautions, it is important to note that there is some literature that has opposing views on the topic of social media use and mindfulness practice. While the majority of the findings indicate that there is a connection between social media and stress in youth (Chatterjee, 2021), there is also contradictory literature (Griffioen et al., 2021). Here, researchers claim that social media use has no or little negative impact on youth. The team claims that, “social stress does not affect adolescents subsequent social media use and that there is no relationship between social media use after stress and changes in momentary wellbeing” (Griffioen et al., 2021, p. 1). While some of the previously mentioned studies support that parts of social media use can be beneficial, none of the literature (that has been reviewed in this project) concluded that there are no negative effects; For example, Wirtz and colleagues (2020) specifically pointed out that not only had the participants’ wellbeing been decreased with social media use, but also that negative emotional states increased in participants. In other words, social


media did not only make people feel less happy, but also increased their negative emotions (Wirtz et al., 2020).

Participants were not asked about a particular feeling, instead they were asked “focusing only on negative feelings, how much are you feeling right now?” (Wirtz et al., 2021, p. 1678). This is indicative for the complexity of the topic, namely what is considered having “negative feelings” (Wirtz et al., 2021, p. 1678), and how can this be operationalized, measured, and then replicated in further studies. While Wirtz and colleagues (2021) made an attempt to measure participants’ emotions, it is rather vague. Additionally, it can be a slippery slope to deem certain emotions as bad, as it may lead to people avoiding them altogether.

Further, it is important to note that there may be drawbacks in the use of mindfulness practices (Kaufmann et al., 2021). The authors Kaufmann et al. (2021) reviewed negative effects of studies that show that mindfulness may alienate some people. While I understand the potential repercussions of mindfulness practices, it is important to glance into the method section of the paper. Here one can see that participants did a 90 minute mindfulness practice (Kaufmann et al., 2021). This is a long time to engage with mindfulness exercise and would probably require advanced skills. Such a long practice may not yield to the beneficial results of shorter mindfulness practices, especially if a long practice creates more discomfort, such as impatience (Kaufmann et al., 2021). As one will see in chapter three of this project, the author of this paper would recommend a brief intervention, especially for youth. Nevertheless, the authors Kaufmann and colleagues (2021) point out that there are also other circumstances in which mindfulness exercises may have a negative impact on the person practicing (Kaufmann et al., 2021).

Further, this discussion provokes the challenge that comes with (empirical) studies of mindfulness exercises (Van Dam et al., 2018). Studies have been using different operational

definitions, leading to inconsistencies in regard to the meaning of mindfulness and the use of mindfulness (Van Dam et al., 2018). This shows that it is difficult to research mindfulness practices and their effects on youth.

In the following and last chapter, the author will discuss the findings of this literature review. Further, there will be suggestions around application of said findings. The author will suggest an outline for a phone application that may support youth and young adolescents in engaging more mindful with social media. And lastly, the author will point towards the importance of education around social media use, which can be seen as intervention and prevention. 

Chapter 3: Discussion and Application

The purpose of this capstone paper was to identify potential repercussions of social media compulsion and to review mindfulness practices that may serve as interventions.

The focus was to find out what happens when youth engage excessively with social media and if mindfulness practices could be a form of useful intervention. While this paper was able to draw lines between clinical symptoms and mindfulness practices, there is still a lack of research around the efficacy of mindfulness for this specific problem and population. While we have seen that mindfulness seem to help people with nomophobia, we cannot say with confidence that it would be applicable to other areas of smartphone use or social media compulsion (Arpaci et al., 2019). Other studies have identified the benefits of mindfulness practices for anxious, depressed, and lonely youth (Zheo, & Zhou, 2021; Van Den Eijnden et al., 2018).

Yet, to this day there is not enough research, showing a direct correlation between social media compulsion and mindfulness exercises. Further, it is difficult to study this topic as social

media compulsion has only been vaguely conceptualized and operationalized, making it difficult to measure for what is considered social media overuse or compulsion and what is considered normal use (Luo et al., 2021). Since the use of social media is steadily on the rise (Lambert, 2022), there is an urgency for support for individuals that struggle with the overuse of social media platforms. On the one hand, because the effects of social media compulsion seem detrimental. On the other hand, because compulsion and dependence are ubiquitous issues and must be taken seriously by offering support for individuals that are affected – even though compulsive behaviour of choice seems harmless.

What it is known, is the detrimental effects of social media use and compulsion on youth, such as changes in the brain (He et al., 2017), social disconnection (Scheinfeld & Voorhees, 2022), decrease in well-being (Wirtz et al., 2021), increase in stress and anxiety (Luo et al., 2021; Thomson et al., 2021; Vannucci et al., 2017; Zhao & Zhou, 2021). This knowledge should be sufficient in order to discourage youth, parents, and teachers from daily engagement on social media.

Discussion

This project was intended to seek answers around the influence that social media has on young adults and adolescents, while exploring the role of mindfulness practices in compulsive social media use. The author can confidently say that social media overuse has more negative than positive effects on youth (Van Den Eijnden et al., 2018; Vannucci et al., 2017). While mindfulness practice can have a positive impact on youth mental well-being, it is not entirely clear if mindfulness practices provide a positive impact on social media overuse. The literature points towards benefits of mindfulness practice (Finkelstein-Fox et al., 2018; Kock et al., 2021; Singh & Sharma, 2017) and rarely mention drawbacks (Kaufmann et al., 2021).

The main aspect for social media engagement seems to be social connection (Whiting & Williams, 2013). Researchers have pin pointed several of the reasons for primary social media engagement, with 88% for social connection, 80% for information seeking, and 76% of passing time (Whiting & Williams, 2013). This is important to know, as it guides the development of support for youth. Ironically, Whiting and Williams (2013) use their information for marketing purposes, which does not deter the author of this paper to use their information to her advantage. Yet, it speaks to the industry and the power of the marketing strategist, who use the same knowledge on capturing more attention on social media that this current project uses to reduce use of social media. Knowing that social media plays an essential role for adolescents and young adults in forming and strengthening relationships, educators and caregivers should offer support in utilizing the platforms in a healthy way.

Here, I want to highlight the potential positive influence that social media can have on youth (Reich et al., 2012). Reich and colleagues' findings (2012) may be somewhat outdated, as there has been a lot of progress on social media platforms over the last 10-11 years. Arguments such as the internet being a safe space for youth (Reich et al., 2012) may not be true anymore. Further, with other social media platforms entering the market that have not been discussed by Reich et al. (2012), intentions for adolescents and young adults to visit social media may have changed. While in 2012 people would primarily use Facebook to connect and communicate with friends (Duggan & Brenna, 2013), in more recent years people use TikTok as a new way to find entertainment through watching videos (60%), to spend their free time (45%), and to find new information and contribute to topics of personal interest (28%) (*Top Reasons for Using TikTok*, 2020). Further, there has been an increase in social media use overall in the US from circa 54%

in 2012 to 74% in 2021 (Kolmar, 2023), to one billion TikTok users (Zhang Yiming, n.d.). This shift in social media use points towards its strong presence in people's life.

Social media has become a central role for many adolescents and young adults, whether it is to catch up with friends, disengage from unwanted emotions (i.e., anxious or depressive nature), or to be among like-minded youth that share interests (Roberts & David, 2020; Scheinfeld & Voorhees, 2022; West et al., 2021). It is important to offer guidance in the realm of social media use, as teenagers and young adults are moving through highly formative years of social development (West et al., 2021).

As we found out throughout this capstone project, there are multiple reasons for social media use and compulsion. One way to look at social media compulsion is to view it as a poor coping mechanism for teenager and young adults, trying to fill gaps in their social connectiveness. Just like other compulsions, social media can serve as a temporary fix to feel more socially connected (West et al., 2021). As it was discussed before, social connection is one of the innate human needs (Baumeister & Leary, 1995). Thus, when teenagers crave social connection, it seems logical to reach to one's phone to promptly satisfy that need (West et al., 2021). Especially when this group of people has a fear of missing out (FOMO) from their friends' experiences (Mao & Zhang, 2023).

Self-soothing tendencies may appear in order to feel less anxious or disconnected (Zhao & Zhou, 2021). A smartphone with social media applications can serve as a quick fix for a deeper and more complex need that would require more energy and effort to achieve with a face-to-face meeting with a peer (Zhao & Zhou, 2021). Arguably, the main reasons for social media compulsions are to self-soothe due high levels of stress (Zhao & Zhou, 2021), feelings of social disconnect, and anxiety around social connections and other unrelated topics (Jarman et al.,

2023). At the same time, mindfulness practices also give a relief from symptoms such as anxiety and depression.

Mindfulness practices enhance self-awareness (Kock et al., 2021). However, adolescents consumed by social media might forget their true interests and values. Mindfulness can facilitate introspection, aiding adolescents in rediscovering themselves (Beattie et al., 2019; Kabat-Zinn, 2003). This self-awareness encourages them to rethink why they use social media, discerning between authentic connections and compulsive behavior influenced by external factors. Mindfulness could thus be a useful tool for adolescents and young adults to redefine their relationship with social media (Chang et al., 2023).

Further, it is important to note that social media is and will likely be a continuous part of most youths' lives. Thus, the question cannot be how to eradicate social media channels from their phones, but rather how to support kids in navigating through social media use. This is where social media compulsion and gambling or substance use are different, as it is impossible to ask from a youth not to engage in social media. One could argue that there is a need for social media but no need for substances or gambling. It could be more compared to alcohol use; yet alcohol use has zero positive effects on a person (especially on a young person), whereas this literature review has revealed some positive aspects of social media use (Clark et al., 2018).

Application

The question is if there is a way that mindfulness may help with the urge of checking the phone, the immediacy of checking the phone and the potential unpleasant feelings post social media engagement. As previously highlighted, indeed there are positive aspects to social media use. Yet, the compulsive aspect of the use can be problematic to people, creating a dependence to

their device and leaving themselves feeling less connected, less focused, and more anxious or depressed.

When taking the recent literature into consideration that has been discussed in this project, it may be helpful to find a strategy for youth and young adults to create more mindfulness regarding their social media use. The idea is to create an application that aids in the awareness of social media use, while reflecting on one's potential underlying needs, and breaking the compulsive and impulsive use of social media. There are already apps on the market that claim to create more awareness around social media use, or even reduce social media and general phone use. However, most of these applications set the goal as reducing social media or phone use as their primary goal; it became evident that reducing use was difficult to accomplish (Van Velthoven et al., 2018; Zahrai et al., 2022). Thus, a new approach is necessary to create a tool that may have benefits to youth.

The rationale for an app is that youth report using tendencies towards using self-controlling strategies; In a recent study, more than half of the participants state to reduce their social media use by using an existing feature on their phone/computer (Brevers & Turel, 2019). This form of self-control was accomplished by turning the phone into airplane mode, do not disturb mode, etc. (Brevers & Turel, 2019). Therefore, it would make sense to offer an intervention to youth and young adults that they are already inclined to use. The same researchers concluded that it may be helpful to combine reactive and proactive strategies to social media use (Brevers & Turel, 2019). This may be understood as putting boundaries in place before the urge arises to use social media platforms (proactive), as well as when there is an urge to engage on social media (reactive) (Brevers & Turel, 2019).

Given the conclusion of the studies that have been discussed in this capstone paper, the author of this paper sees value in the development of a smartphone application that aids in mindful engagement with social media, addressing several issues with social media compulsion. Assuming that compulsions, or social media use in general, are satisfying an underlying need (West et al., 2021), it makes sense to find a way to satisfy that primary need. Rather than focusing on suppressing social media use, the primary goal is to address the underlying need. Those needs could be social connection, emotional regulation, break from work/school etc., as well as the awareness around one's social media use (Clark et al., 2018). Through the mindful connection to one's inner world (i.e., need), a reduction of social media use would be the byproduct of the mindfulness exercise.

This application, called "You Sure?", functions in blocking the smartphone's screen when one tries to open social media applications. The name is a slang way of saying "Are you sure (that you want to open this social media app right now)?" The hope is, that the choice of words speaks to young adults and adolescents. The application ensures that the phone user is still able to access other functions on the phone that are unrelated to social media, such as sending emails or making an emergency call. However, when a social media application is being accessed by the phone user, the social media limiting application, "You Sure?", prompts the user to engage in a mindfulness exercise. The exercise that is being used in the application has been originally developed by one of the founding people of mindfulness-based interventions and therapies, Jon Kabat-Zinn (Kabat-Zinn, 2003). This exercise is called *STOP*, which is an acronym that stands for: *Stop* what you are doing, *Take* a breath, *Observe* what is going on inside and around you, *Proceed* mindfully (Mindfulness STOP Skill, 2014). After going through the

steps of the exercise, the phone user may proceed to the social media application or can decide to exit the social media application.

The app is ought to target two forms of self-control that have been discussed in literature: Proactive and retroactive self-control (Brevers & Turel, 2019). When activating the app on the phone, the youth will proactively set a boundary to social media use. On the one hand, it sets the intention for the social media user to limit the use. On the other hand, it does not prevent the use of social media, but rather pause the reactive or impulsive behaviour of reaching for the phone. And if the person decides to pick up the phone and use social media, the youth will (retroactively) engage in a mindfulness exercise. This aspect of “You Sure” helps youth to put a pause onto an automatic behaviour.

Further, this way of pausing (using STOP) and then proceeding with social media use may not only aid in mindful behaviour, but also lead to a more engaged form of social media use (Van Den Eijnden et al., 2018). The youth may ask themselves, why they wanted to open the app in the first place, or with what emotion they are going into social media, essentially engaging with the apps more mindfully. Here, users may realize that they were going to mindlessly scroll on Instagram. Alternatively, they may have intention of sending a direct message to a close friend that they want to connect with. As it was demonstrated previously, a more mindful interaction may reduce unwanted side effects of social media (i.e., anxiety) (Arpaci et al., 2019). Thus, using social media mindfully (i.e., connecting with a friend by messaging them on Instagram) could be a healthy way of using social media applications.

As previously discussed, an engaged form of social media use may even have positive benefits for youth (Van Den Eijnden et al., 2018). Again, this shows that it is not about the prevention of social media use, but rather a safer and healthier way of social media use for

adolescents and young adults. So often, compulsive behaviours (or addictions) are difficult to quit. Social media use is unique in the sense that it is unlikely for youth to be able to avoid it entirely, as it has become a form of communication and connection, and it is not inherently harmful. Thus, reduction in use and creating awareness around problems with social media use by incorporating the mindfulness app, may be sufficient in curbing negative outcomes in youth. Unlike other, more harmful compulsive behaviours (such as gambling or substance use), which a youth can live without while still being able to connect with others (Alavi et al., 2012)

Another advantage of this app may be that it could aid in impulse control. As the research by He and colleagues (2017) supports, social media compulsion may lead to changes in the brain associated with impulsive behaviours and failed inhibition. The mindfulness exercise may aid in prolonging the time between the impulse of wanting to engage with social media and the chance to open the app. This moment of pausing (or STOP) could potentially create enough awareness and mindfulness for youth to re-evaluate their decision on using social media.

Reflections on Personal Learning

Overall, this project gave me the opportunity to engage with the topic of mindfulness with a scientific lens, while connecting it to a perpetual issue of social media compulsion that not only adolescents and young adults struggle with, but myself and peers as well.

As discussed previously, the difference here is that younger generations have no recollection or experience of a time pre-social media and pre-smartphone. This is why I wanted to focus on this particular age group. The results of the dependence on smartphones that youth (and adults) experience has been a curiosity of mine. Especially because the brain of a youth still develops, as well as their identity, and their social skills. These are all factors that are mostly negatively impacted by social media use and overuse and have been discussed in this capstone

project. Many know the casual term “iPad child” (Purchase, 2022) and the perception is mostly of negative nature. An iPad child is a child that often plays with an electronic tablet/iPad instead of reading a book, going outside, socializing (Purchase, 2022). However, are people aware of how screen time and social media use of their teens impacts them negatively? And what is the best way to educate folks? The education and intervention will look different depending on the age of the user, i.e., children versus adolescents and young adults.

As so with many harmful behaviours or substances (i.e., cigarettes, alcohol), it also became evident that education of effects of social media use that education is rather limited. I assume that this is partly due to the multi-billion-dollar industry that benefits from youth’s engagement with apps and devices. Here, I am making the connection to other industries that have once taken advantage of their customers’ or consumers’ health. Presumably, marketing strategies are one area that play a role in the education of addictions and compulsion and thus, in the prevention; marketing companies have been promoting the use of harmful substances i.e., e-cigarettes (Murukutla et al., 2022) or regular cigarettes until the 1970s (Qi, 2013). So, it does not surprise me that the warnings around social media use are almost non-existent, meaning one will have to go out of one’s way to seek information on detrimental outcomes on the brain and the development of youth who use social media compulsively (He et al., 2017; Mao & Zhang, 2023; Vannucci et al., 2017).

As other professionals in the field noted, it is important to create awareness and educate health care professionals, teachers, parents, adolescents, and young adults on the effects overuse and addiction in general, and of social media use in specific because of its ubiquitous nature (Alavi et al., 2012). Here, responsibility of education is in the hands of the government,

educational institutions, cultural organizations, health care professionals, and parents (Alavi et al., 2012).

I, personally, feel largely impacted by the insight I gained from this capstone project and learning more about potential impacts of social media on adolescents and young adults. This will inform my future practice as a clinical counsellor and even now as intern counsellor at my internship site (private practice). I will be adding the conversation around social media use to my key pillars of psychoeducation, which already include sleep, nutrition, exercise, social support, and self-care, representing my holistic approach to my client and to clinical counselling in general. I am hopeful that conversations around topics like social media compulsion will support not only teens that come into my counselling space, but also educate parents or siblings of adolescents and young adults. This is an excellent example of combining the scholarly side (Capstone paper) of a City University student with the advocacy side (psychoeducation).

While mindfulness practices and other may have a positive impact on adolescents and young adults' social media compulsion, the goal should be prevention over intervention (Alavi et al., 2012), which may be achieved through advocacy and education on the topic. Circling back to one of the fundamental reasons for social media use, a lack of social connection is a large determining factor for people (old or young) with issues around regulating social media behaviours (Clark et al., 2018; Wirtz et al., 2021). Thus, I am hypothesizing that offering deep and meaningful connection with a therapist through clinical counselling, may satisfy the person's need to connect, and make them less likely to mindlessly scroll on social media.

It became evident throughout this paper that the use of technology by adolescents and young adults is a far larger problem than I had originally anticipated. This project highlighted the importance of addressing significant issues that arise with youth who has grown up with the

accessibility of smartphones and social media, coined once the “digital natives” as opposed to folks that have grown up without this technology, “digital immigrants” (Prensky, 2001). Society is faced with a new technological era and technological progress, and with that a new array of issues that arise from it. It seems almost ironic to promote an ancient human tradition (meditation) with one of the latest human-generated technologies (social media/ smartphones). However, as it was demonstrated in this paper, there may be benefits to integrating mindfulness into adolescents and young adults’ lives (Kock et al., 2021). Not only are the potential benefits outweighing the potential risks, but mindfulness may have a potential to be supportive for youth that tend to display compulsive social media use.

More future research is needed to identify how and what forms of mindfulness can aid as a preventative tool in adolescents and young adults with social media compulsion, as well as individuals that use social media occasionally. Further, it would be interesting to investigate the impact on social media on girls and young women in the light of body image issues, as well as if mindfulness techniques could be helpful. There has been some evidence that points towards the detrimental body image that is propagated on social media (Perloff, 2014). Social media may be reinforcing unrealistic and unattainable beauty standards that young women and youth in general must be mindful of.

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