Self-Esteem and Social Media

by

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Abstract

Social Media use is so common and frequent that it may be safe to assume that no reader of this paper would argue against such a statement. While social media existence and use are a relatively new phenomena, historically speaking, their impact and position in the zeitgeist of modern living are unimpeachable. Social media has become more than a digital neighbourhood or a way to stay in-touch with others, though these are still within its scope. Social media is now the vehicle for commerce, politics, entertainment, public discourse, news and more. However, there is growing concern about the ways social media use is impacting users, including reports of increased anxiety, poor self-esteem and a distorted sense of oneself online versus in the real world. This capstone reviews some of the ways social media impacts self-esteem and the development of self.

Keywords: problematic social media use, smart phone, social media, self-esteem, technology

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Chapter One

Overview

This capstone delves into the intricate relationship between social media usage and self-esteem, aiming to provide a comprehensive understanding of how various aspects of engagement on digital platforms impact individuals' perceptions of themselves. The analyses within this paper are anchored in psychological and sociological perspectives and include quantitative and qualitative data. This capstone explores both the problematic and positive facets of social media use, considering the influences of problematic use, social comparison, relationships, culture, demographics, and potential treatment interventions. It also includes a personal positionality statement and reflection, important definitions, and an in-depth look at the application of the research.

Purpose Statement

The aim of this capstone is to explore the impact social media usage has on self-esteem, including the formation of one’s identity. The purpose is accomplished by shedding light on social media’s multifaceted implications across various dimensions of the human experience. In an era dominated by digital communication platforms, understanding the profound interplay between individuals' online interactions and their self-esteem is curious if not culturally, personally and globally important. This study also aims to explore the intersectionality of social media engagement and emotional, behavioural, cognitive and sociological factors as they relating to the on-going development of individuals' self-esteem. This capstone also aims to add to the academic and practical discussions while also investigating interventions to address any negative consequences.

Contribution to the Field

This capstone helps to shed light on the modern phenomenon of pervasive social media use and its consequences in the following ways:

Clinical Relevance

Given the widespread and pervasive use of social media, understanding its impact on individuals' self-esteem is crucial for mental health practitioners. It equips them with insights into potential sources of distress and dissatisfaction that clients may bring into therapeutic sessions, allowing for tailored interventions that address these issues.

Informed Interventions

A thorough investigation into problematic social media use and its effects on self-esteem enables counselors to develop evidence-based interventions. By integrating findings from this research, therapists can design strategies to help clients manage their online interactions, navigate comparisons, and develop healthier digital habits, ultimately promoting positive self-esteem.

Cultural Sensitivity

Recognizing the influence of culture and demographics on social media usage and self-esteem enhances counselors' cultural competence. This understanding enables them to approach clients with cultural humility, considering the unique ways in which cultural backgrounds shape individuals' online experiences and self-perceptions.

Relationship Dynamics

Understanding the impact of social media on relationships allows mental health practitioners to address issues related to jealousy, insecurity, and miscommunication that may arise within interpersonal dynamics influenced by online interactions. This knowledge empowers

therapists to facilitate healthier communication strategies and boundary-setting in both online and offline relationships.

Preventive Approach

By comprehending the potential negative consequences of excessive social media use on self-esteem, mental health practitioners can take a preventive stance. They can educate clients about healthy digital habits, equip them with coping mechanisms to counteract negative influences, and promote resilience against the potential pitfalls of virtual interactions.

Holistic Well-being

Integrating insights from this research into counseling practice acknowledges the holistic nature of individuals' well-being. Beyond traditional therapeutic topics, addressing clients' online experiences and self-esteem contributes to a more comprehensive approach to psychological wellness.

Research-Practice Integration

The study's findings offer mental health practitioners an opportunity to bridge the gap between research and practice. As the field evolves, therapists can continuously adapt their interventions based on new understandings of the relationship between social media and self-esteem, ensuring that their methods remain up-to-date and effective.

In sum, the investigation into social media and self-esteem aligns with mental health practitioners’ mission to enhance individuals' mental health and overall well-being. By incorporating these insights into practice, clinicians can better support clients in navigating the complexities of the digital age and fostering positive self-esteem in both virtual and real-world contexts.

Positionality Statement

As author, it is important for me to disclose that my interest in this topic goes beyond therapeutic facilitation, academic research or behavioural curiosity, though each of these is valuable. As a user of various social media platforms for social, entertainment and academic purposes, I share the same concerns and vulnerabilities as many other users. As such, I am drawn to information that helps to guide my personal use of social media. Furthermore, I am a father to five children, some of whom are active users of social media. Their use of social media and the impact it has on their lives are just two of the many concerns I have, especially as they impact their emotional, behaviour and cognitive welfare, including their social and physical well-being.

The topic of social media and self-esteem was chosen as a response to an on-going social and global conversation about the personal effects of social media. Given that social media itself is implicated in providing a platform that distorts facts and information, it (users, creators, advertisers, social media companies) can hardly be a reliable source of accurate information on the subject. The gap between interest and accuracy has led to this research which is intended for counsellors, parents, educators, researchers and anyone who identifies as a social media user. As broadly as the previous statement can apply, I recognise that the format of this capstone and accessibility of it may render it, realistically and simply, as an informative tool for counsellors, researchers and educators. Notwithstanding, I plan to apply much of this research in my own counselling practice with clients and in guiding my own children in their online behaviours.

I also chose this topic because it touches almost every culture, country and people on earth. While one's social location may have an influence on the way social media impacts one's life, the research indicates that there are enough commonalities across cultures that social media use concerns are consistent worldwide. There are few topics that have global appeal and concern,

but the pervasiveness of social media precipitates such ubiquitousness. The research I have chosen to include comes from a variety of different countries. I could easily take credit for curating such a cosmopolitan body of research, but the reality is that social media and its impact on self-esteem is being studied around the world and the diverse research sources simply provide evidence of that fact.

Definition of Terms

***Social Media*:** Social media has a variety of definitions depending on context and perception. However, a fairly comprehensive definition follows: "Internet-based… persistent channels of mass personal communication facilitating perceptions of interactions among users, deriving value primarily from user-generated content" (Carr & Hayes, 2015, p. 50). While this definition is not perfect, it encompasses a broad enough scope for the purposes of this research. Social Media has existed for less than twenty years and yet it has significantly impacted the relationships, interpersonal lives, businesses, schools and more, for much of the world's inhabitants. It has been adopted and integrated with such speed and alacrity that for many users, mitigating the negative impacts of social media is like trying to put already-squeezed toothpaste back into its tube. Little is known about the long-term effects of social media use, partially due to its recent emergence, historically speaking. Those long-terms effects are also murky due to the on-going evolution and iterations of social media: from user-interface changes and privacy policy updates to monetization and commercial integration. It is not a stretch to imagine that social media has an impact on its user's self-esteem but just exactly what that impact is, remains to be discovered, researched, debated and self- esteem, on the other hand, has been studied for decades, and research and information on it is as varied as the cultures of the world. For this paper, however, I want to go beyond a general idea of self-esteem as the global positive

evaluation of the self (Fiske et al., 2010) and utilise Mark Leary's definition which is as follows: "a psychological gauge of the degree to which people perceive that they are relationally valued and socially accepted by other people" (Leary, 2011, p.142). This definition allows for consideration of feelings, thoughts, behaviours and myriad other factors that may contribute to how one views oneself in relation to other people. This definition highlights the relational aspect of how we see ourselves and that we do not form our sense of self in a vacuum.

***Problematic Social Media Use*:** This term is found intermittently in the literature reviewed herein. While qualifications for arriving at this behavioural landmark may differ, many researchers reference this phrase and seem to estimate its significance as high but somewhere short of an official diagnosis (Problematic Social Media Use is not a diagnosis in the Diagnostical and Statistical Manual of Mental Disorders, 5th Edition). From a basic, behaviour point of view Stinson & Dallery (2023) identify PSMU as use that interferes with relationships, work, school, or sleep (Stinson & Dallery, 2023). Whereas Willians-Buttari et al. (2022) call PSMU any usage that is in some way damaging to the user (Williams-Buttari et al., 2022). The first definition invites use analysis from users and those who might observe that use, while the second definition hinges on interpretation of the word "damaging" and may require consensus on the definition of damaging from both user and observer. In both cases, a lack of comprehensiveness is limited where economy of words and succinctness prevails. Considering the need for a working definition of PSMU, I turn to Sindermann et al., who define it as "excessive, pathological use of social media platforms linked to negative functional consequences for the affected person" (Sindermann et al., 2022). This definition also encompasses what other researchers refer to as social media addiction or social network use disorder, among other related nomenclatures.

***Humble-brag*:** This neologism may have been in use before the popularization of social media and is not specific social media or online use, unlike the other definitions in this section. There is little contention about how to define this term so an appeal to a common dictionary will suffice: to make a seemingly modest, self-critical, or casual statement or reference that is meant to draw attention to one's admirable or impressive qualities, achievements or possessions (Merriam-Webster).

***Doom Scrolling*:** While this term initially came to be as a colloquialism across social media platforms, it quickly gained traction and acceptance as a form of social media engagement. It has been defined as "a habit of scrolling through social media and news feeds where users obsessively seek for depressing and negative information" (Buchanan et al., 2021).

***Smart Phone/Social Media Addiction*:** According to Venkatesh et al. (2019), "the definition of Internet addiction has been used to define smart phone addiction as the overuse of smart phones to the extent that it disturbs user's daily lives (Venkatesh et al., 2019). However, smart phone addiction has also been described as a way for smart mobile phone users to "avoid negative emotions and experiences of daily pain and tension through smart mobile phone addiction" (Cheng & Fu-Yuan, 2017). The irony is that escaping daily pain, stress and tension through smart phone use can lead to smart phone addiction, rendering the user bereft of the escape they sought and facing disturbances in their daily lives. As with other addictions defined the DSM-IV, there are four components of addiction that apply to behaviour-based addictions not otherwise identified in the DSM-IV, including smart phone addiction and social media addiction. These include: tolerance (increasing the engagement level to reach previous improved mood states), withdrawal (feeling discomfort when the behavior is prohibited), negative life outcomes

(neglecting social, educational or work-related issues), and craving (increasing the level of intensity) (Musetti et al., 2017).

Further studies expanded the four components of addiction to include three others: salience (preoccupation with the behavior), mood modification (using the behaviour to alleviate psychological state) and relapse (failure to control the behavior over time) (Kim & Haridakis, 2009). The assessment and application of these components to smart phone use and social media use yields the definition for each, respectively.

Outline of the Capstone Project Chapters.

This section provides an overview of chapters two and three. Chapter two examines the intersections of problematic use, social comparison, relationships, culture, demographics, and treatment interventions as they relate to self-esteem and the development of one's identity. Through this examination, this paper aspires to provide a holistic understanding of the complex relationship between social media and self-esteem. Through a nuanced analysis of these dimensions, this capstone seeks to contribute to the existing body of knowledge, offering insights that can guide both scholarly inquiry and practical strategies for promoting positive online experiences and psychological well-being.

Chapter two employs a literature review to delve into the phenomenon of problematic social media use, critically examining its impact on self-esteem and psychological well-being. Addressing the concept of social comparison, the literature review elucidates how pervasive social media exposure can foster unrealistic standards and provoke negative self-evaluation. Furthermore, the review will investigate how online relationships, while enabling unprecedented connectivity, may both bolster and erode self-esteem, depending on the nature and quality of interactions.

In recognizing the role of culture and demographics, this research will unravel the nuanced ways in which social media's influence on self-esteem is mediated by cultural norms, societal pressures, and individual differences. By analyzing existing literature and empirical studies, this paper seeks to offer insights into how various demographic factors contribute to differential experiences of self-esteem in the context of social media.

Integral to this exploration is an examination of treatment interventions aimed at mitigating the potential adverse effects of social media on self-esteem. The paper will critically evaluate the efficacy of interventions such as cognitive-behavioral therapies, and contingency management techniques in cultivating healthy digital habits and fostering a positive self-concept.

Ultimately, this endeavor aspires to deepen our comprehension of the intricate dynamics between social media and self-esteem. By investigating key themes of problematic usage, social comparison, relationship dynamics, cultural influences, and treatment strategies, this capstone aims to provide a comprehensive foundation for further research and practical interventions in this ever-evolving digital landscape.

Chapter three involves discussion around the research topic and questions explored along with a practical approach to the findings emerging from the literature review. I will revisit the aims of the project along with the research questions discussed in chapter one and then review the findings that emerged from the literature review. Chapter three will also cover the limitations and gaps within the current literature. Based on the research limitations identified, I will propose some future research ideas from my findings and applications for therapeutic practice.
I will conclude chapter three with some reflections on my personal learning and a final overview of the capstone along with final thoughts.

Chapter 2: Literature Review

Introduction

The growth of online social media platforms and usage show no signs of slowing down. Internet use and the resulting behaviours and emotions have been a topic of research since at least 1998 (Kraut, 1998) with more research specific to social media emerging as social media platforms began to spread (Pantic, 2014). Under the umbrella of psychology research, the effects of social media use are relatively new field considering social media itself is less than twenty years old. Add in the swift growth of social media platforms and users now numbered in the billions, and we now find ourselves in the unique position of trying to address precipitating concerns of users on a scale that is unprecedented. The challenge for users is to identify, develop and maintain healthy habits and behaviours when it comes to social media use, if they are aware of the potential for harm. The challenge is also for counsellors, parents and educators to assist others in identifying potential harms and developing those good habits and behaviours. That assistance begins with understanding the nature and complexity of social media use.

In the literature presented, I will identify themes and research gaps in problematic social media use (PSMU) including growth and predictability, patterns and accessibility, research challenges, addiction, correlating factors of PSMU, and corporate opacity. In the same way, I will then examine the self and social media- development of online identities, social comparison, relationships and social media (including connections with others), culture and demographics, and treatment modalities for those engaged with problematic social media use. I will review qualitative and quantitative research from across the globe, all of which appear to demonstrate similar concerns about the consequences of engaging in social media, no matter the culture or country in which the research was conducted. I will also highlight where the literature shows

directionality, invites further use of research tools created or employed, and show how the heading topics relate to self-esteem.

Problematic Social Media Use

Social Media has become more than just a passing technological curiosity for users. Social media applications and websites emerged in the early 2000s with sites such as LinkedIn, Myspace and Facebook (Jones, 2015). When Facebook started to become a household name in approximately 2006, participation for adults in North America hovered around 5% (Dixon, 2022). Compare that to 2020 estimates, that approximately 78% of the population was on Facebook, and we can see the incredible acceptance and growth of this specific media in such a short period of time (Dixon, 2022). It is also not a wayward assumption to generalise similar growth patterns to other social media sites. As a result of their growth and ubiquity, these platforms have graduated from quaint digital gathering spaces to multi-billion user digital juggernauts for news, entertainment, advertising, influencing, communication and commerce.

Bad Actors

Social Media is not just used for social, commercial and entertaining purposes. It is also a garden bed for the propagation of malicious and dangerous content precipitated by analogous users. Along the aforementioned spectrum of reality-versus-online-profile-identities can be found various bad actors. Beyond consciously deciding to use social media for harm, otherwise non-malicious users may be influenced to take up such a cantankerous cause. Among those particularly susceptible to nefarious social media influences are adolescent North Americans (Giordano et al., 2021). This storm of circumstances has produced cyberbullying and other harassing online behaviour. Outside of adolescent susceptibility, social media has also been

fertile ground for online predators, catfishing, phishing, and other destructive and anti-social behaviour.

Growth and Predictability

Observations and analyses of social media behaviours aside, usage continues to grow. Currently, there are an estimated 4.7 billion social media users, accounting for fifty-nine percent of the global population (Global Social Media Statistics, 2022). Research on the varying effects of social media is still being cultivated and long-term effects cannot yet be known. With more than half of the readers of this paper being social media users, based on generalizing from the previously cited statistics, the relevance of this research is a priori. That is, unless one finds themselves as both reader of this paper and one who has no interest in the effects of social media usage. However, even a passing curiosity of the impacts of social media on thoughts and emotions is sufficient to render this capstone relevant. In a world that is increasingly connected through social media platforms, determining the impact of social media use and how to develop a healthy relationship with it is important, at minimum, and imperative, maximally.

The early years of social media were unlikely to illicit concerns of addiction or abuse from most users. The platforms offered seemingly benign opportunities to connect with family members, friends, lost acquaintances and just about anyone else you could think of, in order to grow your friend list and your social network. In this context, users might have experienced online discussions resulting in disagreements or arguments, but these seemed to be the exception and not the rule. As social media application developers continued to capitalize on the human need to connect, they were also cognizant of pressure from their shareholders to produce a product that was profitable and kept users returning for more. As one social media application engineer put it, “Our job was to keep people engaged and hanging out with us” (Fisher, 2022, p.

106). However, by 2020, William Brady (psychologist) and Molly Crocket (neuroscientist) had spent months sifting through available data from some social media companies and they concluded the platforms were, "...reshaping not just online behaviour but underlying social impulses, and not just individually but collectively, potentially altering the nature of "civic engagement and activism, political polarization, propaganda and disinformation" (Fisher, p. 154, 2022; Brady et al., 2020).

Patterns and Accessibility

In reviewing current research regarding social media misuse and addiction, I struggled to find a clear through-line in what researchers are examining. Perhaps, because this is still a relatively new field of research and there are not yet consistent and robust assessments and interventions for problematic social media use, this body of research is still developing. Even so, there are some common, big-picture questions that create an umbrella, under which many researchers are asking more detailed questions. The bigger questions seem to revolve around identifying what problematic smartphone and social media use looks like, and how is social media use (problematic or otherwise) impacting the lives of users. Furthermore, the variety of topics addressed by so much of the research leads me to acknowledge what many others in this field of research have come to understand: problematic social media use is as wide-ranging and nuanced as the users. With that in mind, it is also important to point to overarching themes and commonalities in this research. As such, the literature in review relies significantly on self-reporting to collect much of the research data, whether qualitative or quantitative. One of the reasons for this is implicit in the difficulty of doing research on social media use/misuse- the actual data is stored, bought, and sold by the social media companies themselves and not easily accessible by anyone outside of those organisations (Persily & Tucker, 2022). Even anonymous,

aggregate data about use/misuse is heavy protected by social media companies. For many of these companies (Facebook, YouTube, Twitter, Snapchat, TikTok, etc.) public acknowledgement of social media misuse seems to be self-incriminating, at the least, and endemic but integral to the business model, at its worst. And yet, when confronted with some damning information about the damaging effects their platforms have on users, many major social media companies employ the three-fold tactic researcher Renee DiResta described as "deny, discredit, and antagonize" (Fisher, 2022, p. 153). In this regard, these companies tend to deny any problem, discredit the people reporting the problem and antagonize those opposed to them. At the same time, these organizations take some corrective measures and then retroactively claim to have identified these issues on their own and highlight where they have fixed the problems. As Max Fisher (2022) so aptly writes,

> Time after time, the company's reps would respond to each new discovery by calling the evidence meaningless or wrong, … (then) would put out a statement insisting it had already fixed issues that, only weeks earlier, it had dismissed as nonexistent. (p. 153)

Research Challenges

I highlight this, not necessarily as an indictment of social media companies, but to illustrate some of the challenges researchers face gathering information from social media companies and ascertaining the truth in that information. So, with limited access to data from social media companies, and unless researchers were prepared to create their own application that could monitor social media use, we are left with alternative forms of data collection. There were, however, some researchers willing to take up the challenge to create a monitoring application to gather data on smart phone use. These UK researchers created an application called Tymer, but it had some limitations (Noë et al., 2019). They designed a custom application

that monitors only the physical responses to smart phone use: tapping, scrolling and typing. As such, this application can only monitor active smart phone use and not inactive use. They found, through sixty-four participants, that smart phone addiction was significantly correlated with high use of “lifestyle apps” (a category that includes social medias apps) especially for female users. Of particular note was the high use of Snapchat by participants with higher smart phone usage. While this research was aimed at a narrow measure of smart phone usage (tactile interaction) through a bespoke application, researchers were, nonetheless, able to show that increased smart phone usage is correlated with social media usage, and both being significantly correlated with smart phone addiction. To clarify, smart phone addiction is not the same thing as social media addiction (as outlined in chapter one), but in this case smart phone addiction was commensurate with social media addiction. Logically speaking, one can be addicted to their smartphone without being addicted to social media, however, current research shows that often, smart phone addiction is precipitated by social media addiction as smart phones are the most common access point for social media users.

Given the opportunity cost of designing and deploying (never mind addressing ethical and privacy concerns) an application that monitors all social media use, it is understandable why researchers rely on other means of data collection. Some of these other means include: participant self-reporting, problematic smart phone usage (PSU) scales, Online Social Networking Addiction (OSNA) scales, modified Likert scales, pandemic-specific scales (Khan et al., 2022), machine learning (Savci et al., 2022), symptom identification through observation, correlations between Problematic Social Media Use (PSMU) and other mental health concerns, and even some research that relies on journalists who manage to uncover some of what is hidden and protected by social media companies.

Regarding research that does not include bespoke apps for monitoring and data collection, this body of research is not without credibility, scientific method rigor, and some replication. While most researchers may struggle to gain access to user data from social media organizations, their ingenuity and research prowess help to underwrite the strength of their findings and the real-world application of their results. Nevertheless, replication, specifically, can be difficult when researching social media use, partly because some research variables seem to be a moving target. These variables include regular updates and changes to user interface design, trending news stories and memes, political and social unrest and even the public reputation of social media companies themselves. Each of these factors, and many more, impact social media user engagement and therefore consistency in research findings.

Addiction

In a study conducted at a university in Kuwait, researchers looked at perceived social media addiction, as reported by participants and how that perception correlated with participant gender and area of study (Allahverdi, 2022). This study differs somewhat from the others because it investigated user's self-perception of social media use and did not seek to determine problematic use from the perspective of the researchers or as determined by researchers. As such, researchers found that 70% of participants considered themselves addicted to social media. Moreover, they found that fiver percent more female participants perceived themselves as social media addicted compared to male participants. They also found that those studying social sciences or engineering perceived themselves to be 17% and 12% (respectively) more addicted to social media than those studying science. It is unclear, in this study, if the social media behaviour of participants would actually fall into the category of addiction, or, more specifically, how closely participant self-perception of addiction might actually align with social media

addiction. Regardless, the differences in self-perception in this study warrant further research examining the explanation for such.

Utilizing the Online Social Networking Addiction (OSNA) eight-item scale to assess almost five thousand Chinese adolescent's social media use, Li et al. (2020) created their own classification strategy. They took the OSNA results of all the participants and categorized them as high, medium and low risk groups. They then applied a different analysis (ROC) to split the three groups into two: the positive group (probable cases of long duration and high intensity social media use), and the negative group (non-cases of PSMU) (Li et al., 2020). Where their research stands out is not just in the large sample size of participants (4,951) but also that it focussed on adolescents only and provides a framework for future research that can leverage their methodology as a screening tool. They are, however, quick to point out that a gold standard in determining PSMU is not established, and they also do not submit their own methodology as a candidate for establishing such a standard.

This appears to be thematic with the research and literature reviewed herein: there are many paths to determine PSMU, most of which are acutely effective as screening tools, but few are standard bearers worthy of global promulgation with universally accepted methods. Furthermore, the literature reviewed, and much of the research found on this topic, but not included, keeps a steely gaze on the binary classification of what is, and is not, problematic social media and smart phone usage. This narrow focus may serve to build the foundation of a future gold standard for reliably determining PSMU, but it arrives at the cost of seemingly peripheral matters such as early detection of behaviours that could lead to PSMU and its topical cousin: prevention. While the heading 'Misuses of Social Media' provides very real constraints

on relevant literature, it is also important to identify that there are gaps in literature pertaining to identifying potential early predictors of PSMU.

Correlating Factors of PSMU

Taking a step back from strictly identifying and classifying PSMU, there is research that connects online addiction to other behavioural and emotional factors. A study out of Turkey examined the relationship between online addiction, attachment style, difficulty in emotion regulation, depression and anxiety (Ceyhan et al., 2019). While this may seem like a very ambitious attempt to link a variety of factors to one behaviour, Ceyhan et al. (2019) analyzed participant results from the Chen Internet Addiction Scale (CIAS), Young Internet Addiction Test (YIAT), Experiences in Close Relationship-Revised (ECR-R), Difficulties in Emotional Regulation Scale (DERS), Center for Epidemiological Studies Depression Scale (CES-D), Beck Anxiety Inventory (BAI), and WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) in order to find a through-line of statistically significant connections and patterns between these various scales, inventories and schedules (Ceyhan et al., 2019). They found that being male, having difficulties in emotional regulation, and having anxiety and depression statistically significantly contributed to the risk for developing internet addiction. They also found that fearful and preoccupied attachment styles were statistically significantly associated with pathological internet use. It is important to identify that internet addiction is not necessarily the same as social media addiction or PSMU, however, the latter is so often precipitated by, or indistinguishable from the former, that semantics should pay deference to the conclusions drawn by allowing synonymous use, in this case. As such, this study is not only interesting, but it provides a pseudo-diagnostic framework for identifying compounding and comorbid factors in problematic online and social media use. While this study does a good job of showing the

interconnectedness of PSMU, attachment styles and emotional regulation, it does not outright clarify the extent to which directionality may be flexible. This means they did not explore whether or not PSMU could be used as a predictor or emotional regulations problems or attachment style. It is difficult to categorize this as a failing of the study, given the hypothesis, and likely, more appropriate to consider it an idea for further investigation.

Another study that connects underlying psychological needs with PSMU came out of China and examined online psychological needs satisfaction as it relates to social media addiction (Liu et al., 2022). These researchers used anonymous questionnaires from participants on two measurement occasions within two years to compare changes as they relate to participants' need for autonomy, competence, and relatedness. They showed that the online psychological need for autonomy, competence, and relatedness in the first questionnaire could predict social media addiction in the following year.These researchers took this analysis one step further by examining whether the reverse was also predictable: that social media addiction could predict the online psychological need for autonomy, competence, and relatedness. However, they could not conclude social media addiction predicted online psychological need satisfaction.

Considering the topic of this paper is a technology-influenced examination of self-esteem, many of the studies under review utilize surprisingly little technology as a means of discovery or a tool for enhancing research. Sometimes this may be a result of funding constraints and other times it may be a consequence of keeping the research simple and focussed for researchers with less technological acumen. The following study, however, makes use of machine learning with Artificial Neural Networks (ANN) and Support Vector Machines (SVM) in order to examine fifteen predictor variables for PSMU. Savci et al. (2022) were able to leverage the power of machine learning to narrow fifteen variables down to five, regarding

variable importance as it relates to PSMU. They found that five most relevant variables in predicting PSMU were: frequency of daily social media use, frequency of checking social media accounts, desire for being liked, exhibitionism and FOMO (fear of missing out). They found that prediction rates for PSMU for these five variables were .62 and .63 respectively, using ANN and SVN. This study was also not concerned with bidirectionality between the variables and PSMU, and in this case it does not take anything away from the strength and insight of the findings.

It can be argued that a lack of bidirectionality in any of the aforementioned studies does not necessarily undermine their validity or value, however, it is a point of curiosity when one study will address this point while others do not. I am planting a flag here, on the literature review landscape, to identify a gap or area of further research.

Corporate Opacity

Problematic social media use is a topic with ongoing research and real-life implications for every user. Given the various psychological, emotional and behavioural correlates with PSMU, it is little wonder that this topic continues to attract researchers, practitioners and the public. Some of the complicated precipitates of PSMU and the resulting struggles in producing clear and prescriptive research can be attributed to social media companies themselves, behavioural and emotional factors, and even in finding an agreed-upon definition of PSMU (see chapter one).

Social Media companies are reticent, at the very least, to acknowledge their contribution to self-esteem concerns stemming from their design features as it may leave them open to litigation or show them in a negative light, especially if that light illuminates the ways they

directly benefit from PSMU. As Brady et al. (2020) explain in their MAD model, there are three forces employed by social media companies to change how users think and behave: Motivation: the instincts and habits hijacked by the mechanics of social media platforms. Attention: users' focus manipulated to distort their perceptions of social cues and mores. Design: platforms that had been constructed in ways that train and incentivize certain behaviours (Brady et al., 2020).

The implications for users' self-esteem are complex, context-dependent, and influenced by myriad factors herein reviewed, in part. For example, if one is already struggling with their self-esteem, has underlying psychological struggles or a predilection towards addictive behaviours (to name just a few of the correlates), then it is more likely they will struggle with PSMU and further infringe on the positive and functional growth of their sense of self.

The Self and Social Media: Development of Online Identities

Participation in social media often requires more than optical acquiescence to catchy content. In most cases, the participant has to create an account and a user profile, wherein they design and curate a persona. The creation and curation of an online persona is commensurate with the temptation for users to alter the way they present themselves to enhance their likability. They may want to be perceived as more physically attractive, having more money, having a desirable lifestyle, or otherwise present as higher status than they are in reality (Bradley et al., 2019). At the risk of presenting the obvious, one of the many ways that social media differs from reality is that it provides a robust framework upon which one can curate their persona with greater freedom. Users are able to project their curated persona to a much larger audience than real life affords and with said audience having limitations on their ability to audit or verify what is presented, providing users the space to present themselves (Milik, 2016).

Herein, lies a divergent path for many users: to be honest in your profile or to alter it. The difference between one's reality and one's social media persona is a personal choice for every user but is not without consequence. Furthermore, it may be argued that the greater the difference between these two the more potential for cognitive dissonance for the user, and the more they are influenced, and seek to influence others using distorted social comparisons (Leary & Allen, 2011). One reason the comparisons are distorted is because the curated personas of various individuals online are a mixture of myth and truth. This leaves users bereft of a more objective reality, replaced by a pristine digital version of others' lives that can lead users to conclude that those lives are more likeable than one's own (Bradley et al., 2019).

Digital reflection of the participant's lives are as different and wide-ranging as the users themselves. The extent to which one's profile differs from their reality can range from total honesty to slight exaggeration of perceived positive characteristics (where many users find themselves), to a total fantasy or fabrication of one's life and identity, with attachment style moderating many of these decisions (Trub, 2017). Regardless, one's social media presence adds a layer of personal social management that may attempt to underwrite a more attractive narrative about the user. While this describes a more overt curation of one's online persona, even using social media as a personal digital scrapbook for vacation photos and good memories can lead viewers of that content to hold a rose-coloured view of the life of the digital scrapbooker.

Social Media is not unique in providing an opportunity for people to present a version of themselves that is aggrandized in order to gain status or favour. Consider the way one might alter their resume, or the way one might dress, and the selective information they might share as they introduce themselves to others. It can be advantageous to present oneself as smarter, more

capable, better looking or as having higher social status in a social situation as it may lead to a desired outcome that would otherwise be out of reach (Leary & Allen, 2011).

In a study from early 2023, Spitzer et al. (2023) looked at negative social comparisons on social media and the connection to suicidal ideation among college age people.While this was an examination of thoughts leading to a potentially fatal outcome- suicide- as a result of negative social comparison, it serves to highlight the gravity and power of social comparison via social media. These researchers showed that individuals who engaged in negative social comparison on Facebook and Instagram were more likely to experience suicidal ideation, especially for users of Instagram. This is study provides important results and acts as a cautionary tale for any social media user, especially those who tend to make negative social comparisons such as viewing the posts of another user and thinking how much better that other user's life must be compared to their own. Their study was limited to only two social media sites, Facebook and Instagram, but their findings should not be ignored by users of other social media applications as negative social comparison and thwarted belongingness are not exclusive consequences of Meta (parent company to both Facebook and Instagram).

A closer examination of differing social comparison types and their influence on adolescent development was brought to bear by Yang et al. (2018) in Nashville, Tennessee. They studied how three different identity processing styles (informational- information seeking and rational analysis, normative- normative assimilation, and diffuse-avoidant- avoidance and procrastination) related to two forms of social comparison (ability- focussed on achievement and performance, and opinion- comparison of thoughts, attitudes, values, and beliefs) and impacted participant self-esteem and identity clarity. They found, "Social comparison of ability on social media was related to concurrent diffuse- avoidant identity processing style, which predicted

lower identity clarity months later" (Yang et al., 2018, p. 2114). They also found that social comparison of opinion had no significant effect on participant global self-esteem and identity clarity through identity processing styles.

This research helps to illuminate some specific ways that social media use impacts self-esteem and identity clarity. One reason this research, and many other research findings referred to in this literature review, is important is because it touches on the complexity of identity formation and self-esteem through the lens of new technology. As referenced previously, the swift adoption of these social media platforms as they proliferated, and the ubiquity and accessibility of using social media applications being commensurate with the increase in smart phone use have led us into a psychological gauntlet. This half-digital, half-human, cyborg-like landscape has researchers, clinicians and users, in general, struggling to understand, explain and navigate a world whose cognitive horizons seem to shift with every user interface update and new social media application introduction. This is not to say that researching this field is fruitless or even that its relevance is rendered moot by every technological advance. It is important to continue the research in this field and use relevant findings as a breadcrumb trail or distinguishing landmarks on the map of human progress and development.

Another study, under the subheading of self and social media, relates to narcissism, empathy and alexithymia in adult social media users. Martingano et al. (2022) were clear to point out that the results of their research are limited to adult (average participant age was 27 years old) and not generalizable to adolescents.They found that social media use was negatively correlated with cognitive empathy (the authors defined this as attempts to understand other people's experiences and feelings) and positively correlated with alexithymia and narcissism. These findings are not necessarily earth-shattering when it comes to correlating narcissism and

alexithymia with social media use, but it is much more contentious to suggest or conclude that social media use decreases empathy given research that shows the contrary. Once again, the details and specificity of the research clarifies the seeming contradiction. What Martingano and colleges are quick to acknowledge is that social media's impact on empathy depends on the platform used, the demographics of the user (age, gender, nationality, etc.) and the style of use (commenting on other's posts, direct messaging. They also point out, as I have done so already in this review, that self-reporting has its own built-in bias and may alter research findings. As Martingano et al. (2022) say,

> It is possible that social desirability bias and low self-awareness may influence participants' responses on these measures. To date, there is virtually no research on how social media use is associated with *objective* or performance-based measures of empathy, such as emotion recognition skills, which are a type of cognitive empathy. (p. 414)

This highlights the complexity of determining the impact social media has on self-reports of empathy. As empathy plays a role in the development of self and self-esteem, as do social interactions online via social media, it is easy to see how complicated it can be to parse apart objective truth and causal relationships from correlational data. Even if these factors could be acurately accounted for in understanding the development of self-esteem, there are still many other variables such as geography, culture, gender and other demographics.

Social Comparison

As the research has established, that identity and self-esteem are impacted by social media use, I would like to explore another corner of this region of research by looking at the ways in which social comparisons in social media impact users. Vogel et al. (2014) studied the

ways that exposure to social media may be associated with changes in self-evaluation and if this might be due to social comparison processes. They were looking at Facebook users exclusively in this study, and discovered a few different, relevant results from their research. Perhaps most notably, they found that the participant group that used Facebook most often had poorer self-esteem than those who used Facebook less. Furthermore, they showed that this was mediated by upward social comparisons. A second part of their study had participants view social media profiles and then report on self-esteem and relative self-evaluation. In this second part, participants who viewed profiles containing upward comparison information reported lower self-esteem and relative self-evaluation than when they viewed profiles with downward social comparison information. This means that it is not only in the viewing of profiles of others with upward social comparison information, but in spending a lot of time, in general, on Facebook, leads to a poorer view of oneself. It should be noted that if one were to only spend their time viewing information that led to downward social comparison then there may not be immediate, negative consequences for their self-esteem or evaluation of self. In this hypothetical, however, one's empathy may be challenged if they are in a constant state of downward social comparison, even if the result is a temporarily inflated sense of self. To esteem oneself as better than another, by whatever metric, via downward social comparison does not usually lead one to increase or even maintain a desirable level of empathy.

Returning to research on self-perception and social comparison, Austin et al. (2022) looked at two experiments regarding information being presented on social media.They looked at information source (from self or other) and information valence (positive or negative) in social media posts and the resulting social judgements. They found that when positive information was self-generated it was perceived as less favourable than when it was other-generated, or self-

generated but with self-deprecating hashtags. Despite the 'humble-brag' phenomenon, it is still more favourable for positive information to be other-generated or self-generated with some perceived sense of humour about oneself. In terms of social comparison, we tend to see others more favourably who do not brag about themselves, or if they do, then they acknowledge the braggadocious nature of it with elements of humour or self-deprecation, in a social media context.

One of more comprehensive studies I came across also had one of most clever titles, "When every day is a high school reunion: Social media comparisons and self-esteem" (Midgley et al., 2021). Midgley et al. (2021) looked at the mediating effect of social media use on social comparisons but with a multi-study approach so they could see how those social comparisons were made: in real-time, with experimenter-generated comparisons, and comparisons made in social media versus in other contexts. They found that more immediate and frequent upward social comparisons resulted in users reporting a decline in mood, self-esteem and life satisfaction, after a social media browsing session. They also found that those with a lower self-esteem were more susceptible to making more extreme and more frequent social comparisons. Lastly, they showed that social comparisons made in the context of social media showed greatly declines in self-evaluation than those made in other contexts (i.e. real life). The data presented in this study further implicates social media organizations in sharing some responsibility in the on-going conversation of ethical considerations and corporate responsibilities.

Midgley et al. (2021) also emphasize what many other studies on this topic highlight, that social media allows us distorted view of ourselves and others, resulting in more frequent and extreme upward social comparisons. And the results, as previously noted, are shown to be

correlated with decreased self-esteem. This is a result of users perceiving others to experience more positive outcomes in their lives than the users.

Relationships and Social Media

Advancing from intrapersonal perceptions to interpersonal ones, social media plays a large role in relationship-seeking and relationship-maintaining behaviours. One does not have to search far to find articles, movies, sitcoms, songs and many other media forms dedicated to online dating or attempts at online dating. Social media, after all, includes dating applications such as Tinder, Bumble, Match and many more. It would likely require a separate capstone paper to properly walk the path the impact dating apps have on user's self-esteem. For this literature review, it will be sufficient to highlight a few important findings in the research. Notwithstanding, it is well understood that these specific social media platforms exist and have some impact on user's self-perception, especially when those users struggle to connect with anyone on applications whose specific design is to connect users.

Holtzhausen et al. (2020) studied the impact of swipe-based dating apps (SBDAs) on users. Interestingly, more users reported a positive impact than a negative impact on their self-esteem in using SBDAs. This does not correspond with data from the same study that looked at distress, depression and anxiety, as reported by the same users via the Kessler Psychological Distress Scale. Holtzhausen et al. (2020) used the scale to show that users of SBDAs were statistically significantly more distressed, depressed and anxious than non-SBDA users. This is certainly not the first study to show how users contradict themselves, but it is nonetheless fascinating in the context of social media and self-esteem. It also warrants further research to explain this discrepancy and potentially identify other areas where initial self-reports bely scaled questionnaires with greater internal validity.

In a systematic review of online dating and problematic use, Bonilla-Zorita et al. showed that neuroticism, sociability, sensation-seeking, and sexual permissiveness are related to greater online dating application use.The authors utilize the 'addiction components model' to codify problematic use. The six components used are: salience, mood modification, tolerance, withdrawal, conflict, and relapse. The forty-three studies they reviewed coincide with previous studies highlighting online dating risks and objectification tendencies. The authors discussed how user interface design (see the previous paragraph on SBDAs) and the ability to search through potential dates so readily creates a sense of objectifying and commodifying other users. One could argue that such objectification is implicit in any dating scene (online or otherwise) or that users are aware of what they are agreeing to when they use the application, either by reading the terms and conditions of application use or by assuming the risks based on dating outside of social media. In any case, online dating is similar to other social media use: it is neither good nor bad, but engagement could exacerbate pre-existing mental health concerns or bring to light previously unknown and otherwise nonexistent distress.

Another important study regarding relationships and social media looks at the impact of smart phone use on existing romantic relationships. Lapierre and Lewis (2018) asked participants to report on their own smart phone use and dependence, and then report on their perception of their partner's use and dependence (Lapierre & Lewis, 2018). Their results showed that smartphone dependency is significantly linked to relationship uncertainty, and perception of their partners' smartphone dependency predicted less relationship satisfaction. They also concluded that smartphone use, in general, does not affect relational health. They also pointed out that psychological reliance on smart phones, or the need to be constantly connected to one's smartphone, not the actual use itself, has a greater effect on romantic relationships. While this

research does not explicitly site social media use in its methodology or results, smart phone use often implicates social media use such that the results of this study can be generalized to social media use, at least as a voice of warning, and certainly as starting point for further research.

Connection

It is important to include at least one study that looked at social media use during the recent global pandemic. Wu-Ouyang & Hu (2023) studied pandemic-related fear on social connectedness through social media.Perhaps unsurprisingly, they found that when people experience negative emotions in a crisis situation, and the negative emotions prompt them to seek information, self-disclose with others and articulate connectedness with society ('we're all in this together') social media proved to be a valuable tool to enhance social cohesion. The authors also made it clear that this research was looking at fear-based responses. Many readers of this paper will recall, despite the world-wide upheaval, how many communities, cities and even countries, seemingly joined together (while standing at least two meters apart) in solidarity. For many, the pandemic was a time of struggle while also a time of increased connectedness, and social media use was higher than ever as a result. Despite the optimistic view from this studies' authors, they made conclusions with enough anemic qualifiers, such as "might" and "could" that their research topic begs further investigation. For example, articulating connectedness, either online or in person, may lead to greater connectedness but whether that is a result of a self-fulfilling prophecy, or some other explanation remains to be studied.

Another study that looks at relationships and connectedness between users on social media platforms comes from a very recent issue of the Canadian Journal of Behavioural Science. In this study, Roberts and David (2022) looked at passive use of social media and the impact on connectedness. They define passive use as viewing other's social media page or post without

interacting with the author/owner of the content. They demonstrated that increased passive social media use is correlated with a decreased sense of connection to others (Roberts & David, 2022). This decreased sense of connection leads to more stress for the individual user and decreased well-being. In a world that is more technologically connected than ever before, we also have many reports of increased loneliness and feeling excluded. One such study reports that nearly half of all Americans feel lonely sometimes or always (Cigna, 2018). If passive use of social media has such negative consequences for users then one might assume that active social media use could have the opposite effect. As addressed elsewhere in this paper, even active social media use comes with its own set of challenges. Being more actively engaged in social media may reduce the amount of loneliness a user might feel but it may also decrease their self-esteem by upward social comparison and added stresses, to name a few concerns.

Culture & Demographics

Social media use is an interesting topic of study considering its worldwide use. There are certainly pockets of the world without social media users and some places will little or no access to a computer, smartphone or any other piece of modern technology, but an estimated 4.9 billion people use social media (Ruby, 2023). The studies cited thus far in this literature review come from all over the world, including China, Turkey, the United States, Singapore, Egypt and more. I reference these countries, in part, to demonstrate that social media users across the globe are facing many of the same problems and share similar concerns. However, due to the limitations of the scope of this paper, I have only included a small fraction of the studies dedicated to exploring the intersectionality of culture, demographics and social media.

A meta-analysis from Hong Kong that included 63 independent studies taken in 32 nations across seven world regions, with 34,798 participants, looked at social media addiction

through the lens of cultural values, classification schemes, and demographic factors (Cheng et al., 2021). Each of these different ways to view the data provided some overall trends in social media addiction prevalence. When looking at geographic regions, they showed that the Asian region had the highest prevalence (31%) of social media addiction while Northern/Western Europe had the lowest prevalence (8%) Cheng et al., 2021). Classified differently, prevalence among collectivist nations was more than double (31%) that of individualist nations (14%) (Cheng et al., 2021). This kind of data collection and interpretation is important as it provides context and highlights patterns in social media use and misuse. Again, where social media misuse or addiction is prevalent, there are likely to be negative consequences for those users' self-esteem.

Another study that addresses culture in social media looked at affect and cultural values. Hsu et al. examined social media posts that either align with or violate cultural affect values, utilizing Twitter posts (Hsu et al., 2021). Specifically, they looked at American versus Japanese cultural values regarding affect and found that Americans are more inclined to over-index on positive emotions whereas Japanese people are more likely to seek a balance between what they perceive as positive and negative emotions. Consequentially, one might think that social media content from both of these groups of users would reflect these preferences. What they discovered, however, was that across cultures, people tend to post content on social media (Twitter, in this case) that aligns with their cultural affect values, but they are more influenced by social media content that violates those affect preferences (Hsu et al., 2021). This may be a result of being surprised by culturally different, and therefore unexpected, affective content. Also, the researchers were careful to control for content related to specific events in order to clarify and validate their results.

Researchers in Taiwan designed a study to examine gender differences on social network sites (SNS) via social information affordances through differing SNS: information affordances, privacy affordances, and image information control affordances (Kuo et al., 2013). They found distinct gender differences with males being more engaged in expressing information than females, and females being more involved in privacy controls than males. These researchers also promoted their study as one that would allow for comparing and contrasting affordances of various SNSs as well as "differences in online self-presentations across cultures" (Kuo et al., 2013, p. 635). This study was published in 2013, and the elapsed time between then and now allows us to see if other researchers used this study as the authors had hoped. I was able to find at least 22 other studies that cited this one, most recently in 2020 examining self-presentation on Instagram (Lee & Borah, 2020). As the landscape of social media platforms is ever changing it is little wonder that research topics regarding it are also changing and evolving. Nevertheless, studies such as this retain their value as they become progress and information markers along the ever-morphing information superhighway. This study, and many others like it, also hold value as they create a foundation upon which other studies can be built, as referenced above.

While culture, demographics, and geography can play a role in the influence social media has on users, and as the number of users increases across the globe with culture and technology becoming more intertwined, it can be difficult to separate cultural effects on social media versus social media effects on culture. Despite this tangled state of influence, research on culture and demographics in the sphere of social media continues to be important as researchers, educators, clinicians and users grapple with the negative effects of social media use. Further to cultural differences between users, some behaviours and negative consequences of social media use can be better understood by the lens of culture. For example, the study from Hsu et al. (2021) shows

us that if American users are more inclined to post positive content, despite what they are authentically feeling, then they may view the same from others and believe the lives of those other user is better than their own, simply because the culture in America is more apt to produce positive content. This can lead users to make upward social comparisons more often and in a more extreme way, leading to self-esteem concerns that may not be happening for users of other cultures that are less culturally inclined to post more positive content than negative or neutral content.

Treatment Interventions

In 2021, Hassan and Kyonka published a study looking at treatment studies for problematic internet use, including gaming and social media. Their search identified 41 treatment studies for problematic online gaming but not one of those included treatment for problematic social media use. Social media use and its problematic sibling- social media addiction- are not such new phenomena that researchers, parents, clinicians, educators, and many others have yet to acknowledge and help those struggling under its power. And yet its ubiquity seems to belie the dangers and struggles of its users. Thankfully, in the intervening two years since 2021, there have been enough studies about, and cases of, problematic use such that treatment preferences and recommendations have become more common.

In the spring of 2023, Stinson and Dallery published a study on reducing PSMU using a package intervention approach of contingency management, automated notifications of application use, and the selection of alternative activities. All participants reduced their social media use to goal level or below, and 88% of participants showed a decrease in their Internet Addiction test scores following treatment. Unfortunately, the sample size for this study was only nine participants, hardly enough to make any generalizations about the effectiveness of the

treatment, but enough to create a footprint for replicability and robust data. Luckily, this is not the only study to examine treatment methods for PSMU.

In fact, several years before contingency management (as part of a package intervention) became the most common treatment method, Zhou et al. (2020) studied cognitive behavioural therapy as a treatment means for PSMU, specifically, a CBT-based short-term abstinence intervention with daily journal writing. They had two participant groups, both keeping a daily journal during the study; one group (experimental group) took eight 2.5 hour breaks over a two-week period while the other group (control group) used social media as they normally would. Their results showed that the experimental group's treatment had a positive effect on life satisfaction, but results varied based on the level of each participant's social media addiction and when they took the 2.5-hour break (work hours or off hours). Zhou et al. (2020) also noticed that journal entries for the experimental group showed some commonalities in behaviours, feelings and cognitions among group members. Overall, this approach proved to be effective in reducing PSMU and increasing life satisfaction.

Another study on this topic from the last several years highlighted the importance of identifying intersecting behavioural concerns or diagnoses including affective disorders, Attention Deficit Disorder, and Autism Spectrum Disorder (Pluhar et al., 2019). They emphasized amore holistic approach to treatment considering PSMU is so often associated with other problematic behaviours and is influenced by pre-existing conditions (Pluhar et al., 2019).

Another study of note comes from Pluhar et al. (2020) but with a different treatment intervention. In this study, they used a modified version of dialectical behaviour therapy (DBT) on a 15-year-old male with a history of PSMU, including gaming, pornography and information-bingeing. They showed that after 14 sessions, the participant had improved marks in school,

improvement in his self-regulation behaviours, was better able to complete regular homework without distraction and reduced overall screen time. These could be promising results, however, like many other studies regarding treatment for PSMU, sample size, replicability and robust data are still out of reach. This does not suggest that research thus far is fruitless, only that we are in the infant stages of developing reliable treatment interventions for PSMU.

As a future clinician, I am encouraged by the attention and research regarding treating social media addiction and PSMU. I also count myself among the researchers and clinicians working on the problem and working toward effective solutions. Furthermore, this paper represents a portion of my research contribution to this topic, and the academic fulfilment that will usher in my career as a clinical counsellor.

As with any effort to encapsulate themes through a literature review, there are far more studies left out than included. Any exclusion is not an attempt to ignore data, rather it is a product of carefully choosing the most relevant data to support the themes herein reveiwed, those themes having been generated by countless hours of research regarding the topic of social media and self esteem. As reviewed, some of the major themes that emerged in research regarding social media and self-esteem include problematic use, development of online identification, social comparison, relationships and human connection, culture and treatment interventions. While this is not a comprehensive list of themes, it represents some of the more compelling research areas within this topic. Furthermore, this literature review provides a foundation and platform for the discussion to follow in chapter three. The themes and findings of the research in this chapter will be explored in a practical way in the next chapter, including application of the findings for counsellors, clients, educators and parents.

Chapter Three

This chapter revisits the research topic and questions explored through a discussion section and application section. This chapter also reviews my findings that emerged from the literature review, including the limitations and gaps within the current literature. Based on the research limitations and gaps identified, I will propose some future research directions and

applications for therapeutic practice. This chapter concludes with some reflections on my personal learning and final thoughts on social media and self-esteem.

Discussion

The aim of this capstone is to explore how social media impacts self-esteem and identity formation, and the intersectionality of these with emotional, behavioural, cognitive and sociological factors. In this capstone, I initially took a broad approach in examining research from around the world to identify emerging themes. Given the topic and recent the emergence of various personal, sociological and political phenomena associated with social media use, it was easy to find ample research and data. The research is not limited to one or two areas of the world but is being produced, seemingly, wherever social media is present. Current estimates show that over 60% of the world uses social media with approximately 4.9 billion users (Shewale, 2023). Despite the incredible abundance of users from almost every different demographic across the globe there are common concerns regarding problematic use and even addiction when it comes to social media use.

Other commonalities and patterns in the research relate to upward versus downward social comparisons (Vogel et al., 2014), correlations of PMSU and emotional regulation difficulties (Ceyhan et al., 2019), age differences in users (Holt et al., 2013), and the reliance on social media for social connection. However, not all of the research pointed to undesirable outcomes. Some research showed how important social media was for users during the pandemic (Khan et al., 2022), when socializing in person was restricted in many areas of the world. As many countries in the world implemented lockdowns and social distancing, people had to find new ways to stay connected with each other. Social media became an easy avenue for finding

and maintaining relationships and staying connected to others when policies and laws prevented close physical proximity and otherwise ordinary opportunities to be near others.

There was also a significant amount of research regarding dating applications and how they were changing the way people look for romantic and sexual relationships (Bonilla-Zorita et al., 2021; Holtzhausen et al., 2020). Dating applications, in particular, have changed the way some perceive their relationship options (Riffenburgh-Kirby, 2022). Dating applications have also been legitimized, over time, as a realistic method of finding love and not just a convenient promotion of casual sex (Harrison et al., 2022). Overall, the research shows that social media, like many new technologies, is neither all good, nor all bad but some combination of good and bad depending on user and use (McCosker et al., 2021; Vialle et al., 2023; Wilson & Stock, 2021). It is also considered a tool for connection, commerce, comradery, and communication. In some sense, social media use and its consequences reflect the user and their idiosyncrasies (Maranges et al., 2023). Social media can help highlight one's strengths and magnify one's struggles while allowing others to comment on both, amplifying the respective effects in the eye of the user (Brudner et al., 2023).

Limitations

The relationship between social media and self-esteem has garnered significant attention for researchers in recent years. This body of research is far-reaching and includes studies from all across the world which makes sense given the global use of social media. There are, of course, a few exceptions to the claim that every country in the world has social media users, however, current statistics show that a majority of the world's population is connected to social media with over 4.9 billion users of the estimated 8.1 billion population (Shewale, 2023). While research on social media and self-esteem is crucial in understanding the psychological impacts of digital

interactions, it is not without limitations. Some of these limitations include structural power, privilege, inconsistent findings regarding social media and self-esteem, and directionality.

Structural Power

In general, structural power refers to authority, wealth or other privileges implemented to influence norms, cultures, expectations and relationships (Aidid, 2022). The limitations associated with structural power in this context refer, in part, to those who design and maintain social media platforms, especially in controlling the data collected. This kind of limitation aims its gaze at corporations, rather than researchers, for their unwavering grip on data that could be beneficial to researchers. Some data is made available for examination and analysis as it relates to businesses using social media for advertising and sales. Social media companies are relatively open with this type of data as it supports their business model. For many businesses that use social media, available data includes descriptive, diagnostic, prescriptive and predictive information (Nnakwe, 2021). However, data that relates to misuses of social media is kept hidden from the public and often publicly denied by social media CEOs and those responsible for the mechanics of the platforms. In a 2019 internal report from Facebook's own researchers regarding hate speech and misinformation, the authors wrote that they had found, "compelling evidence that our core product mechanics, such as virality, recommendations, and optimizing for engagement, are a significant part of why these types of speech flourish on the platform" (Fisher, 2022, p. 262). Such an acknowledgement (internally, not publicly) demonstrates that there is data that could be helpful for independent researchers in providing users with information about the risks and dangers of interacting with social media. This data from Facebook is not available to researchers and as such it creates a fairly large limitation in available information. It is difficult to know exactly how this data can be explored when we have almost no understanding of exactly

what is contained in the data. The hidden data becomes enticing as it points to important information, so important that Facebook does not want it released to the public. Similar data restrictions exist within other social media companies, but again, the restrictions on this information leave us bereft of context and curious about how it may be used to benefit users, even if that benefit results in less use of social media. And this is likely why such information is restricted- information that potentially leads to lower engagement is not likely to be shared by companies that benefit entirely from engagement.

Another way that structural power creates a limitation for research on social media and self-esteem is through research design. There is a growing concern among researchers that many of the studies coming out in the field of psychology are not actually clear about the limitations of their studies nor are they easy to replicate (Clarke et al., 2023). The research design problem can be for a variety of reasons including fear of research not being published or researchers feeling like true acknowledgement of limitations could undermine their findings (Clarke et al., 2023). Some of these unreported limitations also include the common practice of recruiting research participants from undergraduate courses. This might be a convenient way to find research participants, but it restricts the findings to a narrow group. Some of these restrictions include the obvious- groups of participants that can afford to go to college, but also includes limits on the age range of the participant groups (college-aged participants) and even further narrowing of the participant pool given that psychology research often benefits from psychology students. While there are some statistical anomalies in undergraduate populations with regard to age and other demographic factors, it is overwhelmingly limited in its scope and generalizability to the population at large. The overuse of undergraduate students in research is not a new criticism but it bears repeating as Gallander Wintre et al. (2001) found that there was no significant decrease

in using undergraduate participants in a twenty-year period, despite the common criticism of overuse of this participant group. In the case of my research on social media and self-esteem, many of the studies cited herein use undergraduate participants and few of those studies cite such as a limitation of their respective studies. If findings from these studies are to be taken seriously then they need to be replicable with groups outside of college campuses.

Privilege

In years past, it could be excused as a benign assumption that scientific research is relatively unbiased in its methodology and subsequent findings. However, that naivete is a thin veneer covering the truth about biases inherent in all human research. Privilege, in this context, refers to the social location of researchers, participants, and institutions that afford those categorical agents the access and status not afforded to those from a different social location (Westfield, 2022). In practical terms, it means that much of current research is limited in its applicability by virtue of its own privilege. According to Causadias et al., "...power has been overlooked in research on culture in psychology... and is also sustained by a lack of representation of the conceptual and theoretical perspectives of scholars who have historically experienced marginalization" (Causadias et al., 2023, p. 89). It may not be possible to conduct research without any biases but the failure to acknowledge privilege is commonplace in the limitations section of many academic studies. As a limitation in the research contained in this capstone, privilege represents the power held by institutions and researchers and the lack of representation in samples and findings. While I have done my best to include studies from around the world, representing research from every continent, I still provide an analysis and application that considers only a fraction of social media users worldwide. As researchers, institutions, policy makers, grant approvers and teachers (to name only a few of the implicated

parties) move toward more inclusive research we will all benefit from exposing research assumptions, research policies, and research practices to an eye of scrutiny not normally aimed at itself. This will lead to more robust data, more widely applicable findings and a greater adherence to unbiased methodologies.

Inconsistent Findings

Another limitation of the research in this capstone relates to inconsistencies in the findings. It is normal for research outcomes to vary, even when the research topics are quite similar, given differences in study methodologies, qualitative versus quantitative data collection, sample size, and participant demographics. The specific inconsistencies in the body of research to which I am referring relate to social media use being correlated with poor personal outcomes in some studies (Fardouly & Vartanian, 2015; Lapierre & Lewis, 2018) while other studies show a correlation with stable or improved personal outcomes for users (Wu-Ouyang & Hu, 2023). Some of these discrepancies are a result of user motivations (Garibaldi et al., 2023), behavioural patterns (Hassan & Kyonka, 2021) or pre-existing conditions (Ceyhan et al., 2019). It is important to mention this as a limitation, not because researchers need to do a better job of ensuring their findings match what others have found (this is obviously not a credible methodology) but because the trappings of this limitation can only be addressed by more research. The body of research on social media and self-esteem, thus far, is incredibly valuable but resembles stars only beginning to appear in the night sky, where the constellations are not visible. The constellations, or patterns and consistencies in the findings, will reveal themselves as more data and research becomes available. This limitation acknowledges the excellent work that has produced valuable findings and outcomes while honestly and humbly accepting that there is

still not know enough information to be conclusive about how, when, why, and for whom social media use may have net-positive or net-negative consequences.

Directionality

The limitation of directionality is somewhat related to the previous limitation regarding lack of consensus. However, directionality is more specific as it points to confusion around the intersectionality of how social media impacts the user and how the user's own state of being (physical, mental, emotional or otherwise) impacts their use. Some studies suggest that the harmful effects of social media use are limited while still demonstrating cause for concern based on intensity of use (Boer et al., 2021). Other studies are even less clear on directionality, especially it relates to adolescents with ADHD (Boer et al., 2020). On the other hand, changing the age demographic and personality features being examined yields a clearer conclusion about directionality. Andrews et al. showed that neuroticism predicted higher social media use and high social media use predicted increased neuroticism (Andrews et al., 2020). So, in some contexts, there is a clear picture of directionality while other contexts are murky. As with the previous limitation, researchers will more clearly demonstrate directionality as more research takes place investigating the nuances of personality features of users as those users interact with social media.

Future Research

The body of research from which the literature review was gleaned was vast with new articles being published almost every week. One of those ways is by creating more bi-directional studies that examine personal emotional, cognitive and behavioural factors as they relate to

social media use and how, in turn, social media use then impacts those factors. Acknowledging financial and other resource constraints of most research projects means accepting limits to the sample size and number of variables that can be studied. Couple these constraints with the importance of understanding directionality regarding the interplay between mental health concerns and social media use, and there is a recipe for many studies over many years. While some of these studies are currently available for review (Andrews et al., 2020; Boer et al., 2020; Boer et al., 2021), time will provide the greatest opportunity for these kinds of research ideas to get funded and explored. Attempts to generalize the impacts of social media use on users' various mental health concerns, and vice versa, with limited sample sizes, and methodology bereft of the rigor required to produce statistically reliable results will render this research impotent. It also runs the risk of chasing its own tail trying to parse apart which is impacting the other and how, but good experimental design combined with study replication can reduce this opacity and confusion.

Another direction for future research should include aggregating data and meta-analyses. In order for this to be as useful and transparent as possible, it would likely require social media companies to allow access to the data they collect and the algorithms they use. While this may be wishful thinking, it's not without merit nor is it necessarily incriminating for social media companies to comply with such research requests. What large data sets and meta-analyses can do is help to identify over-arching trends and provide quantitative and qualitative information for clearer research results and insights. Where data is indicting, it can provide importance guidance for improved user interface design, better mental health for users, and a true user-centric model for social media companies and future application developers.

Increased clarity and collaboration in research in this matter trickles down to improved care for people struggling as a result of social media use. The data is most useful when it benefits clinicians, educators, parents and all users of social media, without directed attempts at implicating social media companies in malevolent designs, though that may emerge as well. Future research would also benefit from examining treatment options. The research was lean on treatment modalities and their effectiveness, though common among them was Cognitive Behaviour Therapy and Contingency Management (Zhou et al., 2020). The lack of research in some areas regarding social media seems to be as much a result of the recent emergence of the technology as it is connected to the diversity of the population impacted by social media use-most of the global population. I am hopeful that these gaps, and many others not identified herein, will be filled in over time. In fact, the increase in available research on the topic from the start of this capstone to its completion is evidence of its ongoing relevance and importance to researchers and clinicians.

Application of Research

All of this research help to inform readers of the same, and readers of this capstone, about the implications of social media use. However, to be informed is only the beginning of the journey of usefulness intended by researchers in the design and findings of their work. This section will outline four categories of research application: responsible caring (specific to the British Columbia Association of Clinical Counsellors (BCACC) Code of Ethics, Principle Two), integrity in relationships (principle three of the BCACC code of ethics) through modelling appropriate online behaviour, providing psychoeducation to clients, parents and caregivers, educators and other mental health practitioners, and treatment interventions.

Responsible Caring

For counsellors, it can be helpful to remember that each client brings not only their social location and personal concerns (and all other things that make them who they are) to the room (Lee et al., 2022), and how those aspects of one's personality are increasingly impacted by social media use. To ignore the moderating factors social media use can play in the well-being of a client's life is to contravene Principle 2 of The Code of Ethical Conduct for Clinical Counsellors: Responsible Caring (BCACC, 2022). The integration of one's life on social media with one's life outside of social media can be an act of great difficulty and contribute to presenting concerns or even inhibit a client's goals. Social media use impacts clients utilizing counselling services for family systems, couples or individual needs. For adolescents specifically, Parent (2023) showed that social media use contributes, both positively and negatively, to basic psychological needs and the well-being of adolescent users' through peer affiliation and identity formation. As discussed in the literature review portion of this capstone and given the statistics on how many social media users there are in the world, it is a logical leap to assume that a counsellor is working with a client (not just adolescent clients) who uses social media. As a result, the counsellor should be aware of the ways that a client's social media use may be impacting how they feel about themselves and relate to others. This can be as simple as asking a client how they feel before, during, and after using social media. This could also provide context for an invitation for a client to journal about their emotions, and the impact on their body, when they engage in social media use. Discussion of how one feels before they engage in social media use can lead to insights about one's need to feel connected to others or validated by others and if social media is the most effective way to have those needs met. Furthermore, discussion of how one feels during and after social media use (and journaling about such) could also provide valuable information

about how use is impacting the user and if the previously stated needs (or other needs) are actually being met by social media use.

Moreover, the discussion of social media in session has a variety of applications. For example, Psihogios et al. (2022) showed that adolescents and young adults use social media (specifically TikTok) for health research and that practitioners can advance treatment acceptance and adherence by influencing social media influencers to share this information. For some practitioners, the integration of social media concerns in the counselling session may be more intuitive than for others and yet most would not hesitate to acknowledge to widespread use and potential hazards of social media. For practitioners, failure to query this topic with their clients may seem to have little impact or it may simply be a product of counselling habits that over-index on experience and ignore current behavioural trends. It may also be, as I have highlighted throughout this capstone, that the research and implications are so recent, and consensus on social media's impact lacking, that practitioners feel unprepared to address the topic in session. The research on counsellors integrating discussions regarding social media in session is almost non-existent. No matter the reasons for failure to include social media in a counselling context, mental health practitioners adhere to an ethical code requiring responsible care of their clients and this is just one more area that should be included to demonstrate that care.

Integrity in Relationships/Modelling Online Behaviour

The online presence counsellors and other practitioners have, and how they navigate social media has an impact on their relationship with clients, and how others view the profession. These concerns relate to Principle 3 in the Code of Ethical Conduct: Integrity in Relationships (BCACC, 2022). As counsellors do not exist outside the vicissitudes of life experienced by all other humans, they can assist their clients in navigating social media through modelling

appropriate online behaviour. Modelling appropriate online behaviour can take many forms such as: being respectful in creating or commenting on other's social media posts, avoiding heated online debates, demonstrating openness to new ideas, and giving others the benefit of the doubt. Appropriate online behaviour can also look like advocating for marginalized groups and sharing helpful and truthful information on one's own account. All of these examples point to maintaining integrity in one's behaviour, online and off. Appropriate use can also include creating content that addresses and enhances an understanding of the impact social media use may have on user's lives. This is certainly a form of psychoeducation but is not limited to researchers or experts.

There are currently few, if any, ethical guidelines for counsellors specific to social media use and yet emerging research, and widespread use of social media, demonstrates the need for clear and consistent guidelines (White & Hanley, 2023). The waters of therapy can be easily muddied by a practitioner's online presence failing to align with their real-life counsel. Anecdotally, many counsellors have been advised to limit their online relationships to exclude clients and adjust privacy settings on platforms to reduce other's ability to access their personal information. This is certainly not a panacea for prying eyes but, as a guideline, it is designed to protect both practitioner and client from being inappropriately involved in the life of the other. This enables practitioners and (hopefully) clients to avoid some of the pitfalls of problematic social media use.

Psychoeducation

As the growth of online social media platforms and usage shows no sign of slowing down, the challenge is for users to develop healthy habits and behaviours when it comes to social

media use. The challenge is also for counsellors, parents and educators to assist others in developing those good habits and behaviours. That assistance begins with understanding some of the nature and complexity of social media use. But it also requires asking fundamental questions of users regarding the ways they see it impacting their lives, how they see themselves and how they interact with others. Chapter two outlined some of the challenges users face including PSMU and negative and dysfunctional effects of social media use on self-esteem (Allahverdi, 2022; Arness & Ollis, 2022; Cheng et al., 2021). It can also have problematic effects on the development of one's identity, personal relationships and social comparisons (Fardouly & Vartanian, 2015; Midgley et al., 2021). For practitioners, parents and educators, it is not required to understand the intricacies and intentions behind every element of the user interface design of social media applications. Rather, it takes and awareness that social media use does not occur in a vacuum and there are real risks and consequences for users. From there, curiosity about how it might be impacting a client, student or child can lead to valuable conversations and insights that can improve the mental and emotional well-being of the user.

Interventions

Adding social media use literacy in the counselling context is not modality-specific and can be incorporated into any session as it serves the needs of the client. The treatment interventions outlined in chapter two are specific to mental health practitioners and yet many of the principles are applicable outside the context of counselling. Some of these interventions include contingency management, cognitive behavioural therapy, and dialectical behaviour therapy. Contingency management, for example, allows for parents and caregivers (in the case of youth struggling with PSMU) to incentivise reduced social media use and thereby limit the

potential negative effects. This does not require special training or expertise but still effectively reduces addictive and problematic behaviours.

For mental health clinicians, cognitive behavioural therapy (CBT) and dialectical behaviour therapy (DBT), along with contingency management (CM) have been shown to be effective treatment modalities for PSMU. Zhou et al. (2020) showed that using CBT in a clinical setting via short-term abstinence intervention is effective in treating PSMU. While Pluhar et al., demonstrated that a 7-module DBT intervention over 14 sessions was helpful in treating adolescent PSMU, specifically as it relates to excessive and dysregulated use (Pluhar et al., 2020).

Lastly, application of the research in this capstone will also be found in my counselling sessions with clients, wherever it is appropriate. It will likely take the form of psychoeducation and discussions about the ways social media use impacts the client. Those discussions may lead to treatment interventions, where necessary, but there is also tremendous value in the examination of how clients, or any users, interact with social media. This initiates valuable insights about what they may want to change in order to live a mentally and emotionally healthier life. I would include psychoeducational topics such as the intersectionality of emotional regulation and social media use, and the impact of social media use on relationships. The complexity of these topics and intervention descriptions would vary depending on the age, maturity level, and understanding of the client and stage of change.

Personal Learning and Final Thoughts

Throughout the course of my research and writing for this capstone I became acquainted with social media in a very different way than before. I was aware of the impact of social media use on users' mental well-being but in a limited way. Prior to this capstone, I had at times found

myself feeling irritated from overuse, distracted from more important things in my life, and even feeling the need to check my smartphone for updates, messages, calls or news somewhat compulsively. My research led me to recently published, peer-reviewed articles, popular documentaries, news headlines over the last decade, and countless books. The structure of the capstone helped to narrow my focus and direct my thinking in a way that belies the breadth of the information sources used and filtered those through proper research methods. It should also be noted that none of my research included an appeal to social media for such information. As a result of this research, I have changed the way I interact with social media and smart phone. I have also become more vocal in real-life discussions regarding social media. Moreover, I have included considerations of social media use in counselling and have heard from clients the different ways that social media use is impacting their relationships and how they feel about themselves.

Finally, I have learned that nuance can be the antidote to ill-fitting stereotypes. It would be incorrect and untrue to make a value-based statement about social media use, broadly speaking. In summation: social media use is neither good nor bad. There are, however, many factors that contribute to the ways social media use can be harmful to a user's self-esteem and development of self. Social media use is similar to fire, in that it can be useful and powerful in great ways, but it can also be destructive and personally harmful if used incorrectly or under the wrong circumstances.

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